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Managing Customer Trust, Satisfaction, and Loyalty through Information Communication Technologies



Riyad Eid

Managing Customer Trust, Satisfaction, and Loyalty through Information Communication Technologies

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Khurram Sharif, Qatar University, Qatar

This paper explores the nature of trust and satisfaction existing between service providers (large organizations) and a network of 47 distributors (small organizations) within the Kuwaiti telecommunications sector. Data was collected using a questionnaire based survey involving a convenience sample of 209 respondents representing 47 distributor outlets. The results show that the Kuwaiti telecommunications sector asymmetric relationship network was largely driven by cognitive input of trust, that is, technical competency was favored over affective input. Furthermore, there was a significant relationship between cognitive input and Long-term Satisfaction Disposition (LSD) and control input (i.e. use of power) and LSD. This indicates that trust, although favored, was not a condition for establishing long-term satisfaction within asymmetric business relationships. Finally, the influence of *wasta* (i.e. favoritism) and control input on trust are found to be insignificant.

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Abdel Moneim M. B. Ahmed, Abu Dhabi University, UAE

This paper establishes if using a comment card provides a reliable form of feedback regarding customer satisfaction in hotels. This exploratory study was conducted at the Jumeirah Beach Hotel-Dubai, UAE. They are a convenient way for guests to complain, make suggestions and praise. Managers use this input to make quick fixes and comfort distraught guests. The trouble is that hotels depend on comment cards for more than casual guest feedback. Hotels use the results for determining employee bonuses or employee performance evaluations and depend them when making business decisions. This paper examines the comment cards as an important feedback mechanism to measure customer satisfaction and argues that it is an effective instrument to strengthen relationships. Literature suggests that comment cards are not scientific or secure. Only happy or unhappy guests participate in these surveys, which can lead to extreme or misleading results.

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Mostafa Mohamed Ahmed Al-kerdawy, Mansoura University, Egypt

Little literature and research exists on the impact of Green Managerial Practices (GMP'S) on competitive advantages (CA). This study fills this research gap and is conducted on a sample of 450 workers in 10 fertilizer companies in Egypt. The study identifies the moderating role of environmental innovation strategy (EIS) in reinforcing the impact of green managerial practices on competitive advantages. The empirical results show that three types of green managerial practices – green planning, green managerial concerns, and green entrepreneurship – have positive effects on competitive advantages, which increases in the presence of environmental innovation strategy. Companies that invest resources and efforts in green managerial practices can meet the strict environmental regulations in Egypt and popular environmental consciousness of consumers, as well as obtain corporate competitive advantages. Managerial implications and areas for further research are also discussed.

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H. S. Hassan, Cranfield University, UK

E. Shehab, Cranfield University, UK

J. Peppard, Cranfield University, UK

This paper proposes a conceptual framework for explaining the main barriers and drivers of public e-service development and the relationships among them, especially in developing countries. This framework increases the chance of success of e-service projects in the governments of developing countries and provides a basic context within which the process and practice of e-service can be implemented successfully. This paper accomplishes this task by flowing from the traditional rigid context, which occurs in many developing countries, to full public e-service environment, emphasizing citizen-centric focus and digitalisation. The proposed framework builds on prior literature in the area of e-service development in public organisations and from the efforts undertaken in developing countries, considering e-government lessons learned in developing countries. The framework is flexible enough to be adopted by governments at different levels in developing countries around the world.

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Rosalynn Dinnen, Napier University - Craiglockhart Campus, UK

Ahmed Hassani, Napier University - Craiglockhart Campus, UK

Drawing on associated literature and empirical research, this paper examines the engagement and expertise of hotels in handling customer complaints. This is of considerable interest to practitioners and academics within the field of hospitality management. The study explores hotel management's attitudes and practices toward handling customer complaints within the hospitality industry in Scotland. In this paper, the authors analyze case study interviews with four and five star hotel managers in Scotland. The findings reveal that encouraging customer complaints and feedback should be seen as a way in which to develop a better relationship with and retain customers. The results also confirm the importance of having employee training in the area of customer complaints, recommending that employees handle complaints themselves. Furthermore, the study suggests that hotels must be well equipped for logging, processing and analyzing complaints. Management implications and areas for further research are also discussed.

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Customer Relationship Management in Professional Service Organizations: An Application to the Building Industry 91

Hamed M. Shamma, The American University in Cairo, Egypt

Robert F. Dyer, The George Washington University, USA

Marilyn L. Liebrez-Himes, The George Washington University, USA

Customer Relationship Management (CRM) applications have gained primary attention in large service industry sectors, such as the financial, telecommunications and hotel industries. However, relatively few researchers have studied CRM in the context of Professional Service Organizations (PSOs). PSOs are found across a broad spectrum of service offerings and they share several key aspects. Some of these aspects include the following: PSOs are high in people-processing features, have close contact with customers, and are high in credence attributes. Given this critical reliance on the customer, most PSOs would benefit from implementing a CRM system to facilitate their business and sustain customer relationships. This paper compares marketing practices and client management approaches in PSOs between those utilizing and those not utilizing a CRM system. The building industry is used as a case study. The paper introduces the CRM concept, describing its significance to the building industry and presents the methodology and findings from an exploratory research investigation. It also presents a framework for CRM applications in PSOs and highlights a future research agenda tempered by some limitations of the research study.

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An Examination of Mediation: Insights into the Role of Psychological Mediators in the Use of Persuasion Knowledge 106

Kenneth M. Henrie, Texas A&M University - San Antonio, USA

Darryl W. Miller, University of Wisconsin - River Falls, USA

This paper examines the role of psychological mediators on consumers' responses to persuasive sales tactics. Factor Analysis is used to determine the actual mediators identified by consumers as potential targets by salespeople and find structure in the data. An exploratory examination identifies four categories of potential psychological mediators. Experimental results reveal that consumers recognize sales tactics designed to influence these psychological mediators. These processes, in turn, mediate the influence of persuasive tactics on consumer responses. Overall, the study lends support to Friestad and Wright's Persuasion Knowledge Model (1994).

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Do Attitudes Toward Careers in Sales Differ Based on Country of Origin? A Comparative Analysis of MBA Student Attitudes: The US and the UK 118

Charlie Pettijohn, Nova Southeastern University, USA

Linda Pettijohn, Nova Southeastern University, USA

Personal selling is a profession that has been described as requiring skilled and professional employees. Although employers have looked toward colleges and universities as sources of potential new sales employees in the past, the complexity and professionalism required in sales has led employers to recruit graduate students to fill the sales role. This research evaluates the exposure of students pursuing their MBA degrees to sales and their attitudes toward sales to identify how these attitudes might affect the recruiting process. Further, given the prevalence of international business operations, the study identifies sales attitudes and sales exposure in a comparative fashion by assessing the responses of MBA students in the US and in UK. The results provide insights into differences in attitudes and sales knowledge between students enrolled in MBA courses in the two countries. Based on these findings, conclusions and suggestions for employers and educational institutions are developed.

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Abbas Keramati, University of Tehran, Iran

Mohamad Sadegh Sangari, University of Tehran, Iran

This paper suggests a novel success framework for customer relationship management (CRM) based on a conceptual implementation model to identify associated critical factors and their contribution to overall success/failure. Fuzzy analytic network process (FANP) is applied to identify the relative importance of each factor in successful implementation of each stage and the CRM initiative as a unified process. The results illustrate that CRM goals, change management, customer knowledge management, and top management support are the most critical factors for successful implementation of CRM projects within Iranian business contexts. The proposed success framework provides valuable insight into the CRM implementation process and its critical success factors (CSFs). It can be applied as a practical assessment tool that provides a pre-evaluation of the overall success of the CRM implementation project and identifies areas of weakness that negatively affect successful implementation of each stage of CRM initiative.

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Service Quality and WOM (Word-of-Mouth): A Study of the Indian Banking Sector 153

Koushiki Choudhury, Indian Institute of Management Calcutta, India

The Indian banking industry is going through turbulent times. In this era of mature and intense competitive pressures, it is imperative that banks maintain a loyal customer base. To achieve this objective and improve their market and profit positions, many retail banks are directing their strategies toward increasing customer satisfaction and loyalty through improved service quality. In the present context, characterised by rapid change and sophisticated customers, it is important that banks in India determine service quality factors, which are pertinent to the customers' selection process, as well as the dimensionality of customer-perceived service quality. If service quality dimensions are identified, service managers can improve the delivery of customer perceived quality during the service process and have greater control over the outcome. The author suggests that customers distinguish four dimensions of service quality in the retail banking industry in India. These dimensions of customer-perceived service quality are customer-orientedness, competence, tangibles, and convenience. The results of this study offer strong support for the intuitive notion that improving service quality increases favourable behavioural intentions, namely WOM (Word-of-Mouth) communications.

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Chanan S. Syan, University of the West Indies, Trinidad

Anthony S. White, Middlesex University, UK

Over the past two decades, the automotive industry has experienced major changes as a result of globalisation, changing customer requirements and environmental legislation. The supplier integration in the new product development process is a significant step in facilitating reduction in the time to market of innovations and reducing costs. The aim of this work is to assess the extent of supplier integration in automotive organisations and to identify what barriers still exist. An exploratory Europe-wide survey was conducted, and 31 usable returns from automotive organisations spread across the EU. The survey confirmed the increasing importance of supplier integration in the automotive industry; however, the practice varies from organisation to organisation. They also indicate that most automobile manufacturers are engaged in functional rather than strategic supplier integration, indicating that the supplier integration is not yet fully developed, but progress in the first tier of suppliers is becoming common.

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B. Nikkhahan, Islamic Azad University – Ardabil Branch, Iran

M. J. Tarokh, K. N. Toosi University of Technology, Iran

Customer Lifetime Value (CLV) is one of the most important measures of valuing the customers in private sector. CLV calculates customer contribution in the profits of organization. In this paper Citizen Lifetime Value (CzLV) is introduced to measure the financial value of citizens for the government. CzLV evaluates citizen contribution in cost reduction of the organization. This measure can be calculated based on past behavior of citizens in using the service and cost reduction of using online services rather than offline ones. Logistic regression is employed as a data mining technique to predict future use of online services by citizens. A service of Tehran.ir called “137,” one of the most important portals of Iran’s E-government, is considered as a case study. CzLV for the citizens of this service is calculated and four citizen segments are specified. Then each segment is evaluated based on different characteristic of citizens, and suitable strategies are presented to build more financial values for the organization.

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Effectiveness of Customer Relationship Management Program in Insurance Companies: An Indian Exploration..... 219

Vikas Gautam, ICFAI University, Dehradun, India

Customer relationship management in the insurance industry is in the nascent stage. Firms are framing new strategies to combat stiff competition. Public and private insurance companies are implementing customer relationship programs to attract more customers and retain existing customers. The objectives of this study are (1) to study the customer relationship management program of the Life Insurance Corporation of India, and (2) to assess the effectiveness of this customer relationship management program. The study is based on the opinion scores of 182 policyholders of Life Insurance Corporation of India, who have been with the company for more than the last five years. Based on the average opinion scores before and after the implementation of the Customer Relationship Management program, it was concluded that the program is effective, which was evidenced by the results obtained from statistical analysis (Paired sample t-test).

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Yujie Wei, The University of West Georgia, USA

Faye S. McIntyre, The University of West Georgia, USA

Salil Taplade, The University of West Georgia, USA

This paper examines relationship proneness of consumers in a cross-cultural setting; specifically, the relationship proneness between Chinese and U.S. consumers of Generation Y (born from 1976 to 1995) and its effects on relational satisfaction and relationship commitment. Based on previous research (e.g., De Wulf, Odekerken-Schröder, & Iacobucci, 2001) and cultural theories (e.g., Hofstede, 1980, 2001), nine hypotheses were developed involving the effects of relationship building tactics (i.e., direct mail, preferential treatment, communication, and tangible rewards) on relationship proneness, relational satisfaction and store loyalty. This quantitative study used a survey among two samples of consumers in China and the U.S. The final sample size was comprised of 349 student consumers. The findings of the research provide managerial implications for international retailers. Relationship proneness is a meaningful personal characteristic that can be used to describe or predict consumer behavior across cultures. A relationship marketing strategy that works for one culture may also work well in another culture. It is possible and appropriate, at least with generation Y consumers, to employ standardized approaches in relationship marketing across cultures.

Chapter 15

Mining Customers Behavior Based on RFM Model to Improve the Customer Satisfaction 258

Fatemeh Bagheri, K. N. Toosi University of Technology, Tehran, Iran

Mohammad J. Tarokh, K. N. Toosi University of Technology, Tehran, Iran

Organizations use data mining to improve their customer relationship management processes. Data mining is a new and well-known technique, which can be used to extract hidden knowledge and information about customers' behaviors. In this paper, a model is proposed to enhance the premium calculation policies in an automobile insurance company. This method is based on customer clustering. K-means algorithm is used for clustering based on RFM models. Customers of the insurance company are categorized into some groups, which are ranked based on the RFM model. A number of rules are proposed to calculate the premiums and insurance charges based on the insurance manner of customers. These rules can improve the customers' satisfaction and loyalty as well as the company profitability.

Chapter 16

Investigating Switching Cost Roles in Determining Loyalty in the Mobile Telecommunications

Market 271

Abdul Qayyum, Asian Institute of Technology, Thailand

Do Ba Khang, Asian Institute of Technology, Thailand

The paper evaluates various roles (direct antecedent, mediator or moderator) of perceived switching costs in determining customer loyalty in the mobile telecommunications market. Data were collected through a field survey of mobile phone users in Pakistan. Structural equation modeling was used to evaluate hypothesized relationships. Perceived switching costs were found to play all three roles. Findings suggest that perceived switching costs directly influence customer loyalty, mediate the impacts of perceived service quality, value, and trust on customer loyalty and negatively moderate the relationships of satisfaction and perceived service quality with customer loyalty. Implications of these findings are discussed.

Chapter 17

Exploring Determinants Influencing the Intention to Use Mobile Payment Service 288

Amira F. A. Mahran, Cairo University, Egypt

Hala M. Labib Enaba, Cairo University, Egypt

Mobile services are becoming increasingly commonplace in everyday life; however, Mobile payment (M-payment) is not among frequently used mobile services. The slowness of the diffusion of this service is the point of departure of the current research. The authors discuss why consumers are slow in adopting M-payment service and develop a proposed model that measures the customer's attitude and intention to use this technology in Egypt. Different theories from diverse fields are reviewed to formulate the study's conceptual framework. Empirical data were collected via an online survey for a sample of 490 students in "open education", a type of e-distance learning. The results suggest that although the most important determinants influencing the customer's attitude toward the service are perceived behavioral control and perceived usefulness, those influencing the intention to use it are perceived innovativeness, perceived expressiveness, facilitating condition, perceived usefulness, and social pressure. The results of the research differ from those of previous studies because of the effect of the Egyptian culture. Service providers can benefit from the results when formulating the marketing strategies to increase the usage of this service, improving mobile commerce.

Chapter 18

The Mediating Role of Job Embeddedness between Internal Marketing and Turnover

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Mona Mohamed Sayed Ibrahim, Mansoura University, Egypt

This study contributes to the stream of research on job embeddedness and internal marketing. Greater attention needs to be paid to understand the mechanisms and processes through which internal marketing influences work-related attitudes such as turnover intention in order to develop complete understanding of the effect of internal marketing on job embeddedness. This study fills this research gap using a sample of respondents employed by telecommunication companies in Egypt. The author examines whether job embeddedness mediated the effects of internal marketing on turnover intention. Results from Structural Equation Modeling (SEM) showed that job embeddedness fully mediates the relationship between internal marketing and turnover intention. Results also support that internal marketing has obviously positive influence on job embeddedness and a clearly negative influence on turnover intention; finally, internal marketing has direct and indirect influences on turnover intention through job embeddedness. Implications for research and practice of the findings are discussed.

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Egyptian Electronic Government: The Citizen Relationship Management (CRM) Case Study 328

H. S. Hassan, Cranfield University, UK

A. A. M. Abdelkader, Damietta University, Egypt

Many developing countries' governments have invested heavily in increasing the number of e-government projects. However, there is a lack of clear case material, which describes the potentialities and consequence experienced by governments trying to manage with this change. The Ministry of State for Administrative Development (MSAD) is the organization responsible for the e-Government program in Egypt since early 2004. This paper presents the findings of the CRM case study, one of the e-service projects led by MSAD. Semi-structured interviews have been used as primary data collection techniques. The findings of the study reveal that the main driver to the success of the project is changing the organisational culture and thinking. It is noticed there is an influence of the project on citizens' encouragement for public participation as it was able to increase their satisfaction levels. Also, the findings emphasised the problems that face the overall e-government program in Egypt. They also explain the relationships among those identified problems of governmental e-service development.

Chapter 20

The Effect of Information and Communication Technology on Customer Relationship Management:

Jordan Public Shareholding Companies 342

Maha M. Al-Khaffaf, Applied Sciences University, Jordan

Hadeel J. Abdellatif, Applied Sciences University, Jordan

The essence of the information technology revolution and in particular, Information Communication Technology (ICT) is the opportunity offered for companies to choose how they interact with their customers. This research paper investigates the influence of Customer Relationship Management (CRM) factors benefiting from information communication technology on (CRM) performance. The results suggest that the three elements have positive relationships with CRM performance. Questionnaires numbered at 330 have been distributed to 110 public shareholding companies (PSCs) in four economic sectors in Jordan; banking, service, industrial, and insurance. The findings further suggest that CRM performance mediates the effects of marketing orientation, IT investment and mass customization on customer network effect.

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Preface

In the information age, it seems that the application of information technology is an indispensable tendency for the evolution of organizations in 21st century. However, building customer trust through Information Communication Technologies presents a challenge in both developed and developing countries and is a topic of increasing interest and importance. Trust is regarded as one of the most important prerequisites for the success of Electronic Commerce in general. Thus, it is essential to understand how trust is created and how it evolves through Information Communication Technologies.

Scholars and practitioners widely acknowledge trust's importance. It is a key to positive interpersonal relationships in various settings e.g., (Fox, 1974; Lewis & Weigert, 1985) because it is central to how we interact with others e.g., (Golembiewski & McConkie, 1975; Berscheid & Meyers, 1996). Similarly, practitioners acknowledge the importance of trust as much as do scholars e.g., (Bartlett & Ghoshal, 1995; Covey, 1989; Peters, 1992). Because trust is considered so vital, it has been studied extensively in many social science research disciplines e.g., (Golembiewski & McConkie, 1975; Kramer, 1994; Kramer & Tyler, 1996). Scientific study should, over time, lead to some level of consensus on a topic (Kuhn, 1962). But while agreement is rising concerning the positive effects of trust e.g., (Kramer & Tyler, 1996), little consensus has formed on what trust means (Kee & Knox, 1970; Yamagishi & Yamagishi, 1994). Rather, significantly diverse definitions of trust continue to be used in the interdisciplinary research literature, ranging from a personality trait e.g., (Rotter, 1980) to a structural phenomenon. Such conceptual diversity is primarily driven by empirical studies that typically define trust in specific, narrow ways. It is believed that research has too often proceeded without the help of solid, *a priori* conceptualization. Hence, (Wrightman, 1991) commented: "...the general concept of trust deserves much more theoretical analysis.

On the other hand, loyal customers are crucial to business survival, especially in an electronic commerce context (Reichheld & Schefter, 2000). Creating online customers is costly and competitors are just a mouse click away. Therefore, customer loyalty plays a critical role in the information age. However, few companies have succeeded to create loyalty, and little research has been done to reveal the mechanisms involved in generating online customer loyalty. In traditional service research, as well as in emerging research on e-services (Van Riel *et al.*, 2004; Wolfinbarger, 2001), several antecedents of customer loyalty have been proposed. Among those, satisfaction figures prominently, and is thought to be attributable to customer evaluations of service and resulting quality perceptions. Next to satisfaction, trust has been brought forward as a precondition for patronage behavior. In 'on-line' transitions trust generally decreases the perceived risk and uncertainties of using a service *since* e-customers do not deal directly with the company or its staff, therefore *it is a condition for exchange*. The role of trust could be even more important, since *it is believed to increase online customer loyalty. Having such importance of trust, however, empirical confirmations are scarce.*

Some relationships have been proposed between trust, satisfaction and loyalty in an online context (Reichheld & Chefter, 2000).

Whitman, CEO of the largest e-auction website –eBay, reports, “Loyalty is the primary ingredients in eBay’s secret sauce.” Web-savvy leaders know that loyalty is an economic necessity. Acquiring customers in Internet is enormously, and unless the customers stick around and make lots of repeat purchases over the year, profits will remain elusive. And they know its competitive necessity; in every industry, some companies will figure out how to harness the creative potential of the Web to create exceptional value for customers, and that company will lock in many profitable relationships at the expense of slow-footed rivals. Without the glue of loyalty, even the best e-business model will collapse.

Finally, satisfaction is the consumer’s fulfillment response (Taylor & Hunter 2002). In the online environment, satisfaction may also be driven by consumer benefits in using self-service technologies. These benefits include convenience, saving time and money, avoiding interpersonal interaction, and being in control (Brown & Chin 2004, Szymanski & Hise 2000, Reichheld & Scheffer 2000). On the other hand, Szymanski and Hise (2000) refer to the importance of e-satisfaction in technology-mediated relationship. They suggest that the conceptual domain of e-satisfaction appears similar to that understood from the general marketing literature.

This collection, *Managing Customer Trust, Satisfaction, and Loyalty through Information Communication Technologies*, highlights recent trends and advancements as they impact the way companies can manage customer trust, satisfaction and loyalty in an ever-changing age. The aim is to provide broad international coverage of subjects relating to the different dimensions. Emphasis is placed on the publication of articles which seek to link theory with application or critically analyse real-life situations with the objective of identifying good practice in the implementation of Information Communication Technologies. This book contains a group of papers discussing a range of issues dealing with Customer Trust, Satisfaction and Loyalty. Below is a brief overview of the chapters that appear in this book.

Chapter 1 of this book discusses the nature of trust and satisfaction that existed between service providers (large organizations) and a network of forty-seven distributors (small organizations) within Kuwaiti telecommunications sector. Data was collected using a questionnaire based survey involving a convenience sample of 209 respondents representing 47 distributor outlets. The results showed that the Kuwaiti telecommunications sector asymmetric relationship network was largely driven by cognitive input of trust i.e. technical competency was favored over affective input. Furthermore there was a significant relationship between cognitive input and long-term satisfaction disposition (LSD) and control input (i.e. use of power) and LSD. This indicated that trust, although favored, was not a condition for establishing long-term satisfaction within asymmetric business relationships. Finally the influence of *wasta* (i.e. favoritism) and control input on trust were found to be insignificant.

Chapter 2 tries to establish if using the comment card provides a reliable form of feedback regarding customer satisfaction in hotels. This exploratory study was conducted at the Jumeirah Beach Hotel-Dubai, UAE. This paper directs the focus to consider the comment cards as an important feedback mechanism to measure customer satisfaction and argues that it is an effective instrument to strengthen relationships. Literature reviewed suggests that comment cards aren’t scientific or secure. Only happy or unhappy guests participate in these surveys, which can lead to extreme or misleading results. Employees have been known to screen comment cards if they don’t like the evaluations or selectively hand in comment cards to guests whom they think are likely to give a favourable response. Doubtful scoring techniques reward employees for getting more guests to respond as it results in higher satisfaction scores.

Chapter 3 of this book discusses the role of environmental strategy in reinforcing the impact of green managerial practices on achieving competitive advantages of fertilizer companies in Egypt. This study attempts to fill this research gap and is conducted on a sample of 450 workers in 10 fertilizer companies. The results show that green managerial practices have strong effects on competitive advantages in the presence of proactive environmental strategies more than moderating reactive environmental strategies. In the light of results, study introduced many questions have to be answered in future research such as: does the effect of green managerial practices to achieve competitive advantages differ in the presence of flexibility in government regulations than in the strict application of those laws? And what is the effect of ISO14001 adoption's time on the relationship between Green Managerial Practices and Competitive Advantages?

Chapter 4 of this book reviews the previous efforts which tend to introduce the Internet and computer networks into public administration actions. The purpose of the discussion is examining and evaluating for a full comprehension of the contributions made towards governmental electronic services. Subsequently, the paper proposes a conceptual framework for explaining the main barriers and drivers of public e-service development, and the relationships among them especially in the developing countries environment. The framework aims to increase the chance of success of e-service projects in developing countries governments and provides a basic context within which the process and practice of e-service can be implemented successfully.

Chapter 5 makes a contribution towards the engagement and expertise of hotels in handling customer complaints. This is of considerable interest to both practitioners and academics within the field of hospitality management. The study explores the hotel management's attitudes and practices towards handling customer complaints within the hospitality industry in Scotland. This is undertaken through presenting an analysis of case study interviews with four and five star hotel managers in Scotland. The findings reveal that encouraging customer complaints and feedback should be seen as a way in which to develop a better relationship with customers and retain them. Also, the results confirm the importance of having employee training on the area of customer complaint and recommends empowering employees to handle complaints themselves. Furthermore, the study suggests that hotels need to be well equipped further for logging, processing and analyzing complaints. Management implications and areas for further research are discussed.

Chapter 6 compares marketing practices and client management approaches in Professional Service Organizations (PSOs) between those utilizing and those not utilizing a CRM system. The building industry is used as a case study. First, the paper introduces the CRM concept, describing its significance to the building industry. Second, it presents the methodology and findings from an exploratory research investigation. Third, it presents a framework for CRM applications in PSOs. Finally, it highlights a future research agenda tempered by some limitations of the research study.

Chapter 7 examines the role of psychological mediators in consumers' use of persuasion knowledge, as theorized by Friestad & Wright in 1994. Given the lack of empirical testing of the construct, this largely exploratory study served two purposes; 1) to find structure (e.g. factors) within the various psychological mediators, and 2) to test the ability of these processes to mediate the relationship between persuasion tactics and persuasion outcomes, as theorized by Friestad & Wright (1994). The results found 4 dimensions: affect, self-concepts, preferences, and cognition. Empirical evidence was found supporting the ability of these processes to in fact mediate the relationship between tactics and outcomes.

Chapter 8 of this book examines the MBA student attitudes toward sales as a potential profession by examining responses from students enrolled in MBA programs in the U.S. and in the U.K. Findings sug-

gest that while U.S. students may not be positively predisposed to sales, as a career, their attitudes toward sales are generally significantly more positive than were the attitudes of U.K. students. The prevalence of negative attitudes from all students included in the study suggests that significant remedial information needs to be provided to MBA students as it relates to the true nature of a sales career. It was suggested that for sales to be included as a viable career option, both companies and educators need to work on correcting student misperceptions.

Chapter 9 suggests a novel success framework for customer relationship management (CRM) based on a conceptual implementation model to identify associated critical factors and their contribution to overall success/ failure. Fuzzy analytic network process (FANP) is applied to identify relative importance of each factor in successful implementation of each stage and the CRM initiative as a unified process. The results illustrate that CRM goals, change management, customer knowledge management, and top management support are the most critical factors for successful implementation of CRM projects within Iranian business context. The proposed success framework provides valuable insight into the CRM implementation process and its critical success factors (CSFs). It can be also applied as a practical assessment tool that provides a pre-evaluation of the overall success of the CRM implementation project and helps identifying areas of weakness that negatively affect successful implementation of each stage of CRM initiative

Chapter 10 of this book explores the dimensionality of customer-perceived service quality in the context of the turbulent, rapidly changing post-liberalization banking industry in India and the influence of these dimensions on customers' behavioural intentions. The results should help to measure, control, and improve customer perceived service quality and be useful for retail bank managers as well as service management academics and practitioners.

Chapter 11 assesses the extent of supplier integration in automotive organisations and to identify what barriers still exist. An exploratory Europe wide survey was conducted and 31 usable returns from automotive organisations spread across the EU. The survey confirmed the increasing importance of supplier integration in the automotive industry however the practice varies from organisation to organisation. They also indicate that most automobile manufacturers are engaged in functional rather than strategic supplier integration indicating that the supplier integration is not yet fully developed, but progress in the first tier of suppliers is becoming common.

Chapter 12 introduces the Citizen Lifetime Value (CzLV) to measure the financial value of citizens for the government. CzLV evaluates citizen contribution in cost reduction of the organization. This measure can be calculated based on past behavior of citizens in using the service and cost reduction of using online services rather than offline ones. Logistic regression is employed as a data mining technique to predict future use of online services by citizens. At the end of the paper, a service of Tehran.ir that is one of the most important portals of Iran's E-government called "137" is considered as a case study. CzLV for the citizens of this service is calculated and four citizen segments are specified. Then each segment is evaluated based on different characteristic of citizens, and finally suitable strategies of dealing with them are presented to build more financial values for the organization.

Chapter 13 discusses the effectiveness of customer relationship management program implemented by the life insurance companies in Indian context. The author measured effectiveness of program with the help of empirical data by applying statistical tools. Present study is based on the opinion scores of the policyholders of Life Insurance Corporation of India, who are with Life Insurance Corporation of India for more than last five years. Data from 182 survey respondents were collected from different policy holders with the help of field survey method. On the basis of average opinion scores found both

before and after implementation of Customer Relationship Management program by Life Insurance Corporation of India from the sample it was found that Customer Relationship Management program started by the Life Insurance Corporation of India is effective in approach, which was evidenced by the results obtained from the statistical analysis (paired sample t-test). The findings revealed that customer relationship management program is effective in approach and policy holders are experiencing difference in service comparatively with the past.

Chapter 14 of this book investigates the consumer relationship proneness and its impact on relationship marketing outcomes in the two cultural contexts. Specifically, the paper compares the U.S. and Chinese consumers of Generation Y (born from 1976 to 1995) in relationship proneness and their responses to relationship marketing tactics of retailers (i.e., direct mail, preferential treatment, communication, and tangible rewards). Based on previous research and cultural theories, eleven hypotheses were developed and tested. The results suggest that there is no difference of relationship proneness between the two samples, and relationship proneness is found to moderate the effect of preferential treatment, interpersonal communications, and tangible rewards on relational satisfaction only in the Chinese sample. The findings indicate that preferential treatment, interpersonal communication, and tangible rewards have greater impact on those consumers who are more prone to consumer-firm relationships. The findings of the research provide managerial implications for international retailers.

Chapter 15 proposes a model to enhance the premium calculation policies in an automobile insurance company. This method is based on the customer clustering. K-means algorithm is used for clustering based on RFM models. Customers of the insurance company are categorized into some groups, which are ranked based on the RFM model. A number of rules are proposed to calculate the premiums and insurance charges based on the insurance manner of customers. These rules can improve the customers' satisfaction and loyalty as well as the company profitability.

Chapter 16 evaluates various roles (direct antecedent, mediator or moderator) of perceived switching costs in determining customer loyalty in the mobile telecommunications market. Data were collected through a field survey of mobile phone users in Pakistan. Structural equation modeling was used to evaluate hypothesized relationships. Perceived switching costs were found to play all three roles. Findings suggest that perceived switching costs directly influence customer loyalty, mediate the impacts of perceived service quality, value, and trust on customer loyalty and negatively moderate the relationships of satisfaction and perceived service quality with customer loyalty. Implications of these findings are discussed.

Chapter 17 of this book discusses that mobile services are becoming increasingly important for consumers and are now commonplace in everyday life; however, mobile payment (M-payment) is not among other more frequently used mobile services. The phenomenon of the slowness of the diffusion of this service constitutes the point of departure of the current research which attempts to answer why consumers are slow in adopting M-payment service, with a view to develop a proposed model that measures the customer's attitude and intention to use this technology in Egypt. Different theories from diverse fields are reviewed to formulate the study's conceptual framework. This study is a field study, which depends on an eclectic approach; empirical data were collected via an online survey for a sample of 490 students in the "open education"-a type of e-distance learning. Structural equation modeling was used to validate the measurement and test the hypotheses. The results suggest that whereas the most important determinants influencing the customer's attitude towards the service are perceived behavioral control, and perceived usefulness, those influencing the intention to use it are perceived innovativeness, perceived expressiveness, facilitating condition, perceived usefulness, and finally social pressure. The

results of the current research differ from those of previous studies on the same area because of the effect of the Egyptian culture. Service providers can benefit from our results when formulating the marketing strategies to increase the usage of this service, hence improve the mobile commerce.

Chapter 18 contributes to the stream of research on job embeddedness and internal marketing. Greater attention needs to be paid to understand the mechanisms and processes through which internal marketing influences work-related attitudes such as turnover intention in order to develop complete understanding of the effect of internal marketing on job embeddedness. This study fills this research gap using a sample of respondents employed by telecommunication companies in Egypt. It examines whether job embeddedness mediated the effects of internal marketing on turnover intention. Results from Structural Equation Modeling (SEM) showed that job embeddedness fully mediates the relationship between internal marketing and turnover intention. Results also support that internal marketing has obviously positive influence on job embeddedness and a clearly negative influence on turnover intention; finally, internal marketing has direct and indirect influences on turnover intention through job embeddedness. Implications for research and practice of our findings are discussed.

Chapter 19 presents the findings of the CRM case study, one of the e-service projects led by MSAD. The use of a case study method offers a richness and depth of information not usually offered by other methods. Semi-structured interviews have been used as primary data collection technique in this study. The reason for this choice is that interviews is the most fundamental of all qualitative methods help to generate insights into how respondents see the studied project. In addition, interviews are considered as one of the most important sources of case study data collection.

The findings of the study reveal that the main driver to the success of the project is changing the organisational culture and thinking. It is noticed there is an influence of the project on citizens' encouragement for public participation as it was able to increase their satisfaction levels. Also, the findings emphasised the problems that face the overall e-government program in Egypt. They also explain the relationships among those identified problems of governmental e-service development.

Chapter 20 investigates the influence of Customer Relationship Management (CRM) factors benefiting from information communication technology on (CRM) performance. The results suggest that the three elements have positive relationships with CRM performance. Questionnaires numbered at 330 have been distributed to 110 public shareholding companies (PSCs) in four economic sectors in Jordan; banking, service, industrial, and insurance. The findings further suggest that CRM performance mediates the effects of marketing orientation, IT investment, and mass customization on customer network effect.

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Chapter 1

Trust and Long–Term Satisfaction within Asymmetric Business Relationships: A Study of Kuwaiti Telecommunications Sector

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ABSTRACT

This paper explores the nature of trust and satisfaction existing between service providers (large organizations) and a network of 47 distributors (small organizations) within the Kuwaiti telecommunications sector. Data was collected using a questionnaire based survey involving a convenience sample of 209 respondents representing 47 distributor outlets. The results show that the Kuwaiti telecommunications sector asymmetric relationship network was largely driven by cognitive input of trust, that is, technical competency was favored over affective input. Furthermore, there was a significant relationship between cognitive input and Long-term Satisfaction Disposition (LSD) and control input (i.e. use of power) and LSD. This indicates that trust, although favored, was not a condition for establishing long-term satisfaction within asymmetric business relationships. Finally, the influence of wasta (i.e. favoritism) and control input on trust are found to be insignificant.

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INTRODUCTION

B-to-B Relationships and Trust

Within b-to-b exchanges trust is pivotal in managing the relationship network particularly where long-term relationship is envisaged. Within this futuristic exchange orientation, trust facilitates and encourages relationship actors to:

1. Co-operate to preserve and protect relationship investment (Williamson, 1993).
2. Extract and realize benefits (both monetary and social) by staying with the partner over a long period (Luhmann, 1995).

Within this long-term relational context (as depicted in point (ii) above); trust acts as a reagent that transforms exchanges (Zeithaml et al., 2006). This 'shift' is also captured by Johnson and Selnes (2004) who brand trust as a catalyst that initiates a relationship transformation from formal to informal and from short to long term.

Fundamentally the research focused on b-to-b relationships which have been going on for three or more years and analyzed the status of distributor's LSD based on variables such as shared profitability, care, openness, making concessions, and mutual agreements on future goals (cf. Kwon & Suh, 2004; Fynes et al., 2005). Hence a modular approach, based on four inputs of trust and their impact on LSD, was utilized to chart the behavior of distributors (i.e. small organization with less than 50 employees) towards service providers (large organization with more than 500 employees).

B-to-B Relationships within Culturally and Socially Distinct Market

Kuwait has a different social and cultural set-up and hence business and corporate norms that may

be different from North American and Western European markets (Hofstede, 1983). Selection of Kuwait as a study market should offer a current Arab perspective of relational factors that may impact trust and satisfaction. Furthermore the concept of trust as a competitive tool within b-to-b exchanges is relatively new to a number of organizations within Middle East. In this dynamic and emerging business environment it would be timely and useful to conduct this research in order to offer long-term b-to-b trust and satisfaction views that are representative of asymmetric business relationships. This may also provide a relational insight for large and small organizations contemplating establishing business interests in the Gulf Cooperation Council (GCC). GCC is a political, economic and cultural union of six countries which include Kingdom of Saudi Arabia, United Arab Emirates, Kuwait, Qatar, Oman and Bahrain. Especially a time-relevant view of b-to-b relationships is useful that is based on the present situation (i.e. now) rather than historic data (i.e. was). Furthermore due to tremendous pace of economic growth within the GCC region over the last decade many foreign organizations have entered this market. This may have changed the 'relationship environment' and hence may have altered the norms that dictated the business activities and practices. This research will try to capture some of the relationship changes that may have taken place from the trust perspective.

Additionally by evaluating cognitive, affective, favoritist and control inputs of trust, the research assessed the role multi-dimensional conceptualization of trust played in creation and establishment of long-term satisfaction. Hence by analyzing both rational and behavioral aspects of trust and linking these to long-term satisfaction provided an evaluation of how trust impacts long-term satisfaction disposition within an asymmetric exchange environment.

LITERATURE REVIEW

Perception of B-to-B Relationships within GCC

Within GCC, like rest of the Arab world, social and personal relationships are often superseded by business relationships (Jamal, 2007). Family, friends and colleagues are usually part of immediate social and interpersonal network (i.e. constitute inner *wasta* circle) that is normally embedded in ties of kinship (Sawalha, 2002). This means that the actors outside the *wasta* circle could be marginalized (i.e. given secondary consideration) when it comes to securing business deals. This situation could create a relational imbalance, which may involve differential treatment in terms of power use, information sharing, openness in communication, display of benevolent behavior and degree of flexibility in the relationship, depending whether the relational actor is inside or outside the *wasta* circle. On a positive note (depending which side of the *wasta* circle party is positioned), a trend has been reported that suggests that even though interpersonal connections play an important part in business relationships, they tend to fade away with increasing organizational size and type of business holding (such as sole trader, family business, public listed company etc). Larger organizations with shared interests and distributed management are showing signs of toned-down *wasta* practices (Hutchings & Weir, 2006a). Another progressive effect that has been reported is diminishing practice of *wasta* due to increasing internationalization of the GCC region (Wright et al., 2002).

Cognitive and Affective Inputs

Wholesome and balanced treatment of trust should involve both rational (cognitive) and behavioral (affective) components. According to McAllister (1995) the 'good reasons' (including timely exchanges, kept promises, fair profit sharing etc) to

trust are based on 'logical analysis' and 'process-based evaluation' where through evidence based assessments the decision to trust or not to trust is made. Hence cognition involves empirical and pragmatic considerations and proof seeking to grant 'trustworthy' status. However the behavioral aspect of trust (based on emotions and good will) cannot be ignored (Lewis & Weigert, 1985). When cognitive and affective dimensions of trust are combined they result in an entity where the union of these distinct dimensions presents complementary relationship phenomena (McAllister, 1995). This complementarity is further supported by Parsons (2002) and Kwon and Suh (2004), who suggest that trust is mostly initiated in the form of a 'cognitive relationship' involving number of checks and balances in the early stages of the relationship. After some time the relationship enters the behavioral phase and goes through infusion of positive and negative feelings, favourable and unfavourable emotions, likeness and dislikeness, open and informal communication, and episodes of relational flexibility and rigidity. These inputs start turning cognitive trust into affective trust. However the extent and speed of this conversion varies under different exchange environments and relationship circumstances. The key issue that will be addressed in this paper will be how the constitution of trust (i.e. cognitive, affective, *wasta*-based or control driven) varies within the asymmetric exchange environment and in turn how this effects LSD.

A study addressing trust constitution and based on affective (Jones & George, 1998) and cognitive (McAllister, 1995; Rosseau et al., 1998) inputs of trust and their impact on future satisfaction was conducted by Morrow Jr. et al. (2004) in the farming industry in the South East of USA. They tested the relative impact of affective and cognitive inputs of trust on satisfaction within b-to-b relationships. This study is based on a similar premise in terms of cognitive and affective inputs but differs in the following respects:

- Addition of two relationship inputs (i.e. *wasta* and control) to comprehensively represent the perceived business culture within the Arab world. Within the Arab region trust is mostly granted on the basis of ‘who’ you are (this is largely determined by your position and status within the society i.e. family connections, friends in important places, influential member of a society, personal referrals etc) rather than ‘what’ you are (this is largely determined by credible and rational reasons to judge a party as being suitable or unsuitable for business acquaintance mostly by looking at its track record, skills and abilities, knowledge and experience, displayed competencies etc). *Wasta* input can play a part in determining ‘who’ you are whereas ‘what’ you are can be influenced by element of control input largely based on sources of power.
- Instead of measuring satisfaction as an exogenous variable (i.e. the case in Morrow Jr. et al., 2004 trust model), LSD will be evaluated to give a view of how content the involved parties are with the relationship as it moves towards long-termism. The substitution of LSD into the research model was considered suitable and relevant because within telecommunications industry soft and hard investments (e.g. time, technology, expertise, knowledge, human resource etc) are necessary and may take long periods (sometimes a number of years) to mature into returns. Hence within this relational context, it was deemed appropriate to represent satisfaction through a variable (i.e. LSD) that embodied stretched orientation of time.

Trust and LSD

Empirical evidence presented in numerous academic and practitioner articles has consistently shown that trust reduces conflict, increases com-

mitment, propagates cooperation and hence enhances longevity in b-to-b relationships (Selnes, 1998; Child, 2001). In particular, Selnes (1998) took a temporal view by comparing the inherent relational risk with the relationship scope driven by length of the relationship. He purposed that ‘chronological trajectory’ with past and future dimensions and associated satisfaction determines the short-term and long-term orientation (also supported by Chu & Fang, 2006).

Furthermore a number of academics found a direct relationship between trust and long-term satisfaction (Walter et al., 2003; Kannan & Tan, 2007). Where the relationship outcome was high degree of satisfaction, this was significantly related to enhanced exchange value through infusion of trust (Zsidisin & Smith, 2005). Furthermore multi-dimensional trust (containing dimensions of cognition and affection) was labeled as the ‘relational engine’ that was boosting the satisfaction levels as a result of improved monetary, information sharing and behavioral performance (Handfield & Betchel, 2002). As the satisfaction is driven by both financial (profits and increased revenues) and non-financial (sacrifices and ignoring mistakes) indicators, the cognitive and affective inputs of trust play a part in resultant satisfaction (Sila et al., 2006).

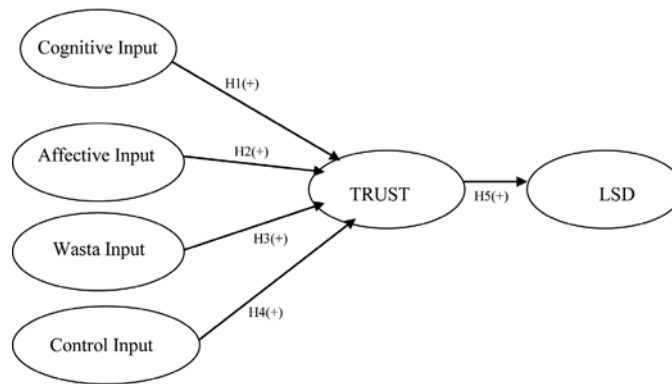
RESEARCH MODEL AND HYPOTHESES

In order to study the influence of business trust on long-term satisfaction, the study framework presented in Figure 1 was utilized.

Cognitive Input

Cognition within a b-to-b relationship is based on pragmatic actions and rational thinking (Lewis & Weigert, 1985). McAllister (1995) labeled cognition as collection of ‘good reasons’ to decide who to trust. The knowledge-intensive and skills-driven

Figure 1. Research model



telecommunications industry needs keeping in constant touch with customers, competitors and other stakeholders. This requires improved ability and tenacity to share soft and hard resources (tangible and intangible assets). Cognitive input in this regard could imply that involved parties have relevant and fitting relationship drivers such as skills (Selnes, 1998), communication links (Doney & Cannon, 1997), reputation (McKnight et al., 1998; Blois, 1999) and knowledge and reliability (Hart and Johnson, 1999) and are willing to make timely and appropriate monetary and non-monetary investments.

Additionally the ability to get the job done and the perceived expertise or competence in the assigned task is a determinant of cognition (Cambra & Polo, 2005). Especially when operating within complex and hi-tech telecommunications sector, technical expertise, product know-how, real-time and up-to-date customer-related, market-related, industry-related and competitor-related knowledge and information also determines the scope and extent of industry specific cognition (Blomqvist, 2002; Beekman & Robinson, 2004).

H1: Cognitive input in a service provider and distributor relationship is positively related to trust.

Affective Input

According to Ganesan (1994), affective part of b-to-b relationship is anchored in positive intentions, benevolent emotions and behaviours indicative of good will. As Arab corporate culture can be implicit with strong emotions and feelings (positive or negative), this can result in mutual bonding or relational distance. Additionally soft relational characteristics such as social interactions, flexibility and power can also play a role in defining a b-to-b exchange (Chiou et al., 2004; Cannon et al., 2000). Thus favorable or unfavorable cues in the form of liking or disliking can result in a certain b-to-b trust disposition.

Especially after initial period of ‘experience and evaluation’ that either increases or decreases the level of trust, the next stage is to open the relationship further based on the ‘empirical evidence’ and ‘credible proof’ collected (George et al., 2001). Hence a departure from ‘semi-strong’ form of trust (largely based on cognition) occurs and the relationship enters the ‘strong-form’ of trust where developed instincts and shared feelings become key drivers of trust (Barney & Hansen, 1994). Hence ‘emotional bonding’ which was started within the semi-strong trust phase becomes one of the main component of the relationship and lays the foundations for the strong-form of trust that is largely pinned and anchored in affection and

behavioral trust (Morrisey & Pittaway, 2006). As most relationships within the telecommunications sector have long-term orientation (chiefly resulting from precise and regular information needs, accumulated knowledge about industry networks, product specific expertise, etc.) the chances of affective input playing a significant role in trust propagation are considered to be high.

H2: Affective input in a service provider and distributor relationship is positively related to trust.

Wasta Input

Wasta is an Arabic word for favoritism, personal connections and social pull and is perceived as an important element in business relationships within the Arab world (Cunningham & Sarayrah, 1993; Hutchings & Weir, 2006a). The practice and functioning of wasta has relationship development implications and hence plays a certain role in determining the type and scope of established exchange. Trust has an integral place in Arab business circles and it is indicative of successful business exchanges and transactions (Hutchings & Weir, 2006b). However the nature and form of trust is reported to be dissimilar from the Western thinking and practices (Jamal, 2007). For instance trust in the Arab world can be generated through position in social circles and nature of personal connections which may not be the case in the West (Weir, 2003). Furthermore it is reported that in the Arab society the natural gradient for the trust is to flow from inner circle of wasta (including family, friends and colleagues) to outside which may include non-familiar groups (Seligman, 1999). This suggests that business favors and economic benefits can be awarded in relation to the actor's place within the wasta circle.

According to some academics (Weir, 2003; Jamal, 2007) wasta seems to create a relational atmosphere where trust is granted upon the basis of favoritism. This selective treatment creates

trust differential as far as acquaintances and non-acquaintances are concerned. Therefore prime reason for including wasta input into the research model was to evaluate the impact of this powerful social force that could be used in achieving business and personal objectives. Furthermore wasta is reported to be an inherent part of Arab culture and is closely associated with b-to-b relationships (Cunningham & Sarayrah, 1994). Hence this research intends to objectively explore whether this notion stands valid in this period of huge transformations within Arab business and corporate sectors.

H3: Wasta input in a service provider and distributor relationship is positively related to trust.

Control Input

The research focus is largely on non-coercive use of influence/power where the key intention is to take actions that can facilitate better outcome for one's own interests but does not harm (even if the extent of benefit is marginal) other involved party or parties (Frazier, 1983; Anderson & Narus, 1990). Especially within telecommunications sector where control can be exercised through expertise, skills and/or specialized and specific knowledge, the more resourceful partners (particularly in terms of size) should take a non-threatening approach. Hence where the larger partner (in this case the service provider) has to rely or depend on the skills and expertise of the smaller partner (in this case the distributor), the likely approach towards 'control establishment' should be non-aggressive in the form of 'power homeostasis' (i.e. a balance between coercive and non-coercive application of power).

However manifestation of power (especially coercive use of it) implies lack of trust within an exchange (Ramo, 2004). Especially parties that fall outside the wasta circle are more likely to be subjected to abuse of power than the parties that reside inside the wasta circle. However, despite

this, cases have been presented (Yan & Gray, 1994) where ‘controlled use of power’ had a positive (or at least non-negative) effect on relationship continuation. As supported by Calton and Lad (1995) and Fryxell et al. (2002), use of controlled power within asymmetric relationships can lead to trust. Therefore expected and accepted power behavior can still lead to a trust-based relationship.

H4: Control input in a service provider and distributor relationship is positively related to trust.

Trust

In general, telecommunications industry has elaborate and complex relationship network where actors are involved in exchanges that entail credible, social, emotional and influential dimensions. As b-to-b interactions can be intricate, technical, capital intensive, knowledge based and skills driven, they need both soft and hard transactional inputs. Hence a broad view of trust is rendered suitable to evaluate how relationships behave under different conditions (be they social, rational, power-controlled or personalized through wasta). Therefore a bi-dimensional treatment of trust giving a comprehensive representation was utilized in the form of Ganesan’s (1994) conceptualization of trust. Ganesan (1994) looks at trust from two perspectives (i.e. credibility and benevolence). Credibility is a belief in partner’s reliability that comes from his/her skills, knowledge and expertise whereas benevolence is perception of positive behavioral intention through which vulnerability and uncertainty can be contained largely through the infusion of emotional safeguards. This research approach to trust is based on both rational assessment (i.e. looking at elements such as technical competency and ability to perform) and behavioral aspects (largely reflected through climate of positive sentiments where concerns for genuine care and welfare exist). In particular a proportional analysis of cognition and affection

will be undertaken to highlight which has a more dominant role as a relationship driver and has more impact on the resulting trust.

LSD

According to Ganesan (1994), trust plays a crucial role in a long-term exchange. This is largely the result of alleviated hazards of opportunistic behavior and creating perception of long-term satisfaction. The fundamental reasoning behind this long-term approach is that resulting short-term inequalities or losses from unpredictable or uncontrollable situations will eventually even out in the long run. As most b-to-b relationships within hi tech industry take time to develop; long-term view reflects a more accurate description of the exchange mechanism which may result in a favorable satisfaction disposition.

H5: Trust in the service provider and distributor relationship is positively related to LSD.

Even though satisfaction has been studied and labeled as both antecedent and consequence of trust (i.e. circular causality syndrome), in this investigation it will be treated as a consequence of trust. Especially its long-term conceptualization is more fitting to its status as a consequence where initial experiences and early interactions (when satisfaction is an antecedent of trust) result in a certain level of trust. However, when the relationship moves from short to long-term frame (as a result of improved and open communication, evidence of exercised and displayed flexibility, monetary and emotional investments, etc.), the status of satisfaction changes from antecedent to a consequence (Handfield & Betchel, 2002; Smith & Barclay, 1997). Within this context, LSD becomes a focal consequence of trust where LSD status is a strong predictor of future relationship actions and prospects (Geyskens et al., 1998; Walter et al., 2003; Morrissey & Pittaway, 2006).

RESEARCH METHODOLOGY

Sampling

Convenience sampling was used to target the employees, especially managers and owners of the distribution outlets. As these individuals were best placed to comment on the upstream relationship they were selected as the most appropriate sample. Breakdown of the sample is listed in Table 1.

The job responsibilities of the respondents included ordering, price negotiations, promotion strategy formulation and implementation and making decisions about product assortment. The nature of the job involved constant contact with the service provider. It can be further said that most of the sample members were performing the role of a ‘boundary spanner’ by engaging in a relationship with an individual from the other (in this service provider) organization. Hence the respondents were in constant touch with sales managers, business development managers and marketing managers and such other ‘relationship developers’ from the service provider’s organization. Therefore the selected sample represented a group of respondents who were in the best position to comment on the status and position of b-to-b relationships (especially the upstream aspect) between the distributor and the service provider.

Research Instrument - Items, Measures and Constructs

Twenty-seven items were put together to formulate six multi-item constructs (i.e. cognitive input,

affective input, *wasta* input, control input, trust and LSD). The source of the items was either top ranking business journals (Harvey, Morris, & Kelly, 2007) or the author himself (see Table 5 in the Appendix for item details). In this research trust was treated as ‘the extent of trust placed in the partner organization (i.e. service provider) by the members of a focal (i.e. distributor) organization’ (Zaheer et al., 1998; Dibben, 2000). To execute this conceptualization of trust, groups of individuals from 47 distribution outlets were interviewed and their responses were aggregated to represent a collective view of trust. Furthermore it has been reported that as trust in small businesses is individual centered (i.e. revolves around owner/managing director), the separation between individual and organizational trust is rather fine and hence complex (Blomqvist, 2002). As most of the distributors were small businesses, as a priority, the owners/managing directors were asked to complete the questionnaire to reflect the organizational trust stance. As far as assessment tool was concerned, direct measures based on 7-point multi-item Likert scales were used (Young & Wilkinson, 1989; Mogan & Hunt, 1994). The key indicators of cognitive input were objectivity in management decision-making, rationality in realizing trustworthiness and systemic evaluation of business relationships. Similarly affective input was perceived through intuition to trust, relational gut instinct and feel good factor related to building a relationship. *Wasta* input represented favoritism in dealings, gaining unfair advantage and impact of personal ties. Control input consisted of controlled use of power and influence, flexibility in behavior and relational adjustments over time. Trust was determined by levels of reliability, knowledge, sacrifices made, mutual welfare and flexibility. LSD was captured by analyzing future profitability, long-term satisfaction, relationship adjustments for mutual comfort and benefit, shared vision and willingness to develop common objectives.

Table 1. Sample details

Gender	Male: 178	Female: 31	
Position	Senior employees: 29	Managers: 133	Owners: 47

Data Collection

The research took the form of a self completion questionnaire survey conducted in March 2008. Given the narrow dispersion of the target population face-to-face completion of questionnaires was undertaken. The questionnaires were filled by the managers and the senior staff. Respondents were requested to consider their relationship with the service provider when completing the questionnaire. Data was collected over three days through personal visits. Two teams (containing three members each) of bilingual researchers (fluent in both English and Arabic) were deployed to distribute and collect the questionnaires and respond to any queries. Two hundred and twenty questionnaires were given out and two hundred and nine completed questionnaires were collected back within three days. This gave a response rate of 95% which was largely due to the personal questionnaire distribution and face-to-face requests for immediate completion. The pool of completed questionnaires provided an adequate basis for data analysis (cf. Klass et al., 2002; Chiou et al., 2004). The test for non-response bias (i.e. comparison of early and late respondents) was considered irrelevant as data was collected within a short period of three days which is a length of time highly unlikely to induce noticeable changes in early and late responses.

Validation and Purification of Measures

As some of the measures utilized were similar in psychological perspective, it was considered appropriate to use confirmatory factor analysis (CFA) to check whether items loaded on the intended factors (Steenkamp & Trijp, 1991). Secondly as the measures were being used in a different research environment, as a cautionary step it was regarded appropriate to review how the measures behaved towards factor analysis. The CFA results are reported in Table 2.

The result of CFA (as shown in Table 2) identified a couple of items with factor loadings below the acceptable threshold of 0.40 (Gerbing & Anderson, 1988).

RESULTS AND ANALYSIS

Bivariate correlations (i.e. correlation matrix) and Cronbach's α (i.e. reliability indicator) are presented in Table 3. It can be seen that the Cronbach's α for all the constructs was above 0.60; threshold for acceptable reliability (Malhotra, 2003; Tull & Hawkins, 1993). The fact that none of the correlations approached the reliability values of the constructs was an indication of the discriminant validity. In addition, another criterion for adequate discriminant validity is that a construct should share more variance with its measures than it shares with other constructs in the model. In order to further assess discriminant validity, Average

Table 2. Confirmatory factor analysis

Item	Factor loading
<i>Cognitive Input</i>	
Item 1, Item 2, Item 3, Item 4	0.504, 0.579, 0.593, *0.227
<i>Affective Input</i>	
Item 5, Item 6, Item 7, Item 8	0.628, 0.615, 0.519, 0.547
<i>Wasta Input</i>	
Items 9, Item 10, Item 11	0.782, 0.815, 0.738
<i>Control Input</i>	
Item 12, Item 13, Item 14, Item 15, Item 16	0.672, 0.591, 0.703, 0.531, 0.691
<i>Trust</i>	
Item 17, Item 18, Item 19, Item 20, Item 21, Item 22, Item 23	*0.359, 0.754, 0.777, 0.691, 0.843, 0.821, 0.621
<i>Long-term Satisfaction Disposition (LSD)</i>	
Item 24, Item 25, Item 26, Item 27, Item 28, Item 29	0.731, 0.682, 0.819, 0.791, 0.657, 0.825

* Item removed due to unsuitable α value

Variance Extracted (AVE) method (Fornell & Larcker, 1981) was used. AVE should be greater than the variance shared between items and other constructs in the model. This is the case with the research model hence showing adequate evidence of discriminant validity.

On the strength of the above evidence we were satisfied with the overall validity and reliability of the measures (Hair et al., 1998). Table 3 also contains the descriptive statistics of the aggregate measures.

Table 4 shows the results related to the goodness of fit for the research model. Normalized Chi-Square ($\chi^2/\partial f$) was within the upper limits of acceptability (i.e. between 2 and 3). Furthermore ρ value of χ^2 was above 0.05 indicating acceptable significance. Additionally GFI and NFI values were greater than 0.90. However, the AGFI and RMSEA were marginally acceptable (i.e. just above the threshold value of 0.90) (Byrne, 2001). Hence goodness of fit statistics represents an acceptable overall goodness of fit for the research model.

In terms of the tested pathways; affective input → trust, control input → trust and wasta input → trust pathways were insignificant whereas cognitive input → trust, and trust → LSD pathways were significant. The analysis indicated two additional significant pathways (i.e. cognitive input → LSD and control input → LSD).

DISCUSSION

Cognitive Input → Trust (H1)

Significant link (i.e. $\beta=0.258$; $p=0.05$) between cognition and trust is reflective of technical and protocol oriented telecommunications industry (Blomqvist, 2002). This trend is reflected in the positive perception of service provider’s cognition (i.e. skill and competence levels which lead to trust the distributor). Especially within technology market the outcome is supported by Abratt (1986), Kassicieh and Rogers (1986), and Shaw et al. (1989), who considered skills, expertise and knowledge as essential conditions for small sized suppliers to survive within asymmetric relationship networks. At a more general level the positive and significant relationship between cognitive input and trust is supported by numerous studies within the relationship marketing domain (Doney & Cannon, 1997; Anderson & Weitz, 1989). Thus H1 is accepted.

Affective Input → Trust (H2)

The non-significant result for affection and trust pathway indicated the secondary (i.e. less important than cognitive input) consideration of goodwill, positive emotionality and exchange flexibility between service providers and distributors within asymmetric exchange. This can be attributed to two key factors:

Table 3. Descriptive statistics, reliability and correlation matrix

Construct	Items	Mean	S.D.	Cronbach’s α	C	A	W	Co	T	LSD
C	3	5.82	1.36	0.876	0.96					
A	4	3.73	1.09	0.831	0.61	0.98				
W	3	2.03	1.23	0.826	0.78	0.81	0.85			
Co	5	4.96	1.13	0.811	0.32	0.66	0.74	0.91		
T	7	4.68	1.27	0.902	0.48	0.49	0.32	0.68	0.84	
LSD	6	5.63	1.18	0.837	0.53	0.38	0.49	0.41	0.40	0.90

C - Cognitive Input; A - Affective Input; W – Wasta Input; Co – Control Input; T – Trust; LSD – Long-term Satisfaction Disposition

Table 4. Goodness of fit indices and estimates of parameters

Goodness of fit statistics	Research Model
Chi Square, df, p-value	20.39, 10, 0.11
GFI	0.973
RMSEA	0.0803
<i>Incremental Fit Measures</i>	
AGFI	0.907
NFI	0.986
<i>Hypothesized pathways</i>	
Cognitive Input → Trust (H1)	0.258 (2.16)*
Affective Input → Trust (H2)	0.062 (0.76)
Wasta Input → Trust (H3)	0.024 (0.51)
Control Input → Trust (H4)	0.013 (0.68)
Trust → LSD (H5)	0.137 (1.98)*
<i>Additional pathways</i>	
Cognitive Input → LSD (HA1)	0.321 (2.29)*
Control Input → LSD (HA2)	0.176 (1.88)*

Note *p< 0.05

- Due to a duopoly, distributors have no alternative but to comply with the exchange conditions set by large and powerful service provider.
- Distributors are small in size to impose a threat to much bigger service providers. Such size imbalance erodes the reason for affection to exist.

Hence it became apparent that the service providers were primarily concerned about their own welfare and distributors were largely perceived as channel connecting them to the final customers. The outcome indicated that service providers (large organizations) show little or no affection and hence keep the option of changing the distributor if the circumstances and conditions related to the relationship were unacceptable to them. Hence duopoly (as is the case in Kuwaiti Telecommunications market) creates a favourable

and dominant position for service providers where they do not see a need or necessity for affective input. Therefore H2 is rejected.

Wasta Input → Trust (H3)

The association between wasta input and trust was non-significant. This link indicated that wasta practice seems to be mostly ignored in highly competitive and dynamic industries (such as telecommunications) where business relationships are largely governed by rational thinking and sound business sense. This also implies that distributor selection is largely based on cognitive indicators rather than nepotism or favoritism.

The result disconfirms the findings of Hutchings and Weir (2006a) who suggest significant influence of wasta on Arab businesses. The study suggests that this social practice seems to be diminishing within the large Kuwaiti organizations. Another probable explanation for this diluting effect (of wasta) could be the rapid industrial and economic growth in the GCC region largely fuelled and aided by foreign and international companies. This expansion and transformation could be reducing the role of wasta (Ali, 2005). Furthermore it is quite probable that the process of establishing business relationships (within the Kuwaiti business environment) is reversing. Rather than wasta (favoritism) leading to business involvement (traditional case), it is quite likely that business involvement (based on credible and rational reasons) is resulting in wasta due to increased social interactions and enhanced relationship flexibility (modern case).

Hence trust was not related to wasta input and H3 is rejected. This highlights the importance of rational decision-making (based on cognitive input) in a highly competitive and growing sector in contrast to utilization of favoritism in managing business relationships.

Control Input → Trust (H4)

The non-significant link between control input and trust showed lack of trust within power and influence based (especially where the use of coercive influence is involved) relationships. Thus H4 is rejected. This association in asymmetric b-to-b relationships has been supported by a number of studies. Baba (1999) reports a negative relationship between power utilization and trust. The fundamental reason for trust deficiency (or mistrust) is display of exploitative rather than accommodative behavior which leads to lower or negative trust (Frazier & Summer, 1984; Simpson & Mayo, 1997). Another probable explanation of this outcome could be related to parties adjusting to the level of control where limits of the exercised power are defined to infuse a certain level of predictability and certainty into the relationship to keep it rolling. Therefore rather than terminating the relationship, both parties work together to avoid uncertainty and vulnerability related to starting a new relationship. Even though trust may be limited and affective content may be low but both parties try to make the best of the relationship.

Trust → LSD (H5)

The relationship between Trust and LSD was significant (i.e. $\beta=0.137$; $p=0.05$). This outcome could also be linked to the nature of association that exists between large organizations and their smaller partners where rationality, formality and size are used to dictate the exchange related satisfaction (Sharif *et al.*, 2006). This significant relationship is widely supported in the relationship marketing literature where both customers (distributors in this case) and suppliers (service providers in this case) consider satisfactory relationships as a source of competitive advantage (Van der Haar *et al.*, 2001; Briscoe *et al.*, 2005; Varey *et al.*, 2005). However, specifically in this study, it seems that trust drivers were cognitive and hence satisfaction was largely based on objective

expectations rather than behavioral expectations (affection based). Therefore H5 is accepted.

Control Input → LSD (HA1)

The significant control input → LSD pathway (i.e. $\beta=0.321$; $p=0.05$) showed that in this imbalanced exchange scenario there seems to be an additional force at work and this relates to ‘power homeostasis’. This phenomenon has been observed in a number of organizational relationships especially between large organizations and their smaller suppliers (Brown *et al.*, 1995). In an uneven relational set-up use of power could be largely non-coercive or at least non-detrimental. Power homeostasis establishes ‘influence boundary’ which determines the extent of trust. Hence it can be inferred that service providers and distributors reach a workable zone within this power and control homeostasis. Once a status quo is established and is acceptable to the involved parties then relationship continues with a degree of mutual satisfaction.

Hence once the (small) supplier gets used to the style and amount of power (coercive or non-coercive) they may want to work with the service provider over long periods rather than changing over to a new relationship with uncertainty and vulnerability. Hence in such cases even though trust is limited, its boundaries are defined and this infuses a level of predictable satisfaction into the relationship.

Cognitive Input → LSD (HA2)

Within Kuwaiti context the significance of this association (i.e. $\beta=0.176$; $p=0.05$) suggests that business relationships within large organizations are changing where *wasta* is being replaced or substituted by rational and skill-based approaches and sound business practices. This further implies that trust is perhaps a moderator but not a condition in establishing and furthering relationships towards long-term satisfaction. Coulter and Coulter (2002) found a positive and significant

correlation between competence and skill related satisfaction and length of relationship in Small to Medium Sized Enterprise (SME) to large organization relationships. Additionally Ganesan (1994) confirmed a positive and significant link between credibility and long-term satisfaction in asymmetric relationships.

To reflect the final outcome (including the modifications and additions to the research model), a more parsimonious research model is presented as Figure 2.

MANAGERIAL IMPLICATIONS AND RESEARCH LIMITATIONS

Even though the impact of control on trust was found to be insignificant, the distributors expressed concerns about occasional pressure tactics (i.e. pushed into carrying slow moving items) that destabilized the established ‘power homeostasis’ from time to time. Such a situation clearly needs infusion of benevolence (affection input) where service provider should consider helping out the distributor (e.g. through partially funded promotions) in selling slow moving products.

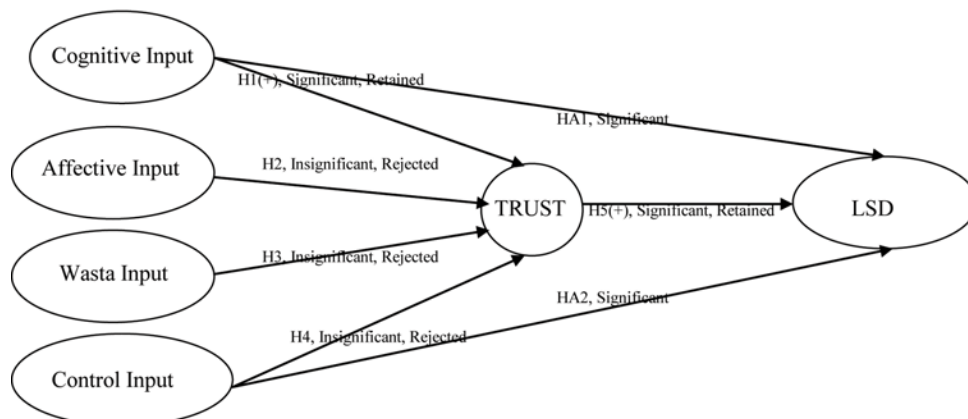
Secondly, there was a general belief among distributors that personal ties in the form of wasta

were playing a part in being granted a lucrative and financially attractive distributorship. However as the investigation uncovered that there was no significant link between wasta and trust hence such notions seem to be mostly based on ‘hear say’ rather than a market reality. Hence service providers need to pay particular attention to these reported biases as most of these views and perceptions seem to be based on gossip or disinformation.

Thirdly, lack of affection within the service provider and distributor relationship was quite clear. This relational deficiency has economic implications related to the absence of social and emotional capital which has been quoted by numerous academics to be a value generator within b-to-b exchange networks (Nahapiet & Ghoshal, 2000; Adler & Kwon, 2002; Case & Selvester, 2002).

Large firms need to realize that in order to satisfy their final consumers they need to satisfy their business customers (i.e. the distributors). In order to create ultimate and long-term satisfaction with the final customer, satisfaction needs to be propagated along the large organization (service provider) to small organization (distributor) to final customer. Satisfaction leakage along this chain, at any point, may result in inefficient transfer of satisfaction to the market. Hence a balanced approach to trust building is advisable where both

Figure 2. Revised Research Model showing significant/insignificant pathways, retained/rejected hypotheses and additional significant links (HA1 and HA2)



'cognitive' and 'behavioral' aspects are exercised with the intention of achieving satisfaction at all customer levels. According to Rao et al. (2006) the relationship partners must not forget that most organizations are customers as well as suppliers within the distribution chain hence upstream and downstream relationships (especially within asymmetric relationships) should be handled objectively to create satisfaction momentum that transfers to the final customer. Thus expectations and needs should be understood and fairly and justifiably met to create an environment of trust that should result in long-term satisfaction.

In terms of the limitations, the 'sensitive' nature of some questions may have resulted in them being not answered honestly and objectively. In particular, this refers to the frank and open discussion about *wasta* and control inputs and their implications for service provider and distributor relationship. Respondents may have held back some of their views due to fear of repercussions. Secondly, our target sample was small and restricted to Kuwait. While it was adequate to capture service provider and distributor relationship in Kuwaiti telecommunications market, it would be highly skeptical to generalize the findings in the context of the rest of the GCC mobile communications market.

Finally, as the scales were borrowed from different research sources (although respected and credible), according to Kalafatis et al. (2005) there is a probability of measurement instability resulting from mixing up measures from various academic publications. Even though all used operationalisations were carefully adapted and reliability and validity checked, there is still a danger that they may contain inherent shortcomings. Especially when used in a new environment and in a different market sector (Zaltman et al., 1982).

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APPENDIX

Table 5. Measures and Items

<p><i>Cognitive input (borrowed from Morrow, Jr. et al., 2004)</i></p> <p>Item 1: Service provider considers objective criteria when assessing the trustworthiness of a distributor</p> <p>Item 2: Service provider assesses the trustworthiness of a distributor in an orderly fashion</p> <p>Item 3: Service provider relies on a rational process to gauge whether the distributor could be trusted</p> <p>*Item 4: Service provider uses a business-like approach to determine if distributor can be trusted</p> <p><i>Affective input (borrowed from Morrow, Jr. et al., 2004)</i></p> <p>Item 5: Service provider uses his sense of intuition to decide whether a distributor is trustworthy</p> <p>Item 6: Service provider uses his 'gut feeling' to decide whether a distributor is trustworthy</p> <p>Item 7: Service provider uses his hunch to decide whether a distributor is trustworthy</p> <p>Item 8: Service provider uses his instinct to decide whether a distributor is trustworthy</p> <p><i>Wasta Input (formulated by author)</i></p> <p>Item 9: Personal relationships such as family ties and friendships impact the distributor and service provider relationship</p> <p>Item 10: Knowing and approaching the parties connected to service provider help gain favours</p> <p>Item 11: Being close to the service provider network by knowing the right people helps acquire business advantages</p> <p><i>Control Input (formulated by author)</i></p> <p>Item 12: In the beginning of our relationship we had problems with the service provider but now we have learnt to accommodate and adjust</p> <p>Item 13: We understand the behavior and attitude of the service provider and how best to deal with it</p> <p>Item 14: Even if service provider uses power, we ignore and manage it as we are focused on long-term benefits</p> <p>Item 15: Even though trust is limited in our relationship, we are satisfied with the relationship</p> <p>Item 16: From time to time use of power by the service provider does not disturb our relationship</p> <p><i>Trust (borrowed from Ganesan, 1994)</i></p> <p>*Item 17: The service provider has been frank in dealing with us</p> <p>Item 18: Promises made by the service provider are reliable</p> <p>Item 19: Service provider is knowledgeable about the products</p> <p>Item 20: Service provider has a clear idea of our business position</p> <p>Item 21: Service provider has made sacrifices for us</p> <p>Item 22: Service provider cares for our welfare</p> <p>Item 23: In times of difficulty, service provider has been understanding and helpful</p> <p><i>LSD (borrowed from Ganesan (1994) and modified)</i></p> <p>Item 24: We believe that over the long run our relationship with the service provider will be profitably satisfactory</p> <p>Item 25: Maintaining a long-term relationship with the service provider is favorable for us</p> <p>Item 26: We focus on long-term goals to achieve future fulfillment in our relationship</p> <p>Item 27: We are willing to make sacrifices to help the service provider from time to time</p> <p>Item 28: We share our long-term goals with the service provider with the aim of creating mutual benefits</p> <p>Item 29: We would like to develop a satisfaction driven long-term relationship with the service provider</p>

*Item removed due to inadequate α -value

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Chapter 2

Customer Relationship and Satisfaction: The Jumeirah Beach Hotel Case Study

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ABSTRACT

This paper establishes if using a comment card provides a reliable form of feedback regarding customer satisfaction in hotels. This exploratory study was conducted at the Jumeirah Beach Hotel-Dubai, UAE. They are a convenient way for guests to complain, make suggestions and praise. Managers use this input to make quick fixes and comfort distraught guests. The trouble is that hotels depend on comment cards for more than casual guest feedback. Hotels use the results for determining employee bonuses or employee performance evaluations and depend them when making business decisions. This paper examines the comment cards as an important feedback mechanism to measure customer satisfaction and argues that it is an effective instrument to strengthen relationships. Literature suggests that comment cards are not scientific or secure. Only happy or unhappy guests participate in these surveys, which can lead to extreme or misleading results.

INTRODUCTION

Hotels that attempt to improve their market share by discounting price, however, run the serious risk of having a negative impact on the hotel's medium and long term profitability. As a result,

it is *quality of service* rather than price that has become the key to a hotel's ability to differentiate itself from its competitors and to gain customer loyalty (Kandampully & Suhartanto, 2000). Consumers from different cultural backgrounds may have different tastes and assessment of hotel quality attributes. For example, they may differ in the desired attributes such as the colors of the beddings and furniture; music; design, smell and

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freshness of room; temperature; view of surrounding environment; employees' appearance, gestures and verbal communication. Therefore, consumers' cultural background has an impact on their expectations and perceptions of the hotel quality (Wang et al., 2008)

Alpert (1971) and Kivela (1996) viewed consumer products and services as a bundle of attributes, or features, and benefits: and stated that those attributes that directly influence consumer choice are termed "determinant" attributes. These attributes which could be different from those of competitors' offerings, may be vital factors in determining consumers' intentions regarding future purchases. Wuest et al. (1996) defined perceptions of hotel attributes as the degree to which travelers find various services and facilities important in promoting their satisfaction with hotel stays. There have been many studies reviewing the needs and characteristics of travelers. Reviews of the literature suggest that most travelers would consider the following hotel attributes when making a hotel choice decision: cleanliness, location, room rate.

Security, service quality and the reputation of the hotel or chain (Ananth et al., 1992; Atkinson, 1988; Clow et al., 1994; Le Blanc & Nguhen, 1996; Mc Cleary et al., 1993; Rivers et al., 1991; Weaver & Heung, 1993; Wilensky & Buttle, 1998). Atkinson found that cleanliness of accommodation, followed by safety and security, courtesy and helpfulness of staff were the top attributes for travelers in hotel choice selection. Rivers et al. (1991) examined the hotel selection decision of members and nonmembers of frequent guest programs. Their results show that convenience of location and overall service received the highest ratings.

Le Blanc and Nguhen (1996) in particular examined the five hotel factors that may signal a hotel's image to travelers: physical environment, corporate identity, service personnel, quality of services and accessibility. They suggested that marketing efforts should be directed to highlight the environmental cues to attract new customers.

Satisfaction and perceived quality, have received wide attention in the services marketing literature. Works on this concept have dealt with these issues in many different ways: on the one hand, researchers have tried to provide a conceptual definition of satisfaction and to distinguish it from the concept of perceived quality and attitude. On the other hand, efforts have been made to develop reliable and valid measures of both concepts. As far as the distinction between satisfaction and perceived quality is concerned, several authors have attempted to provide clarification, since early definitions show a strong overlap between the two concepts. For example, satisfaction is defined by Johnston and Lyth (1991) as the degree of agreement between customer expectations on service quality and customer perceived level of service quality and Eigliar and Langedard (1987) affirm that a high quality service is the one that satisfies the client in a given situation.

Oliver's (1997) work on satisfaction provide some clarification; according to his view satisfaction refers to a specific transaction, while quality represents a more stable state of mind independent from a given service situation. This conceptual distinction raises the issue of the existence of causal links between the different constructs. For example, Parasuraman et al. (1985, p. 16) state that "incidents of satisfaction over time result in perceptions of service quality" which implies that satisfaction resulting from a service experience influences the level of perceived quality. Oliva et al. (1992) have empirically demonstrated such a causal path; however, further studies (Cronin & Taylor, 1992; Dabholkar, 1993) have questioned these results affirming that it is possible to express a quality judgment after a single transaction and to feel satisfaction toward a company after several service experiences.

An additional way of distinguishing satisfaction from perceived quality lies in the cognitive and affective nature of the two constructs. According to several authors (Dabholkar, 1995, Iacobucci et al., 1994) quality evaluation is mostly cognitive

as it appears to be based on attributes, on their utilities, and it is a representation of knowledge in consumer memory.

Satisfaction, although holding a number of cognitive elements (mainly the comparison process), contains more affective elements than quality, namely emotions linked to surprise (Oliver, 1997). The debate on the issue of conceptual distinction between satisfaction and perceived quality is still open, insofar as the literature has recognized that satisfaction and quality are both subjective evaluations of a service experience based on the comparison between perceived performance and some reference standard that might be complex and different in nature. Moreover, satisfaction resulting from a specific transaction is mostly experiential, and it is partially or totally linked to emotional feelings, while perceived quality, which does not necessarily imply a personal experience, is mainly the result of a cognitive process. Surprisingly, the literature has devoted little attention to the cognitive organization of quality and satisfaction in the customer's mind. Given that evaluative judgments imply some degree of knowledge about the service being evaluated, and that knowledge follows some organized structure in the customer's memory, the investigation on how the evaluative judgment is organized cannot be separated from its conceptual definition.

Hotels Market Indicators in the UAE

With a slowdown already under way in the latter part of 2008, there was little momentum for the UAE economy going into 2009. Last year led to a sharp reduction in construction activity in the UAE, especially in Dubai, stated the report. This was in addition to Opec-mandated cuts in oil production (which affected Abu Dhabi's output for most of the year), weak growth in investment and almost no expansion in services, according to the report. The market that took the worst hit in regards to revPAR was Ajman, which recorded a 43 per cent decline. Dubai lagged behind by

three per cent, followed by Sharjah with a 34 per cent drop. In terms of occupancy, even though Abu Dhabi was the biggest achiever, it still saw an eight per cent drop from 2008's average. However, the capital regained some lost ground by recording the highest average rate, finishing the year at US\$294 (Dh1, 079), followed by Dubai (US\$184) and Ajman (US\$172). In terms of new hotel constructions, some 14,000 hotel rooms entered the region during 2009, of which 43 per cent were in the UAE market: 27 per cent in Dubai, 15 per cent in Abu Dhabi and one per cent in the other emirates.

In Abu Dhabi, some five hotels totaling 1,330 rooms were added to the market, with an additional 8,000 hotel rooms are in active pipeline, which are expected to enter the market over the next three to four years. Tourism indicators last year saw Europe maintain its position as the largest source market, albeit at the beginning of 2009 there were indications of a decrease in visitation compared to the same period in 2008. The likely cause of this decline was the depreciation of the euro against the dirham in 2008 and 2009. However, the euro is expected to appreciate in 2010 and this could help drive growth in the number of European guests, according to HVS. The number of local UAE visitors has continued to rise over the years and in 2009 visitation from the neighboring emirates increased by about 50 per cent.

Dubai saw 40 per cent revenue per available room (revPAR) decline last year, while the highest occupancy was recorded by Abu Dhabi, at 73 per cent, according to the latest industry report. Global research, consulting and services organization HVS released the data, indicating the hospitality sector was one of the hardest hit last year with the onset of the global recession. As Q1 2010 results are trickling in, HVS predicts the financial crisis has seen a change in the economic policy with a concentration on restoring confidence in the UAE economy particularly the financial and real estate sectors with a focus on Dubai. Early indicators for investment in the UAE looks positive as Dubai

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tops the new development list with some 14,000 rooms entering the market, followed by Abu Dhabi with some 10,000 hotel rooms.

The overall accommodation market has been growing dramatically in the UAE, but hotels were the main driver, accounting for approximately 85% of the market. The largest growth in percentage terms was experienced in 2004 when hotel sales soared to AED 7 billion from AED 5 billion in 2003, an increase of 38%. In 2005, the country's hotels continued to perform well and experienced near-full capacity of 86%.

Global Economy Uncertainty

The global economic downturn is a cause of much uncertainty; the immediate effect on hotel activity is shrinkage in booking windows (much less business on the books, making it difficult to forecast results even in the short term) and a shortening of the length of stay in all segments. Occupancy levels are predicted to hover around the 68 per cent to 73 per cent bracket for most of the cities. On the other hand, HVS reports the current economic downturn has benefits for those developers with liquidity reserves: construction materials are cheaper, qualified labor is plentiful, and the promise of finalizing new developments just in time to take advantage of the economic recovery is very appealing.

HVS estimates that some 50,000 rooms are likely to enter the Middle East market over the next four years. Including some 10,000 hotel rooms that opened in 2009 (bringing the total to 60,000 since 2009), some 23,000 rooms has been cancelled in comparison to 83,000 that were expected to enter the region at the beginning of 2009. Topping the development list is Dubai, which will see some 14,000 rooms enter the market, followed by Abu Dhabi with some 10,000 rooms. The most active operators in the expansion of their brands are Accor, Rotana, Marriott, Movenpick, Fairmont, Starwood, Wyndham and Hilton ([http://www.](http://www.uaeinteract.com/docs/Dubai_tops_hotel_growth_with_14,000_new_rooms/40953.htm)

[uaeinteract.com/docs/Dubai_tops_hotel_growth_with_14,000_new_rooms/40953.htm](http://www.uaeinteract.com/docs/Dubai_tops_hotel_growth_with_14,000_new_rooms/40953.htm)).

Jumeirah Group

At the eye of this rapid economic growth is JUMEIRAH-A Hospitality Chain that is making waves in the industry owing to its Customer Centricity and Innovation. Jumeirah hotels are regarded as among the most luxurious and innovative in the world and have won numerous international travel and tourism awards. The group's activities are however, not restricted to hotel and resort management. The Jumeirah portfolio also includes Wild Wadi Water Park, regarded as one of the premier water parks outside of North America and The Emirates Academy of Hospitality Management, the region's only third level academic institution specializing in the hospitality and tourism sectors.

Building on this success, Jumeirah has become a member of Dubai Holding, a collection of leading Dubai based businesses and projects, in a step that aims to initiate a new phase of growth and development for the group. Following the re-branding to Jumeirah in June 2005 the Group also announced its expansion plans with the intention to grow its portfolio of luxury hotels and resorts to 40 before 2010. This expansion is planned locally regionally and internationally. Recently announced were Aquadunya in Dubai Land, Dubai Towers in Doha (Qatar), Suraya Aqaba (Jordan) and HanTang Jumeirah Shanghai (China). Besides Luxury Hotels, Jumeirah operates managed apartments, standalone restaurants, retail, theme parks and education. Jumeirah expects to add an additional 1,500 rooms in 2006/7.

The Jumeirah Beach Hotel

The Jumeirah Beach Hotel is one of the flagship hotels of the Jumeirah Group set on the shores of the Arabian Gulf and built in a startling shape that mirrors a breaking wave, the award winning Jumeirah Beach Hotel has its own private beach.

For those seeking a little more exhilaration, the Wild Wadi Water Park next door is a delightful break for both the young and young at heart. Its signature standard in design, style and service create an environment that is innovative and unique, whilst its chameleon-like qualities ensure it is an equally perfect choice for our guest's family holiday or a couple's retreat.

This award winning Resort hotel has 26 storey's comprising 618 sea-facing rooms, suites and villas, with each room offering approximately 50 square meters. It's perfect for families and couples alike, with unspoilt beaches, 4 swimming pools, a wide variety of restaurants, bars and cafes, a choice of sporting and water sports facilities, and much more to keep everyone entertained a truly incomparable Resort; with luxurious accommodation, thoughtful amenities and comprehensive leisure, business and conference facilities..

The interior theme of the hotel draws upon the four elements of nature: Earth, Air, Fire and Water. Each element is represented by a colour scheme that divides the hotel into four different levels; soothing blues and greens for Water, homely browns and reds for Earth, relaxing blues and white for Air and striking reds and yellows depicting a vibrant sun for Fire. The theme of nature's four elements is carried throughout the bedrooms and corridors, culminating in the Atrium, which features a 90-metre high wall sculpture. The sculpture depicts a satellite view of the earth, complete with a galaxy of stars and a moon in orbit, with the United Arab Emirates at its centre. At the base of the sculpture, an expanse of ocean represents Water, the land mass depicts Earth; a vast stretch of sky indicates Air, while a red glowing sun is situated at the very top of the Atrium.

Customers of the Hotel

The hotel differentiates between hotel "guests" and hotel "customers" as seen in Figure 1. Hotel guests are the end-consumer, staying in the hotel and/or using the hotel facilities. Hotel customers

are representatives of the various sales distribution channels. As 80% of the resort's business originates from these channels, their relationship with the business development associates is of crucial importance to the organization.

From Figure 1, it becomes clear how intricate the relationships with the representatives of the various distribution channels are. Especially in the process of contracting it is important to ensure that each level is protected from the next level down. Relationships are managed through rate agreements, room allocations, corporate and guest loyalty programs, commissions and mark-ups.

Customers' Channels of Communication

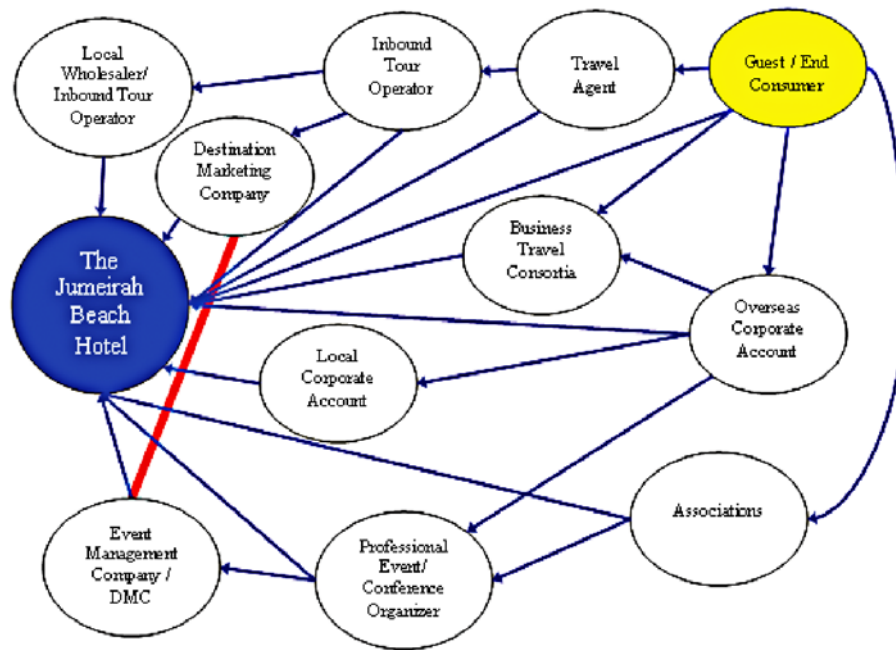
Effectively there are three modes of interaction with guests and customers of the hotel.

1. Direct Communication (Active)

Hotel Guests interact with employees working in Reservations, Front Office, Guest Relations, Food & Beverage, Housekeeping, Sports & Leisure, Conference and Banqueting, Engineering, Security and with the Executive Managers. The traditional point of contact for Guests is the lobby-based Concierge. These employees have a thorough all-round knowledge of all the facilities available within the resort, but they are also expected to deal with Guest requests referring to services rendered outside the hotel. Through this interaction interesting patterns can be identified, and through a pro-active approach the Concierge function improves itself on an ongoing basis, storing its information in a computer system at the desk. Problem areas and maintenance requests are passed on to the relevant department within the hotel, so that swift action can be undertaken.

Another point of contact is that of "Service One", the easily accessible telephone operator, which fulfils a similar function as the Concierge. The Guest room telephones provide a number of

Figure 1. Guest/customer interaction



direct dial buttons (Operator, Concierge, Reception, Room Service, Laundry, Housekeeping, Maintenance), which in actual fact are all directly connected to Service One. Guests will not be transferred from one department to the next, but instead deal with one Associate who handles the Guest’s query from beginning to end. The Service One operator takes down messages and passes them on to the respective department, explaining what course of action is to be taken and in what time frame. The follow-up process ensures that the Guest is serviced in the shortest possible time, resulting in a positive Guest experience. The only time that calls are being put through, is when a detailed room service request is received; in this case it is better for the Guest to directly communicate the specific requirements to the room service order takers.

Figure 2 illustrates the various types and overlaps of guests who use the hotel facilities. This has an important bearing on the methodology of measuring customer satisfaction as a one size fits all approach cannot be used.

2. Interaction with the Business Development Team

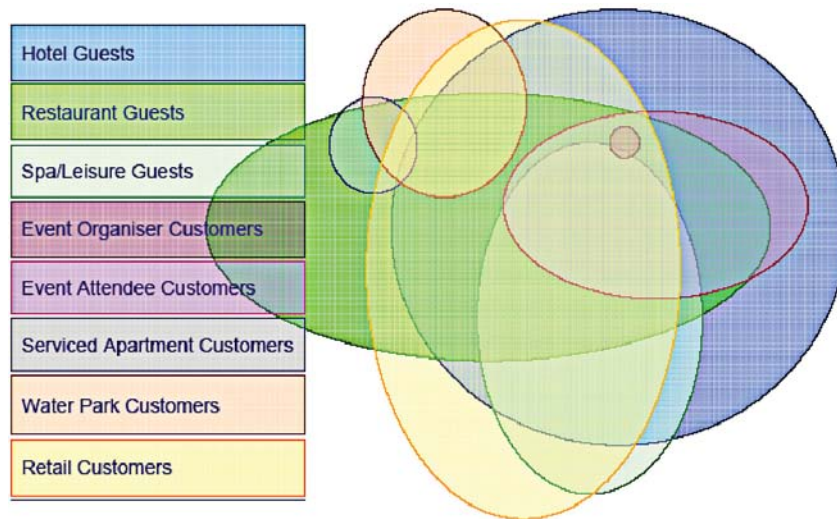
Hotel customers, representing the various sales distribution channels, interact continuously with the Business Development Team, exchanging information on the expectations of guests. This interaction can take place:

- Via the telephone, facsimile and electronic correspondence on a daily basis;
- During sales calls made by the team of Business Development Associates;
- While attending international trade shows, road shows and trade exhibitions.

3. Interaction and Feedback Through Comment Cards and Other Sources

Hotel guests are passively invited to communicate their experiences to the hotel management through the guest comment cards, which are available in the guest rooms and in all the Food & Beverage

Figure 2. Overlaps in types of guests



outlets, as well as by daily courtesy calls placed by associates working in the Guest Relations Departments (Guest Services, Premium Leisure and Club Executive Reception, and the Beit Al Bahar reception). Different comment cards are used in standard hotel Guest rooms and suites, than the ones used in the Beit Al Bahar villas, as the latter product is significantly different in the service levels it provides. The Customer Satisfaction Index (CSI) is based on the feedback received via these cards. A dedicated team of employees in the CSI Department takes care of tabulating all the data and analyzing the information in the monthly produced CSI report.

Customer Satisfaction

Unlike material products or pure services, most hospitality experiences are an amalgam of products and services. Therefore it is possible to say that satisfaction with a hospitality experience such as a hotel stay or a restaurant meal is a sum total of satisfactions with the individual elements or attributes of all the products and services that make up the experience (Pizam & Ellis, 1999). In recent years, the customer focus of operations

management has increased, particularly in the service sector (Desatnick, 1989, 1992).

Customer satisfaction is the leading criterion for determining the quality that is actually delivered to customers through the product/service and by the accompanying servicing (Vavra, 1997). Being customer focused nowadays has to be accepted as a bare necessity to conduct business and as some would say, it is the “license to practice” only. Organisations need to indicate that they are truly focused on their customers through deeds and actions (Zairi, 2000).

The automobile industry pioneered the use of customer satisfaction surveys and probably spends more money on them than any other industry. Studies at IBM showed that each percentage point in improved customer satisfaction translates into \$50 million more revenue over five years (Kirkpatrick, 1992). A study estimates that segment for customer satisfaction surveys work alone accounts for \$100 million in consulting and research revenues for major U.S. market research firms (Loro, 1992).

The Baldrige award enshrined the importance of customer satisfaction measurement by giving a third of the points to satisfactory execution of that function. The European Quality Award puts a

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similar emphasis on measuring customer satisfaction. Suddenly everybody was doing it (Ademson, 1994). The Customer Focus and Satisfaction examination category contributes 30% to the score, with the remaining six categories contributing only from 9 to 18% each (USDC, 1994).

The Process of Measuring Customer Satisfaction at Jumeirah Beach Hotel

The Jumeirah Beach Hotel uses data collated from the Guest Comment Cards to measure the perception of its guests. There are 3 broad types of Comment Cards in use-a) Room Comment Card, b) Restaurant Comment Card and c) General Comment Card. The comment card serves dual purpose, it gives the management valuable feedback in the form of comments and it contains weighted questions which are meant to provide an indication of the level of satisfaction by the guest. The cards are placed in Guest Rooms along with other collateral, placed in bill folders at the restaurants and available on request in the various Guest Contact areas such as Reception desk, guest relations desk etc. In certain cases, guests are invited to fill in a card. The feedback from the cards is entered on a daily basis by the Quality Department in the Customer Satisfaction Index (CSI) software which generates scores per question and an overall index. The rating scale used on the cards is seen in Figure 3.

The anchors on the scale has been defined and not those in between as would be expected in a semantic differential scale. This has been done to eliminate cultural bias and ambiguity. From experience it was noticed that Japanese Guests for

example would mark “Fair” on a questionnaire which has “Excellent”, “Good”, “Fair” and “Poor” but would be more inclined to mark 2 ticks on the above scale. Most questions on the comment card use the above scale.

The weightage per selection is as mentioned in Figure 4. The scores obtained therefore are weighted unlike other evenly distributed weightage found in other scales.

Research Methodology

This study aims to determine if the much used comment card is a reliable instrument for assessing customer satisfaction. The study was conducted at the Jumeirah Beach Hotel, Dubai and for the purposes of benchmarking certain results, was also compared against Mina A Salam, Al Qasr and Dar Al Masayaf, all of which are 5 star luxury hotels in the Jumeirah Beach Stretch and are sister properties. In order to arrive at a coherent conclusion to the above about the reliability of using comment cards to assess customer satisfaction, a study was carried out to tackle the following questions.

Are Loyal Guests More Likely to Complete Comment Cards?

The reason for the above questions is to check for any correlation between the loyalty of guests and their tendency to complete a comment cards. Loyalty seems to be more important than satisfaction in modern day thinking and hence it is significant to study its effect on the topic of this study. As the study is based on a sample, the results could vary at different environments and be subject

Figure 3. Rating scale used in comment cards

				
Completely satisfied			Not at all satisfied	Not applicable
PLEASE INDICATE YOUR LEVEL OF SATISFACTION ON OUR SERVICE AND FACILITIES USING THE ABOVE SCALE.				

Figure 4. Weightage used for rating scales

✓✓✓	5 Points	✓✓	4 Points
✓	-1 Point	✗	-3 Points
N/A	Neutral (0)		

to seasonal variations owing to different guest profiles. The study is based on responses to the survey conducted at the Jumeirah Beach Hotel. The loyal guests are assumed to be anybody who has given a 9 or 10 rating on the Loyalty question.

Are Guests Who Have Had a Negative or Positive Experience More Likely to Fill Up a Comment Card?

Much literature abounds about the self select bias that surrounds the propensity to pick up a comment card, fill it in completely and most importantly submit it. This question is an exploratory attempt to differentiate the response rates to comment cards between guests who have had an “*extreme*” experience vs. a “*normal*” experience. Although there is enough literature to suggest that dissatisfied customers (in this case considered to be guests who have had a negative experience) don’t bother complaining but just walk out of the door, there is very little evidence to establish the converse. Do satisfied customers give feedback?

What According to the Guests are the Most Preferred Means of Providing Feedback?

Is there something fundamentally wrong with a paper based comment card placed indiscriminately in hotels? In this day and age, are traditional means of soliciting feedback still valid? Have the guests moved on with the times with the influx of the internet era but the hotels remained with old fashioned butler type methods which have little or no enticement?

The answers to all of the above will be ascertained by asking the guests, who ultimately use it, the most important question- What is your most preferred means of providing feedback? This question becomes critically important as if response rates from targeted samples are important for statistically valid results, the means to obtain these needs to move with the times.

Are the CSI (Customer Satisfaction Index) Scores Affected by the Number of Comment Cards Returned?

The reason to correlate number of comment cards received vs. the CSI scores is to establish if there exists any causality leading to fluctuations in the CSI score. Is one a dependant variable of the other?

As the cards received are the result of “Self Select” by the guests and not an apparent concerted effort on part of the Hotel Management to identify and target respondents through active solicitation, the exogenous conditions have not changed. Hence statistical inferences are possible. By this correlation it is aimed to establish if it is possible to affect the CSI score by increasing or reducing the number of cards reported. This is a very significant test as by this it is possible to theorize if the employees can achieve targeted CSI scores by increasing card counts and therefore selective distribution to gain volumes.

A caveat to this test is that in a genuinely low customer satisfaction environment, increasing the number of cards could have an inverse effect on CSI scores due to the negative rating scale (-1 and -3 weightage for dissatisfied scores). A further benchmarking of these factors was conducted with other hotels of the Jumeirah Chain to check for similarity in trends and establish if any phenomenon observed is isolated or systemic.

Under normal circumstances, a statistical sample if increased beyond a certain minimum level should not affect the resulting measurement drastically. However, the usage of comment cards in hotels normally do not adhere to any form of

sampling principles and is often a complex mix of self select (from Guest Rooms, Lobby Lounges, Business Centres) and targeted responses (by way of the maitre de or restaurant manager requesting the guest to fill in a card) received. To this result, if employee interference is to be included by means of cards being screened, the results could be questionable and give an incorrect representation of satisfaction levels. As a conceptual model, satisfaction levels being constant, an increase or decrease in samples should not or may marginally affect the overall scores. This model would hold true if a statistical “sample” is obtained for a certain period in time.

The Design and Delivery of the Survey

The survey is based on 4 profiling questions and 11 closed questions. The 1st question is focused on loyalty based on a research article “the one number you need to grow’ (Reichheld, 2003). The scores for the loyalty question as calculated as follows:

- Guests marking “10” or “9” on the rating scale are considered as “Promoters.”
- Ratings between “6 to 0” are considered “Detractors.”
- “7”, “8” are “Neutral.”

The Loyalty Score is = (Number of Promoters) – (Number of Detractors)/(Total Responses)

The remaining 10 questions are aimed at objectively assessing the guests experience and choice of instrument. The first 3 research questions will be covered by the survey.

The method of delivery of the survey was to intercept guests of the Jumeirah Beach Hotel on check out and obtain first hand feedback on their satisfaction levels by interview. This method was chosen so as to eliminate any self select bias if

a written survey was to be used and also to help achieve an appropriate sample size.

Sample

A Stratified Random Sample Survey of 100 Guests of the Jumeirah Beach Hotel to ascertain if they had a propensity to use the Guest Comment Cards. The stratification of the sample is based on the market mix as depicted in Figure 5.

The reason to choose a random stratified sample of 100 is because from Figure 6, it is evident that once sample sizes reaches the range of 100-200, additional sample results only in moderate decrease in the confidence interval band.

Survey Results and Data Analysis

The empirical data was analysed using a statistical software package (SPSS for Windows) and Microsoft Excel. The study uses correlations and descriptive statistics to compare results. A Yes/No anchor has been used in most of the questions to eliminate degrees of relativity as the questions relate to actual incidents and not perceptions or degrees of satisfaction. The response from the survey was entered in Microsoft Excel and later in SPSS for advanced analysis. For the purpose of the analysis, “Yes/No” questions were reported in numeric form with “Yes” having a value of “1” and “No” equivalent to “0”.

Table 1 shows the gender frequency distribution of the valid sample guests interviewed at the Jumeirah Beach Hotel. The vast majority of the guests interviewed were male (72.12%).

Table 1. Gender breakdown of guests

Gender	Frequency	Percentage
Male	75	72.12%
Female	29	27.88%
Total	104	100.00%

Figure 5. Hotel guest nationality

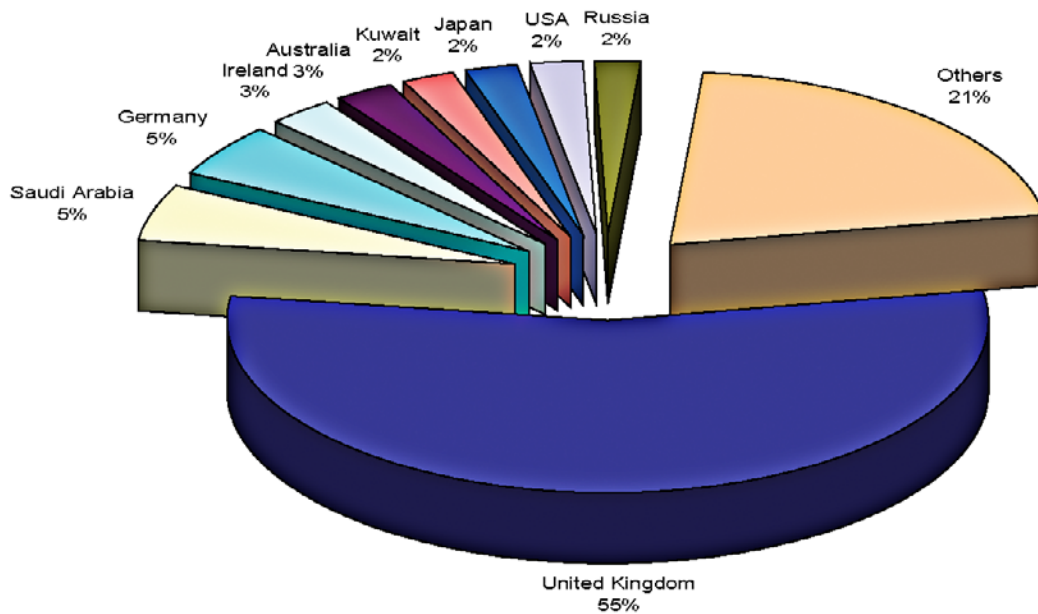


Table 2 indicates the purpose of visit of the valid sample guests interviewed.

As a lot of the results to be presented involves multiple variables Venn diagrams have been used to depict sets and intersection sets.

As seen in Table 2 of a total of 43 guests who had filled in the comment cards, 40 were Leisure and 2 Business class. The one other guest was on both business and leisure. Although this figure seems statistically proportionate to the overall mix of the hotel, it poses the question if Business Class guests are being ignored due to their low returns. If feedback from Business segment guests are not increased this could be strategically detrimental

as typically guests on business spend more than an average leisure guest.

Question 8 on the survey asked the respondents if they had filled in a comment card during their stay. It is interesting to note that while most nationalities had more or less proportionately filled in comment cards; Saudi nationals in general had a lower appeal to fill in comment cards. This could be attributed to regional and cultural preferences although the card is in Arabic as well. However, as Saudi nationals constitute 5% of the overall nationality mix of the Jumeirah Beach Hotel, relying solely on comment cards most certainly means a significant section is being missed out as a result. Anecdotal evidence from staff at the hotel also suggests that other Arab nationalities too have a similar disposition of not filling in comment cards.

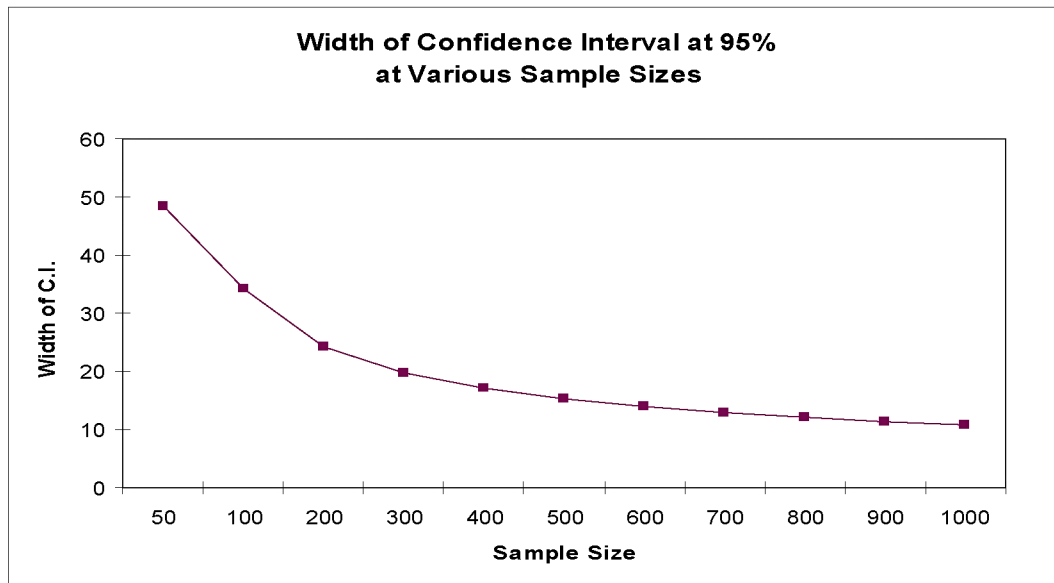
Table 2. Purpose of visit

Purpose	Frequency	Percentage
Leisure	95	91.35%
Business	8	7.69%
Other	1	0.96%
Total	104	100.00%

Are Loyal Guests More Likely to Complete Comment Cards?

Based on the loyalty question that was asked, a 56.88% score was recorded. This however is way

Figure 6. Relation between confidence intervals and sample size



short of the hotels loyalty average score of 87% which has been calculated from the comment cards.

The findings seen in Tables 3 through 5 prove only 35% of the hotels loyal guests complete Comment Cards (see Figure 7). This low percentage could have a negative impact on business decisions made based on feedback from comment cards. The hotel management could as a result of improper analysis decide to install Tea/Coffee making facilities in all rooms at great costs, as this seems to be the cause of low scores in the Room amenity question at the expense of ignoring a more pressing demand by the loyal guests such as a web enabled loyalty point redemption feature.

The possibility of the above scenario is further compounded by the fact that comment card results are not analysed by segments, nationalities or

guest types and are seen as just one index figure in silos. Relying on comment cards alone to respond to the ever changing needs of the hotels guests can possibly move guests from “Apostles” as seen in the diagram below to “Hostages” or even “terrorists” if ignored.

Are Guests Who Have Had a Negative or Positive Experience More Likely to Fill Up a Comment Card?

To arrive at a logical conclusion to the above question, the following question results are considered:

- Did you experience “Poor Service” during your stay at The Jumeirah Beach Hotel?

Table 3. Loyalty scoring

Scale	0	1	2	3	4	5	6	7	8	9	10	Loyalty Score
Frequency	1	0	0	0	4	0	8	19	15	20	37	
Promoters/Detractors	Detractors = 13						Neutral = 34			Promoters = 57		56.88

The Loyalty score is obtained by % Promoters-% Detractors = 56.88

Table 4. Descriptive statistics on loyalty scores

Descriptive Statistic	Value
Mean	8.33
Median	9
Mode	10
Std Dev	1.8

- Did you experience any “Outstanding Service” during your stay?
- Did you fill in a comment card?

Results indicates that only 9 of 28 guests (32.14%) who experienced poor used a comment card as compared to 17 of 71 guests (23.94%) that experienced outstanding service.

From the above it can be construed that guests who have not had an extreme experience are more likely to fill in a comment card than those that have. This means that if the management is using the comment card results to gauge levels of satisfaction, they are more likely only hearing from about 32% of the disgruntled guest and an even less percentage of extremely satisfied guests.

What According to the Guests are the Most Preferred Means of Providing Feedback?

The answer to the above question was obtained from the below question:

Q11) Please rank in order of preference your most favoured means of providing feedback to the hotel management.

From Table 6, it is evident that over 65% of the guests interviewed prefer to give feedback either electronically or by direct interaction with the hotel management.

Table 5. Number of cards completed by loyalty rating

	Cards Completed
Loyal	20
Rest	84
Total	104

Are the CSI (Customer Satisfaction Index) Scores Affected by the Number of Comment Cards Returned?

Figure 8 shows scatterplot, which is an evident that two distinct clouds exist, one at higher levels of comment card returns and another at lower levels of card returns. From this it can be concluded that higher CSI scores from comment cards can be achieved by increasing the number of comment cards received. This single finding proves that using comment cards is not an effective instrument to measure customer satisfaction. If CSI scores are a function of volumes, it defeats the purpose of measurement as it does not denote true levels of satisfaction.

From the above scatter plot it is evident that 2 distinct clouds exist, one at higher levels of comment card returns and another at lower levels of card returns. From this it can be concluded that higher CSI scores from comment cards can be

Table 6. Preference of instrument for feedback

Preference	Frequency	Percentage
E Mail surveys on checkout	43	41.35%
Talking to staff/management	25	24.04%
Comment Card	21	20.19%
Telephonic Survey	10	9.62%
Postal Pre Paid Envelope	4	3.85%
Electronic Kiosks	1	0.96%
Fax	0	0.00%
Total	104	100.00%

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Figure 7. Loyalty Distribution Curve. On tabulating the “Loyal” guests and the corresponding comment cards they have filled in, it is evident that although 57 guests fall in the loyal category, only 20 guests have filled in comment cards.

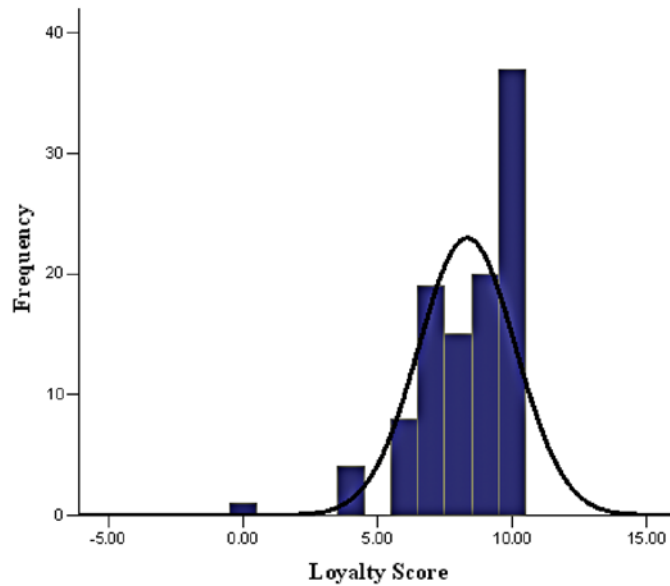
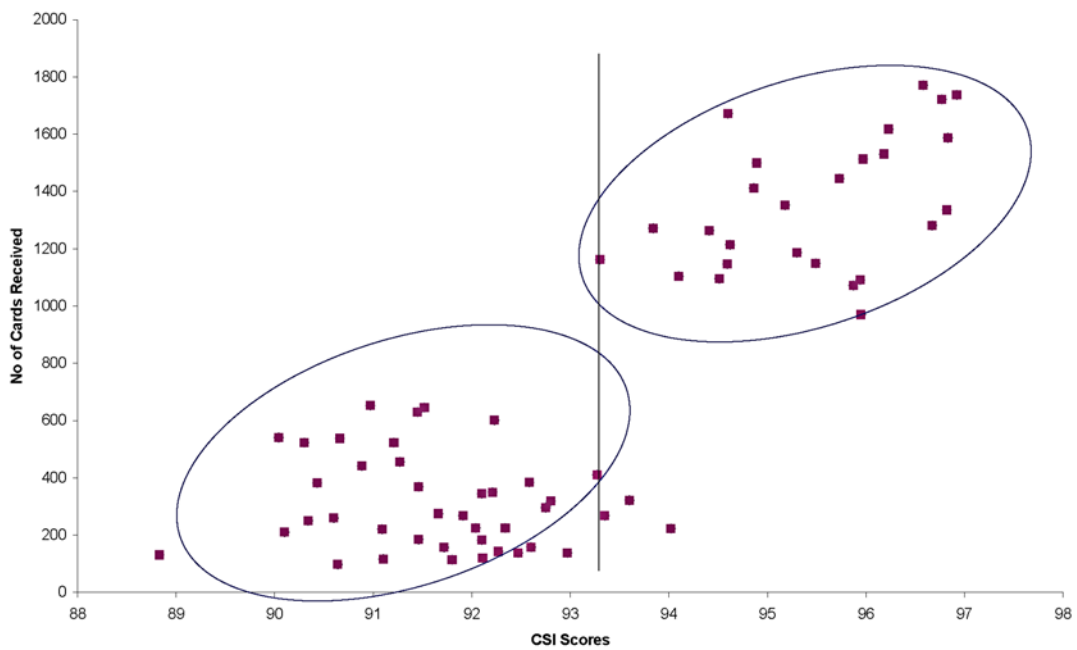


Figure 8. Scatter plot of CSI



achieved by increasing the number of comment cards received. This single finding proves that using comment cards is not an effective instrument to measure customer satisfaction. If CSI scores are a function of volumes, it defeats the purpose of measurement as it does not denote true levels of satisfaction.

CONCLUSION

It is hoped that this study would bring greater attention and rigor to the understanding and usage of Comment Cards in Hotels. Although this study has been critical on the usage of comment cards, the merits of using a comment card cannot be discounted. A key to profitability in the hospitality industry is a clear understanding of what leads to satisfied and loyal guests. It is dangerous, however, to take action on misleading information regarding guest satisfaction and loyalty from comment cards which have been collated without keeping the points discussed in the various literatures cited in this dissertation.

In general, the use of comment cards was found to be a very popular customer feedback method among the hotels of the Jumeirah Group and especially at The Jumeirah Beach Hotel. Percentage usage, however, does not tell the entire story with regard to their usefulness. The limited ease of availability of obtaining the cards directly affects the type of feedback that management can hope to obtain. If a customer has to seek out a comment card from a host or hostess, the cashier, or the front desk, suggestions for improvement of operations and general customer feedback on service are likely not to be received. Instead, relatively infrequent comments relating to extreme situations will likely be the only feedback provided. Although useful to know about these situations, it is of much greater importance to continually

have the typical customer's assessment of normal operating conditions. For this type of feedback, a readily visible location for customer comment cards is preferred.

Qualitative information has been the neglected stepchild of the comment cards because of its "messiness" and the complexity of interpreting it as discussed in the recommendations section. But as qualitative information gathering and analysis software continues to improve, hospitality operators will find a gold mine of information about their businesses. Additionally, it is important for hospitality operators who are interested in going beyond reward points or other incentive programs to develop guest loyalty to understand guests' emotional attachment to the business or brand. Because they are complicated and distinct in relation to each business, customers' emotions are difficult to measure on a quantitative scale. Qualitative text provides an opportunity to get a better understanding of how the respondent really feels toward your hotel.

The topic on measuring customer satisfaction is a vast ocean that can have complex mathematical equations on one bank to philosophical views on the other and offers vast avenues for future research. Some pressing questions that need to be answered could include: Are CSI scores indicative of true satisfaction levels? Is the cost of setting up a customer satisfaction measurement system justified? Is there a relation between employee satisfaction and customer satisfaction?

Last, if continuous improvement is truly a factor for hotels, employees, guest's customers and other stakeholders of the hotel should be involved in the choice of the measurement instrument and design of the questions. It is not uncommon for hoteliers to develop a list of ideas about guest expectations without benefit of input from customers. Involving guests in the design process is essential to accurately focusing in on areas of customer concern.

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Chapter 3

The Role of Environmental Innovation Strategy in Reinforcing the Impact of Green Managerial Practices on Competitive Advantages of Fertilizer Companies in Egypt

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ABSTRACT

Little literature and research exists on the impact of Green Managerial Practices (GMP'S) on competitive advantages (CA). This study fills this research gap and is conducted on a sample of 450 workers in 10 fertilizer companies in Egypt. The study identifies the moderating role of environmental innovation strategy (EIS) in reinforcing the impact of green managerial practices on competitive advantages. The empirical results show that three types of green managerial practices – green planning, green managerial concerns, and green entrepreneurship – have positive effects on competitive advantages, which increases in the presence of environmental innovation strategy. Companies that invest resources and efforts in green managerial practices can meet the strict environmental regulations in Egypt and popular environmental consciousness of consumers, as well as obtain corporate competitive advantages. Managerial implications and areas for further research are also discussed.

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INTRODUCTION

The environment is no longer just the air we breathe, or the world we live in, it has become a requirement for business to address the environment to maintain customers and thrive in an ever more critical global economy (Chavan, 2005). Currently, companies have no choice to carry out environmental protective activities to comply with international regulations of environmental consciousness of the consumers (Berry & Rondinelli, 1998). This, in turn, has led to an increasing public and political focus on the negative consequences of present production and ways of life, which threaten conditions for future generations. This has resulted in a spate of environmental legislation and agreements at international, regional, national and local levels, as well as voluntary initiatives (Madsen & Ulhøi, 2003).

Egypt has become conscious of the different effects of industrial activities on the environment. So, it has issued a number of legislations which protect the environment from the risks of pollution. This trend has started since the 1950s. However, an increased desire to achieve high levels of industrial development in that period without subsequent environmental planning has led to some deterioration of Natural resources and increasing waste of raw materials. The fertilizer industry is considered one of the large-scale industries which include many chemical and physical processes in manufacturing, so it is considered one of the most environmental pollutants.

It is noteworthy that the notion of protecting the environment has been noticeable since the 1960s, but it has gained prominent international acknowledgment at the 1992 Earth Summit in Rio de Janeiro, when Agenda 21 was adopted. This document has encouraged businesses to adopt codes that establish “best environmental practice” (Turner & O’Neill, 2007). Hence, many environmentalists trace the “Green” Lifestyles to the moment when the space program gave us the first view of earth from space. In the last two

decades, the concern for the environment has raised a widespread awareness among all nations. This is the result of terms like “ozone depletion,” “Greenhouse effect” and “Acid rains”, coming to surface and the increase at the level of awareness all over (Walker, 2000).

Recently, participants in Copenhagen 2009 showed that the time has come to take serious measures with regard to climate changes. There is now a growing consensus among scientists that the best way to reduce the effects of climate changes is to prevent an increase in the rate of warming above two Celsius degrees, as compared to the era before industrialization. This goal can be achieved through reducing the dangerous emissions of greenhouse gases of industrialized countries with large ratios, ranging between 25 and 40% over the next decade.

Some estimates, highlighted by many authors, show that mankind is now using more than 40% of the planet’s primary productivity. If, as projected, the population doubles over the next 40 years, we may out-compete most other animal species for food, driving many to extinction (Hart, 2007). Hence, those who believe that ecological disasters can be avoided must also appreciate the commercial implications of such beliefs: such a sustainable development over the coming decades will constitute one of the biggest opportunities in the history of commerce. Taking the entire planet as the context in which they do business, organizations have to address the issue of environmental degradation, and recognized that they are part of the solution to social and environmental problems (Hart, 2005).

For the past few decades, concerns about environmental degradation have been increasing (Chan & Lam, 2002; Laroche et al., 2001). As consumers have been recognizing the importance of protecting our environment, environmentalism has become a major issue in the marketplace (Brown, 1996; Kalafatis et al., 1999). Increasingly aware of the seriousness of environmental problems, customers are becoming more eco-

logically conscious and are seeking to purchase eco-friendly products and services, preferring a firm that favors environmental practices (Kalafatis et al., 1999; Laroche et al., 2001). Hence, an increased attention to environmental issues has been made by many organizations. Accordingly, the past two decades have been characterized as the era of environmental consciousness. Many environmental regulations have been enacted to Business organizations more accountable for the environmental obligations.

As fertilizer industry is the most negatively influential one on the environment, it remains black-listed according to the report of the Ministry of Environment in Egypt in 2008. Thus, this study will focus on: (1) Green Dimension of some managerial practices related to managers' roles in organization such as: Green Planning (GP), Green Managerial concerns (GMC), and Green Entrepreneurship (GE); (2) The impact of such green managerial practices (GMP'S) on competitive advantages (CA) through the moderating role of environmental innovation strategy (EIS); (3) Suggesting some recommendations that enhance green activities in all organizations.

Literature Review and Hypotheses Construction

1. Green Managerial Practices (GMP'S) and Competitive Advantages (CA)

Firstly, Firms engaged in green management can create better customer satisfaction and enhance their business image. Hence, green management adoption might be beneficial for improving business reputation (Peng & Lin, 2008). A growing number of researchers argue that good corporate reputations have strategic value for firms. It provides the rationale of a cross-sectional relationship between reputation and financial performance (Fombrun, 1996). As for customers, they value associations and transactions with high-reputation firms. Furthermore, reputation also serves as a

signal of the underlying quality of a firm's products and services; consumers may pay a premium for the offerings of high-reputation firms (Shapiro, 1983). As for suppliers, they are less concerned with contractual hazards when transacting with high-reputation firms; good reputations should also lead to lower contracting and monitoring costs (Goldberg & Hartwick, 1990). On the other hand, firms with good reputation may also possess a cost advantage because employees prefer working for high-reputation firms, and should therefore work harder for lower remuneration (Shapiro, 1983). Fombrun and Shanley (1990) point out that businesses having good reputations may enable them to charge premium prices, attract better applicants, enhance their access to capital markets and attract investors.

One of the key parts of green management adoption is about the concept of concurrent engineering. During the product research and development stage, the firm might request its suppliers to provide "green components" and/or invite them to join its green management. On the other hand, firms might build a green oriented supplier network to attain necessary information, which would be helpful for firms to adopt green management. Enterprises could adopt a pollution-prevention plan to lower costs or to gain leading positions through product stewardship. Businesses, through properly-designed environmental standards, can trigger innovations that lower the total cost of a product or improve their value (Hart, 1995). Ultimately, this enhanced resource productivity makes companies more competitive (Porter & Van der Linde, 1995).

Through proactive environment management, enterprises may create competitive advantages including cost reduction, revenue enhancement, supplier ties, quality improvement, competitive edge, reduction of liabilities, increase of social and health benefits, positive public image and creation of new product markets (Shrivastava, 1995). Notably, some empirical studies show that proactive companies have found that management

of environmental costs does more than improve an operational and financial performance; it can also lead to improvements in the health of employees and local communities, enhancing the image of the company as a desirable employer and corporate citizen (i.e. Berry & Rondinelli, 1998).

Based on the discussion above, we predict that firms engaged in green managerial practices will have more competitive advantages than firms which do not promote this type of management. Hence, the first hypothesis (H.1) is conducted as follows:

Hypothesis 1: There is a positive effect of green managerial practices on competitive advantages of the firm.

As this study examines green managerial practices in the form of three components (e.g., green planning (GP), green managerial concerns (GMC), and green entrepreneurship (GE), therefore, the first hypothesis can be divided into three sub-hypotheses as follows:

1.1 Green Planning (GP)

When we look at the concept of ‘‘planning’’, we should interpret it in an extended way. Planning means organizing resources and defining the ways of their utilization, setting up the innovative operational activities and developing the relations with stakeholders or anything else affecting the firm’s environmental performance.

In other words, a firm’s ‘‘planning capabilities’’ are crucial factors for implementing a very effective Environmental Management Systems (EMS) (Biondi et al., 2000). Hence, environmental management system planning is the process of identifying a portfolio of environmental strategy and business processes and determining a better alignment of both to assist an organization in executing its business plans and monitoring its environmental performance and goals (Pun et al., 1998).

Many attempts at EMS adoption do not necessarily lead to enhanced competitive advantages for firms. Organizations thus need to align EMS planning with corporate objectives, and identify critical processes and procedures according to the pressures affecting their unique core business (Maxwell et al., 1997). Hence, the business processes, the environmental focus and the organizational structure should be consistent with the strategy. A coherent planning effort is needed to align environmental strategy to business processes which will lead to sustainable development (Pun, 2002).

Hence, we suggest that businesses pursuing green planning could improve environmental strategy by encouraging a proactive strategy which depends on prevention approach instead of solving it. Depending on this result, we predict that green planning has a positive effect on competitive advantages of fertilizer companies. Then, the first sub-hypothesis (H1.1) is:

Hypothesis 1.1: There is a positive effect of green planning on competitive advantages of the firm.

1.2 Green Managerial Concerns (GMC)

Top management is expected to play an important role in developing the environmental innovation strategy of the firm. As Prather and Gundry (1995), Tushman and O’Reilly (1997) point out, the management’s role is crucial in establishing the company’s norms and expectations that foster creativity and innovation. According to Bansal’s (2003), top management concerns are positively related to the scope and speed of their firm responses to environmental issues. One can apply Bansal (2003) reasoning to environmental innovation strategy by arguing that firms are likely to adopt an environmental innovation strategy, if their managers personally place high value and concern on the environment and its protection; this view is supported by the research of Ashford (1993) and Schmidheiny (1992).

In understanding the significance of corporate environmental proactiveness, it is important to identify the indicators of adopting these management systems and empirically explore the position of industrial units regarding environmental management. Previous researches have utilized different theoretical perspectives. On the one hand, some scholars (Welford & Gouldson, 1993) have relied on aspects of institutional theory to explain why organizations adopt proactive environmental strategies. These authors suggest that organizations are motivated to increase their internal efficiency and external legitimacy, which also can lead to competitive advantages. According to them, there are many economic benefits from environmental considerations. A more effective use of raw materials in production results in diminishing costs, and a greener corporate image leads to an increase in market share. New market opportunities might also be created as new products and technology.

On the other hand, scholars have relied on the resource-based view of the firm to explain that complementary resources and capabilities lead to the adoption of proactive environmental strategies (e.g., Aragün-Correa & Sharma, 2003) and improved the business performance (i.e., Russo & Fouts, 1997). By implementing these strategies, these authors suggest that organizations are more likely to gain competitive advantages. So, we predict that with green managerial concerns, there is a high possibility of achieving competitive advantages, then the second sub-hypothesis (H1.2) is developed as follows:

Hypothesis 1.2: There is a positive effect of green managerial concerns on competitive advantages of the firm.

1.3 Green Entrepreneurship (GE)

Entrepreneurship, as defined by Ireland et al. (2001), is a context-dependent social process through which individuals create value by bringing together a unique package of resources to exploit

an opportunity in the marketplace. Two key entrepreneurial skills are the ability to gain access to a variety of resources and knowing how to leverage them creatively (Ireland et al., 2001). However, entrepreneurship is also used to describe the propensity of a company to take calculated risks, to be innovative, and to demonstrate proactiveness (Covin & Slevin, 1991).

In other words, entrepreneurship is a set of actions that may enable a firm to address natural environmental issues. An entrepreneurial approach gives firms the flexibility to address the unique nature of natural environmental opportunities and the challenges posed by unique green markets. This may involve organizations which are able to respond to ill-defined customer preferences, to address imperfect government regulations and to cope with uncertain market dynamics (Coddington, 1993).

Accordingly, proactiveness will provide the company with the necessary impetus to identify environmental market opportunities and initiate preemptive actions (cf. Covin & Slevin, 1991). A propensity to innovate enables firms to find new ways to produce, package, manufacture and market goods and services to environmentally concerned customers and to address evolving environmental problems (Coddington, 1993). An entrepreneurial approach provides an organization with the necessary resources to respond to these characteristics and, in turn, provides sustainable competitive advantages.

As previously discussed, for a resource to contribute to a sustained competitive advantage, it must possess certain properties. We argue that an entrepreneurial approach is a rare or firm specific resource. What constitute an entrepreneurial approach are the tacit skills and knowledge that are disseminated throughout a firm. They form a valuable intangible resource that is difficult for others to imitate (Barney, 1991), since not all firms have the skills, resources, and willingness to accept the risk presented by the environmental opportunity.

Depending on previous discussion, we predict that, with high levels of green entrepreneurship, the firm can formulate a sound environmental innovation strategy to cope with challenge imposed by an internal and external environment, so the sub-hypothesis (H1.3) was developed as follows:

Hypothesis 1.3: There is a positive effect of green entrepreneurship on the competitive advantages of the firm.

Environmental Innovation Strategy as a Moderator

Nord and Tucker (1987, p. 6) define innovation as a “technology, strategy, or management practice that a firm is using for the first time, whether other organizations or users have adopted it previously, or as a significant restructuring or improvements at a process”. Corporate environmental proactiveness leads company towards facing the challenge of integrating environmental considerations into their production and marketing plans. The major concern of environmental management is determining ways in which industrial action can be made compatible with environment. Accordingly, the companies that focus in all of its decisions on green practices will develop environmental policy based on protection not reaction.

Organizational strategy research has often emphasized the importance of aligning strategy with the environment (i.e. Ansoff, 1987; Miller & Wurzburg, 1995; Miles & Covin, 2000). Environmental strategy is often interpreted to reflect different levels of proactiveness in management’s environmental orientation. These levels range from mere reactive compliance to more intermediate stances and, at other extreme, to the most proactive approaches, such as sustainable development (Hunt & Ayster, 1990; Fischer & Schot, 1993; Larsson et al., 1996).

Proactive environmental strategies have become increasingly essential for business success and, in some cases, for ‘non-hazardous’ industries

(Rondinelli & Vastag, 1996), a greater number of industries and companies have been shifting their orientation towards more progressive stances (Larsson et al., 1996). Proactive environmental strategies often are translated into innovative measures and activities which stretch beyond the meeting of regulatory mandates. The literature suggests that successful product designs and implementation ventures are linked to environmental management and manufacturing strategy (Angell & Klasssen, 1999). Hence, we predict that a sound formulation of environmental strategy will gain more competitive advantages for the firms that follow it by strengthening the positive effect of GMP’s on competitive advantages. Such arguments lead to the second hypothesis as follows:

Hypothesis.2: In the presence of a more proactive environmental strategy, the positive effect of green managerial practices on competitive advantages of the firm will be stronger than in the presence of less proactive environmental strategy.

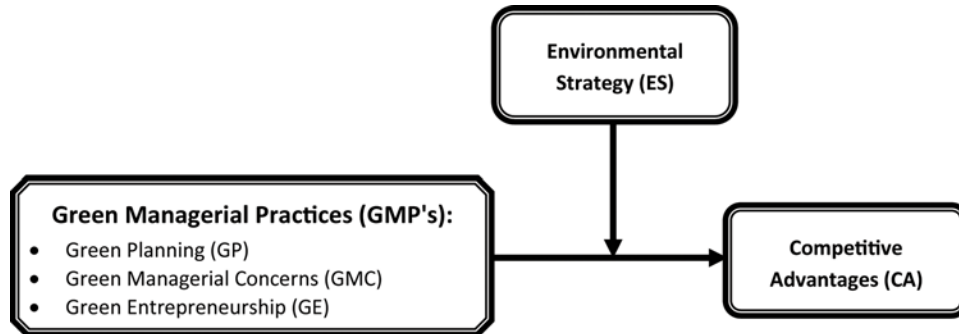
Depending on the previous hypotheses, we can construct the conceptual model of this study in Figure 1.

Methodology, Measurement, Data Collection and Samples

Participants of this study were 450 of Chief Executive Officers (CEOs), managers of manufacturing, marketing, R&D, and environmental protection departments. The methodology depends on the use of a questionnaire survey method to collect data from the sample, and the research object of this study focused on the fertilizer companies in Egypt. This industry is selected because it is viewed to have the most direct and noticeable impact on the environment, and is ranked first (26%) on the list of chemical industries, in terms of exporting capacity during the years 2007, 2008 respectively as shown in Figure 2.

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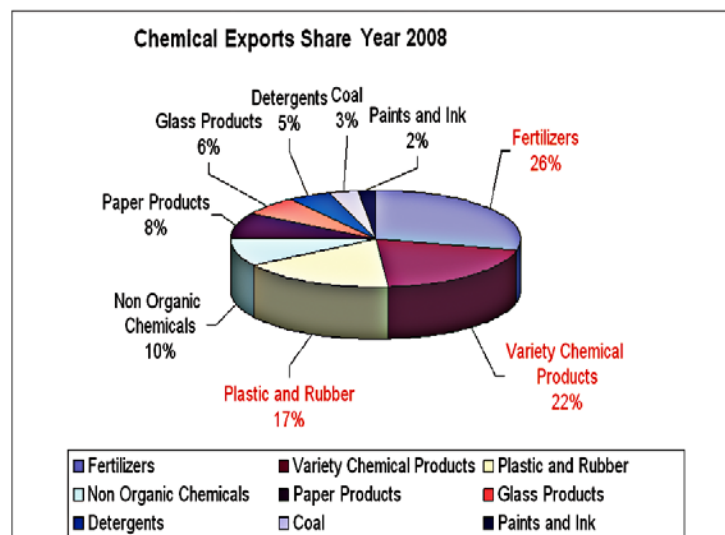
Figure 1. Research framework for investigation of the impact of GMP on CA through moderating environmental innovation strategy



Due to difficulties of mail surveys and the possibility of target respondents to misunderstand the questionnaire items, the researcher selected convenient sampling to conduct personal interview and site visits, because it is the most convenient method for data collection in the Egyptian environment. Sampled companies are selected from the ward’s business directory of Egyptian fertilizer companies in 2009. The aim of concentrating on the fertilizer industry is mainly to control the industry type effect on the dependent variable.

In the hypotheses developed in this study, organization size and age effects are controlled. According to Murphy et al. (1995), larger companies reflect a greater environmental engagement than their smaller counterparts. This may be because large firms manifest a greater need to protect their reputations (Fombrun & Shanley, 1990). Organization size was measured via the natural logarithm of the number of year round employees (Karagozoglu & Lindell, 2000) to measure the corporate age, newer companies were assigned a value of 1 and older ones were assigned a value of 0.

Figure 2. Chemical export share year 2008 (adapted from General Organization for Import & Export Control, 2008)



Reliability and Validity

This study referred to the past literature to design the questionnaire items, which consisted of 49 items to measure variables. The questionnaire of this study used the ‘‘Likert five-point scale’’ to measure each item, rating from strongly disagree to strongly agree. Before distributing the questionnaires to the respondents, 10 experts and scholars were asked to referee the questionnaire in the first draft. Subsequently, the questionnaires were randomly sent to 5 (CEOs) and 20 managers in manufacturing, marketing, R&D, or environmental protection of different companies and were asked them to fill in the questionnaire and identify ambiguities in terms, meanings, and issues in the second draft. Every construct in this study can be classified into only one factor; the result of factor analysis is shown in Table 1.

There were 335 responses that included 275 valid questionnaires and 60 invalid ones. The effective response rate was 36.67%. The response rate is relatively low, which makes it important to address the possibility of biases due to selectivity. An analysis to assess non-response indicates that the non-responding companies do not differ

significantly from the responding ones in the number of employees and total annual sales. This study analyzes the reliability of each construct using Cronbach’s coefficient. In general, a questionnaire’s Cronbach’s coefficient should exceed 0.6 (Churchill, 1979).

From Table 2, the Cronbach’s (α) coefficients of all five constructs are more than 0.60. Therefore, the measurement of this study is acceptable in reliability.

Empirical Results

Hierarchical regression analysis is used to test the hypotheses. Organization size and corporate age are controlled due to their potentially confounding effects as mentioned earlier, and these variables are therefore entered in the regression equation first. After size and age, other variables pertinent to test each of the hypotheses are entered. Table 3 shows the means, standard deviations, and Pearson correlation coefficients for the variables.

Results from Table 3 reveal that, newer companies tend to invest more time and money in formulating an environmental strategy and use environmental innovativeness to a great extent

Table 1. The results of factor analysis

Constructs	Number of items	Number of factors	Accumulation percentage of explained variance
1- Green planning	10	1	71.59%
2-Green Managerial Concerns	9	1	63.15%
3- Green Entrepreneurship	9	1	67.56%
4- Environmental strategy	10	1	75.89%
5- Competitive Advantage	11	1	68.75%

Table 2. The cronbach’s (α) coefficients of the constructs

Constructs	Number of items	cronbach’s (α) coefficients	Remark
1- Green planning	10	0.87011	Acceptable
2-Green Managerial Concerns	9	0.7831	Acceptable
3- Green Entrepreneurship	9	0.8640	Acceptable
4- Environmental strategy	10	0.9153	Acceptable
5- Competitive Advantage	11	0.8361	Acceptable

Table 3. Means, standard deviations and correlations

Variables	Mean	St. deviation	1	2	3	4	5	6
1- Corporate Age	0.57	0.53	0.40*	0.73***	0.82***	0.61***	0.38***	0.78***
2- organization size	4.75	1.45	0.65**	0.36*	0.78**	0.56**	0.65**	
3- Green planning	4.15	1.20	0.45***	0.52***	0.85***	0.81***		
4-Green Managerial concerns	4.78	1.26	0.28*	0.67***	0.73***			
5-Green Entrepreneurship	3.80	1.36	0.33**	0.32**				
6-Environmental strategy	4.22	1.29	0.49***					
7-competitive advantage	4.32	1.25						

P* < 0.05; P** < 0.01; P*** < 0.001

than older companies. One explanation for this result may be the difference in the Technology of equipments used in production process, where newer companies have technology which has a minimum pollution. On the other hand, older companies are characterized by aging machines and equipment, which result in more harmful emissions to the surrounding environment. Therefore, older companies have a long history of conflict with regulatory authorities. Nevertheless, they do not seek to improve their ties with regulatory authorities and kept the degree of response to the minimum requirements of maintaining the environment. But newer companies seek to bring the highest quality machines and equipment, which result in lower emissions to the surrounding environment.

With regard to organization size, the correlation matrix in Table 3 reveals positive relationships with all variables; this may be due to the fact that large companies have enough resources that enable them to formulate an environmental strategy depending on proactiveness strategy, which produces competitive advantages. This result agrees with Bonifant and Arnold, 1995, which reveals that larger firms demonstrate a greater capacity to process vast amounts of information on environmental issues and have greater access to resources enabling environmental innovativeness. Hence, the likelihood of achieving environmental competitive advantages increases (Bonifant & Arnold, 1995).

Similarly, Elsayed (2006) found that the amount of resources available to firms and their sizes determines their organizational capacity to apply the appropriate environmental initiatives and hence their environmental performance. However, he does not find evidence that available resources delimit the firm’s strategic choice and the environmental responsiveness chosen. On the other hand, it becomes evident that larger-sized firms tend to integrate environmental practices into their organization earlier than smaller ones. This occurs because a large firm is either seen as a sector leader (Henriques & Sadorsky, 1996; Moore, 2001) or is likely to have a greater environmental risk (Chen et al., 2006).

Table 4 results support Hypothesis 1 which predicts a positive relationship between green managerial practices and competitive advantages. Such results show that all managerial practices have positive effects on competitive advantages of studied fertilizer companies concerned with preventing side effects of manufacturing processes on environment. On the other hand, it can be observed that the more managers perceive the natural environment as a competitive opportunity, the higher is the degree of proactively in the environmental management developed by the firm and the faster environmental practices are integrated into the organization. Statistical results supported H1.1, which predicts a positive effect of green planning on competitive advantages through the following practices:

Table 4. Results of regression analysis predicting competitive advantages

Constructs	β	ΔR^2	R^2
Hypothesis 1	0.27**	0.35**	0.43
Corporate Age	0.21***	0.66***	0.78
Organization Size	0.63***	0.42**	0.51
Green planning (GP)	0.36***	0.64**	0.32
Green Managerial Concerns (GMC)	0.29**	0.78**	0.57
Green Entrepreneurship (GE)	0.60***	0.45***	0.54
Hypothesis 2	0.43*	0.30**	0.41
Corporate Age	0.33**	0.38*	0.48
Organization Size	0.48**	0.43***	0.65
Green planning (GP)	0.38***	0.48***	0.52
Green Managerial Concerns (GMC)	0.56**	0.67***	0.71
Green Entrepreneurship (GE)	0.56**	0.28***	0.43
Environmental strategy (ES)	0.71***	0.36**	0.58
GP×ES	0.62***	0.45***	0.66
GMC×ES			
GE×ES			

P**<0.01; P***<0.001

- Formal, well-defined, written environmental objectives and policies.
- A responsibility to make environmental demands on suppliers (e.g., recycle content of packaging, solvent emissions, etc.).
- Committees dedicated to dealing with environmental issues.
- Formal plans and procedures placed to identify and respond to potential environmental accidents.
- Formal teams are used to identify environmental problems and opportunities and to develop solutions.
- Environmental plan aligned with its objectives.
- Using environmental information system in making sound plans.
- Using environmental life cycle assessment to redesign products or manufacturing processes.

Accordingly, these green planning practices have positive effects on competitive advantages of the companies. Hence, the interest in green planning will be achieved only through a conscious and convinced management of its importance, thus, the passive accommodating or proactive

environmental attitude of managers and the available resources in the firm are significant factors in determining firm environmental orientation. The environmental technology portfolio, which results from combining end-of pipe and pollution prevention technologies, should be used to value some advantages in viewing ethics and values as drivers for the long-term sustainability of a business. It is the composition of this portfolio that determines the net effects of actions related to the environment on the firm’s environmental performance (Klassen & Whybark, 1999). For this reason, when the manager has a passive or an accommodating attitude, the firm adopts end-of-pipe technologies. On the contrary, when a manager has a proactive attitude, the firm introduces prevention technologies that can reduce pollution to a greater extent or even remove it completely from the productive process through investments made in clean technologies.

On the other hand, empirical results support H1.2 which predicts positive effects of green managerial concerns on competitive advantages, where results presented in Table 4 show that the greater green managerial concerns when making decisions, the greater the trend to formulate a proactive strategy which depends on prevention ap-

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proach in dealing with environmental issues facing companies. For example, Abu Zaabal's Fertilizers and Chemicals Company developed a project to preserve the environment through rehabilitation of dust removal system and phosphoric acid plant (filter, Trucks, and laundering unit gases). So, fertilizer companies which do their best in green managerial concerns will achieve competitive advantages through the following practices:

- Stress environmental innovation as necessary to achieve high levels of environmental performance.
- Make environmental innovation an important component of the company's environmental strategy.
- See environmental innovation as an effective and worthwhile environmental strategy.
- Focus on environment information in external communications and place environmental reviews or audits.
- Initiate new forms of environmental management (e.g., ISO 14001).
- Place a reward system that recognizes environmental achievements.
- Move toward air and/or water pollution prevention.

This indicates that most of the respondents of the sample have a clear vision for dealing with environmental issues, where they look upon them as an opportunity rather than a threat. This result is consistent with the findings of Kulshreshtha (2007) who concludes that the majority of managers who wish to succeed in the long term believed that ethical actions would eventually lead to greater profits in the long-term (e.g., managers consider natural environment protection as an opportunity), then those managers would definitely have a strong incentive to behave ethically.

Finally, H1.3, which predicts positive effects of green entrepreneurship on competitive advantages of studied fertilizer companies, is supported.

These results show that green entrepreneurship have strong effects on competitive advantages in companies. For example, in Abu Qir Company, the management is concerned with the preservation of the surrounding environment from pollution according to the laws issued in this regard. In confirmation, the company established special environmental projects to address greenhouse gas and nitrous oxides emissions from condensate Abu Qir1. This result shows that large companies concerned with green entrepreneurship in their process have the ability to achieve competitive advantages through:

- Having a cultural emphasis on innovation and R&D in environmentally friendly products.
- Having a high rate of environmentally friendly product introductions.
- Having a bold, innovative, environmentally friendly product development approach.
- Having a proactive posture to the environmental market.
- Having an aggressive posture toward competitors.
- Having a strong inclination to reduce high risk and initiating high potential return projects in the field of environmentally friendly products.
- Having a market environment that promotes courage to achieve natural environmental objectives.
- Introducing new environmentally friendly technologies and products.
- Adopting an aggressive, courageous posture, when faced with risk in natural environmental markets.

There is no doubt that the positive effect of green entrepreneurship requires substantial resource allocations in multiple domains: investments in green product and manufacturing technologies, employees skills and participation, organizational competencies, formal (routine-

based) management systems and procedures and, finally, the reconfiguration of the strategic planning process (Russo & Fouts, 1997; Buysse & Verbeke, 2003). Therefore, if a firm adopts a pioneering proactive environmental strategy, its activity within a sector will be facilitated during a specific period of time, giving it a temporary edge that will be manifested in the achievement of competitive advantages and influencing market development to ensure that these advantages are sustainable (Lee et al., 2000; Aragón-Correa & Sharma, 2003).

Table 4 also displays the regression results associated with hypothesis 2. The results support this hypothesis, which predicts that strong positive effects of green managerial practices in the presence of more proactive environmental strategies on competitive advantages than in the presence of less proactive environmental ones. The statistical analysis shows that fertilizer companies, which adopted a proactive innovation in formulating environmental strategies, have greater chances to achieve competitive advantages. This is probably because the companies using proactive approach in dealing with environmental issues gain more benefits as compared with their competitors, because they practice many activities facilitating the role of green managerial practices in achieving competitive advantages through:

- Investing much in environmental responsiveness than their competitors.
- Placing a high value on environmental consciousness.
- Highly proactive (to excel in environmental responsiveness).
- Placing a very strong emphasis on redesigning production systems to reduce their negative environmental impact.
- Placing a very strong weight on environmental considerations when deciding on product designs.
- Having employees' training programs on environmental procedures.

- Having employees whose job is to deal with environmental issues.

So, the companies which invest more in proactive environmental strategies can benefit from green managerial practices to achieve competitive advantages to a great extent, more than the companies which invest less in proactive environmental strategies. For example, Semadco Company for fertilizers and chemicals has established a new line for producing ammonia and overcoming the problem of emission of nitrous oxides pollution to the surrounding environment. On the other hand, it is clear that green managerial concerns in the presence of environmental innovation strategies increase the ability of fertilizer companies to achieve competitive advantages through cost reduction, improve quality and strengthening their ability to produce friendly fertilizers.

Among the advantages gained from the adoption of pioneering environmental strategies the following ones stand out: time compression diseconomies (Nehrt, 1996), the cost advantages resulting from the greater accumulated experience, and the possibility of influencing the establishment of regulations, laws, standards, etc. (Faucheux et al., 1998; Hart, 1995). Accordingly, environmental innovation strategies play a moderating role in reinforcing the effect of green managerial practices on competitive advantages of fertilizer companies in Egypt. These companies can benefit from green managerial practices through:

- Decreasing cost as compared to its major competitors.
- The quality of the products or services that the company offers is better than that of its major competitor's products or services.
- The company is more capable of R&D and innovation than its major competitors.
- The company has better managerial capabilities than its major competitors.
- The company's profitability is better than its major competitors.

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- The growth of the company exceeds that of its major competitors.
- The corporate image of the company was better than its major competitors.
- The major competitors of the company cannot imitate its products or services easily.
- The major competitors of the company cannot replace its distinctive position easily.
- The major competitors of the company cannot imitate its ideas easily.

Furthermore, managers should take two aspects into their account when they make estimates of the correct evolution of environmental technology. First, managers know that being the first to adopt environmental practices allows them to create new barriers to imitation, such as the possibility of influencing the policy process (Cho et al., 2006) and to simultaneously attract ethical consumers who share ethical values to some extent and consider them in their decision-making (Castelo & Lima, 2006). Second, managers know the existence of aids and subsidies they can receive from authorities, the possible low-interest financing offered by some financial institutions for the development of preventive technologies and also the reduction of their insurance premiums as a result of the diminished environmental risk.

CONCLUSION AND IMPLICATIONS

A good business and a sustainable development go hand in hand. Managers' commitment to contribute to sustainable development is the key to their long term business success and a probable source of competitive advantages. Investing in ethical issues has important consequences for the creation or depletion of fundamental intangible resources, namely those associated with managers, employees, and stakeholders. Apart from allowing firms to attract these groups, improved social performance, through its environmental component, may lead to more efficient processes, improve-

ments in productivity, lower compliance costs, and new market opportunities (López-Gamero et al., 2008). Although previous studies paid much attention to environmental management and its effectiveness in organizations in general and in industries in particular, no study has explored yet the effect of green managerial practices on the competitive advantages of industrial companies. Therefore, this study aims at filling this research gap, and proposes an original construct – green managerial practices – to explore the effect of green managerial practices on competitive advantages of the fertilizer companies studied.

The empirical results of this study show that the three forms of green managerial practices - green planning, green managerial concerns and green entrepreneurship - have positive effects on the competitive advantages. This result is justified because adopting green managerial practices enables companies to state a green plan that concentrates on achieving green objectives, and increases top management commitment to green practices in all managerial decisions.

This study has also explored the effect of green managerial practices in the presence of proactive environmental strategy on the competitive advantages of industrial companies. The results show that green management practices have strong effects on competitive advantages in the presence of proactive environmental strategies more than moderating reactive environmental strategies. Further factors should be considered to perceive the environmental management as an opportunity to build and sustain a competitive advantage (Bansal & Hunter, 2003).

Finally, this study is conducted in the light of a set of limitations: (1) these results belong to fertilizer companies only, so it should not disseminate the results of other industrial enterprises because such results may vary from one industry to another. Hence it is necessary to conduct further studies comparing the number of industries to describe the impact of the industrial type on the possibility of achieving competitive advantages in the ap-

plication of green managerial practices; (2) This study ignores the mediating role of environmental regulations in activating the impact of green managerial practices on competitive advantages. The following questions have to be answered: does the effect of green managerial practices to achieve competitive advantages differ in the presence of flexibility in government regulations than in the strict application of those laws?, And What is the effect of ISO14001 adoption's time on the relationship between Green Managerial Practices and Competitive Advantages?, Future research should tackle those variables.

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Chapter 4

A Framework for E–Service Implementation in the Developing Countries

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ABSTRACT

This paper proposes a conceptual framework for explaining the main barriers and drivers of public e-service development and the relationships among them, especially in developing countries. This framework increases the chance of success of e-service projects in the governments of developing countries and provides a basic context within which the process and practice of e-service can be implemented successfully. This paper accomplishes this task by flowing from the traditional rigid context, which occurs in many developing countries, to full public e-service environment, emphasizing citizen-centric focus and digitalisation. The proposed framework builds on prior literature in the area of e-service development in public organisations and from the efforts undertaken in developing countries, considering e-government lessons learned in developing countries. The framework is flexible enough to be adopted by governments at different levels in developing countries around the world.

INTRODUCTION

Changing technology and increased constituent demand for government services derive the need for governmental responsiveness. The government organisations in the developing countries

will be under increased pressure to change their bureaucratic systems to be able to respond rapidly to changing and increasing requirements and rapid technology advancements. Governments today are fighting a strong battle to provide efficient and cost-effective services and solutions to their respective constituents. Some improvements in

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governments' processes can be made simply by swapping out old technology for the newer web-based versions. But, to do so without critically reviewing and challenging current processes would not lead to full potential. Many public sector organisations are struggling to implement and construct e-government despite the relative difficulty compared to the developed regions enjoying reliable telecommunications infrastructure.

The current electronic government initiatives in some developing countries are still in its infancy with projects suffering a number of failures (Beynon-Davies, 2005). In some cases, there is total failure of an initiative never implemented, or in which a new system is implemented but immediately abandoned. Alternatively, there is partial failure of an initiative in which major goals are unattained, or in which there are significant undesirable outcomes. One type of partial failure that particularly affects e-service initiatives in the public sector is the sustainability failure of an initiative that succeeds initially, but then fails after a year or so (Heeks, 2001).

E-government development remains a distant hope for many of the least developed countries due to the cost of technology, lack of infrastructure, limited human capital and a weak private sector. A scarcity of public sector resources clearly imposes a drag on government innovation. Small unplanned and stand-alone projects are the norm in least developed countries, which often lack a well-thought e-strategy within their national development plans. Once initial funding for these projects ends, they are usually at high risk of simply shutting down (UN, 2010).

Layne and Lee (2001) have divided the stages of e-government in terms of their degree of technological and organizational sophistication into four stages, namely: cataloguing, transaction, vertical integration and horizontal integration. According to this division, the result of classifying the 236 countries by the UN global survey (UN, 2010), has revealed that 98 percent of countries have some presence on the Web (*the first stage:*

cataloguing), either by having a national portal or ministry website. Most government websites have a section for archived information and a section called 'What's New'. These features enable users to find information on past activities that are no longer highlighted on the website and encourage users to browse updated information. In contrast, only 44 percent of countries have a section that provides ready answers to frequently asked questions (FAQ).

The use of FAQs can reduce the amount of time and human resources devoted to public inquiry functions, and improve public perception that the government is responsive to citizens' concerns. Links to other public sector services are provided on 67 percent of national portals, which makes them a one-stop shop for information and services (*the second stage: transaction*), but the level of transaction sophistication varies greatly among countries. Only 20 countries (only 8% of all countries included in the global survey) are in the third or fourth stage of online services development. These countries have been integrating back-office operations and providing e-services to citizens in a seamless manner. Information is efficiently transferred between agencies and departments. In addition, these countries have a proven track-record of using Web 2.0 tools to communicate with citizens and regularly receive inputs from them. These inputs are used to shape public policy and law. The level of public trust in government is higher among advanced e-government countries than in many other places (Hamner & Al-Qahtani, 2009).

The remainder of this paper is divided into three main sections: the next section explores the previous frameworks with regard to e-service challenges and success factors. After that, the authors explain the methodology used to build the proposed framework. Some recommendations for successful transformation to e-service environment are then identified, and the final conclusions and implications are presented in the final section.

REVIEW OF RELEVANT EFFORTS

Under the name of governmental electronic service, a series of efforts are grouped, which tend to introduce the Internet and computer networks into public administration actions (Azab, Kamel, & Dafoulas, 2009; Basu, 2004; Chen, Pan, Zhang, Huang, & Zhu, 2009; Chen, Chen, Ching, & Huang, 2007; Ebbers & van Dijk, 2007; Heeks, 2003, 2008; Heeks & Santos, 2009; Trkman & Turk, 2009). Many of these efforts have conceptualised the challenges and the success factors associated to the e-service development in its different phases. This section will briefly discuss these previous efforts with the purpose of examining and evaluating them, which leads to comprehending the contributions made towards governmental electronic services. Such review helped in the development of the proposed framework.

A. ITPOSMO Model

In response to the question, why do most e-government-for-development projects fail, Heeks (Azab et al., 2009; Basu, 2004; Chen et al., 2009; Chen et al., 2007; Ebbers & van Dijk, 2007; Heeks, 2002, 2003, 2008; Heeks & Santos, 2009; Trkman & Turk, 2009) proposed “ITPOSMO model”. Heeks points out that there are high rates of failure of e-government projects in developing countries (35% are total failures, 50% are partial failures, and only 15% are successes).

These failures come at a high price for these poor countries. He identifies six categories of potential costs of e-government failure: direct financial costs, indirect financial costs, opportunity costs, political costs, and future costs. Consequently, he addresses the idea of design-reality gap, or rather the gap that exists in an organisation between the conceptions and public sector realities that determine success or failure in the information age reform. He notes that the larger this design-reality gap, the greater the risk

of e-government failure; the smaller the gap, the greater the chance of success.

His analysis of e-government projects indicates the seven dimensions – summarised by the ITPOSMO acronym – are necessary and sufficient to provide an understanding of design-reality gaps: Information, Technology, Processes, Objectives and values, Staffing and skills, Management systems and structures, Other resources: time and money. Putting these dimensions together with the notion of gaps produces the model for understanding success and failure of e-government (see Figure 1).

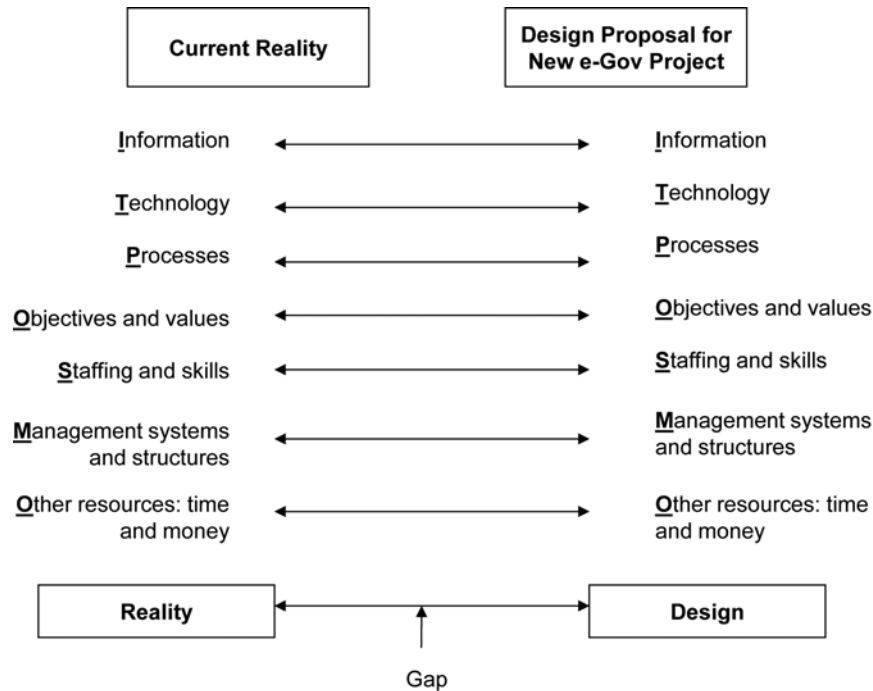
B. Factor Model

Another effort is also related to the “Factor Model” proposed by Heeks (2003) to judge e-government success and failure. This model summarises the reasons behind success and failure of e-government projects. The Factor Model identifies a set of ten key factors: external pressure, internal political desire, overall vision and strategy, project management, change management, politics/self-interest, design, competencies, technological infrastructure, and other. Presence or absence of these factors will determine success or failure. In addition, Heeks proposes an approach to make e-government project more likely to succeed and/or less likely to fail, by listing and explaining some of the main factors that help support success/or underlie failure of e-government in developing/transitional countries. Left-pointing items in Figure 2 encourage failure; right-pointing items encourage success.

C. National E-Government Infrastructure (Nel) Factors

Another paper of Chen et al. (2008) identifies critical success factors of electronic government and proposes an implementation framework (see Figure 3). It compares between developed and developing countries in terms of implementing

Figure 1. ITPOSMO model for understanding success and failure of e-government (adapted from Heeks, 2003)



electronic government. The comparison is based on four key factors are termed as National e-government Infrastructure (NeI) factors: Network Access, Network Learning, Network Economy, Network Policy; in addition to Culture Factors: National Culture, Organizational Culture, Social Norms (resistance to change); and Society Factors: History, Citizen, Governance, Organizational Structure, Politics and Information Availability.

The authors propose a research framework incorporating critical success factors (CSFs) that influence electronic government strategies and implementations, which can also be used to assess and guide the strategic development of electronic government implementation in developed and developing countries.

They present an extensive case study to illustrate how the proposed framework can be used to analyze electronic government strategies in a developed country (United States) and a developing country (China); then they make some

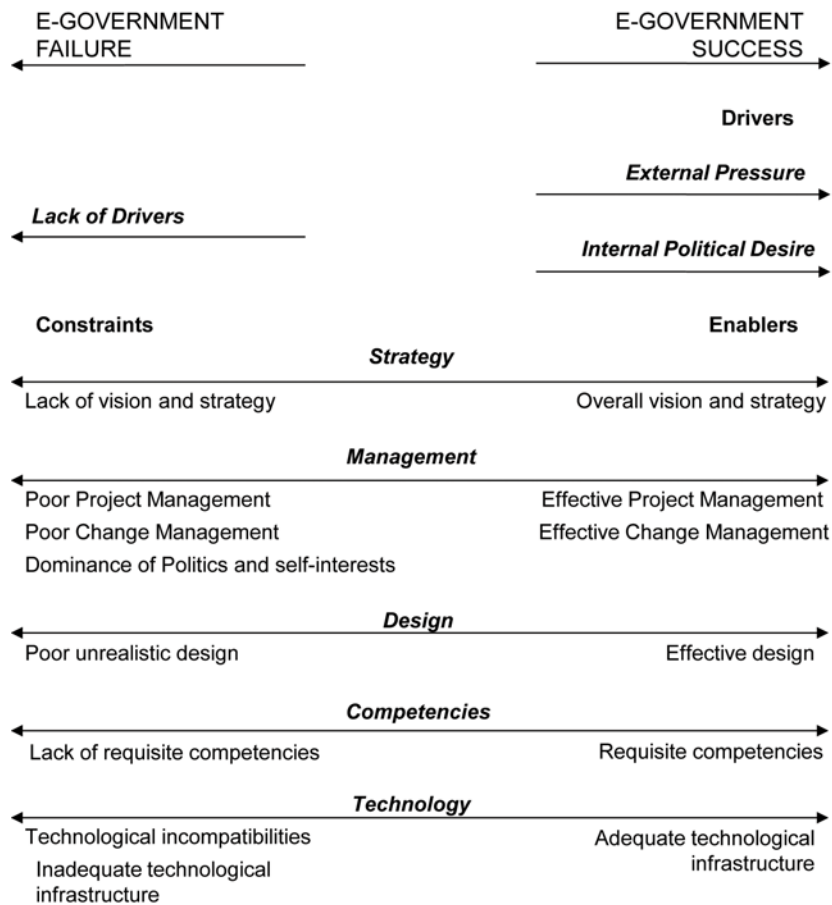
recommendations for developed and developing countries for their implementation of electronic government.

D. Legal and Infrastructure Issues Examination

In another attempt, Basu (2007) examines the legal and infrastructure issues related to e-governance from the perspective of developing countries. In particular, he examines how far the developing countries have been successful in providing a legal framework. The aim is to illuminate the increasing evolution, progress and promise of e-government in developing countries.

As regards to the objective of e-government, a distinction is made between the objectives for internally focused processes (operations) and objectives for externally focused services. He distinguishes the external objective of e-government as to fulfill the public's needs and expectations

Figure 2. Factor Model for success and failure of e-government projects (adapted from Heeks, 2008)



satisfactory on the front-office side, by simplifying the interaction with various online services. The use of ICT in government operations facilitates speedy, transparent, accountable, efficient and effective interaction with the public, citizens, business and other agencies. Whereas, in the back-office, he recognises the internal objective of e-government in government operations as to facilitate a speedy, transparent, accountable, efficient and effective process for performing government administration activities.

He also identifies some factors to be taken into account to examine the risk of implementing e-governance solutions such as: the political stability, adequate legal frame work, the level of trust in government, the importance of government

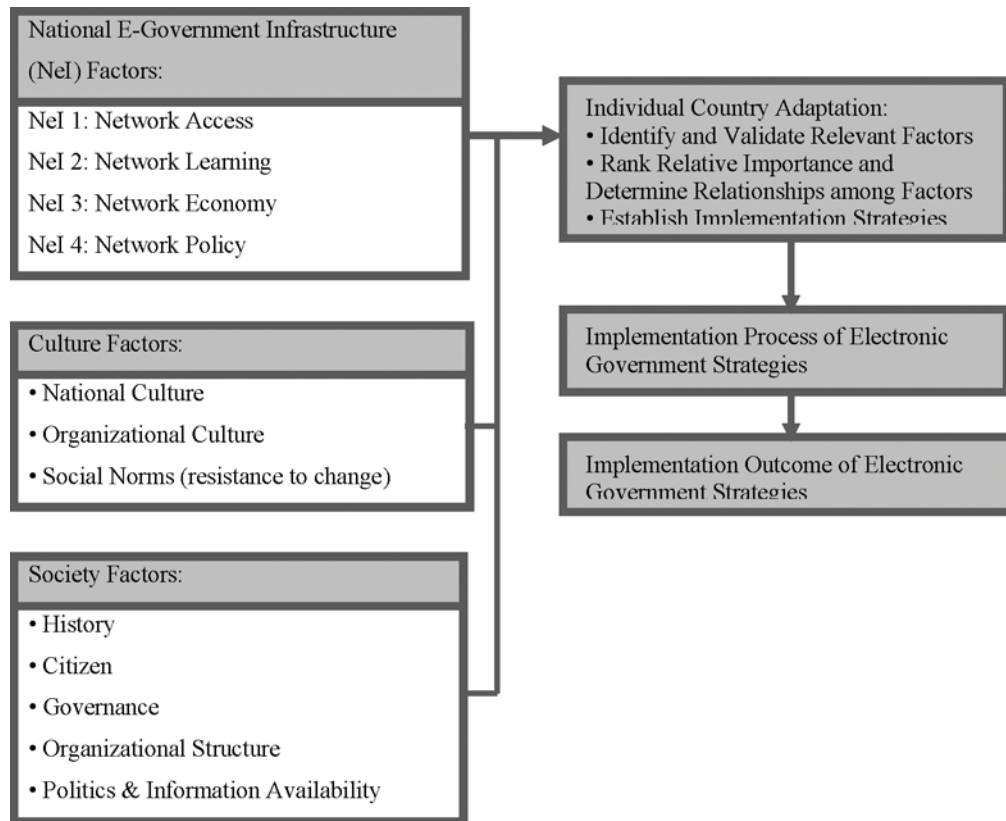
identity, the economic structure, the government structure, different levels of maturity, and the constituent demand. In addition, he identifies some legal issues such as privacy, public access to information, authenticity, and politics acceptance. He also spots guidelines for a proper and ideal legal framework for e-government operations in the developing countries.

E. E-Government Services Innovation Model

In order to identify organizational processes of resistance and support to e-government innovations, Ebbers and Van Dijk (2004) proposed a multi-disciplinary and non-linear innovation

A Framework for E-Service Implementation

Figure 3. Critical Success Factors Framework (adapted from Chen et al., 2007)



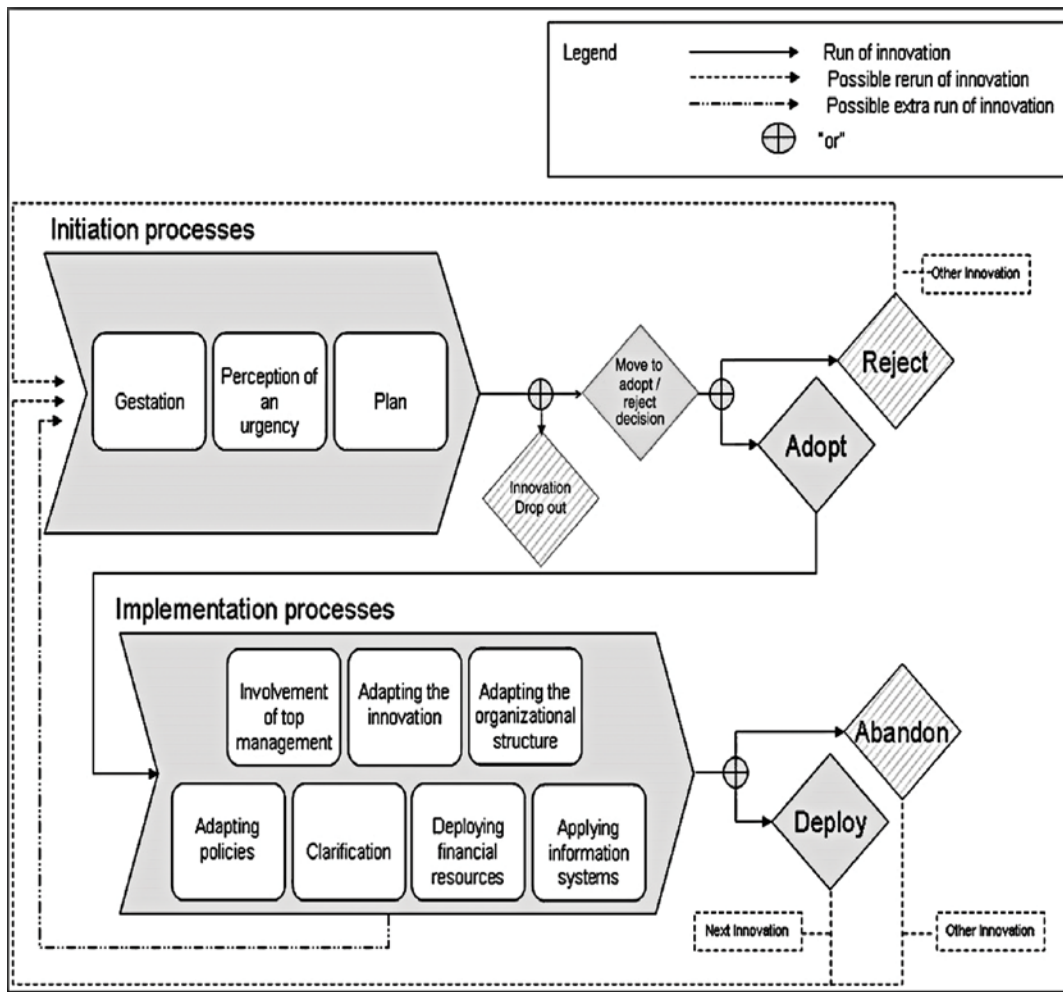
model (see Figure 4). The proposed model grasps the whole process of innovation of e-government services: Gestation, Perception of urgency, Plan, Top management involvement, Adaptation of the innovation, Adapting policy, Clarification, Deploying financial resources and Deploying information systems. Presence or absence of each phase represents indicators of support or resistance e-government innovations. In this model, the authors try to solve four basic problems, which are: the moment of adoption, merging development and implementation, non-linearity, and emphasizing implementation.

It is clear that all the above mentioned efforts and other efforts can be considered as useful guides to identify the major elements that affect the process of e-service development in the public sector. However, most, of electronic government frameworks and implementation strategies in

literature is based on experiences of developed countries. Feeling the pressure and demand from citizens to provide electronic services online, many developing countries' governments have no choice but to follow electronic government development strategies proposed and carried out by developed countries (Hassan et al., 2008).

Therefore, there is a need to develop a conceptual framework which places emphasis on the e-service development process within the environment of developing countries' public sector which is at an early stage of its progress. Given the substantial differences in many key aspects of electronic government related technological and social conditions between developed and developing countries, electronic government development strategies and experiences from developed countries may not be directly applicable to developing countries.

Figure 4. E-Government Services Innovation Model (adapted from Ebbers & Van Dijk, 2007)



METHODOLOGY

The framework proposed in this paper builds on prior literature in the area of e-service development in public organisations. Also, the framework is adapted from the efforts being undertaken in developing countries, which are at a basic stage of their progress besides considering e-government lessons already learned in the developing countries world. The review of the previous studies that have conceptualised the e-service challenges in the public sector facilitated the development of the proposed framework. Frameworks are useful

because they allow us to organize and integrate the various elements of a problem in a simple and consistent way, assuring the attainment of the pursued outcomes. In addition, they allow holding a common work discipline (Montagna, 2005). Based on a literature review, the paper summarises the factors that either facilitate or impede the E-service initiatives in the public sector; target what e- public service should be and determine what steps need to be taken to reach that designated target. It identifies key factors for successful e-public service and hence, proposes the conceptual framework.

PROPOSED FRAMEWORK

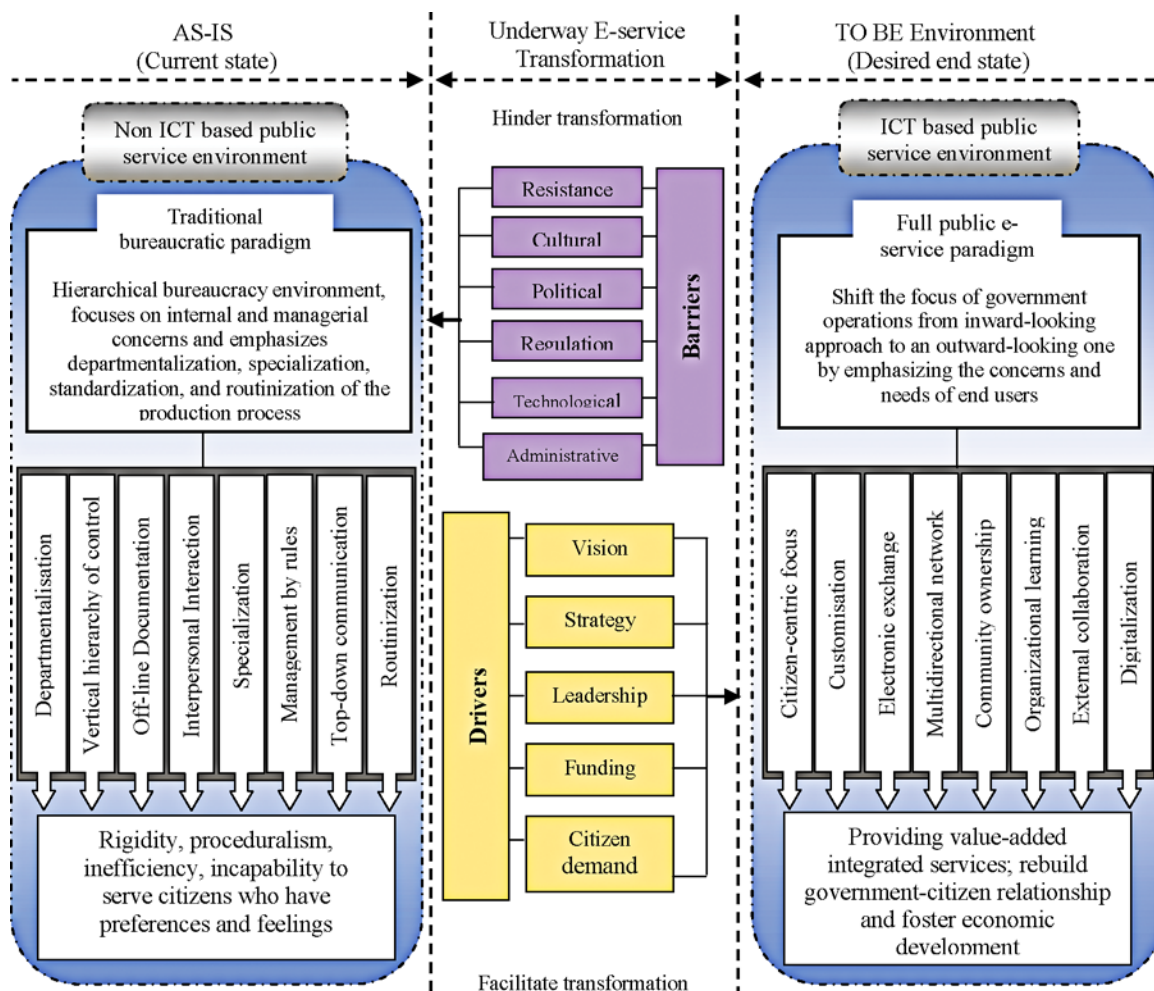
Motivated by a desire to increase the chance of success of e-service projects in developing countries' governments, a conceptual framework has been developed, as shown in Figure 5, for explaining the main barriers and drivers of public e-service development. The framework has made use of the relevant previous frameworks to facilitate a better understanding of the nature of the e-service development process, particularly, to identify barriers and success factors.

The framework considers the e-service development process as a transformation from the

traditional rigid context; which is the current state in many developing countries; to full public e-service environment (desired end state) emphasizing citizen-centric focus and digitalisation. While e-service transformation is on the move from the initial state to the desired state, a number of barriers hinder the e-service progress; while a number of driving factors enable or facilitate it.

The first part of the framework (the AS-IS part) represents the traditional rigid structure of the government as described by Ho (Montagna, 2005) as a hierarchical bureaucracy. This paradigm focuses on internal and managerial concerns and emphasizes division of administrative labor among

Figure 5. Proposed framework explaining barriers and drivers of public e-service development



persons and offices, specialisation, vertical hierarchy of control, standardisation, and routinization of the production process. However, it is criticized for its rigidity, inactivity of procedures, making decision-making slow or even impossible when facing some unusual case, and similarly delaying change, evolution and adaptation of old procedures to new circumstances. This type of government structure is also characterised by its proceduralism, inefficiency and overspecialization, making individual officials not aware of larger consequences of their actions. Bureaucracy can lead to the treatment of individual human beings as impersonal objects and not allowing them to use common sense, as everything must be as is written by the law. As a result, the government is unable to serve human citizens who have preferences and feelings (Bozeman, 1999; Ho, 2002; Huber & Shipan, 2002).

The designated target of the proposed framework (the TO-BE environment) is the full Information and Communication Technology (ICT) based government (Bozeman, 1999; Ho, 2002; Huber & Shipan, 2002; Gottschalk, 2009). ICT can promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens. This full e-public environment can deliver services via the Internet, telephone, community centres (self-service or facilitated by others), wireless devices or other communications systems. This paradigm is also characterised by emphasizing:

- The citizen-centric focus, which gives attention to the concerns of citizens and provides services when and where they want them with greater flexibility and control.
- Community ownership principle, which empowers citizens to take ownership of community problems and urges officials to partner with citizen groups to identify solutions and deliver public services effectively.

- Service customisation and personalisation based on citizens preferences and needs
- Electronic exchange, where the internet (besides using other electronic means) can create a seamless way of communication and interaction between citizens and officials, rather than face to face interaction. Citizens no longer need to know which departments are responsible for what
- Multidirectional network, direct communication with internal employees, inter-departmental teamwork and information sharing.
- Innovation, organizational learning, facilitation and coordination among parties, and entrepreneurship so that government can continue to reinvent itself.

In the way of transformation from the bureaucratic environment to one in which citizens and public employees and officials embrace the promise and need for electronic efficient paradigm, a number of barriers hinder the e-service progress. While reviewing the literature, the author came across a variety of elements that get in the way of e-service development. Those elements can be grouped under six major categories. However, many elements can fall under more than one category, depending on different perspectives. These categories are:

1. **Political barriers:** Those barriers are related to the elements that may arise when someone or some group of political leaders has to make decisions and have the will to carry them out. These barriers may include: the lack of potential will and support, lack of vision and strategy, absence of an E-government champion, over-ambitious milestone, political unawareness, insufficient political involvement, and absence of detailed policy (Gottschalk, 2009; Schuppan, 2009).
2. **Administrative barriers:** Those barriers related to the organisational structure and

inter- and intra-relationships. These barriers may include complex issues that can arise as a result of poor organisational infrastructure, complexity and poor project management, lack of coordination among organisations/departments, conflicting priorities of organisations, old structure and processes, lack of e-service applications, lack of partner readiness and cooperation difficulty in re-engineering of internal processes (Schuppan, 2009; Chen et al., 2009; Gottschalk, 2009; Schuppan, 2009).

3. **Resistance barriers:** This category relates to barriers around resistance to innovation by all levels of government personnel which can slow down, impair or prevent the necessary redesign of organizations and their processes required to deliver effective e-service. The employees may resist the shift of power resulting from the introduction of e-service. Further, this initiation will require structural reforms in the organization, modification of job descriptions and change in duties (Chen et al., 2009; Gottschalk, 2009; Schuppan, 2009).
4. **Technological barriers:** These barriers are related to the lack of technology which is viewed as a major bottleneck in the implementation and maintenance of e-government systems. Many e-services are based on the evolution of earlier public administration systems and ICT network infrastructures, which can create technical incompatibilities between systems within one administration. Other technological challenges include developing secure identification and authentication systems, poor infrastructure, lack of standards for quality, design of websites/portals, unreliable internet connections and issues related to security and privacy (Ebbers & van Dijk, 2007; Hamner & Al-Qahtani, 2009; Schwester, 2009).
5. **Cultural barriers:** Are those associated with either organisational or social culture, where

attitudes, beliefs, values and behaviours learned by individuals themselves, or passed on to them by members of their social environment influence the implementation of e-government. Examples may include: lack of awareness/information, inactive citizens' participation, opposition by professional or union interests, e-literacy, multi-lingual/multi-cultural issues, corruption, resistance to change by citizens, inappropriate cultural infrastructures, attitudes towards technology, and government's reluctance for citizens' involvement (Azab et al., 2009; Chen et al., 2009; Gottschalk, 2009; Helbig, Ramón Gil-García, & Ferro, 2009; Andersen, 2009; Gottschalk, 2009; Hamner & Al-Qahtani, 2009; Hung, Tang, Chang, & Ke, 2009; Schuppan, 2009).

6. **Regulatory barriers:** Related to the existence of appropriate laws, regulations, directives that allow or facilitate the deployment of electronic services such as laws concerned about privacy protection and the security of personal data. Lack of suitable legal framework/Unsuitable legislations, complexity of required policies and lack of methods for productivity and progress monitoring, are examples of the regulatory barriers (Andersen, 2009; Gottschalk, 2009; Hamner & Al-Qahtani, 2009; Hung et al., 2009; Schuppan, 2009).

While barriers hinder the e-service progress; drivers motivate and force it. They are behind the success of the e-government service projects; so they should be well identified and recognised.

1. **Vision:** Planning for e-service should begin by establishing a broad vision that flow from the large goals or concerns of the society. Citizens should also be included in the government e-service vision. The vision of the government should imply providing greater access to information, as well as

better, more equal services and procedures for the public and businesses too. It should be developed for the government e-service initiative in different areas. For the administration, managing performance, by making strategic connections within government, creating empowerment, and improving government processes by cutting costs. For the citizens and services area, connecting citizens to government by talking to them and supporting accountability by listening to them and improving public services. Finally, the society, building interactions beyond the boundaries of government by working better with business, developing communities, building government relationships, and building civil society (Gottschalk, 2009; Chen et al., 2009).

2. **Strategy:** To manage change resulting from introducing the e-service initiative, a specific plan of action should be developed first. A strategy should be included to motivate the organisation towards achievement of the e-service program goals. A good strategy needs to first assess the current condition as the first step to developing path to the desired results. The strategic plan should also anticipate uncertainties such as technology, seeing it as the means not the end and integrating IT with broader reform objectives (Chen et al., 2009; Andersen, 2009; Heeks & Santos, 2009).
3. **Leadership support:** It is familiar to consider leadership support as a driver for public sector e-service development and success. This support lies behind all the motivational forces at every level of the government. Without strong political leadership, few e-services initiatives will be funded and implemented. E-service projects should be under the supervision of a special minister who holds a cabinet position in the government. High-level leadership involvement is essential to ensure e-service project planning, to acquire the necessary resources,

to motivate staff, to support dealings with external partners and stakeholders, and to ensure coordination across ministries and organisations.

4. **Citizens' demand:** This factor derives for reform from outside government and exerts pressure for change. When there is a high level of citizens' expectations from the government, it will be a powerful driving force for e-service projects planning and implementation. It is a motivation for the government to implement e-service project when there is citizens' demand and pressure for it (Andersen, 2009; Heeks & Santos, 2009; Helbig et al., 2009).
5. **Funding:** In order to implement an e-service project, the government needs to understand what resources are available to be devoted to achieve the project's reasonable and attainable goals. The availability of such sufficient funding is a significant factor for public organisation to move towards e-service success. The financial savings to governments through implementation of electronic services will only occur in the medium to long term. Hence, the initial start-up cost of the initiative will be high and will add up to the costs of government administration. Governments with slack funding can afford costly innovations, absorb failure, and explore new ideas in advance of the actual needs.

RECOMMENDATIONS FOR E-SERVICE TRANSFORMATION

Several immediate steps should be taken to accelerate the transformation to the desired end-state. These include:

1. Institutionalize regular dialogue, shared vision and partnership among the top organizational leaders (Helbig et al., 2009; AFFIRM, 2002).

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2. Organisations should employ managers (HR, finance, IT, program) with the necessary hybrid set of skills - management, technology and process (AFFIRM, 2002; Hamner & Al-Qahtani, 2009).
3. Involve employees and all stakeholders in problem solving and process improvement programs driven by actively concerned leaders (Hamner & Al-Qahtani, 2009).
4. Create a government-wide risk management training and risk incentive programs.
5. Develop a steady and secure IT budget for the entire government, taking into consideration balancing risk against value (Schwester, 2009).
6. Obtain executive and legislative agreement on how to transform cross-agency business processes and funding (Heeks & Santos, 2009).
7. Establish formal methods which organisations can use for productivity and progress monitoring and accountability; and evaluate cross-organisation e-government systems and projects (Gottschalk, 2009).
8. Establish national legislative appropriations committee or group to separately fund e-government projects (Hung et al., 2009; Gottschalk, 2009; Janssen, Chun, & Gil-Garcia, 2009).
9. Formalize incentives for managers to create temporary inter-organisation teams that solve problems and create solutions and implementation strategies.

CONCLUSION

Researchers and practitioners have long held an interest in digitization in the public sector. However, it is obviously clear that there are significant difficulties to be overcome before the benefits

of an e-service transformation can be enjoyed, especially in developing countries. By placing special emphasis on this particular context, this paper presents a conceptual framework which aimed to contribute to the explicit understanding of the e-service development, and explaining the main barriers and drivers along the process. This means that the framework has the capability to examine the challenges related to current government along with the challenges of subsequent stages of e-government development. This feature makes it more practical to apply especially in societies with traditional bureaucratic systems. The framework can be used as a descriptive tool to organize and analyze the factors affecting e-service implementation in governments. It adds to the knowledge of the phases through which the e-service initiative is conducted and carried out.

Several immediate steps are also identified that, if taken, would accelerate the transformation to the desired full public e-service paradigm. These actions demand leadership and cooperation within and between the major stakeholders and the will to make it happen. Therefore, the paper provides a practical guide to be applied especially in countries in which e-service initiative is still in its infancy.

The study calls for conducting additional research in e-service implementation and diffusion at different government agencies, especially in complex governmental environment such as those of developing countries.

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Chapter 5

Handling Customer Complaints in the Hospitality Industry

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ABSTRACT

Drawing on associated literature and empirical research, this paper examines the engagement and expertise of hotels in handling customer complaints. This is of considerable interest to practitioners and academics within the field of hospitality management. The study explores hotel management's attitudes and practices toward handling customer complaints within the hospitality industry in Scotland. In this paper, the authors analyze case study interviews with four and five star hotel managers in Scotland. The findings reveal that encouraging customer complaints and feedback should be seen as a way in which to develop a better relationship with and retain customers. The results also confirm the importance of having employee training in the area of customer complaints, recommending that employees handle complaints themselves. Furthermore, the study suggests that hotels must be well equipped for logging, processing and analyzing complaints. Management implications and areas for further research are also discussed.

INTRODUCTION

Any organisation, large or small, can only operate successfully and profitably if they are providing a service that the customer desires and can afford (Stebbing, 1990). When this is not achieved a gap has formed between customer expectations

of a product or service purchased and the actual standard of this product or service when delivered by the particular organisation (Lapidus & Schibrowsky, 1994). This gap does not necessarily indicate that the guest will express their dissatisfaction in the form of complaining; alternatively the disappointed customer concerned may choose to take their business to a competitor or engage in negative word of mouth communication. Bennett

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(1997) found that only five percent of unsatisfied customers complain, with less than ten percent who did not complain repurchasing from the same supplier. This emphasises the importance for encouraging customer complaints within organisations, as the effects of not doing so result in loss of business. It is also more cost efficient to keep the present customers happy as recruiting a new one costs five times as much as retaining a current one (Blodgett et al., 1995). There are procedures that management within an organisation can carry out in order to attract and handle complaints; however these will be discussed in more detail at a later point in the literature review.

The hospitality industry is constantly changing and evolving (Knowles et al., 2004); therefore organisations must continually adapt their product and service offering. This is imperative in order to stay ahead of the high levels of competition and give customers what they have increasingly come to need and expect (Guardian, 2001). Complaints can occur when there is a gap between the expected and actual product of service that the guest has received. Complaints handling can be defined as the “process that addresses issues that concern customers” (Dee et al., 2004). Customer complaints are a vital issue within hotels therefore managers should recognise the importance of seeking these out and resolving them as quickly as possible. It costs five times as much to attract a new customer than to retain an existing one (Blodgett et al., 1995), therefore organisations need to recognise the benefits of attracting complaints. This research will focus on highlighting and analysing the key areas of customer complaints.

The hospitality industry is continually becoming more competitive, especially within the hotel sector. The perishable nature of hotel accommodation means that if a room is not being sold for one night, the possible revenue generated from that room will be lost (Mullins, 1998). Also, service based operations are very much different from manufacturing firms as more often than not, production and consumption are simultane-

ous (Slack et al., 2007), leaving a much larger scope for something to go wrong in the service delivery process. It is therefore imperative that organisations retain their current customer base, by recognising when a customer is dissatisfied and effectively handling customer complaints that may arise. How the supplier reacts to consumer actions and feelings will determine if the customer has been retained (White & Yanamandram, 2007).

This research study will explore the different dimensions of customer complaints within the hotel sector, which is part of the broader field of the hospitality industry. Fornell (1992) states that customer dissatisfaction is a significant problem in the service industry, which further emphasises the significance of seeking feedback from guests and having relevant customer complaint handling procedures (Yi & Lee, 2005).

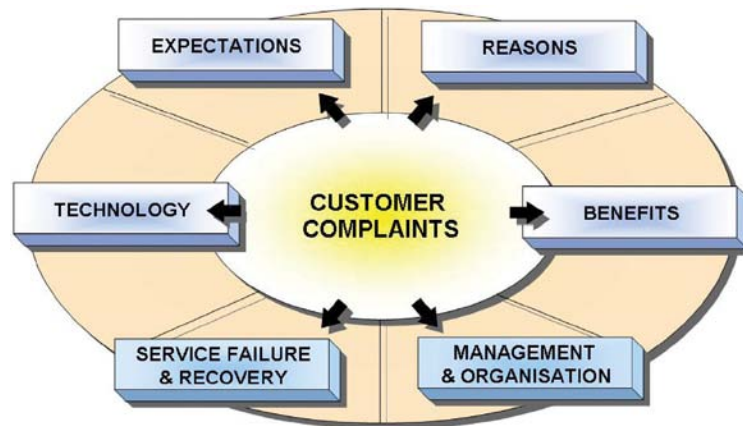
LITERATURE REVIEW

This section aims to introduce and analyse previous research published on customer complaints and the key topics that are connected to this area. The focus will be placed on representing and evaluating research gathered on the six main themes concerned with customer complaints in the hotel sector which can be seen from the conceptual framework detailed in Figure 1.

Why Customers Complain

Customers are arguably the most important asset to hotel organisations as without them, the company would not be able to remain profitable and operate (Cousins et al., 2002). Customer complaints can arise when individuals feel they have received a product or service which has not met or exceeded their previous expectations (Barrie, 2006). By complaining, customers are expressing their dissatisfaction which they may hope results in action being taken to put this right. This action can be in the form of compensation, a verbal apology, a

Figure 1. Conceptual framework



written apology, an explanation etc. Alternatively they may just be raising awareness of the problem, without having any negative feelings towards the organisation. This is more commonly referred to as customer feedback.

Customers left feeling disappointed by their experience at an organisation may be due to reasons such as but not exclusive to: expectations not being met or exceeded, rude employees, product availability, poor quality, cleanliness, service failure or slow service (Helms & Mayo, 2008). Kasavana and Brooks (1991) sum up these complaints into four main categories:

- **Mechanical complaints:** Equipment faults (e.g. key problems, air-conditioning etc).
- **Attitudinal complaints:** Rude employees or behaviour of employees.
- **Service failures:** E.g. waiting staff forgetting to put an order through to the kitchen.
- **Unusual complaints:** Little or no control over complaints arising.

One reason why customer dissatisfaction is higher in service based operations, such as hotels, is due to the difficulty of standardising tasks and procedures (Rowbotham et al., 2007). Tasks are being carried out by individuals who have their own personal service delivery style which may vary

day to day depending on their mood at the time. Methods in which to try and control variations of employee service delivery will be discussed at a later point in the review.

Customer Expectations

Customer's expectations have risen in recent years due to a number of factors. Arguably the most current factor is the favourable position consumers are now in terms of buying power due to the current economic downturn the United Kingdom is currently facing. As hotels are lowering their prices or offering special deals or packages in order to fuel demand, consumers are more able to afford this service, and are expecting more in return for their money (Guardian, 2001). If the service provider is not able to meet the guests increased expectations of value for money, this results in unsatisfied customers, who may complain and/or switch to the competitor. As previously mentioned, competition within the hotel sector is strong, especially with prices being lowered to attract as much custom as possible during the "credit crunch".

Another factor for increased guest expectations is that consumers have more knowledge about hospitality products and services (Lewis & McCann, 2004), which is partly due to extensive media coverage. Television, newspapers and magazines

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offer the general public information on what to expect for their money, what constitutes as high value food and beverage products, how meals are produced and most importantly, how to complain when the service or product offered is not what it should be. This affects the hotel sector in particular as guests are more aware of what to expect from their entire experience with an organisation, be it with their room, meal in the restaurant or drink in the bar (Barrie, 2006). Technology has also increased customer knowledge as websites such as Trip Advisor allow previous guests of an organisation to write a review on their experience. If this review is negative, it is likely to influence others decision to visit that particular establishment. Research has shown that “one dissatisfied customer experience is thought to lead up to over fifty people hearing about the service failure” (Tantawy & Losekoot, 2001). This has increased the overall pressure on hotel management to deal with any unsatisfied customers successfully in order to avoid negative reviews. The internet has also allowed a shift in power as customers are able to access as much information as organisations, which enables the customer to negotiate on price and terms (Harvard Business Review, 2001).

Benefits of Customer Complaints

Customer complaints is an aspect that many employees within the hotel sector are not comfortable with as they feel it is a negative response to the service they have provided (Tantawy & Losekoot, 2001). However, there are benefits of encouraging, receiving and effectively dealing with customer complaints and industry must realise these benefits if they are to remain successful within such a competitive environment.

Moore (1975) suggests the benefits of complaints to the company are:

- Highlight any weaknesses with company performance, and often ways in which this can be improved.

- Valuable information comes from the customer who chooses to complain.

More recently Bennett (1997) added to this list and included:

- Positive word-of-mouth advertising.
- Improved customer perceptions.
- Increased purchasing of product and services by existing customers and
- Increased customer trust and commitment.

Other authors have gone on to highlight further benefits:

- Positive effect on profit through building customer relationships (Lewis & McCann, 2004) and
- Higher retention of existing customers if complaint is handled effectively (Cook, 2008).
- A useful tool for preventing complacency and getting closer to the customers (Zairi, 2000).
- Can help the organisation to gain competitive advantage (Woodruff, 2007).

The authors have highlighted the importance of being open to customer complaints in this section. The benefits associated with attracting customer complaints are substantial; however, organisations must not retrieve customer complaints and then ignore the information gathered, as this could lead to stronger feelings of dissatisfaction than already occurred (Johnston & Clark, 2005).

Management and the Organisation

As previously mentioned, unsatisfied customers are common place within the service industry. A zero-defect organisation may be aimed for – but rarely achieved. Despite this characteristic of service based firms, it is still imperative that an organisation have their customer’s satisfaction as

priority Haksever et al. (2000). The role of the management within an organisation is to ensure unsatisfied customers are recognised whilst still in the establishment and some form of service recovery process and/or outcome can take place. Complaints must be sought and encouraged in order for the establishment to recognise areas of the operation that need improvement and retain a higher level of their customer base. The potential for developing existing customers is often overlooked by organisations (Cook, 2008). For instance, Sheraton Hotels offered their guests financial incentives for reporting problems to management (Huppertz, 2007; Paterik, 2002).

The area of service process, failure and recovery will be further discussed at a later point in the chapter. Previous published research that has been carried out within the hotel sector has primarily focused on questioning Assistant Managers, Guest Service Managers or Guest Relations Managers on customer complaint related activities (Gronroos, 2007; Cook, 2008; Tantawy & Losekoot, 2001). However, other employees such as front line workers, although perhaps not managing complaints, are certainly still involved in the process. The complaints these employees receive and handle on a day to day basis are generally minor and easily resolved.

This section will focus on how organisations can train and develop their employees to handle customer complaints, methods in order to attract and monitor complaints and finally how that organisation can retain their customer base by successfully handling complaints.

Employees

Hotel workers frequently view complaints as a negative customer reaction (Tantawy & Losekoot, 2001), something that suggests they are not doing their job properly. Although hotels may have a particular person who deals specifically with all areas of guest complaints, (Guest Relations Manager,

Assistant Manager Etc) front line employees are the people who are involved in the actual service delivery. As service is very much unique to the person delivering it, organisations must ensure they are creating a quality work environment to ensure a high standard of service is then delivered to the guest (Cook, 2008).

One way in which an organisation can provide a quality working environment is to ensure there is a strong service culture within the company. "Service culture" can be defined as "the pattern of shared values and beliefs that helps individuals understand organisational functioning and thus provides them with the norms for behaviour in the business" (Hudson, 2008). This will help the employee feel they belong in the organisation and understand the general standards and procedures of day-to-day activities (Schein, 2004). For example, staff at Sheraton Hotels was allowed to offer discounts or other amenities to customers who reported serious complaints (Huppertz, 2007; Paterik, 2002).

Another way in which an organisation can provide a quality work environment for employees is to train them firstly in their own area of work and secondly in the area of customer complaints. This type of training would help the employees seek out guest problems and be able to handle them better at the time. This would benefit the employee as they have an element of control over their own work and it makes them feel empowered (Hudson, 2008). Lashley and Morrison (2000) argue that this is essential in building a sound customer base. This also benefits the organisation as more dissatisfied customers are being recognised, their problems being dealt with and in turn leads to higher levels of customer retention. Creating a learning environment within the workplace also helps to motivate and encourage employees. If an employee is not motivated and has low morale it can lead to high staff turnover which in turn displays a lack of continuity for the customer (Tantawy & Losekoot, 2001).

Attracting and Recording Customer Complaints

Gathering customer feedback is a necessary activity for an organisation if they want to remain successful in their competitive environment. This is a way in which to identify how guests perceive their service and if there are areas that they can improve on (Cook, 2008). It is also important that before any changes are made to the strategies of an organisation, they collect both internal and external customer feedback. Johnston and Clark (2005) suggest a number of ways of obtaining customer feedback such as:

- **Comment cards:** Can use incentives to ensure customers fill them in, can also use it as an opportunity to ask the guest more questions.
- **Notices:** To make customers aware of where they can make a complaint, displaying a free hotline phone number may tempt some guests
- **Websites:** Review sites such as Trip Advisor are allowing customers to have the freedom of speech and leave reviews for everyone else to see, whether they are positive or negative.
- **Questionnaires:** Allow more detailed answers than comment cards, however, may have low response rate if it is long.

The authors add to this further by suggesting email, verbal communication and complaint hotlines as a means of collecting customer feedback.

In order for organisations to retain customers, they must seek out and encourage complaints (Hudson, 2008). This can be achieved by training employees to be aware of guest's feelings and knowing to ask when they think there is a problem with an aspect of their visit. Developing the relationship with their current customer base will increase the trust and loyalty between the establishment and the consumer. If customers

feel an organisation listens to them and takes an interest in their individual needs, it will increase these feelings of trust and loyalty towards that company (Cook, 2008). With hotels operating in such a competitive environment, if they don't take an active interest in obtaining and acting on their guest's feedback, they risk losing many customers.

The topic of customer retention is very much connected with relationship management. Organisations should take the time and effort to train their managers on this subject as the skills required to have a stronger relationship between managers and guests are not necessarily ones that managers may be fully utilising (Kincaid, 2002). The importance of the manager-guest relationship when handling complaints is stressed in the literature which has been researched for this review; however, few authors have directly referred to it as relationship management. This concept therefore is an area which should be considered for future academic research.

Service Failure and Recovery

The area of guest complaints has been addressed in an extensive array of literature, however when searching for this data it is seldom referred to as "customer complaints". Instead it is broken down into segments which include the service process, service failure, severity of service failure and service recovery. This section will focus on explaining each of these segments and the implications they have for the organisation and customer.

Customer Response to Service Failures

Failures often occur during the process of service and product delivery. As previously mentioned these can be summed up under the area of mechanical, attitudinal, unusual and general failures of service (Kasavana & Brooks, 1991). These failures vary in severity and can create different reactions from each individual. Managers can also be unaware of these failures unless they are quite

severe or the customer informs the establishment that they are not satisfied. (Haksever et al., 2000). Some of the most common responses to service failures are:

- Complaints made to the establishment in concern with the service failure (Haksever et al., 2000).
- Complaints expressed to intermediaries or people involved in the individual's trip such as: other guests, tour operators, staff etc (Tantawy & Losekoot, 2001).
- Negative word-of-mouth communication to family and friends (Westbrooke, 1987).
- Make the decision not to repurchase with that establishment (Ennew & Schoefer, 2003).
- Negative Publicity (Prasongsukarn & Patterson, 1998).

Singh (1988) proposed a classification system for customer responses to service failures:

- **Voice Responses:** Seek compensation or amends from the establishment.
- **Private Responses:** Word-of-mouth communication.
- **Third-party Responses:** Take legal action.

Additional to the actions taken by customers as a result of service failures there are also feelings and emotions to be taken into consideration that arise as a result of these failures. Customers may feel their trust and commitment decrease for an organisation if they are on the receiving end of a service failure (Glynn & Barnes, 1995). Trust can be defined as a consumer's willingness to rely on a service provider in which they have confidence. Commitment can be defined as a customer's ongoing desire to maintain a relationship with a particular service provider (Moorman et al., 1993).

It is important for companies to realise the relationship between trust, commitment and customer satisfaction, and have service delivery procedures that take this relationship into consideration.

Service Failure Severity

“Service failure severity refers to a customer's perceived intensity of a service problem” (Weun et al., 2004). The level of severity of a service failure can vary from minor (a meal being delayed by a couple of minutes) to extremely serious (injury caused by fault in hotel) (Spreng et al., 1995). Research has shown that even if an acceptable service recovery process (the way in which it is dealt with) and outcome (compensation, apology etc) has taken place, if it has been a severe service failure customers will still feel a perceived loss, even if with an adequate service recovery (Smith et al., 1999, cited in Weun et al., 2004, p. 5). Although pre-service satisfaction may be less than post-service satisfaction for minor failures, the same cannot be said for severe failures (Hart et al., 1990, cited in Weun et al., 2004, p. 12). Severe service failures can also have a negative effect on post-recovery trust and commitment (Weun, 2004). Keaveney (1995) argues that a single severe failure is one of the primary factors causing customers to switch service providers.

Managers should therefore have different service-recovery strategies for various levels of service failures. They should also train all employees in order to recognise when a customer is not satisfied (whether it be a minor or major problem) but hasn't been vocal about it (Tax et al., 1998). Managers should also recognise that while a customer may be satisfied with the service recovery received after a severe service failure, their trust and commitment may still need rebuilding and that extra efforts should be made in this case to rebuild the relationship.

The Service Recovery: Process and Outcomes

Although service operations should aim for zero defects at all times, service failures are inevitable to happen occasionally, such as delays due to bad weather. It is also important to note that customers can also be responsible for service failures. The opportunity from having to perform a service recovery is showing that customer the employee's commitment to service (Gronroos, 2007).

Service recovery is defined as "a planned process/strategy of returning an aggrieved/dissatisfied customer to a state of satisfaction with a company/service" (Glynn & Barnes, 1995). Smith et al. (1999, p. 358, cited in Lewis & McCann, 2004) add further to this definition by stating "it includes situations in which a service failure occurs but no complaint is lodged by customers". This addition to the original definition is useful for this review as most research so far has highlighted the trend of low numbers of customer complaints in hotels.

A recovery will be carried out by an employee from the organisation concerned. This may be the original server that the failure occurred with or it may be someone who is solely concerned with customer service such as a guest relation manager, this is dependant on ability, confidence, availability and the severity of the failure (Slack et al, 2007). Service recovery is broken down in to two parts:

- **Service process recovery:** "The tangible end result delivered to an initially dissatisfied customer" (i.e. "what is delivered") (Weun et al., 2004).
- **Service recovery outcome:** "The manner in which a service provider handles a service problem during the course of service recovery" (i.e. "how it was delivered") (Weun et al., 2004)

Examples of service recovery outcomes are; an apology, fair compensation, caring treatment, value added atonement and following up a com-

plaint with information on what is going to happen (Gronroos, 2007; Yi & Lee, 2005). Ennew and Schoefer (2003) also identify urgent reinstatement (urgent attempt to put things right, even if it doesn't suit the situation) as a service recovery strategy. They list empathy as a service recovery strategy but the authors argue that it can be both a service process recovery method and service recovery outcome as it may be all the organisation has provided. Tax et al. (1998) also add to this list with correction, acknowledgement, explanation and managerial intervention, which are all relatively straightforward types of service recovery.

There have been many conflicting arguments in the literature on what is the correct service recovery process and outcome to use for a service failure. There has been a general agreement that all service failures should be dealt with as quickly as possible as further delay will add to the customer's dissatisfaction (Ennew & Schoefer, 2003; Slack et al., 2007; Yi & Lee, 2005; Lewis & McCann, 2004). However there has been no mutual agreement over what is the best way to deal with a complaint as some research suggests an apology is sufficient (when it is the first failure) (Johnston & Fern, 1999, cited in Ennew & Schoefer, 2003) and others suggest an apology, correction and monetary compensation are required (Ennew & Schoefer, 2003; Yi & Lee, 2005; Slack et al., 2007; Lewis & McCann, 2004). One particular gap in the literature that has become apparent is the effect of the level of service failure severity on the service recovery strategy required. Weung (2004) suggests that if a service failure has been of a severe nature, even if the service recovery strategy results in customer satisfaction it may still cause the customer to lose trust and commitment to the organisation.

Role of Technology

Previous research on the area of customer complaints predominantly focuses on service failure, severity of service failure, service recovery,

customer loyalty and retention and benefits of complaints, as have previously been identified in the literature review. Dingemans (1996) states that all incoming complaints need to be logged and monitored by management to be able to identify the nature and scope of service failure within the organization and to develop effective recovery strategies.

The role of technology when managing and handling customer complaints, however has not received a great deal of interest. The authors feel that although this is a lightly covered topic, technology is becoming an increasingly important factor for organisations to consider for all aspects of their business, therefore necessary to include in this research study. The following sub-sections will address the increase in availability and use of hotel review websites and technology as a tool for gathering, logging and analysing complaints.

Hotel Review Websites

As previously mentioned in the section of customer retention, when individuals return from a holiday, break or even business trip they often share with others the positive or negative experiences that they have had. Hotel review websites such as www.tripadvisor.co.uk, www.holidays-uncovered.co.uk and www.holidaywatchdog.com all allow comments to be submitted that other internet users can access. Negative reviews are a serious threat to organisations as they have almost no control over what is reported on their property. The only power they hold is to have untrue or malicious comments removed by those who manage the website. The possible effect these websites can have on a hotels reputation means that organisations have to ensure their product and service offering is of the highest possible standard, otherwise they risk losing current and potential customers.

One hotel that has acknowledged the growing trend for online reviews is Best Western Globus Hotel. They are so confident about their product and service offering, they now encourage their

customers to leave reviews on their own website (Best Western, 2009). This not only ensures that those who haven't been to the hotel before are receiving honest and accurate information, but also that managers are constantly overseeing and controlling quality.

Gathering, Logging and Analysing Complaints

Technology can be utilised when gathering complaints and feedback through allowing customers to report these via the hotels website or by email (Clark, 2005). This is an important option to offer as more and more people now use the internet. Online feedback may also give a clearer picture of the hotels performance as it is faster to type an email than to post a letter. By the time the customer has returned from their trip they may not have the time to sit down and write a letter.

The use of technology can be beneficial to organisations when logging and analysing complaints. Computer systems allow data to be stored quickly, safely and do not take up space in the office. They also allow various managers to access the information across a selection of computers in the hotel through programs such as Opera or Fidelio. These programs can be used to store information on guests which is useful as it helps form a database of guests likes, dislikes and past complaints. Zairi (2000) suggests that organisations are ill-equipped for logging, processing and analysing customer complaints through the use of computer systems. Using computer systems to analyse complaints allows patterns on any re-occurring problems to emerge that may otherwise have been missed.

METHODOLOGY

The approach adopted for exploring the phenomena of customer complaints in hotels was to undertake case study research. These case studies

allowed feelings and experiences to be shared and allowed for further information to be sought where necessary (Eisendhart, 1989; Yin, 1994; Rubin & Rubin, 2005). The case studies interviews were carried out in the period of four weeks (March-April 2009). All correspondence in relation to the interviews was done via email and the interviewees chose a date and time that best suited them. The venues in all five instances were the individual interviewee's places of work, which were all easy to access as they were city centre locations (as detailed in Table 1). The interviews were carried out with five different managers from four and five star hotels in Edinburgh and Glasgow. The titles of these managers differed as the focus was on interviewing an employee of each organisation who is largely responsible for the management of customer complaints.

A Dictaphone was used to record these interviews, each of which lasted approximately forty-five minutes and were semi-structured in nature. Semi-structured means that although there were set questions the interviewer asked, participants were encouraged to elaborate on their answers (Somekh & Lewin, 2005; Rubin & Rubin, 2005). The interviews focused on areas such as importance of customer complaints, levels of service failure, customer retention, staff training and the role of technology when handling complaints.

The authors ensured the research gathered has validity and reliability in a number of ways. Firstly a literature review was carried out on published research, which focused on work that would have previously been deemed valid and reliable. A

second way in which this has been achieved is through piloting the interview questions with academics and industry professionals. This enabled the authors to narrow down the topics covered in the research to only the key areas of customer complaints. The questions therefore went through a process whereby feedback was given on areas that needed to be clearer in order to gain only the relevant information required. A final way in which validity and reliability has been ensured is the sample of the interviews. These were carried out across Edinburgh and Glasgow, in a range of standards of hotels, with managers who held various job titles. This was planned in order to avoid any biased or selective opinions being received.

Interviews were transcribed (based on recordings and notes taken) by the researcher from which the empirical findings were derived. To identify major themes in the interviewees' responses, content analysis was conducted (Hussey & Hussey, 1997; Easterby-Smith et al., 1991; Rubin & Rubin, 2005). It focuses on common themes, opinions and responses that are detailed in the participant's answers (Holliday, 2001).

RESEARCH FINDINGS

The findings and analysis will be presented under headings in accordance with the key themes of the above conceptual framework in order to allow ease of comparison with the literature presented in the review.

Table 1. Case study interview details

Interview No.	Date conducted:	Title of Manager:	Star Rating of Organisation:	Type of Organisation:	Location
Interview 1	16/03/09	Front Office Manager	5*	Luxury	Edinburgh
Interview 2	17/03/09	Deputy General Manager	4*	Boutique	Edinburgh
Interview 3	07/04/09	General Manager	5*	Boutique	Edinburgh
Interview 4	07/04/09	Deputy General Manager	5*	Luxury	Glasgow
Interview 5	10/04/09	Deputy General Manager	4*	Standard	Glasgow

Importance of Customer Complaints

Discussion in interviews suggested that managers find customer complaints to have many advantages. For example, most respondents believed that customer complaints helped them to further improve the quality of their hotel services and to build up positive relationships with their customers. Table 2 summarizes the main benefits of receiving and handling customer complaints for hotels. Also, interview example quotations relating to these benefits are presented in Table 3. As can be seen in these two tables, consistent with the academic literature, managers considered that handling customer complaints can enable hotels to add value to their offerings. Four out of five managers implied that handling customer complaint efficiently can add new competitive advantages to hotel brands. They argued that customer complaints should be used as a performance measurement method or as a quality control indicator in the hospitality industry. These results robustly strengthen the notions presented above in the literature review with regard to the importance of customer complaints (Kasavana & Brooks, 1991; Fornell, 1992; Blodgett et al., 1995; Bennett, 1997; Yi & Lee, 2005; Helms & Mayo, 2008).

Attracting and Gathering Customer Feedback and Complaints

The different methods used to attract and record customer complaints and feedback in the studied hotel firms are shown in Table 4. The case studies revealed that the most widespread customer feedback and complaint collection methods among the five hotels were: a) customer interview; b) guest comment cards; b) customer satisfaction survey c) on-line or Web feedback forms, d) email messages, e) focus groups f) direct customer complaint reporting and g) front-line employees. This clearly shows that gathering customer feedback is a necessary activity for organisations to see

how guests perceive their service as discussed above (Cook, 2008). This ensures that handling customer complaints adds to the hotel's overall efficiency. What is surprising is the increasing role of technology (e.g. website, blog, forums and social networks) in most cases. This could provide an interesting starting point for further research. This result confirms that there are many different customer feedback and data collection methods in the hospitality industry (Clark, 2005). Another interesting finding is the limited use of 'direct customer complaints' as a method for attracting and gathering customer feedback. This point will be explored further in the following section.

Along the same lines, hotel managers were asked to identify the levels of complaints in their hotels. Quotations relating to these levels, in Table 5, indicate that generally they are low. These findings supports earlier studies by Bennett (1997) who found that only five percent of unsatisfied customers complain, with less than ten percent who did not complain repurchasing from the same supplier. They also lend support to the notion mentioned in the literature by Ramsey (2003) who argues that "Dealing with complaints is seldom easy or fun. Nevertheless, each complaint is an opportunity to solve a problem, right a wrong, convert a skeptic or salvage a valuable customer relationship that is in jeopardy of being lost". This

Table 2. Benefits of receiving and handling customer complaints

- | |
|--|
| <ul style="list-style-type: none">● Customer attraction, satisfaction, retention, loyalty, trust and/or centricity● Early warning system for hotels● Positive word-of-mouth communication● Product development opportunities● Improving the image and reputation of the hotel brand● Differentiating the hotel from other competitors● Measuring the performance of the hotel● Enhancing the quality of the hotel products/services● Building up relationship with customers● Increasing sales and profitability● Building repeat business● Providing higher standards of service● Reducing complaint levels● Improving staff motivation, empowerment and retention |
|--|

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Table 3. Hotel interview example quotations - benefits of receiving and handling customer complaints

Hotel	Example Quotations
Interview 1	Um, gosh that's a tricky one. I know I should expect them but there is always that sense of disappointment when someone is unhappy with their visit. So I guess I get disappointed but also there is a feeling of dread if the customer is really unhappy because they speak to you in quite an abrupt manner. Overall though I don't mind them too much because it is better to resolve the complaint there and then than let them leave unhappy. I see complaints as opportunities.
Interview 2	I think it is good to get feedback but it is upsetting that complaints are sometimes are out of our control.
Interview 3	As a deputy general manager I don't get as much hassle as head of departments. I don't really mind them I just let people speak and then try to resolve them. I don't take it personally.
Interview 4	Oh..thats an interesting question. To be honest I can't help but feel disappointed when people complain to me. We do learn a lot from people complaining though. It makes our product and service stronger but it is important we know how to realise when people are only complaining to get something for nothing.
Interview 5	They give an honest account of when and where we are not performing, they are a necessary evil and allows us to correct our areas and give an opportunity to turn around a poor experience into a great one and restore there confidence in the brand.

result re-emphasizes the fact that the receipt of customer complaints should be looked upon as a great opportunity that provide organisations with valuable information that can be used to improve the quality of their products/services and to retain their customers (Dingemans, 1996; Johnston, 2001; Ramsey, 2003).

Customer Expectations

Despite there not being a question specifically regarding increasing customer expectations, it came up at various stages in three out of the five interviews carried out. There was a collective feeling that it was the current economic climate and the need for their money to go further that was creating an increase in complaints. One participant felt that "as the rates go down, complaints go up" (interview one, 2009), she explained this is due to those customers staying in the hotel on a lower room rate who wouldn't otherwise be staying there and aren't used to the procedures of luxury hotels, such as taking a credit card authorisation. This point is supported by the findings of the literature review which also identified the credit crunch as one reason for an increase in customer expectations, therefore leading to a higher number of complaints (Guardian, 2001). The authors

feel that as the United Kingdom falls into further economic trouble this problem will continue to grow as customers will simply be looking to spend their money on good value products and services. Other reasons for growing expectations detailed in the literature review are the competitive market environment and the increase in consumer's knowledge on the hospitality product and service (Lewis & McCann, 2004).

Employees

One topic focused on during the interviews was employee empowerment. This involves an organisation providing members of staff with the appropriate skills and knowledge required to handle situations confidently on their own (Hudson, 2008). Participants were asked if front line employees in their place of work were encouraged to handle complaints themselves. All of them answered that this was encouraged as explained in Table 6. However four of these answers specified that these should be complaints that are smaller in nature and reported to a duty manager as soon as possible after the complaint has been made, and before the customer has left the building. These findings confirm that the ability and empowerment of staff and the authority given to them to solve

Table 4. Hotel interview example quotations – attracting and gathering customer feedback and complaints

Attracting customer feedback and complaints	
Hotel	Quote
Interview 1	I am not sure that it would be encouraging them to complain but definitely to give feedback, although they should be encouraged to tell us if they are not happy.
Interview 2	Yes we always encourage customers who are not satisfied to let us know. We also encourage customers to pass on general feedback as well, even if they are not unhappy. Any feedback is good feedback.
Interview 3	We try to get a true reflection by encouraging feedback, not necessarily complaints.
Interview 4	Yea we definitely do. We try to encourage all complaints and feedback. We don't want anyone to leave unsatisfied.
Interview 5	Absolutely
Gathering customer feedback and complaints	
Interview 1	Encourage feedback, comment cards in rooms, food and beverage comment cards. These are all the initial ways in which we collect complaints or feedback. Um, there is a dedicated guest relations manager who looks at the levels of complaints and compares them to other hotels in the group. They have meetings to discuss these complaints and where specific hotels need to improve. Complaints are attempted to be resolved by contacting our customers and reporting back. A profile is kept on the guests likes and needs through Opera. For example , on checkout reception need to ask if everything has been enjoyable during their stay.
Interview 2	There are comment cards in the bar and brasserie that should get issued with customer bills, although this isn't always the case. We also ask people at check-out if everything was ok with their stay.
Interview 3	On checkout we ask if the guests enjoyed their stay. We try to get guest feedback by doing this. Myself or the general manager try to be at the desk when we know when there are going to be busy checkouts so we can speak to the guests. And then we can deal with any complaints that are made there and then. We don't have comment cards or anywhere on our website for our guests to complain.
Interview 4	Reception is the main point of contact; guests provide the feedback to them. An online survey is sent to guests once they leave the hotel, if they have left their email when they have booked. We have a question in the survey relating to complaints.
Interview 5	Yes through comment cards left in the bedrooms and by asking and gaining feedback from the Customer at key opportunities, ie Check out, Dinner or Food Service, passing by the Guest and asking for feedback on there stay.

customer problems are essential factors for handling customer complaints efficiently (Chebat & Kollias, 2000; Cook & Macaulay, 1997; Huppertz, 2007; Homburg & Furst, 2005). Furthermore, some Scholars argue that staff should be authorized to apply remedies and offer compensation to customers when resolving their problems (Bitner, 1990; Tax and Brown, 1998).

In order to ensure their employees have the confidence to handle these complaints, the training procedures that the five organisations provided is detailed in Table 7.

Participant five strongly expressed further that “nothing can further the staff than experience and practice and understanding body language and guests reactions” (Interview five, 2009). This suggests that although customer complaint han-

dling training is provided to employees, the best experience is of a more practical nature. The previous points of view reflect the literature published on employee empowerment and the benefits of training that was mentioned above (e.g. Industrial Society, 1995; Devereux, 1999; Tantaway & Loosekoot, 2001; Cook, 2008; Hudson, 2008). Table 7 shows that all of the organisations provide some form of training on customer complaint handling. They clearly recognise the importance of having well trained employees who are able to be confident when handling complaints from guests. This supports the concept that organisations should encourage a learning environment; however the participants do not mention the importance of having a strong organisational culture (Schein, 2004). In order to retain employ-

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Table 5. Hotel interview example quotations – levels of complaints in hotels

Hotel	Example Quotations
Interview 1	We don't experience too high a level I don't think, but it depends on the size of the organisation I suppose. Ours aren't that high for a large hotel.
Interview 2	Minimal really. Roughly one in fifty will make a minor complaint and one out of one hundred will make a formal complaint. I don't have comparisons to other hotels though because this is the first hotel I have worked in. The levels of complaints seem to have risen recently though because I think people are just expecting their money to go further and when it doesn't they become upset.
Interview 3	Very low, main area of complaints is the bistro. Very few complainers leave the hotel and then get in touch.
Interview 4	Generally they aren't very high. They seem to vary depending on the time of the year really. More recently we have had more because people's money is tighter and therefore they seem to expect more for what they are paying for.
Interview 5	Small, complaints tend to come in batches, usually when a new set of managers or processes are implemented in any area and one of the stages of the process breaks down and fails to deliver.

Table 6. Hotel Interview Example Quotations – Complaints handling by front line employees

Hotel	Quote
Interview 1	Very much so yea, if managers get involved in little complaints that could be easily resolved the problem then escalates.
Interview 2	Yes they are but all complaints should then be reported to the duty manager or department head, no matter how small or large they may be. Staff should at least attempt to solve smaller problems themselves before getting a manager involved.
Interview 3	Yea, frontline employees should try and handle small complaints such as cold food; however, these should always be passed on to their manager. They shouldn't ever not pass on that a complaint has been made.
Interview 4	Yes definitely
Interview 5	Yes and to feedback to there relevant Manager, sometimes Guest are looking for a quick response and staff are empowered to make a decision and evaluate whether there needs to be a higher level of manager involved.

ees, boost staff morale and build up a loyal customer base, a quality work environment is imperative (Lashley & Morrison, 2000).

Service Failure Severity

Service failure severity refers to “a customer’s perceived intensity of a service problem” (Weun et al., 2004) and can vary from minor to extremely serious (Spreng et al., 1995).

This area of customer complaints was one that the authors felt was inadequately covered in previous literature published. Therefore this was a topic that more knowledge was required on before planning the content of the surveys. The two issues focused on in this section will be: the effect the service failure severity has on the speed in which a complaint is handled and the extent to which the

severity of the service failure has on determining whether the customer can be retained.

Speed of Handling Complaints

One of the most important factors in handling customer complaints is the speed of the employee’s or manager’s response when dealing with various levels of customer complaints. Table 8 is a reflection on how the participants felt the severity of a complaint affects the speed in which it is dealt with. It is clear that although two hotel managers felt that serious complaints should be given first priority, the majority of the participants were more inclined to say it had no effect on speed, or should have an effect but this is not always possible. These findings reflect the true nature of the service industry, whereby although some issues

Table 7. Hotel interview example quotations – breakdown of organisation training

Organisation:	Type of Training Provided:
Interview one:	Complaint handling training for all employee's, regardless of department.
Interview two:	Front line employees are trained by their heads of departments and given a booklet for their own reference on handling customer complaints.
Interview three:	Complaint handling module for all departments.
Interview four:	Front line employees are trained by their heads of departments.
Interview five:	Overview of a complaint handling process, role plays and scenarios using different and previous examples of complaints received

are urgent, they often have to be postponed for a period of time due to other influencing factors such as busy times of service. Those participants who either did not feel that the severity of a complaint has an affect on the speed it is dealt with or should have an affect but is not always possible to carry out, did stress that all complaints made in-house should be dealt with before the guest leaves the premises. Participant two (Interview two, 2009) suggested that this is “vital so they do not leave the hotel and tells others about their bad experience”. This shows that managers are aware of the negative-communication that guests may partake in once leaving the premises and are trying to prevent this from occurring. This reflects the findings from the literature review with regard to the importance of the speed of response in handling customer complaints (Blodgett et al., 1997; Tantawy & Losekoot, 2001; Stauss, 2002).

The Effect of Service Failure Severity on Customer Retention and Recovery Strategies

Previous research demonstrated in the literature review suggests that a serious complaint may have a detrimental effect on the customers loyalty and trust for the organisation, even if management have taken action to make up for the mistake or service failure (Weun et al., 2004). Keaveney (1995) develops this view further by suggesting a

single severe service failure can be reason enough for a customer to switch service provider.

The findings from the interviews contradict the literature as all participants stated that they receive repeat business from those who have previously complained (see Table 9). Participants from three of the interviews went on to suggest that due to learning the needs and expectations of their guests through complaints they are able to obtain regular custom. One participant feels that “if people feel they’ve been dealt with properly they will come back, regardless of the severity” (interview two, 2009). This highlights a need for the area to be explored further which is one of the main objectives set for the primary research for this research.

Along the same lines with the literature review, hotel managers; as indicated in Table 10; confirmed that there is a strong positive relationship between service failure severity and service recovery strategy (Tax et al., 1998; Blodgett et al., 1997; Weun et al., 2004) and managers should therefore have different service-recovery strategies for various levels of service failures.

Complaints Processing, Monitoring and Technology

As was previously discussed in chapter two, there has been almost no literature published concerning the role of technology when handling and managing complaints. The three main areas covered in

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Table 8. Hotel interview example quotations – speed of handling customer complaints

Hotel	Quote
Interview 1	I've learnt to prioritise depending on how serious it is, especially if it is in connection with food hygiene or food safety. For example, if someone found a piece of glass in their food or someone reported food poisoning. They would obviously be dealt with immediately. Then, we would follow up with courtesy calls, every complaint gets a follow up call. It makes customers feel these complaints are valid. If managers contact guests it makes guests feel important.
Interview 2	None. All complaints are dealt with in-house and as soon as possible after the complaint has been made. This is vital so they do not leave the hotel and tells others about their bad experience. If the complaint comes after they have left the hotel then we deal with it within twenty-four hours.
Interview 3	It probably does increase the speed of response but generally all complaints are dealt with as soon as possible.
Interview 4	All complaints, no matter how serious should be dealt with as quickly as possible. Ideally when guest is still on the premises.
Interview 5	No not in all cases, in examples of an incident regarding Food poisoning, tests and sample must be taken and procedures implemented, so long as the customer is kept in touch and given dates and deadlines on which he may receive feedback then it is not necessary to deal with a complaint and finish it within 10 minutes. Notably the seriousness of the complaint the more chance that an investigation will need to be actioned to identify what went wrong and if anybody is accountable.

Table 9. Hotel interview example quotations – service failure severity & customer retention

Hotel	Quote
Interview 1	Yes definitely, our most frequent customers are those who have previously complained. We keep their likes and dislikes on Opera so we can make sure their stay is perfect on their next visit.
Interview 2	Definitely, fifty percent of people who complain come back. If people feel they've been dealt with properly they will come back, regardless of the severity. We always try to encourage people who have complained to come back and eat or stay with us again. There complaint is logged on opera so notes can be made and whoever deals with their reservation is aware that they are V.I.P.'s.
Interview 3	We always invite genuine complainers to come back and we meet them (myself or general manager). We like to show them they are getting some extra attention. We make up for it the second time they come.
Interview 4	There are a lot of occasions where turning around complainers to regulars. This is probably because we grow to know their needs and expectations more.
Interview 5	If the complaint is resolved we encourage repeat business to bring back customers so we can show and strengthen the quality of the brand and encourage loyalty, most complaints when being dealt with encourage the guests to return back to the hotel.

Table 10. Hotel interview example quotations – complaints severity and service recovery

Hotel	Quote
Interview 1	Oh, that's a good question. No I don't think the extent of the complaint has that much effect, every complaint should be dealt with individually because problems are individual to each person. A problem that is small to one person is not necessarily small to someone else. The key is for the person handling the complaint to ask the customer what they want to happen. The action we will take depends on how realistic the request is. You need to take into account the people who are just out to complain.
Interview 2	The attitude when handling complaints should always be the same. Polite and helpful. The seriousness of the complaint should not affect this as complaints mean different things to different people.
Interview 3	There is a certain point where a complaint gets serious enough for a deputy general manager or a general manager to step in and handle it. These are usually when it is a repeat complaint. Ultimately it will always get back to us anyways.
Interview 4	Small complaints should be resolved by frontline employees and brought to a conclusion by them or the duty manager. Bigger complaints should be dealt with by myself if the duty manager doesn't feel comfortable.
Interview 5	Yes the severity of the complaints matches the way it is dealt with and corrected, the more serious nature of the complaint the more higher the level of recovery and compensation is.

the literature review were hotel review websites, the use of hotel email addresses and websites for giving feedback and the use of technology for logging, processing and analysing levels of customer complaints.

The findings from the interviews will discuss the use of technology for logging, processing and analysing levels of complaints and the remaining two issues, mentioned above will be evaluated in the survey findings and analysis section.

Zairi (2000) suggests that organisations are ill-equipped for logging, processing and analysing customer complaints. The computer systems in place within the organisations interviewed for processing and monitoring complaints are shown below (see Table 11). Table 11 demonstrates that all the interview participants use at least one method of technology to process complaints made within their organisation. However, with the use of paper storage still being very much present as a resource, it shows that organisations still haven't fully moved on from the traditional way of operating. One advantage of the organisations not solely relying on paper storage is that they can get lost or damaged extremely easily. The findings contradict Zairi's (2000) argument that establishments are ill-equipped to process complaints through the use of technology. One

main finding that suggests they are ill-equipped when analysing complaints however, is that only two of the organisations (Hotels 3&4) concerned, use these computer systems to analyse complaints and monitor levels of complaints over set periods of time. Participant four states that "there are monthly statistics to analyse levels of complaints" (Interview four, 2009) An advantage to doing this is that it identifies departments within the hotel that are receiving higher numbers of complaints and enables managers to take action to correct the reasons behind these complaints arising. These findings, however, suggest that hotels need to use technology further for logging, processing and analyzing complaints.

In addition, Schemenner (1995) suggests that procedures should be set by an organisation for handling customer complaints effectively. Although the authors agree that there should be set service recovery strategies and handling customer complaints procedure in place, it is also important to remember that as service delivery is subjective and unique (Rowbotham et al., 2007), some deviation from set procedures may be required. Respondents were also asked about the control measures they use to ensure that lower level managers handle customer complaints effectively. Table 12 indicates that most hotels do

Table 11. Hotel interview example quotations – methods participants use to process complaints

Hotel	Quote
Interview 1	The guest relations manager calculates the percentages and levels of complaints for each department in the hotel. The levels are split into ratings that are excellent, good or poor. Specific events in the hotel which may cause complaints will be kept on separate spread sheets, such as a leak. The other complaints are kept on the duty manager log which is a book and on Opera, the booking computer system. Handover emails are also sent from each head of departments from the kitchen, brasserie, bar and reception, to keep everyone in the loop.
Interview 2	Paper storage and Opera computer system. No analysis via the computer is used. Levels are assessed manually as all records are kept in the duty managers log book.
Interview 3	No system and they are not analysed. Every complaint is just looked at the time. Memos are left for the next manager via email or the duty manager log book.
Interview 4	All complaints are logged on a computer and patterns are looked for. The windows system Excel is used for this. There are monthly statistics to analyse levels of complaints. A diary is also used to record any incidents which happened on individual shifts.
Interview 5	Handovers, complaint forms, emails and complaint folders on work pcs. Each manager who deals and resolves a complaint has an obligation to follow up and act as a point of contact for possible return visits

Table 12. Hotel interview example quotations – customer complaints handling measures

Hotel	Quote
Interview 1	We don't really control the day to day handling of complaints as managers are given responsibility to handle them they way they see best, but these complaints are monitored through duty managers log book and all the complaints are recorded in that. There are morning meetings and information is shared there about previous complainers that may be staying again. They normally last around twenty minutes. By using these methods we can determine complaints are being handled effectively by lower level managers because all complaints should be monitored, what action was taken and that the guest left satisfied. If they haven't left satisfied this complaint then gets followed up by a senior manager.
Interview 2	We follow up on complaints, even if it has not been ourselves that have initially dealt with the complaint. We also monitor these previous complaints to make sure there isn't a pattern of similar complaints coming from one department. Bedroom complaints are logged in the computer system Opera. I also try and meet previous complainers when they return to the hotel the next time.
Interview 3	We talk about complaints that have been made by customers at the head of departments meetings and discuss how they have been handled. If we think they could have been dealt with better we talk about it. We are always around to ensure managers are dealing with complaints properly. If they weren't dealing with complaints properly we would hear about it when the complaint becomes more serious.
Interview 4	Frontline managers are encouraged to use initiative and deal with complaints in their own way. They always have support from their head of departments and duty managers. We give feedback if they feel the manager could have done something different or dealt with the complaint more effective. It is difficult to have a set policy for complaints as every complaint is so different.
Interview 5	How an employees deals with a complaint is handled in there own style but in terms of procedures the following would apply. <ul style="list-style-type: none"> • Initial complaint dealt with by Supervisor or Manager on Duty. • If Guest not satisfied with response or offering then escalates to Duty Manager. • This process can be extended to Deputy, Operations and General Manager. The importance of complaint dealing is relevant to the nature and seriousness of the complaint from Cold food, dirty rooms to food poisoning, accidental cut and theft of property. All complaints and feedback are passed via the Relevant Hod and GM, discussed at the daily meetings to ensure all areas of the business are aware and recorded in an operational handover and circulated.

not have formal and detailed guidelines to handle customer complaints. However, they use different manual and computerised approaches to ensure the effective handling of their customer complaints.

CONCLUSION

The overall aim of this research was to explore the management's attitudes and practices towards handling customer complaints within the context of the hotel sector of the hospitality industry. The study found the main reasons of customer complaints to be; receiving a product or service that did not meet or exceed their previous expectations (Cousins et al., 2002), individuals who complain on purpose in order to gain some sort of compensation, increase in expectations (2001) and more knowledge about

the hospitality product or service offering (Lewis & McCann, 2004). Similarly, the main advantages of customer complaints for hospitality organisations are identified as; highlight any weaknesses of the organisation (Moore, 1975), positive word-of-mouth advertising (resulting from successful service recovery), improved customer perceptions (Bennett, 1997), positive effect on profit (Lewis & McCann, 2004 and able to gain a competitive advantage (Woodruff, 2007). Levels of service failure can vary between minor to serious (Spreng et al., 1995), and can be mechanical, attitudinal, unusual or general complaints (Brooks, 1991). Johnston and Clark (2005) suggested methods of attracting complaints which include; comment cards, notices, websites, and questionnaires. Further to this list organisations can also use email, verbal communication or a complaint hotline. The results confirmed that customer retention is linked

to relationship management and often these skills are not fully utilised (Kincaid, 2002). If customers feel the organisation listens to them it will increase their trust and loyalty (Cook, 2008). Therefore, encouraging complaints should be seen as a way in which to develop a better relationship with customers and retain them. Also, the main findings showed that by training employees on complaint handling it enables them to be more confident when dealing with complaints (Hudson, 2008). Overall, the majority of respondents also agreed that they provide relevant training on complaint handling for their employees. In addition, Weun et al. (2004) suggested that a serious complaint may have a detrimental effect on that trust and loyalty. Keaveney (1995) adds to this by arguing that one serious service failure may lead to the customer switching service provider. However, the research results showed that all of the organisations experience repeat business from those who have previously complained. Thus, it is clear that further research is required in order to clarify the true situation. The majority of participants felt that there was no effect on speed or there should be an effect but they cannot always deal with these to the nature of the service industry. These participants did stress however, that all complaints should be handled before the guest leaves. Zairi (2000) suggested that services organisations are ill-equipped for logging, processing and analysing complaints, however, the interviews and surveys showed that most hotels were equipped for logging complaints, just not analysing them. There was limited literature available which highlights that future research is needed.

The findings and overall contribution of this study are important to industry professionals as it confirms the importance of having employee training on the area of customer complaint and recommends empowering employees to handle smaller complaints themselves. The question of “if the level of service severity should affect the speed in which complaints are handled” was discussed in the interviews. Findings show that

whilst there is not always time or need to prioritise complaints, it is imperative to effectively handle customer complaints whilst the guest is still on the premises in order to prevent negative word-of-mouth communication, which can lead to the loss of current and potential customers. Also, the study proved that managers should recognise the benefits of customer complaints and take action to ensure that these are being sought out. Previous research states that some customers will not complain, but also will not visit the organisation again. This is not a desirable scenario as it costs five times as much to attract a new customer than retaining an existing one (Blodgett et al., 1995).

The research study is also of importance to academia as it expands on previous research published on the surrounding aspects of customer complaints. Also, it adds more detail and information to the gaps on the area which were seen to be the role of technology when handling customer complaints and severity of a service failure. It compares theory with practice to validate the extent to which previous research reflects the true and current situation of complaints in the hotel industry. Finally, it recommends further areas of research that should be looked at in order to explore further the phenomenon of customer complaints within the hotel sector and the surrounding topics of this.

As many other research studies, the current study has some theoretical and methodological limitations. First, the research was carried out in Scotland and therefore the findings are culturally bound and are likely to have limited application to other countries. Second, due to time, finance and other constraints, a limited non-probability qualitative sample was used. Finally, research was carried out only at the managerial level (unit or hotel level) due to the lack of access to the head offices with affiliated hotels.

In terms of topics of future research, the authors strongly suggest that the role of technology on customer complaints is looked at, as there is currently very little research published on it. This would be

an interesting area to look at as technology is ever changing and the scope for individuals to use this when managing and handling complaints is wide. For example: internet hotel review websites, the use of computer systems to analyse levels of complaints and hotel websites as a method of leaving feedback. Another area that could be considered is the severity of service failure. This was looked at in some detail in this research; however, future research could expand on these findings or look at the effect on which the severity of a service failure has on the service recovery method used. A final topic that could be researched further is the effect the economic climate is having on the levels of complaints within hotels. The findings show that whilst published literature argues that complaints are increasing because of the credit crunch, industry professional's disagreed. Managers stated that expectations were certainly higher but complaints were still of an acceptable level.

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Chapter 6

Customer Relationship Management in Professional Service Organizations: An Application to the Building Industry

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ABSTRACT

Customer Relationship Management (CRM) applications have gained primary attention in large service industry sectors, such as the financial, telecommunications and hotel industries. However, relatively few researchers have studied CRM in the context of Professional Service Organizations (PSOs). PSOs are found across a broad spectrum of service offerings and they share several key aspects. Some of these aspects include the following: PSOs are high in people-processing features, have close contact with customers, and are high in credence attributes. Given this critical reliance on the customer, most PSOs would benefit from implementing a CRM system to facilitate their business and sustain customer relationships. This paper compares marketing practices and client management approaches in PSOs between those utilizing and those not utilizing a CRM system. The building industry is used as a case study. The paper introduces the CRM concept, describing its significance to the building industry and presents the methodology and findings from an exploratory research investigation. It also presents a framework for CRM applications in PSOs and highlights a future research agenda tempered by some limitations of the research study.

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CRM OVERVIEW

Customer Relationship Management (CRM) is a management tool that integrates people, processes and technology for enhancing the management of an organization in serving its customers. It is an integrative approach unifying an organization's functions under one corporate objective; that of satisfying the customer's desires so that the customer will continue to have a productive involvement with the organization. This cohesive integration of people, processes, and technology needs to be collectively managed to realize the true benefits of CRM. Application of CRM is world-wide as global corporate expenditure as CRM technology is measured each year in billions of dollars (Piercy & Lane, 2009). Forrester research has suggested that the worldwide revenues for CRM solution providers reaches \$8.4 billion in 2006 and is predicted to grow to \$10.9 billion by the end of 2010, with services taking an increasing share of vendors' revenue (Foss, Stone, & Ekinici, 2008). It has been pointed out that "CRM is a multidisciplinary topic since it deals with marketing (e.g. relationship marketing, consumer behavior, etc.), information systems (e.g. e-commerce, human computer interaction, etc.), management etc. (Kevork & Vrechopoulos, 2009). When this is properly accomplished, CRM provides an opportunity for management to adopt a strategic approach that will affect all company operations and functionalities (Ryals & Knox, 2001).

Although much is written about CRM, it appears that there is no one clear definition for CRM. It has been said that "the term has been applied to almost every element of business that even remotely interacts with a customer...with the ultimate goal to recognize and treat each customer as an individual. The main goal is to optimize the customer value with the customer lifecycle (Finnigan & Willcocks, 2007, pp. 6-7). Numerous definitions have been proposed by scholars and practitioners. The definitions can

be classified according to the orientation of the CRM application; IT, process, system, people or technology. Overall, most scholars agree that CRM can be generally defined as structured organizational efforts leading to improved serving of clients. This definition is also consistent with the basic notion that CRM represents the "added value" a company can deliver to its clients as a result of its investment in people, processes and technology (Day, 2000).

The CRM concept is often associated with the relationship marketing concept, (Christopher, Payne, & Ballantyne, 2002; Ryals, 2005) where the objective is to establish, develop and maintain "successful relational exchanges" with customers (Morgan & Hunt, 1994). It has evolved from being seen as a tool for assessing customer satisfaction to a tool that delivers value to its clients. The ultimate goal of CRM is to improve the long-term profitability of the business by shifting from a "transaction-based marketing" to "relationship-based marketing" (Christopher et al., 2002). It has been said that "contemplating relationships is important because they are among the 'most reliable sources of future revenues and profits' for companies (MacInnis, Park, & Priester, 2009, p. 84). The CRM tools help marketers better understand customer demands and serve their needs. This is achieved by integrating all the business processes and customer touch points into a unified customer interface. While CRM technically only refers to the 'customer,' in reality, successful CRM applications include relationships with partners, and are actually enterprise-wide business strategies, because "CRM must be integrated into all corporate functions to be successful" (Baran, Galka, & Strunk, 2008, p. 113).

The potential of CRM has encouraged many practitioners to consider implementing a CRM system and has attracted the special interest of industries characterized by high transactions but with a lack of personalization, such as the banking and telecommunications industries. Such CRM systems have been especially effective when the

'best in class customers' are identified, so that sales people can keep updated records and even up-sell or cross-sell for increased profitable revenue growth (Anderson & Ritter, 2008).

However, CRM has not been aggressively utilized by practitioners in Professional Service Organizations (PSOs), despite the apparent usefulness that CRM could provide in this arena. It has been noted that, for many firms, "the implementation of the CRM systems (has been) a painful experience, (especially) with the enterprise resource planning systems could not be transferred to the CRM system (Andersen & Ritter, 2008, p. 205). It is the goal of this research to provide additional insights for more effective CRM applications. This will be done by contrasting the marketing practices of those PSO firms utilizing CRM to those PSO firms not utilizing CRM using the commercial building industry as the industry application.

EVOLUTION OF CRM ACROSS INDUSTRIES

CRM started as a tool that was used to shift an organization's philosophy of doing business from transaction-based to one that is relationship-based. The CRM evolution, in general, has grown from just a technological application (applying automation to existing sales, marketing, support and channels) to cross functional integration including web hits, and sales calls, to the current improved process-based applications, improving the effectiveness in serving the customer (Finnegan & Willcocks, 2007). It has been widely used in many industries that are characterized as 'transactional.' For example, the financial and banking sectors were among the first sectors to adopt the CRM concept as a tool to provide customers with valuable assistance in dealing with their financial services. This was especially helpful in times of fierce competition and especially valuable when bankers were faced with new entrants that offered better customer service.

In the telecommunications sector; industry deregulation, economic recessions and international competition forced organizations to search for methods to sustain their market positions in the highly unstable and fiercely competitive environment. Thus, the telecommunications industry began utilizing CRM to offer more tailored and customized packages that related to specific customer demands. Also, in the hotel industry, CRM has been used to provide clients with a highly personalized experience, encouraging an especially lasting relationship with high value clients. Interestingly, Tesco, "the UK's largest grocer, is also considered to be one of the world's most successful exponents of what the jargon terms Customer Relationship Management as well as being one of the world's most successful internet supermarkets, and one of Europe's fastest-growing financial services companies" (Humby, Hunt, & Phillips, 2007, p. 3). As business communications have evolved into the online format, CRM has also improved from just a software recording-transactions activity into eCRM, which is a business strategy that utilizes the power of technology to tie together all aspects of a company's business with the goal of building long term customer loyalty (Fjermestad & Romano, 2006). The rise of eCRM, sometimes referred to as web-enabled or web-based CRM, has been defined as 'the marketing activities, tools and techniques delivered via the Internet which includes email, world wide web, chat rooms, e-forums, etc. with a specific aim to locate, build and improve long term customer relationships to enhance their individual potential (Kennedy, 2006). Regardless of the industry, the CRM concept is thought to benefit a company's position by adding value to the customers' experience, thus retaining the customer in the business. It has even been suggested that CRM is a critical component driving not only retention, but also higher customer lifetime value.

BENEFITS OF CRM

The main objectives of CRM are two-fold: first, to provide the means to obtain information about customers' behaviors, lifestyles and needs, thus enabling users to predict customer needs and behaviors, as particularly enabled through data mining features; and second, to use this customer information to better satisfy customer needs. This proactive approach serves an organization by providing customers with a unique service that is tailored to their wants and needs and also serves as a source of competitive advantage.

The most commonly cited benefits of applying a CRM approach include: increased customer acquisition, increased customer retention and loyalty, increased customer lifetime value (Venkatesan, Kumar, & Bohling, 2007; Ryals 2005), increased customer value and profitability, increased customer satisfaction and efficient internal operations (Wright, Stone, & Abbott, 2002). A recent study by Kransnikov, Jayachandran, and Kumar (2009) identified that CRM implementation results in a decline in cost efficiency and increase in profit efficiency measures of an organization. This triggered us to examine the importance of applying CRM in PSOs.

IMPORTANCE OF CRM APPLICATIONS IN PSOS

Simon defines *professional services* as "those services that are provided by people who have maintained a minimum 4-year degree in their area of expertise and have been licensed by completing a state administered test and/or by fulfilling other requirements that may be imposed by peer groups and regulatory bodies" (Simon, 2005). Delong and Nanda highlight the relatively unique nature of PSOs, which makes them particularly sensitive to the following dimensions: first, *client relationship management*, where the clients' perceptions about the service quality is determined by the service

offered, the nature of the relationship and the keeping of promises, and thus managing customer relationships becomes a crucial component in building a sustained leadership position; second, *management of human capital*, where qualified labor expertise and human qualities help to support the relationship development and sustain the long term performance; and, third, *value creation*, where like any other firm, the key objective is to create economic value, while ensuring that economies of scale outweigh the diseconomies (Delong & Nanda, 2003).

In the service economy, CRM is expected to multiply opportunities for delivering information to customers, provide offering and answers to complaints, and contribute to existing or new relationships (Dimitriadis & Stevens, 2008). The strong relationship between the partners is what characterizes PSOs as opposed to others in the services industry (Fitzgibbon & White, 2005). Moreover, there is a high degree of "face-to-face interaction" as partners are involved in co-production (Fitzgibbon & White, 2005). The annual parties, end of year greetings and personal follow ups all add up to strengthen this relationship.

It would appear that usage is especially critical in PSOs where the following three elements are apparent: first, there is a high level of customer contact; second, customers are non-price sensitive; and third, customers rely heavily on credence qualities, such as reputation, image, etc., to make their decisions. The loss of a customer in a PSO has far greater impact on the PSO's business because PSOs have a relatively limited customer base so negative word of mouth can be especially detrimental.

This study focuses on one type of PSO, that is, the business-to-business exchanges in the building industry. The building industry employs engineers, technicians, architects, designers, and contractors among others, all of whom are considered part of a professional services society. Thus, the building industry encompasses a wide variety of profes-

sions, providing a large diversity of professionals and creating a strong need for CRM support.

The construction industry comprises around 9 percent of the US GDP, almost \$1 trillion, and is a large source of employment. This industry is made up of a large number of small firms with over 90 percent of them employing fewer than 25 employees. Also, the unique nature of this industry means that it entails a distinctive management approach (Fellows, Langford, Newcombe, & Urry, 1983). Tasks are project-based. There is usually a major separation of design and production. Demand for the business is extended, in that the end product is fixed, although customization can take place. Clients commit for funds during the design phase, but pay after the product is produced (Dulaimi, 2005).

While the core of a construction project involves engineering and technical skills, the first task in any project is customer acquisition, primarily a marketing task. If the organization is sufficiently large in size, this task is primarily the job of the principal(s), or marketing/business development executive(s) but everyone in the PSO needs to be involved in marketing to some degree. This highlights the importance of the marketing function in the construction business. Since this business is primarily B2B, many 'customers' are generally on the business side, not the final consumer side. Moreover, being part of a service business, clients seek to develop relationships with company representatives and prefer personalized relationships (Berry & Pararsuraman, 1991).

Business markets are characterized by being more relationally-centered than transactionally-centered (Sheth, 1996). Clients in the B2B market do not consider social and financial bonds as the major forces for building a relationship. Rather, it is the "structural bonds" (Harrison-Walker & Neely, 2004) that strengthens this relationship. This includes developing customized procedures that simplify clients' demands, thus building exit barriers and raising switching costs (Dwyer, Shurr, & Oh, 1987). This includes the "economic,

technical, service and social benefits" that vendors provide to their clients (Narayandas, 2005).

PSOs also have some particular CRM challenges. Personal relationships are critical for creating loyalty toward the business, but sometimes create problems if loyalty is toward an individual rather than toward the business. In such a case, if an individual leaves, the entire business is lost (Bendapudi & Leone, 2002; Fitzgibbon & White, 2005). Sometimes, an organization 'safeguards' against this occurrence by making employees sign a "non-compete agreement" that forbids them from working for a competing organization for two years after leaving the organization. Other organizations have avoided this creation of "individual relationships" by requiring clients to have relationships with multiple members of the firms' design and delivery teams.

Some PSOs believe that investing in a large customer relationship tool is not relevant for all industries, customers, or organizations because they have the perception that CRM software tools only apply to particular industries or customers (Day, 2000). This is an unfortunate perception, because CRM plays an important role as the PSOs market the "skill, expertise and judgment of their professions" (www.interfacesoftware.com). The relationship marketing orientation can be especially rewarding to partners in a project (Walker & Neely, 2004). Vendors ensure continuous business with partners so customers are satisfied, resulting in clients recommending vendors to others. A successful overall outcome results in positive performance and opportunities for business expansion. As organizations expand, interactions become complicated. It becomes increasingly difficult for employees to clearly visualize technological systems that clearly identify and ease the interactions with multiple clients.

PSOs are high in "collaborative exchanges" as opposed to "transactional exchanges" (Day, 2000). Their customer interactions are high in terms of informational content and social relationships. There is an intention for enduring long-term

relationships. Thus, CRM systems need to not only include information about clients, but also about employees' backgrounds and experiences, facilitating the right person for the right client.

Secondary research espouses the view that PSOs rarely consider applying an overall CRM system approach in its broad context. As Sheth, Sisodia, and Sharma (2000) highlighted in their study on the effect of corporate culture in the adoption of a "customer-centered marketing;" engineering-oriented firms often need more effort and motivation for adopting a customer-centric marketing approach. Lowe (2004) reported the results of a 5-year research study of a comprehensive range of service professionals including consultants, lawyers, architects, advertising agencies, IT specialists, and financial advisors. Lowe's study showed that the use of CRM analytics like data mining varies widely among professions: law firms – 50 percent usage; healthcare – 30 percent usage; architecture 27 percent usage; construction/general contracting 17 percent; and, engineering – 26 percent (Lowe, 2004).

Traditionally PSOs have relied on personal connections to lead to future clients as well as to maintain existing clients. It appears that the majority of PSOs continue to rely on personal networks and relationship to gain and maintain customers. While this may have been an adequate method of dealing with customers, it is not a sufficient approach to compete in today's highly competitive professional service-business landscape.

Accordingly, this paper presents an exploration of CRM applications in PSOs. This primary research here is exploratory in nature and has been designed to guide future research directions. The building industry has been selected as a case study for several key reasons. The building industry represents a relatively large portion of the PSOs, is easily accessed through a variety of professional associations and other published lists, and has not been the subject of any major CRM research to date.

METHODOLOGY

The primary research study described in this paper is exploratory in nature. It is based on a series of in-depth interviews with top executives in the construction industry. The specific branch of the building industry investigated here is primarily non-residential, although some single family dwellings, multiple housing units, condominiums, commercial and governmental construction projects have also been included as part of respective company construction projects. It was expected that some organizations would have adopted a formal CRM system and others would not have adopted a CRM system. This research has been based on a series of semi-structured personal interviews. The information from these interviews has been integrated with the existing literature to develop a framework and to form propositions for future research.

The Society for Marketing Professional Services (SMPS) provided the authors with a list of member firms located in the Washington, DC SMPS chapter which were considered to be representative of the total SMPS global membership. SMPS is the largest organization in North America dealing with professional service marketing activities and managers in the design, construction, engineering, and building industries. The authors also screened possible respondents within the identified firms to find those individuals most knowledgeable and involved with CRM activities in the firms.

Personal interviews have been conducted with executives involved with principals, business development, marketing, or customer-related positions in ten building-related firms in the Mid-Atlantic area. In each organization, these interviews were with key decision-makers whose area of responsibility involved CRM. Most of these organizations have been in business for a long-time and are experienced in their fields. The firms interviewed had annual revenues ranging from \$ 2 million to over \$ 4 billion (only US

operations were included in our research study, although some organizations did have overseas operations). Firms interviewed ranged from small-sized firms to large sized firms as the number of employees in these firms ranged from 11 to more than 3,000 employees. The number of branches of these firms across the US ranged from one branch to 25 branches. Years of operations ranged from 15-100 years.

The basic research questions were:

1. Is CRM necessary in PSOs?
2. To what extent do professionals in PSOs understand the true meaning of a CRM application?
3. What are the factors that (you feel) lead to successful CRM applications in PSOs, specifically, the building industry?
4. How do marketing practices, the use of marketing technology and client relationship approaches vary between those with and those without formal CRM systems?

The questions were divided into main five main categories:

- **Meaning of CRM:** What does CRM mean to you? Respondents' perceptions.

CRM system – does your organization have any CRM system in place? Software/hardware tools?

- **Organization structure:** What is the nature of the existing organization structure? Where do marketing and business development fit?
- **Employee Alignment and Orientation:** Is there any alignment of employees toward

CRM- related goals, employee orientation about CRM?

- **Competitive Advantage:** What is the competitive advantage of the business?

(Operational, product leadership, customer service, etc)

- **Company Background/Respondent background:** Firm size, turnover, number of employees, respondents' background, other employees' backgrounds, number of branches?

The purpose of the study was clearly stated to respondents, while confidentiality and anonymity of respondents was guaranteed. Ten in-depth interviews were conducted with twelve respondents (Two interviews were conducted with two respondents concurrently). Eight interviews were conducted on the premises of the organization and two were done over the phone to distant locations. The eight face-to-face interviews were located in the DC metro area, Washington, Virginia and Maryland. The authors served as interviewers in the interviewing process. Interviews lasted from 45-90 minutes. All interviews were audio taped with the permission of the respondents and extensive notes were taken by the interviewers. Respondents were briefed about the study before the interview, both by e-mail and an initial phone conversation. A summary of the research results was offered to the interviewees for their involvement in this process.

PROPOSITIONS

Four propositions were created based on secondary literature reviews concerning CRM. These propositions are provided here, with amplification based on research findings.

1. **Meaning of CRM:** In the interviews with executives, it was found that the interviewees had one of two fundamentally differing views about the meaning of CRM. The first viewpoint considered CRM to refer to a general customer orientation. This broad context

included being closely aware of customers' wants and needs, satisfying and going beyond their expectations. Quotes such as "customer is the king," "the customer is our bread and butter," "clients are gold," and "clients are friends," were some of the phrases used to refer to this CRM perspective by this executive group. Although these respondents all practiced "customer relationship management" in a general sense, they essentially had no knowledge of CRM technology. As well, they were very limited in their use of marketing IT tools for enhancing customer relationships. This group represented the majority of respondents (six out of ten).

However, there was a second group of executives who appeared to have a deeper understanding of CRM. These executives articulated CRM as a comprehensive integration of people, processes, and technology, which was designed to better understand and serve customers needs. All of these respondents (four out of ten) had prior or background experiences in marketing. One had a prior experience in another large construction firm that had employed a CRM system, and another interviewee had previously held a middle marketing management position in a well-known consumer products firm.

The difference between these two perceptions of CRM may not seem that distinctive, but through these in-depth interviews, it was evident that this second group of executives sought a deeper, ongoing type of customer relationship. This second group sought out ways to better understand the desires of their customers using CRM technology. Since these executives also had stronger backgrounds in marketing, it is possible that the appreciation of CRM may often require a more formal marketing background, possibly both academic and industry-applied experience.

Some of the executives across both groups appeared to hold a perception of CRM that was not totally reflected by their organization's cur-

rent CRM usage. One respondent admitted that although the organization did not have a true CRM system in place, the respondent thought that such a system would be very beneficial. Thus, it would appear that marketing background and formal training about CRM is a requirement to understand the true meaning and benefits of CRM. This leads to the following proposition.

Proposition 1: The more formal the marketing background and/or training of professionals in PSOs about CRM, the more the organization will recognize the true benefits and consider implementing a CRM system

2. **CRM Systems:** There was a clear distinction between those organizations that truly had sophisticated CRM software applications and those who did not. These CRM systems, including database and records management were used to improve the PSO's relationships with clients. However, three of our sample organizations really had a truly comprehensive CRM system in place. These organizations had both the database software and analytical tools that encompassed all customers' profile information, transaction data and customer satisfaction data, among other elements. These systems also included contact management and database tools to better serve clients in both present and future business deals. Two respondents mentioned that they had customized their own software applications as part of their CRM systems. Another respondent, from a leading global construction business, mentioned that the organization had purchased a major software application after conducting a formal benchmarking process. This benchmarking took place with an inter-departmental team of managers (IT, marketing and business development) that examined a number of CRM vendors' systems against the teams' system

objectives. The chosen system was linked to existing applications such as Microsoft Outlook and the employees' Blackberry equipment. This facilitated both the entry of data and the retrieval of information making 24/7 client contact possible.

Lowe's (2004) research provided evidence that firms using marketing IT technologies are nearly three times more likely to report they are effective in delivering services, encouraging innovation, applying client relationship management strategies and tactics, employing competitive practices, and utilizing market research as a method of getting closer to their clients. The most sophisticated of the firms in Lowe's survey used advanced marketing communications technologies such as chat rooms, option e-mail and extranets. Also, the research study by Keramati, Mehrabi, and Mojir (2010) provided evidence to show that organizations with improved CRM systems are likely to witness better organizational performance. Richard, Thirkell, and Huff (2007) also proposed that CRM technology helps in sustaining a B2B relationship.

The application of CRM appears to be a developmental process within many organizations. Those executives who had a lack of awareness about the deeper benefits of a CRM system still described the use of engineering-based applications to provide better service to their clients. These observations led us to the following proposition.

Proposition 2: The more the CRM system integrates with the organization's existing systems and business processes, the greater the marketing applications and actual utilization of the CRM system.

3. **Size of the Organization:** In terms of size of the organization, the companies interviewed were segmented into three categories depending on their annual sales: large-sized business (over 500 million in annual sales); medium-sized business (100-500 million

in annual sales); small-sized business (less than 100 million in annual sales). Of the companies interviewed, one was large sized, four were medium sized and five were small sized. This identification was analyzed to see if the size of the organization had an effect on the application of a CRM system.

One of the respondents in a medium-sized organization did not believe in implementing a CRM software application. This respondent believed that a more personal touch would be more effective than a high-tech touch. Another respondent in a small-sized business was not convinced about investing in a huge CRM software application with the limited business activity; i.e. the investment was not justified. All small sized businesses in the survey inferred that having a "high touch" program was more effective than a "high tech" program, indicating that it was the personal relationship that would result in customer loyalty and nurture those long term relationships.

However, the large sized organization and two medium sized organizations involved in this survey acknowledged the need for a CRM system to deal with the numerous transactions with partners, clients and the growing complexity of their customer-related operations. Apparently, price was not an issue. It would appear that, as the size of the organization increases, the number of transactions and complexity increases, justifying the need for a CRM system. One example was a respondent's desire to be able to tie-in knowledge management applications with their CRM. Furthermore, it also appears more likely that larger organizations will more quickly realize the true benefits of a CRM system. These observations led to the following proposition.

Proposition 3: The larger the size and complexity of the business firms' transactions, the more likely the CRM application will lead to significant positive performance results (tangible and intangible).

- 4. Customer Orientation and Organization Structure:** Developing a customer-oriented cultural mindset is a prerequisite for any CRM implementation (Ryals & Knox, 2001). Both senior management support and the re-organizing of the structure of the organization is required so that performance is measured and rewards are based on customer measures (Ku 2010; Ryals & Knox, 2001). These changes in turn, require effective communication channels with employees, including those obtained by adopting a CRM approach (Shang & Lin, 2010).

From our primary results, it was clear that all respondents recognized the importance of a customer orientation. Be it an engineering firm, architectural firm or mechanical firm, all respondents realized that their success depended on how well they served their clients. It was not an accident that three of our four respondent firms who recently adopted or substantially upgraded their CRM system had undergone extensive organizational transformations to better focus on marketing and client service. In all three cases, the new or upgraded CRM was viewed as a logical adjunct to a whole series of organizational revisions including the creation of cross-functional account management teams, the employment of customer satisfaction metrics in merit pay assessment, and the placement of the CEO or senior principals in the lead business development /marketing roles.

One executive, whose organization had a major CRM system, explained how the organization had gone through a major restructuring whereby their organization chart shifted from a vertically-based organizational structure to a more horizontally-based organizational structure. The horizontal structure empowered employees to deal more effectively with their clients and the minimal hierarchical ladders resulted in faster response towards customers' requirements.

Proposition 4: The significant realization of the need for CRM will result in the creation of a highly customer-oriented organizational structure, leading to organizational acceptance and utilization of CRM.

FRAMEWORK

As stated in the propositions, a customer-orientation organization is a requirement for successful CRM implementation. A CRM system may be viewed as a logical subset of a customer-driven organization with emphasis on people and processes, not just technology. However, it also appears that a CRM system meshes well and is compatible with many existing systems, applications, and business processes used by employees. A new CRM system that requires a totally new set of training procedures, customer service protocols, and techniques could be faced with resistance by employees and may hinder its acceptance and utilization. Also, it appears important to align employees' compensation with customer satisfaction as a motivator for employees to utilize the CRM system. Hence, linking rewards to client satisfaction information is logical. Factors that would enable CRM to bring more realizable benefits include: the size of the firm – the larger the size of the business, the larger the realized performance results; and the more formal marketing/CRM background of the decision-maker in the organization, the more likely the firm would recognize both the tangible and intangible values of applying a CRM system. Perhaps, having formal education in marketing and strong applied marketing experience adds credibility to the CRM adoption. The tangible values are measured in terms of customer growth and customer value. Intangible values are measured in terms of customer satisfaction, customer relationships and customer loyalty.

For organizations to identify a positive Return on Customer (ROC) from CRM investments, CRM should contribute to both tangible

and intangible benefits. Mithas, Krishnan, and Fornell (2005) provide empirical evidence that successful CRM applications result in intangible benefits (customer-oriented) in terms of customer knowledge and customer satisfaction. Meanwhile, Baxter, and Matear (2004) provide empirical support between intangible values and future financial performance. This is also confirmed by other studies (Morgan & Hunt 1999; Shrivastave, Fahey, & Christensen, 2001). Reichheld (1996) also linked CRM adoption to customer life time value and company profitability.

STUDY LIMITATIONS AND FUTURE RESEARCH

This research offers some insight as to CRM concepts and its application in PSOs. However, the following limitations need to be acknowledged. The first is that the building industry was used to represent the professional service organizations area. While the building industry forms a large portion of the PSOs, the characteristics of other PSOs are somewhat different and therefore, the framework needs to be tested on other PSOs; e.g., accountants, legal, or medical, which are also relatively under-researched in the marketing field.

The sample size of ten in-depth interviews brings some limited findings. Although this research is exploratory in nature, a larger sample size is needed to statistically verify the propositions set forth in this paper. Due to financial and time constraints, this research focused on the building firms in the Mid-Atlantic area. Further research should extend this research to other geographic areas in examining the proposed framework.

CONCLUSION

This study lays the foundation for additional CRM research in PSOs. The results of our qualitative interviews provide preliminary evidence of a lack

of application of CRM and an accompanying lack of CRM benefits by many PSOs. We have found evidence, however, that PSOs in the building industry are starting to create CRM systems to provide them with strategic marketing advantages. Professional service organizations continue to value and nurture the personal relationships that are developed by the nature of their business, but these are increasingly vulnerable in today's competitive environment. The reasons are as follows: if key individuals leave the organization, the client may move with the individual; and, as PSOs grow in terms of numbers of customers, the number of transactions and client service intricacies increases exponentially. This would then require a more formalized system to integrate all the stakeholders/players transactions and client requirements to facilitate the business processes, and would also help to nurture the healthy and personal relationships with clients. Thus, the CRM systems use technology to help "mimic the personalized, friendly service" that a customer would expect in dealing with a neighborhood store (Dydia, 2002).

Research has also identified the antecedents and moderators for successful CRM applications that will result in significant benefits. A CRM application requires a customer-oriented organization structure, which should support the existing organization's systems and which should carefully promote and align employees' rewards and compensation with customer measures. The more the organizational structure becomes customer-focused, the more the employees are likely to accept and adopt a CRM system. These changes in turn will bring tangible values (such as customer growth, customer knowledge and customer value) and intangible values (such as personal relationships, customer satisfaction and customer loyalty). The relationship between organizational acceptance and utilization is moderated by the size of the firm – whereby the larger the size of the firm, the more likely that CRM will result in significant value. The more support for CRM from the organization's leadership, the more

likely the organization will realize benefits. And the more the leadership has formal marketing/CRM knowledge, the more likely the organization will realize benefits.

Regardless of the challenges involved in the implementation of a CRM system, however, the research continues to support the desirability and growing need for increased CRM capability. The growth of the digital environment including eCRM capability, as well as the increased economic challenges of the global marketplace with the accompanying competitive realities, increase the need for heightened CRM support. This study has been provided as a foundation for additional CRM research in professional service organizations.

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Chapter 7

An Examination of Mediation: Insights into the Role of Psychological Mediators in the Use of Persuasion Knowledge

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ABSTRACT

This paper examines the role of psychological mediators on consumers' responses to persuasive sales tactics. Factor Analysis is used to determine the actual mediators identified by consumers as potential targets by salespeople and find structure in the data. An exploratory examination identifies four categories of potential psychological mediators. Experimental results reveal that consumers recognize sales tactics designed to influence these psychological mediators. These processes, in turn, mediate the influence of persuasive tactics on consumer responses. Overall, the study lends support to Friestad and Wright's Persuasion Knowledge Model (1994).

INTRODUCTION

Each day, marketers spend tremendous resources in an attempt to persuade consumers. A simple explanation for this fact is that intensive marketing communications campaigns (e.g. persuasive

messages) are generally effective in persuading customers and generating sales and market share (Balasubramania & Kumar, 1990). Thus, exposure to persuasion attempts is a large part of consumers' daily lives (Petty & Cacioppo, 1981).

Despite the interactive nature of persuasion, research concerning the process has primarily focused upon the role of the agent until relatively

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recently with the advent of the Elaboration Likelihood Model, or ELM (Petty & Cacioppo, 1986). Originally, the role of consumers in persuasion (e.g. as the target) has been largely ignored (Friestad & Wright, 1995). Given the importance of their role as targets of persuasive attempts, it is likely that future consumer research will focus more on the thought processes of consumers (Wright, 2002). One such work was the development of the Persuasion Knowledge Model (Friestad & Wright, 1994).

PERSUASION KNOWLEDGE

Persuasion knowledge refers to a consumer's knowledge about the persuasion tactics, intent, and persuasive messages produced by an agent (Friestad & Wright, 1994). Consumers use persuasion knowledge to evaluate the manner in which the persuasion agent communicates this message, most notably in terms of their motives and intentions. When consumers are exposed to persuasion attempts, they try to cope with the situation in a way that is consistent with their own goals within the context of the episode. Coping can include not only behavioral outcomes but also cognitive and perceptual outcomes. Thus, persuasion knowledge does not involve the activation of a static set of beliefs, but instead it is a dynamic, evolving phenomenon. As consumers experience future persuasion episodes, they will likely use what they have learned in evaluating and coping with past persuasion attempts.

For example, consider a situation where a salesperson is attempting to sell a car to a potential customer. The customer will use persuasion knowledge to evaluate each of the persuasion tactics (e.g. their actions, and verbal/non-verbal communication) by this salesperson. The customer will then compare these tactics to prior experiences (e.g. interactions with other car salespeople) in an attempt to evaluate them in terms of appropriate-

ness, fairness, and effectiveness. In this scenario, the customer is using this persuasion knowledge in an effort to maintain control over the outcome of their interaction with the salesperson, in this case, purchasing a car that meets their needs at what they perceive to be a fair price. This interaction will then be saved and become part of their persuasion knowledge for all future interactions with car salespeople.

Several recent works have addressed persuasion knowledge within the context of consumer response to persuasion including the development of persuasion knowledge among youth (McAlister & Cornwell, 2009; Wright, Friestad, & Boush, 2005), the use of persuasion knowledge in response to covert marketing tactics (Wei, Fischer, & Main, 2008), and its role in the development of guilt and charitable giving (Hibbert et al., 2007). However, the number of recent works regarding persuasion knowledge remains relatively limited.

Of particular importance to this paper is the concept of psychological mediators. Friestad and Wright (1994) suggest that psychological mediators are the psychological processes activated by consumers that mediate the relationship between the persuasive tactics employed by the agent of persuasion, such as a salesperson, and the response to the persuasive efforts (e.g. consumer's coping responses). Persuasion knowledge theory indicates that agents of persuasion identify and try to influence specific psychological mediators in an effort to enact desired changes in an individual.

Prior to this work, it was not clear which psychological processes may serve as mediators between persuasion tactics and outcomes but Friestad and Wright (1994) have proposed several likely possibilities. These include perceptions, beliefs, feelings, desires, intentions, and resolutions. They also suggest that mediators may include processes discussed in early sales and advertising literature such as attention, interest, desire, remembering, confidence, conviction, and judgment.

PURPOSE

The potential mediators identified by Friestad and Wright (1994) have not been subjected to empirical testing, nor has any known research attempted to find structure among the list of suspected psychological mediators. Thus, the purpose of this work was twofold; one, to identify the psychological mediators consumers believe are targets of persuasive communications, and second to empirically test these processes' ability to actually mediate the relationship between persuasive attempts by a salesperson, and the persuasive outcomes. More specifically, the authors wanted to determine what psychological mediators were perceived by customers as potential targets by salespeople, if consumers could recognize the specific mediators targeted by a scripted sales interaction, and second, to see if, in fact, these processes significantly mediate the relationship between the tactics employed by the salesperson, and the outcome of each interaction (e.g. purchase intentions). As a basis for this, two hypotheses are suggested:

- H₁:** Consumers using persuasion knowledge are more likely capable of recognizing sales peoples' tactics that target specific psychological mediators, than consumers that do not use persuasion knowledge.
- H₂:** The internal psychological processes known as psychological mediators, mediate the relationship between the tactics employed by salespeople, and persuasion outcomes.

Part One: Identification of Potential Mediators

Within the categories suggested by Friestad and Wright (1994) a long list of specific potential psychological mediators was drawn from the marketing literature. A panel of four judges (doctoral students in Business Administration)

evaluated the face validity of the items. Multiple scales were developed for each type of potential psychological mediator in order to enhance validity (Jacoby, 1978). Subjects were asked to respond the degree to which they believed that each potential mediator was targeted in salespeople's attempts to influence consumers. Each item was set within a series of 7-point itemized rating scales (1 = never, 7 = always).

Two hundred thirty-four students enrolled at a medium-sized university in the Midwestern United States served as subjects in the investigation. Some have criticized the use of student subjects as compromising external validity (Lynch, 1982). However, Calder, Phillips, and Tybout (1982) convincingly argue that this is not a concern, provided there is no interaction between the demographics and any of the variables examined. Given the broad population in question, consumers exposed to personal sales interactions, student samples should be representative of this population, given their propensity to purchase.

RESULTS

Items with a mean response below the scale midpoint were eliminated from further analysis since they were not generally recognized as potential psychological mediators by subjects. The remaining items were subjected to a series of exploratory principle components factor analyses using a VARIMAX rotation to determine their categorical structure. A four-factor solution (see Table 1) emerged as the most reasonable. This result reveals four categories of psychological response—cognition, affect, preference, and self-concept. The first three comprise a set that is consistent with the widely-cited Hierarchy of Effects Models (Lavidge & Steiner, 1961) and the fourth had been proposed by Friestad and Wright (1994).

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Table 1. Factor analysis of potential psychological mediators

Item	Self Concepts	Affect	Preference	Cognition
Need to be Social	.788			
Self-Esteem	.784			
Desire to be the Best	.719			
Self-Confidence	.669			
Goals	.649			
Self-Concepts	.641			
Sense of Security	.638			
Values	.566			
Feelings		.749		
Emotions		.712		
Attitudes		.693		
Desires		.664		
Behaviors		.640		
Perceptions		.584		
Attention		.557		
Convictions		.545		
Likes			.722	
Needs			.708	
Preferences			.575	
What Consumers Tell Others			.540	
Choices			.539	
Recommendations			.513	
Comprehension				.644
Knowledge				.602
Reasoning				.598
Associations				.550
Rotated Eigenvalues	4.64	4.16	2.94	2.52
Explained Variance	32.53%	29.18%	20.63%	17.66%
Cumulative Variance	32.53%	61.71%	82.34%	100%
α	.864	.848	.777	.712

Part Two: Tests of Hypotheses

Method

The subjects included 192 undergraduate students enrolled in business and psychology courses at a different medium-sized public university in the Midwestern United States. Each subject was ran-

domly assigned to one of the five conditions. The first four experimental conditions corresponded to one of the four categories of potential psychological mediators. In each of these, subjects were asked to read a scripted sales scenario in which the salesperson's tactics were directed specifically toward one of the mediators. The fifth condition was a control in which involved a script contain-

ing no persuasive tactics (i.e., a non-persuasion knowledge condition). This condition was based upon the manipulations used by recent studies such as Campbell and Kirmani (2000) and Henrie and Taylor (2009), who discovered that consumers were far less likely to use their persuasion knowledge when cognitive capacity and accessibility of sales motives are minimized. Cognitive capacity was manipulated in the control group by employing extensive detail in the sales scenario that detracts from the respondent's attention span. Accessibility of sales motives was manipulated by minimizing the overt selling attempts by the salesperson, minimizing the likelihood that the respondent will attribute their behaviors strictly to sales motives. The control condition therefore features a high level of detail (to minimize one's cognitive capacity) and low levels of accessibility of sales motives (by minimizing obvious sales tactics).

After reading the sales script containing a persuasive appeal targeted at the relevant mediator, subjects were asked to provide their reactions to the script on a set of Likert-type scales designed to measure their awareness of the sales person's attempt to influence the respective mediator. Each of the proposed mediators were measured using a summated scale comprised of the individual items taken from the factor analysis in the first part of the study. The scales for each psychological mediator revealed an adequate level of reliability (self-concepts factor, $\alpha = .86$ affect $\alpha = .85$, preference, $\alpha = .78$, and cognition, $\alpha = .71$).

For each factor, persuasion outcome variables included the three components of attitudes, cognition, affect, and behavioral intentions toward the product. Each was measured with a series of summated scales. For example, cognition was measured by two scales, "The salesperson's tactics changed the way I think about life insurance", and "After reading this scenario, I have different thoughts about life insurance". Affect was

measured by "The salesperson changed the way I feel about life insurance", and "After reading the scenario, I have different feelings about life insurance". Behavioral Intentions were measured by "The salesperson changed my intentions to buy life insurance", and "After reading this scenario, I am more likely to buy life insurance".

MANIPULATION CHECKS

Respondents were asked in a pretest to read a scripted scenario for each condition and the control group condition. Respondents were then asked to compare the two salespeople among the following variables; which used a specific tactic in an effort to persuade (e.g. emotions, knowledge, etc), which made a stronger attempt to persuade (i.e. there were greater accessibility of their sales motives, and which of the two tried to influence a specific psychological mediator. Results indicated the test was significant ($\chi^2=29.63, p \leq .05$). This indicates that the responses were well within expectations. Respondents therefore recognized the tactics of the salesperson in each of the persuasion knowledge conditions to be stronger and more highly targeted than the salesperson in the control condition. An analysis of individual responses (e.g. frequencies) confirms that nearly all respondents perceived stronger tactics by the salespeople in the persuasion knowledge conditions, as compared to the control condition. These respondents also acknowledged the specific psychological mediators targeted by the salespeople in the various experimental groups, as compared with the non-persuasion knowledge condition salesperson. The manipulation checks also indicated that the non-persuasion knowledge condition was correctly manipulated, as the respondents perceived a lower level of accessibility of sales motives. This correlates with earlier studies' use of non-persuasion knowledge manipulation (Campbell & Kirmani, 2000).

RESULTS

Test of Hypothesis One

The first hypothesis suggested that consumers using persuasion knowledge are capable of recognizing sales peoples' tactics that target specific psychological mediators, whereas consumers that do not use persuasion knowledge were less likely to recognize these tactics. An ANOVA test was conducted for each of the four groups of mediators (i.e. summated scales) between each of the experimental groups to examine the responses from individuals in that group (e.g. those in the affect group) with those in the other group. The objective was to test hypothesis one that states that consumers are capable of recognizing the specific psychological mediators being targeted by an agent at a particular point in time. Thus, it was expected, for example, that respondents in the self-concepts group should respond significantly higher to the self-concept summated scale (e.g. they are more likely to agree these tactics were used) than those of any of the four groups.

All ANOVA tests (see Figures 1 through 4 and Table 2) were statistically significant ($p \leq .05$). Post-hoc comparisons (LSD) showed that all comparisons between the treatment groups and the control group were significant indicating that the respondents using persuasion knowledge were significantly more likely to recognize the sales tactics than those who were not using persuasion knowledge. However, some of the responses between specific treatment groups were insignificant. For example, between the self-concepts and affect conditions indicating that respondents assigned to the self-concepts condition appeared to "recognize" tactics that targeted affect-based mediators as well. The differences in means between the cognition scales and both preference and affect were insignificant, indicating that respondents in these groups also "recognized" tactics that related to cognition. All other differences in means were

as hypothesized, and significant. Therefore, there was strong, partial support for H_1 .

TEST OF HYPOTHESIS TWO

The second hypothesis stated that the proposed psychological mediators do indeed mediate the relationship between the tactics employed by salespeople, and persuasion outcomes. This was tested using a series of analysis of covariance tests as described by Baron and Kenny (1986). Using this procedure one must show a statistically significant relationship between an independent (IV) and dependent variable (DV). Next, upon introducing the proposed mediator as a covariate (CV) one must find statistically significant relationships between the IV and the CV and between the CV and the DV. If the relationship between the IV and DV becomes insignificant one can claim evidence that the CV completely mediates the IV-DV relationship. If the association between the IV and DV link remains significant, one can claim that the relationship is partially mediated by the CV.

Table 2. ANOVA/ANCOVA Tests of mediation effects

Treatment Group	ANOVA F Scores (H1)	ANCOVA F Scores	
		Experimental Condition-Outcomes	Mediators-Outcomes
Self-Concepts	8.24	3.87	3.63*
Affect	11.8	1.26	17.42
Preferences	24.4	11.33	16.95
Cognition	13.08	9.28	12.55
<i>All significant @ .05 except * p<.06</i>			

Figure 1. Self-Concepts ANOVA Model and ANCOVA model

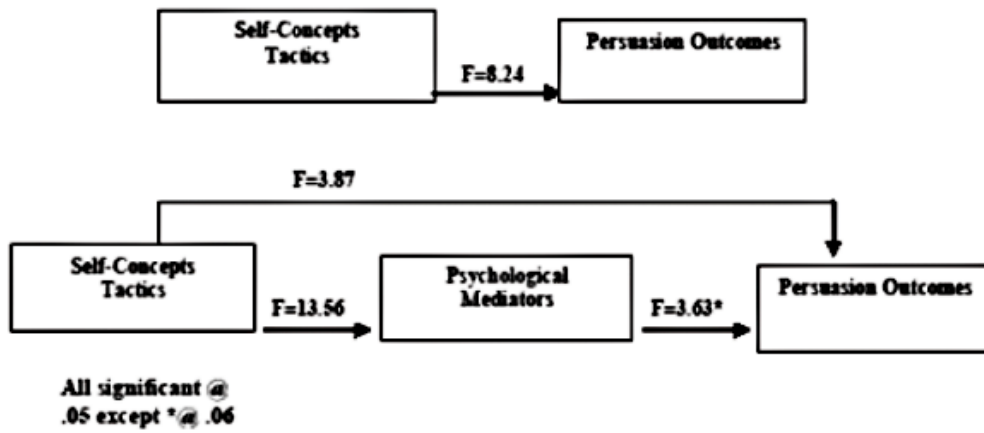


Figure 2. Affect ANOVA Model and ANCOVA model

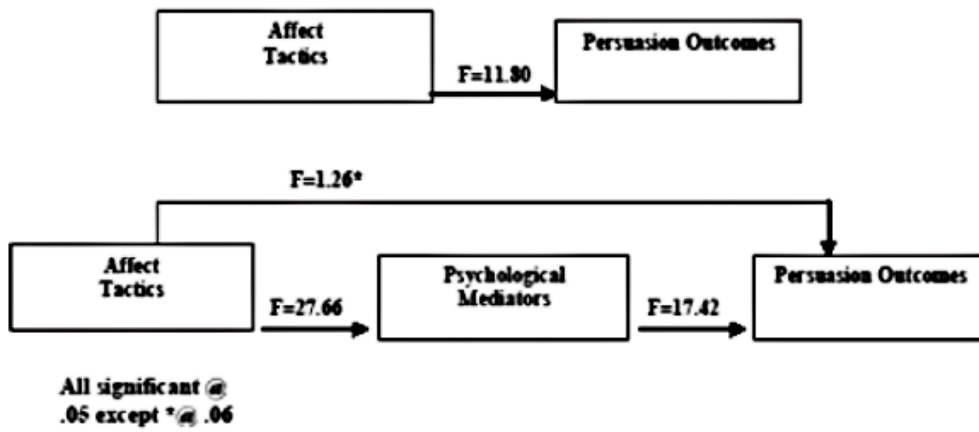
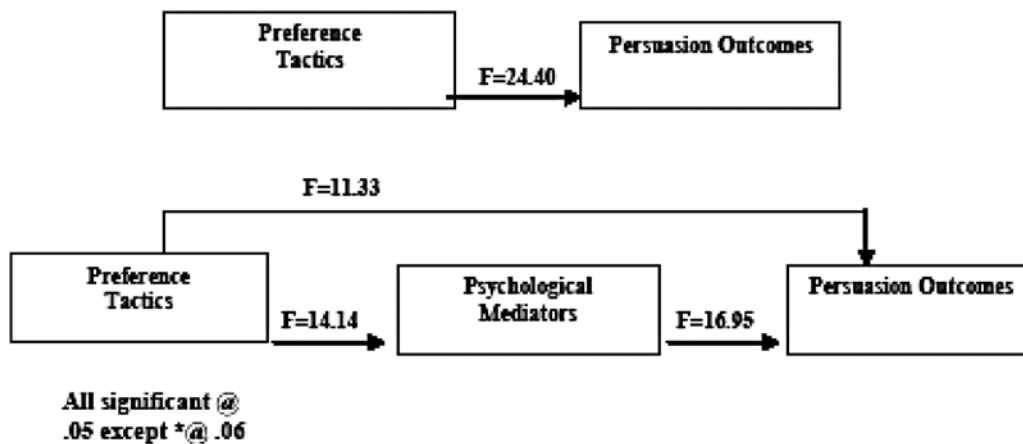
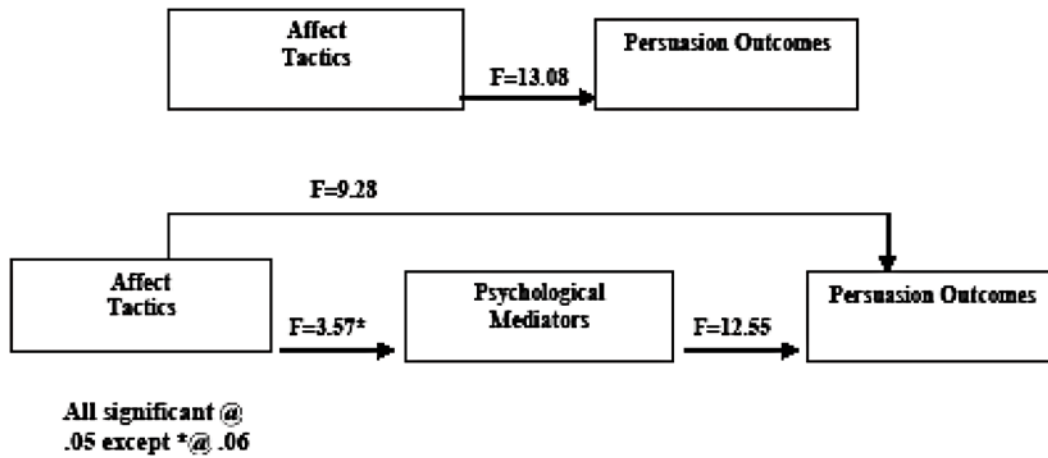


Figure 3. Preference ANOVA Model and ANCOVA model



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Figure 4. Cognition ANOVA Model and ANCOVA model



For each of the four persuasion knowledge conditions, an initial ANOVA was conducted to examine the relationship between salesperson’s tactics (IV) and persuasion outcomes (DV). This model was compared with the second model examining the relationship among the tactics, outcomes and each of the relevant proposed psychological mediators (CV). The two models were compared to determine if these internal psychological processes do indeed mediate the relationship between tactics and outcomes.

For each series of analysis, only the respondents in the relevant treatment and those in the control group were used. Thus, in essence, the ANOVA/ANCOVA analyses were used to test the differences between those in a condition conducive to the use of persuasion knowledge and those in a condition not conducive to the use of persuasion knowledge (e.g. the control). Thus the independent variables were the sales tactics used, which are not perceptible if persuasion knowledge is not used (Henrie & Taylor, 2009).

Graphic depictions for each of the original ANOVA and ANCOVA models can be found in Figures 1 through 4, or within Table 2. The ANOVA models depict the direct link between the independent viable (tactics) and the dependent variable (outcomes). The ANCOVA models depict

the effects on the F scores when the mediators are introduced. In the self-concepts condition, the direct relationship between IV and DV was significant ($F = 8.24, p \leq .05$). When the mediator was introduced into the model, by the use of ANCOVA, the F value dropped to 3.87 but remains marginally significant ($p \leq .06$) indicating partial mediation.

For the affect condition, the IV-DV relationship was significant ($F = 11.80, p \leq .05$). When the affect related psychological mediator was introduced, the F dropped to 1.26, and was not significant ($p > .05$). All other paths were significant in the ANCOVA model. This provides evidence of mediation.

For the preference condition, the relationship between tactics and outcomes produced was significant ($F = 24.40, p \leq .05$). In the ANCOVA model, the IV-DV link remained significant, however the F score dropped to 11.33 ($p \leq .05$). All other paths were significant, indicating partial mediation. The direct link between tactics and outcomes in the cognition condition produced an F value of 13.08, ($p \leq .05$). In the ANCOVA model F dropped to 9.28 and remained marginally significant ($p \leq .06$). All other paths were significant at $p \leq .05$.

In each case as hypothesized, results indicate either partial or complete mediation of the influence of sales tactics on consumer outcomes by the proposed psychological mediators. However, in two cases, either the link between tactics and mediators, or mediators and outcomes were only marginally significant. Therefore, H_2 is partially supported.

MANAGERIAL IMPLICATIONS

The results indicate that these psychological mediators could play a significant role in a salesperson's efforts to persuade a consumer. Based on this evidence, the key to successful persuasion is not merely a focus upon the desired persuasive outcomes, but on the individual psychological processes within the target that lead to such persuasion outcomes. For example, consider a salesperson who wishes to encourage a consumer to prefer their brand. Conventional wisdom and training might dictate an approach that focuses on the product benefits. Thus, a salesperson's presentation should focus on extolling the benefits of their particular product over the competitors, in an effort to persuade the consumer to prefer their brand. In this study, this has been construed as the direct link between persuasion efforts and persuasion outcomes. Although the evidence suggests that this approach can be effective, it isn't the only approach salespeople can use. When the psychological mediators or self-concepts, affect, preference, and cognition are introduced, these groups of individual processes do mediate the relationship between persuasion tactics and outcomes.

This suggests that a wholly unique selling approach might be effective in influencing consumers. Now, salespeople can influence a consumer's attitude toward a product or brand, by attempting to influence the person's mind. This influence need not focus merely on the consumer's perceptions of the product and its benefits, but also should address variety of other factors within the minds

of consumers, such as how they feel, what they think about themselves, and their general preferences as customers.

This is particularly profound for salespeople attempting to develop a strong business relationship with a customer. The evidence supporting persuasion knowledge suggests that consumers using persuasion knowledge are capable of evaluating the tactics of salespeople. It is possible that during this evaluation, the consumers may recognize the salesperson's interest in improving a customer's knowledge, and their own self-concepts (e.g. how they feel about themselves. Isn't it also possible that consumers may see this as a sign that this salesperson cares for their well being and that the salesperson's motives are positive? A consumer attributing these benevolent motives to a salesperson's tactics should be more likely to trust these individuals. And trust is widely recognized as an important antecedent to building relationships with customers (Swan, Bowers, & Richardson, 1999). Thus, salespeople who focus on the most relevant psychological mediators may be paving the way to trusting and fruitful business relationships with their customers, provided they are doing so in a fair and ethically positive manner.

Based upon these results, the authors recommend that sales managers consider instituting new sales training for their salespeople. A more consultative sales approach is recommended, one where the focus isn't solely on a consumer's basic needs and desires, but on the consumer themselves. For example, in certain higher involvement purchases, the evidence suggests that salespeople should spend some time focusing on a customer's self-concepts such as their self-esteem, and confidence as it relates to the product. Thus, a sales presentation should focus not only on how the product provides utility and satisfies the needs of a consumer, but how this product can enhance their self-esteem, and confidence as a consumer. When appropriate, salespeople can focus on any of the 5 categories of psychological mediators in their sales presentation.

Of course, further research is needed to be certain that this approach would result in higher sales in practical application. But a perhaps more significant question regards the consideration of ethics in the deployment of such tactics. Consider a situation where highly trained and well experienced salespeople become skilled at reading and influencing people's psychological mediators. One might argue that in the hands of a sales professional, it is not an issue, as this salesperson only wishes to help the customer meet their needs. But what if such skills were used to manipulate people by less ethically-motivated individuals? Could such sales training create greater ethical dilemmas than the standard need-benefit approach? As with any ethical dilemma it is largely situational and subject to an individual's values. But the question should be raised anytime salespeople are provided tools that enable them to more effectively influence people.

Another practical implication of this study is in the further evidence supporting consumers using persuasion knowledge in a sales interaction. In this study, respondents in the persuasion knowledge condition were generally accurate in using persuasion knowledge to recognize the persuasive tactics being used against them. And yet, unlike prior studies, (Campbell & Kirmani, 2000; Henrie & Taylor, 2009), the respondents who used persuasion knowledge did not necessarily develop negative attitudes toward the salesperson. In fact, the "salespeople" in the scenarios were generally quite effective, despite consumers devoting at least part of their cognitive capacity toward evaluating the salesperson's tactics.

This suggests that persuasion knowledge does not necessarily represent a negative consequence of a sales interaction. Instead, it is quite likely due to the fact that positive behaviors were exhibited by the salesperson while the consumer was 'watching' (e.g. using persuasion knowledge to evaluate the tactics). As discovered in prior research (Campbell & Kirmani, 2000; Henrie & Taylor, 2009), a consumer's reaction to sales tactics, whether positive or negative, are framed largely based

upon their perceptions of the salesperson's intent. More specifically, their reactions focus on whether their motivations lie in simply making a sale (low consumer orientation-insincere) or trying to serve a customer (high consumer orientation-sincere). When a manipulative intent becomes evident, consumers become more likely to use persuasion knowledge, and their perceptions of the brand are generally negative (Kirmani & Zhu, 2007). Therefore, perhaps it is worthwhile for salespeople to make their intentions quite clear from the beginning, and demonstrate a higher level of customer orientation by asking the kinds of questions that identify where consumers are currently in their psychological mediators (e.g. values, thoughts, confidence), and work to influence those directly as it relates to the product and their needs. Again, this points to a more personal, consultative, and interactive sales presentation, where the focus is on building a long-term business relationship instead of a more common, myopic focus on a single transaction.

DIRECTIONS FOR FUTURE RESEARCH

This study was designed to gain insight into the role of psychological mediators within a specific sales interaction. The evidence supported Friestad and Wright's belief that at least in part, consumers use their persuasion knowledge to evaluate the individual psychological mediators being targeted by an agent at a specific point in time (e.g. any given persuasion episode). However, the use of salespeople as an agent provides a limited scope of investigation. It is possible that other agents of persuasion such as advertising messages or website information target similar psychological mediators producing distinct results. Mediation in these types of persuasion episodes remains untested. Further, it is possible that the types of mediators effective in persuasion in the United States do not translate

to other cultures. A comparison of consumers by culture would provide interesting distinctions.

Notwithstanding these limitations, the evidence of this study supports Friestad and Wright's (1995) contention that individual psychological processes mediate the relationship between an agent's persuasive tactics and the outcomes of a persuasion attempt. Even relatively young and inexperienced consumers possess the ability to use persuasion knowledge to evaluate salespeople's tactics and in many cases, are capable of recognizing the specific targets of these tactics with sometimes remarkable accuracy. However, it is unknown if the practical application of this knowledge would be beneficial to salespeople. On a theoretical level, influencing one's psychological mediators had a positive effect on influencing their attitudes toward a product. It would be interesting to see if sales presentations designed to do so in the real world would provide better results than the typical, needs-benefit oriented approach.

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Chapter 8

Do Attitudes Toward Careers in Sales Differ Based on Country of Origin? A Comparative Analysis of MBA Student Attitudes: The US and the UK

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ABSTRACT

Personal selling is a profession that has been described as requiring skilled and professional employees. Although employers have looked toward colleges and universities as sources of potential new sales employees in the past, the complexity and professionalism required in sales has led employers to recruit graduate students to fill the sales role. This research evaluates the exposure of students pursuing their MBA degrees to sales and their attitudes toward sales to identify how these attitudes might affect the recruiting process. Further, given the prevalence of international business operations, the study identifies sales attitudes and sales exposure in a comparative fashion by assessing the responses of MBA students in the US and in UK. The results provide insights into differences in attitudes and sales knowledge between students enrolled in MBA courses in the two countries. Based on these findings, conclusions and suggestions for employers and educational institutions are developed.

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INTRODUCTION

Of all the activities in which a sales manager engages, one of the most challenging is recruiting and hiring. It has been estimated that the costs of poor hiring decisions are 3 to 6 times the individual's annual income (Hrehocik, 2007). Furthermore, intrinsic costs of poor hiring decisions exist and these include costs associated with lost revenues, low morale, training, managerial time/focus, etc. Thus, selecting the best possible salesperson from a pool of candidates is a critical decision. The challenges of recruiting and selecting the best possible individuals are exacerbated in situations requiring continual sales force expansion and replacement hiring. In such situations it may seem that all the manager does is hire and train new salespeople. When such a circumstance is accompanied by other factors such as those which may exist when the firm/job is not well-known, or when the firm is required to select its group of new hires from a pool of college-educated individuals, the challenges expand. Further complicating the situation is that many college-educated students may have negative opinions of the position for which these sales managers are hiring.

In the US, students pursuing their Master's Degrees in Business Administration (MBA) are faced with many challenges. One author suggests, "the MBA is wholly out-of-touch with the 'real world' and the needs of practicing managers" (Rubin & Dierdorff, 2009, p. 209). As a general observation, it has been noted that employers feel that both oral and written communication skills should be included more frequently in MBA student classes (Ulinski & O'Callaghan, 2002). Others agree and argue that communication skills are highly important for MBA students and should be included more frequently as major components of their classes (Kane, 1993; Peterson, 1997).

The focus on increasing the MBA student's studies in the area of communication coincides with an increased desire by business organizations to hire salespeople based on their professionalism and business prowess. In fact, it's been stated that

"In today's competitive business environment, selling requires high levels of professionalism, business acumen, and consultative service" (Pulins & Buehrer, 2008, p. 15). Others contend that salespeople are increasingly required to possess greater knowledge about: buyer behavior, marketing analysis, sales forecasting, technology, company services, and more (Ellis, 2000). Based on these observations, more people are realizing that selling is being accepted as a profession and as such, the individuals entering sales need educational qualifications similar to those found in other professions (Cohen, 2009). These requirements suggest that "salespeople need to raise their level of salesmanship to a consultant level" (Aronauer, 2006). Thus, given the professionalism and knowledge levels required of salespeople, recruiters are increasingly focusing on MBA students (Simon 2006). However, this focus is problematic because sales education has been described as being absent from the graduate curricula in most graduate programs (Butler, 1996).

Many authors agree that sales force recruiting is an increasingly prevalent activity across college campuses in the US (Bristow, Gulati, & Amyx, 2006). Recruiting college graduates is described as being a major concern for US businesses (Amin, Hayajneh, & Nwakanma, 1995). The fact that college students are attractive recruits for many sales positions is well-established and probably reflects the belief that college students are trainable and talented (Dubinsky, 1980; Gurvis, 2000; Lysonski & Durvasula, 1998; Stevens & MacIntosh, 2002, 2003). As Ellis (2000) points out, it is logical recruiters would select college students as a source for new salespeople, particularly given the fact that the sales role is becoming more professional, requiring greater skills and knowledge. For example, salespeople are increasingly required to understand their customers' businesses; make more operational decisions; develop sales forecasts; understand buyer behavior; gather information and market analysis; and implement new technologies.

Sales positions continue to be identified as being among the most difficult positions to fill with qualified applicants (Galea, 2006). As employers seek to fill sales positions, they recognize that they require a specialized type of graduate to succeed in sales. These firms are seeking graduates with an understanding of sales and an appreciation of the importance of sales, thus leading them to university campuses (Sales and Marketing Management, 2002). While the logic of recruiting on university campuses is obvious, sales continues to be perceived negatively by most college students (Bristow, Amyx, & Slack, 2006). Often students regard sales negatively and view sales positions as being inferior to other professional positions (Cook & Hartman, 1986; Dubinsky & O'Connor, 1983; Lagace & Longfellow, 1989; Paul & Worthing, 1970; Swenson et al., 1993). The situation is well-summarized by Lysonski and Durvasula (1998) who argue that students' unenthusiastic attitudes impair businesses' abilities to recruit, hire and retain college graduates. Not only do firms have difficulties recruiting college students, research indicates recruiters' tasks are made more difficult with increases in student grade point averages and college status. Difficulties increase because as grade point averages rise and as students advance in years of education, negative attitudes toward sales increase (Swenson et al., 1993). Therefore, firms seeking to hire college graduates often discover their recruiting pool is limited to students with lower grade point averages, who are further from graduation. As Ford, Honeycutt and Joseph (1995, p. 312) argue, "If the best and the brightest human resources eschew sales as a career, then the efficiency and effectiveness of the sales force and ultimately of the entire company itself could be at risk."

While these issues provide a formidable task for US firms recruiting salespeople, the challenge may be even more daunting for firms recruiting international sales personnel. Since much of the future growth is likely to occur internationally, student attitudes toward sales in other nations should

be of interest (Lysonski & Durvasula, 1998). In fact, recruiting highly qualified individuals is increasingly becoming a major concern for global businesses (Ford, Honeycutt, & Joseph, 1995). Many authors note that international attitudes toward personal selling and sales as a career are far more deleterious than are attitudes found in the US (which admittedly are generally not very positive) (Amin, Hayajneh, & Nwakanma, 1995; Hill & Birdseye, 1989; Johansson, 1997; Terpstra & Sarathy, 1997).

Specifically, it has been found that international college students have a pessimistic impression of selling which may be attributed to perceptions that selling is low in status, it entails manipulation of others, it does not contribute to society and it does not require a university education (Lysonski & Durvasula, 1998). Ellis (2000) contends that recruiters in the UK have difficulties recruiting good salespeople. Internationally, difficulties recruiting sales personnel from universities are recognized by others who note international students do not have positive attitudes toward personal selling as a career (Amin, Hayajneh, & Nwakanma, 1995; Lysonski & Durvasula, 1998). Ellis (2000) sums up attitudes toward selling by stating ". . . many European customers view salespeople like North Americans used to view used-car salespeople." These points indicate that the recruiting of international sales personnel may be a far more formidable task than is recruiting of domestic (US) salespeople.

Based on the premise that university recruiters seeking sales applicants are interested in attracting the 'best' possible students, the purpose of this research is to assess the attitudes of university students toward personal selling positions. In addition, this study is also designed to empirically compare attitudes toward personal selling held by individuals studying in the US and in the UK. By assessing student attitudes toward sales, firms are better-positioned to identify efforts that are required to attract the types of students qualified for their positions.

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If students possess negative attitudes toward sales that are based on misperceptions, then firms might engage in communication processes designed to ameliorate these misperceptions. Further, if attitudes in the UK are significantly different than are attitudes in the US, as they pertain to sales careers, then individuals recruiting for sales roles in the UK might identify alternatives to recruiting UK students. Alternatives might include hiring more expatriates or perhaps firms might work toward ways of correcting these attitudes and misperceptions. In any case, remedial actions designed to enhance the abilities to recruit, select, and maintain excellent sales candidates from universities in the US and the UK are largely based upon an understanding of current positions with regard to student attitudes. Based on these propositions, this research is designed to explicitly identify perceptions of university students as they pertain to professional sales.

RELATED RESEARCH

While university students may not be positively predisposed to careers in professional selling, the reality is that graduates will discover a portion of their careers will be spent in personal selling. Research has estimated that 80% of marketing majors and 50% of finance majors will be involved in sales positions (Bristow, Amyx, & Slack, 2006), with other research estimating that 60-90% of those who major in business will enter personal sales positions (Gurvis, 2000). Weilbaker (2001) states that greater than 70% of new marketing graduates will begin their careers in sales jobs. Further, it has been pointed out that firms are increasingly recognizing the need for sales professionals and are therefore recruiting at universities that are working toward increasing the professionalism of sales (Anderson, et al. 2005).

Student attitudes may be tainted by the fact that many may not be completely aware of the high levels of professionalism required in business-to-

business sales and they often underestimate the level of formal education required (DeVecchio & Honeycutt, 2002; Muehling & Weeks, 1988). One can reasonably conclude that entry level sales positions are available for college graduates, yet the costs associated with sales force turnover make it imperative that sales recruiters select individuals who are desirous of being in sales and not merely accepting sales positions as a short-term solution to an employment issue (Hrehocik, 2007). It has been stated that educators' attitudes reflect the importance ascribed to selling by employers, as sales has become a critical component in the university curriculum (Gurvis, 2000).

Most of the previous research conducted regarding attitudes toward sales, in general, and sales careers, specifically, has taken one of three alternative streams. The first, and perhaps most prevalent stream, is one in which attitudes toward sales careers are examined. In this type of assessment, research subjects are requested to evaluate the degree to which sales positions possess a variety of attributes. For example, Dubinsky (1980) examined introductory and advanced marketing student perceptions of the degree to which sales jobs possessed 24 separate characteristics. According to Dubinsky's findings, most students had relatively positive perceptions of sales jobs, as 80% of the students surveyed believed sales jobs were challenging, provided feelings of accomplishment, allowed interactions with different people, provided travel opportunities, and provided opportunities to use one's creativity. On the other hand, it is also recognized that less than 50% of the respondents felt that the sales job had status, provided for leisure time, benefited society, or gave job security.

In a survey of 296 students taking business classes at one of three Ohio-based universities, student perceptions of the degree to which 26 attributes were associated with careers in selling were assessed (Cook & Hartman, 1986). In general, students' negative perceptions of sales focused on several factors, including the view

that one's success is largely determined by his/her personality, that sales provided minimal job security, and that sales jobs do not require a college degree. Muehling and Weeks (1988), in a survey of 300 introductory marketing students enrolled at a state university, found that students indicated negative sentiments toward sales positions based on a few dimensions of sales. These dimensions included attitudes which pertain to the belief that sales offers little security (Dubinsky, 1980; Cook & Hartman, 1986); and that salespeople lead a poor home life.

In a study which assessed the opinions of 152 students enrolled in sales management/selling classes, it was discovered that student attitudes were moderately positive toward sales (Lagace & Longfellow, 1989). This study indicated that the most negative sales perceptions were derived from these students' associations of selling with considerable travel and with the belief that one's personality was a critical success determinant (Cook & Hartman, 1986).

A study of 156 senior-level business students evaluated 21 aspects of a sales position. Their findings were generally positive, particularly regarding the dimensions related to pay; salesperson professionalism; the degree to which sales attracts people who are friendly, exciting and responsible; and that sales benefits society. More neutral responses were found with respect to the attitudes regarding questions pertaining to whether sales positions attract people who are well-educated, "like me" and masculine, and whether sales is a high status position. Potentially negative perceptions included the finding that sales positions are attractive to people who are persistent (which could be positive or negative), not upper-class, not relaxed, that sales requires weekend work and it takes considerable time, and that sales requires considerable traveling. The study concluded with the finding that none of the respondents 'preferred' sales positions (Amin, Hayajneh, & Nwakanma, 1995).

In a study of students from four countries (US, 92; Singapore, 129; India, 95; and New Zealand,

205), students responded to 24 belief statements regarding their perceptions of salespeople. From a positive perspective, the respondents perceived sales jobs to be challenging, providing feelings of accomplishment, requiring creativity, providing opportunities for travel, with good pay and commissions. However, a negative perception existed with regard to the reputation of sales jobs (except for India, where sales jobs and their reputations are positively perceived), these negative attitudes include the belief that sales positions do not require a university education, and that sales does not make a contribution to society. Overall, the students seemed to hold beliefs that salespeople are pushy, aggressive, have low reputations, are not high in professionalism, and do not contribute much to society (Lysonski & Durvasula, 1998).

More recent findings obtained from a study based on the responses obtained from 271 students in junior/senior level courses, indicated that salespeople were perceived to be 'non' customer-oriented. This conclusion was based on the respondents' perceptions that salespeople would misrepresent guarantees/warranties; take advantage of uneducated buyers; exaggerate product benefits; sell products people don't need; make up information to answer questions; and stretch the truth (Bristow, Amyx, & Slack, 2006). Additionally, the respondents felt that 'others' did not hold salespeople in high regard. This was reflected by student attitudes that salespeople were not admired/respected; perceived favorably; trustworthy/honest; or thought of highly by others. In a similar study, Bristow, Gulati, and Amyx (2006) surveyed 917 students enrolled in a variety of classes in six different universities. In this study, the results indicated that students who had completed a sales-oriented class felt that sales careers could be significantly more rewarding than did those students not completing a sales class. However, the study also found that both students who had taken and who had not taken sales-related classes perceived salespeople as being "non consumer-oriented."

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Another track of research has examined student attitudes toward sales careers by asking students to evaluate alternative careers, thereby identifying students' comparative preferences for careers in personal selling. In one such study, Dubinsky and O'Connor (1983) assessed student attitudes toward seven different kinds of sales jobs: route, retail, trade, missionary, sales engineer, product and service selling. Based on their surveys of 203 introductory marketing students, the most preferred jobs were sales engineer and service sales jobs. The most disliked positions were retail, trade, and route sales jobs. A related study surveyed students taking introductory and senior level marketing courses at 13 different universities. These students also engaged in a comparison of career areas, including consumer product sales, industrial, and retail sales. The findings indicated that sales positions were not perceived positively by the respondents (Swenson et al., 1993). A study of 163 business students in New Zealand indicated that international sales was the position most preferred by students (Ford, Honeycutt, & Joseph, 1995). This study indicated that international sales was perceived as being exciting, challenging and offering travel opportunities. Consumer product sales and industrial sales were perceived far more negatively. The students viewed them as being unglamorous and repetitious.

One study assessed the attitudes of students enrolled in business courses in three different countries, the US (171 undergraduate students), New Zealand (163 business students), and the Philippines (169 students). The findings indicated that industrial sales and consumer product sales were not preferred by any of the undergraduate students surveyed (Honeycutt et al., 1999). A more recent study compared attitudes toward personal selling held by African-American students with those held by Anglo-American students. This research examined the degree to which different types of sales jobs (consumer product, industrial product, insurance, international, real estate, and security/financial services) were attractive. The

findings indicated that the most attractive positions were international, real estate, and consumer product sales, while the least appealing positions were industrial product, insurance and financial sales (DeVecchio & Honeycutt, 2002).

The third research track consists of a variety of comparative studies which have been conducted to determine the degree to which personal selling careers are perceived differently by individual groups. Variables examined have included demographic factors such as race, gender and employment experience. Dubinsky (1981) compared attitudes of college students with the attitudes of industrial salespeople. This research discovered that students have many 'misconceptions' regarding sales. It is contended that students, compared with industrial salespeople, were more likely to perceive that the sales job has fewer positive features when compared with alternative marketing careers. Students also had negative perceptions regarding several different aspects of sales careers. The negatively perceived aspects of sales focused on topics such as the employer's reputation; task variety; societal contributions; professionalism and status of sales positions; job security; complexity and variety; and relocation issues.

Female and male student attitudes toward selling have also been examined. In an early study of differences between male and female students, it was found that few differences exist between males and females regarding their attitudes toward sales positions (Dubinsky, 1980). This study did indicate that females may place greater emphasis on factors such as image, professionalism and corporate reputation than do males. Male students were found to be more likely to perceive that sales jobs: were complex/nonroutine; were dynamic and exciting; provide good compensation; and provide more advancement opportunities than did females. Dubinsky concluded that men had a more favorable perception of the sales job than did female students. Later work agreed that females were less likely to prefer a career in sales than were male students (Cook & Hartman, 1986).

However, a separate study found that women have significantly more favorable attitudes toward sales than do males (Muehling & Weeks, 1988).

Research comparing attitudes of African-American students with the attitudes of Anglo-American students as they relate to personal selling positions has also been conducted. Research has found no significant differences in the degree to which sales careers are appealing/unappealing based on race (DeVecchio & Honeycutt, 2000). A related study found both African-American and Anglo-American students felt financial rewards and autonomy were critical factors influencing sales career appeal ratings. Both groups of students had relatively positive attitudes toward industrial sales careers (DeVecchio & Honeycutt, 2002).

A study comparing attitudes toward sales held by students in Singapore, New Zealand, India and the US found that Singapore and New Zealand had significantly more negative thoughts about selling than did US students. India, however, had the most positive perceptions of the four nations analyzed. Except for India, all three nations' students felt that salespeople are pushy, aggressive and have low reputations. Salespeople are viewed as being low in professionalism, sales jobs are perceived as lacking intellectual challenge, and as not contributing to society (Lysonski & Durvasula, 1998). Similar findings occurred in a study reported one year later. In this study the attitudes of students from New Zealand, the Philippines, and the US were compared. The findings indicated that sales careers are perceived negatively by students from each of the three nations. Specific differences indicate New Zealand students felt consumer product sales positions were more unacceptable than did US or Philippine students. New Zealand and US students rated industrial sales lower than did Philippine students. US students rated international sales lower than did Philippine or New Zealand students (Honeycutt et al., 1999).

Thus, it appears that different countries have differing perceptions regarding the importance and the prestige of sales positions (Honeycutt,

Ford, & Kurtzman, 1996). It has been stated that the sales profession is held in relatively low esteem in Europe and 66 percent of UK employers contend that they have difficulties recruiting for senior sales positions (Rogers, 2009). Thus, recruiting salespeople for international business is a major challenge (Ford, Honeycutt, & Joseph, 1995). This challenge is particularly acute when recruiting students possessing college degrees because sales careers are not frequently perceived as careers requiring a college degree in European nations (Honeycutt et al., 1999; Lysonski & Durvasula, 1998).

The literature reviewed appears to indicate that college student attitudes, as they pertain to sales positions and sales careers are important. The importance of these attitudes is largely attributable to the fact that these attitudes often translate into actions regarding how students respond to recruiting activities as they relate to sales positions. As one might assume, as the pool of available recruits increases in both quantity and quality, the odds of selecting the appropriate candidate for a sales position increases. However, if students hold negative attitudes toward sales careers, then sales recruiters have a more troublesome task in selecting an excellent candidate from a pool of less qualified recruits. As noted previously, the challenges of recruiting for US-based sales positions are formidable ones. However, when firms are placed in positions in which they are required to develop a sales force in another nation, the challenges may become increasingly difficult. These challenges may intensify due to the fact that while attitudes toward sales held by US students are not totally positive, attitudes held by students outside the US could be even more negative and this circumstance would increase the difficulties involved with international salesperson recruitment and selection.

It is interesting to note that some research has assessed attitudes toward sales careers held by university students in countries such as the Philippines, New Zealand, India, etc. However,

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no study was discovered which evaluated attitudes of college students located in a country with which the US has its greatest history, the United Kingdom. Culturally and historically, one could reasonably argue that the US and UK have strong ties politically and economically. It seems surprising to note that none of the research uncovered has explicitly compared attitudes toward sales held by students from these two nations. The purpose of this research is to correct this deficiency.

HYPOTHESIS

Based on the review of the literature, the central hypothesis of this study is that UK students' attitudes toward personal sales positions will be significantly more negative than US student attitudes. This hypothesis is based on research indicating that international attitudes toward sales are generally negative (Amin, Hayajneh, & Nwakanma, 1995; Hill & Birdseye, 1989; Johansson, 1997; Terpstra & Sarathy, 1997). Furthermore, Ellis (2000) contends that sales in the UK is held in lower esteem than it is in the US. Based on these perceptions, the following is the central focus of the study:

Attitudes toward personal selling careers held by students in the UK will be significantly more negative than will attitudes toward selling careers held by students in the US.

METHODOLOGY

As stated, the purpose of this research is to compare the attitudes of students in the UK with the attitudes of students in the US regarding aspects of careers in personal selling. The first step in this analysis entailed the selection of an appropriate sample. Given that the level of professionalism necessary in personal selling has been described as increasing and corresponding with this increase is the requirement that individuals engaged in the

process be 'more solution-oriented' than 'sales-oriented' (DeVecchio & Honeycutt, 2002; Ellis, 2000), it was determined that the sample consist of students who should have the expertise necessary to engage in consultative sales. In addition, the researchers believed that the sample should also include students who had been exposed to numerous aspects of business and students who were likely to be business professionals upon graduation. Therefore, the sample frame for the study consisted of students enrolled in M.B.A. marketing courses at two AACSB accredited universities; one university located in the UK and the other university located in the US. In both sampling cases, the course in which the questionnaires were administered was the 'general' marketing course required of all M.B.A. students.

The survey instruments were delivered to professors teaching these classes. These professors were asked to administer the surveys during class time. Additionally, the professors agreed to administer the survey after all of the courses topics had been discussed, toward the conclusion of the semester. Both professors agreed to assist in the data-gathering process and surveyed students in the classes under their direction. Surveys were given to 335 students (157 UK students and 178 US students). Students were not told the purpose of the survey, they were not 'required' to complete the survey, but they were provided time during class to complete the survey.

The survey instrument consisted of twenty questions designed to assess student attitudes toward careers in personal selling (these questions are presented in abbreviated form in Table 1) and each of the survey items was based on a question used in prior research. Attitudes were assessed using a 7-point Likert-type scale (1 = strongly disagree and 7 = strongly agree). Negatively stated items were reverse scored for consistency in interpretation. Thus, for both negatively and positively phrased questions high scores were indicative of positive attitudes toward selling. In addition to these 20 questions, three questions were added to

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Table 1. Responses on entire scale US UK ITEM: mean (s.d.) mean (s.d.) t-value (p)

I have many FRIENDS who are employed full-time	3.2 (1.8)	2.9 (1.8)	1.3 (.19)
Sales is a career OPPORTUNITY I would like to pursue upon graduation	3.1 (1.9)	2.9 (1.7)	1.0 (.32)
Personal selling is widely regarded as a very RESPECTABLE position	3.6 (1.5)	3.4 (1.5)	1.2 (.23)
I would not go in to sales because it is an UNETHICAL career	5.0 (1.7)	4.8 (1.8)	1.1 (.26)
Personal selling careers are very PRESTIGIOUS.	3.5 (1.3)	3.2 (1.3)	2.4 (.02)
My PEERS would 'look down on me' if I pursue a sales career	5.0 (1.6)	4.9 (1.7)	.2 (.87)
One does not need a university EDUCATION to work in sales.	3.1 (1.5)	3.6 (1.5)	2.9 (.004)
Selling is not a CHALLENGING career.	4.7 (1.5)	4.8 (1.6)	0.6 (.58)
My PARENTS would not approve of a sales career.	4.6 (1.7)	4.5 (1.8)	0.3 (.79)
Sales offers many JOB SATISFACTION opportunities	4.1 (1.5)	3.9 (1.4)	1.7 (.10)
I would appreciate the SECURITY offered by a sales position.	3.6 (1.6)	3.2 (1.4)	2.3 (.02)
Sales SALARIES are extremely attractive to me	3.7 (1.5)	3.5 (1.5)	1.3 (.18)
The TASK VARIETY available in sales is too limited.	4.3 (1.4)	3.7 (1.5)	3.4 (.001)
I would like to have the opportunity to work with DIFFERENT PEOPLE	4.7 (1.6)	4.6 (1.6)	0.6 (.53)
Sales offers little opportunity to exercise CREATIVITY.	4.4 (1.7)	4.6 (1.6)	1.1 (.26)
Sales jobs are very STRESSFUL	3.3 (1.6)	3.3 (1.4)	0.1 (.94)
I would enjoy the TRAVEL opportunities in sales	4.6 (1.7)	4.2 (1.8)	2.3 (.02)
I would NOT ACCEPT a career in personal sales.	4.2 (1.6)	4.1 (1.6)	0.4 (.71)
My marketing professors have ENCOURAGED me to pursue a career in sales.	3.5 (1.6)	2.6 (1.5)	4.9 (.0001)
There is NO WAY I would accept a sales position.	4.5 (1.8)	4.5 (1.7)	0.3 (.78)

evaluate global attitudes toward sales education and the perceived opportunities available in sales positions. To enhance the student's anonymity in the response process and to protect student privacy only two demographic questions were included in the survey (age and gender).

RESULTS

Three hundred students provided usable responses to the survey (141 UK and 159 US). The majority, 78%, of the participants were of traditional 'college student' age (18-24) and 18% were between the ages of 25 and 34. Additionally, 52% of the respondents were male and 48% female. As noted previously, all students were enrolled in gradu-

ate classes pursuing their M.B.A. degrees, so all students had undergraduate degrees.

Student responses to the individual questions and the results of t-tests comparing the responses of UK and US students are shown in Table 1. A qualitative review of the results indicates that 9 of the 20 responses may be perceived as being relatively positive in terms of the students' attitudes toward selling, as these responses are greater than the 4.0 scale mid-point value on the 7-point scale. Of the questions with responses of less than the 4.0 value, 9 were from US respondents and 11 were from UK respondents. These questions include items which indicate the students surveyed do not have friends employed in sales full-time (3.2 US/2.9 UK); sales is not an opportunity they plan on pursuing upon graduation (3.1 US/2.9

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UK); sales is not perceived as a very respectable position (3.5 US/3.2 UK); personal selling careers are not very prestigious (3.5 US/3.2 UK); students do not need a university degree to work in sales (3.1 US/3.6 UK); students do not appreciate the security offered by sales positions (3.6 US/3.2 UK); salaries are attractive (3.7 US/3.5 UK); sales jobs are very stressful (3.3 US/3.3 UK); and their marketing professors have not encouraged them to pursue careers in sales (3.5 US/2.6 UK). Additionally, UK students also were negative with regard to two other questions: sales offers many job satisfaction opportunities (3.9 UK and 4.1 US) and the task variety available in sales is too limited (3.7 UK and 4.3 US)

The results reveal that 6 of the 20 responses are significantly different for the two groups of students. These findings show sales careers are perceived as being less prestigious in the UK than in the US (3.2 vs. 3.5). This would seem to coincide with expectations and previous research. Contrary to expectations however, was the finding that UK students were more likely to feel that being in sales required a university education than did US students (3.6 vs. 3.1). Consistent with expectations, the third significant difference revealed US students felt sales careers offered greater security than did UK students (3.2 vs. 3.6). UK students were also significantly more likely to believe task variety in sales positions was significantly more limiting than did US students (3.7 vs. 4.3). The fifth significant difference indicated UK students were less likely to enjoy the travel opportunities associated with sales positions than were US students (4.2 vs. 4.6). Finally, UK students were significantly less likely to be encouraged to pursue careers in sales by their professors than were US students (2.6 vs. 3.5).

Scales were developed to assess the degree to which attitudes held by UK and US students were dissimilar. As indicated in Table 2, factor analysis was conducted to determine whether there existed underlying dimensions which may affect the design of the scales. The factor analysis

indicated that two of the questions had either low loadings (<.40) or high cross loadings and were excluded (Hair et al., 1995). After removing those two variables, a two factor solution emerged. As shown in Table 2, each of the remaining factors had loadings greater than .40 and low cross-loadings. The two factor solution resulted in two separate scales based on the variables which loaded on each of the two factors, the first was termed the *positive aspects of sales* scale and the second was termed the *negative aspects of sales* scale. Each of the items associated with the scales is shown in Table 2, along with the factor loadings. The alpha coefficients calculated for each scale are also shown in Table 2. As indicated, each of the alpha coefficients exceeds the .70 recommendation advanced by Nunnally (1978) and the scales are perceived as being reliable for the purposes of this study.

The findings, as they relate to the central hypothesis, are shown in Table 3. The central hypothesis of the research is that students in the UK will have significantly more negative attitudes toward sales than will their US counterparts. The findings indicate mixed support for this hypothesis. As indicated in Table 3, an evaluation of the 'complete' scale (including all questions) shows attitudes toward personal selling are significantly different based on the respondent's country-of-residence, with UK student attitudes being significantly lower than US student attitudes. With regard to the *positive aspects* of sales scale, the results indicate US students have significantly more positive attitudes toward sales than do UK students. However, the findings are insignificant with regard to the scale associated with *negative aspects* of sales. The results pertaining to this segment of the analysis pertaining to the *negative characteristics* of sales careers indicates that while US students are more positive than UK students, differences between the two groups are not significant.

Three general questions were asked to gauge the respondents' general attitudes/feelings toward

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Table 2. Factor analysis results FACTOR Positive Aspects Negative Aspects

I have many FRIENDS who are employed full-time	.50	-.17
Sales is a career OPPORTUNITY I would like to pursue upon graduation	.75	-.02
Personal selling is widely regarded as a very RESPECTABLE position	.73	.06
*I would not go in to sales because it is an UNETHICAL career	.01	.75
Personal selling careers are very PRESTIGIOUS .	.67	.03
*My PEERS would 'look down on me' if I pursue a sales career	-.05	.75
*Selling is not a CHALLENGING career.	-.01	.66
*My PARENTS would not approve of a sales career.	-.10	.72
Sales offers many JOB SATISFACTION opportunities	.48	.15
I would appreciate the SECURITY offered by a sales position.	.64	-.03
Sales SALARIES are extremely attractive to me	.61	.09
*The TASK VARIETY available in sales is too limited.	-.02	.41
I would like to have the opportunity to work with DIFFERENT PEOPLE .	.40	.13
*Sales offers little opportunity to exercise CREATIVITY .	-.14	.48
I would enjoy the TRAVEL opportunities in sales	.44	-.04
*I would NOT ACCEPT a career in personal sales.	.17	.43
My marketing professors have ENCOURAGED me to pursue a career in sales.	.50	-.24
*There is NO WAY I would accept a sales position.	.26	.57

* = Questions which were reversed scored.

Positive attitudes = FRIENDS + OPPORTUNITY + RESPECTABLE + PRESTIGIOUS + JOB SATISFACTION + SECURITY + SALARIES + DIFFERENT PEOPLE + TRAVEL + ENCOURAGED

Alpha coefficient: .79

Negative attitudes = UNETHICAL + PEERS + CHALLENGING + PARENTS + TASK VARIETY + CREATIVITY + NOT ACCEPT + NO WAY

Alpha coefficient: .70

sales positions and sales education. The results of comparisons using these questions are also shown in Table 3. The first question was “firms that recruit on campus often recruit for sales positions.” As shown, US students were significantly more likely to agree with this statement than were UK students. The next question was “I would like it if my university provided me with greater amounts of sales knowledge.” In this case, differences were not significant between the responses of US and UK students. However, US students did have a stronger degree of agreement with this statement than did UK students. The third question was “If I could begin my education again, I would attempt to gain more sales education.” Responses to this question were generally

negative (<3.5 midpoint) and the differences between the two groups were significant, with the US students being significantly more likely to agree with this statement.

IMPLICATIONS

The findings of this research suggest graduate students in both the US and the UK share ambivalent attitudes regarding personal selling careers. Using a seven-point scale (7 = positive attitudes and 1 = negative attitudes) to assess attitudes, a score of 4.0 would be regarded as neutral. Practically speaking then, scores less than 4.0 might be regarded as being less than positive. Using a 4.0

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Table 3. Findings US Students UK Students Attitude Scale Mean (sd) Mean (sd) t (p)

Sales Attitudes (overall)	77.6 (13.2)	73.2 (14.8)	2.6 (.01)
Positive sales attitudes	41.2 (10.3)	37.3 (10.3)	3.1 (.002)
Negative sales attitudes	36.9 (7.8)	35.9 (8.6)	1.1 (.32)
CAMPUS RECRUITING	4.2 (1.3)	3.9 (1.5)	2.2 (.03)
UNIVERSITY KNOWLEDGE	4.0 (1.6)	3.8 (1.5)	1.2 (.22)
SALES EDUCATION	3.3 (1.7)	2.9 (1.7)	2.4 (.02)

score as the guide, findings show that 20 of 40 items had responses which were less than 4.0 (11 of 20 for the UK sample and 9 of 20 for the US sample). These findings should provide pause for recruiters and sales managers operating in either the US or the UK, as it appears that attitudes toward sales careers are not positive. Concerns may be heightened for sales managers and recruiters interested in developing a sales force in the UK because these attitudes are less positive than are attitudes in the US. As the results show, UK students have significantly more negative attitudes on five of the twenty attitude dimensions analyzed.

These results suggest that in order to reach the attitude levels equal to those in the US, managers/recruiters in the UK might wish to engage in strategies designed to promote student attitudes as they relate to perceptions regarding the prestige of sales jobs, security offered by sales positions, task variety present in personal selling roles, travel opportunities of sales jobs, and the degree to which their professors encourage them to engage in sales roles. Improvements in attitudes may be facilitated through increases in information regarding the professionalism of sales jobs and the positive characteristics of these positions. These communications may come from professors, sales professionals and managers, media, and other communications.

The results pertaining to the tests of the hypotheses were mixed. On the *positive aspects* of sales scale, US students rated sales characteristics significantly higher than did UK students. However, differences between the two countries represented were not significant with regard to the *negative aspects* of sales scale. Thus, the *positive aspects* of sales are perceived significantly more positively in the US than in the UK. However, no significant differences exist in the degree to which UK and US students perceive the more *negative characteristics* of the sales position. Based on these findings, it may be suggested that to create parity with the US students' perceptions of the *positive aspects* of sales, UK students' perceptions of the *positive aspects* of sales must be improved. To facilitate this improvement, it is suggested that communications be focused on topics which convey the fact that sales has many positive characteristics. These communications could include concepts such as the fact that sales careers provide respectable and prestigious opportunities that are worthy of pursuit upon graduation. Additionally, information may be shared regarding job satisfaction, security, and salary benefits available in sales positions. Finally, information might be disseminated pertaining to travel opportunities and the benefits that are inherent in interacting with a variety of other individuals. In this case, it appears that again, focus should be on accurate information sharing regarding *positive aspects* of sales careers.

Finally, the results indicate that US students are more likely to be exposed to sales recruiters, as these students are significantly more likely to state that campus recruiting occurs at US universities than at UK universities. It appears that neither group would attempt to gain more sales education if they were to begin their education again. However, UK students were significantly less likely to agree with this statement than were US students, implying that UK students are less positive toward career opportunities in sales and less likely to seek education with regard to sales.

Correspondingly, neither group provided very positive ratings (> 4.0) to the question of whether they would like their university to provide greater amounts of sales knowledge. In this case, however, differences were not significant based on the students' desire for their university to provide this knowledge. These results suggest that sales positions are not viewed positively by these students. Moreover, one could infer sales careers are not among the options being considered by the sample of students. The most obvious implications which may be drawn from the research is that in order for sales to be considered as a preferred and/or viable career alternative, companies and educators may be required to correct many misperceptions and miscommunications as they relate to student attitudes toward careers in professional selling.

However, making these modifications may be challenging due to a shortage of resources and a shortage of focus on sales-related programs. It has been noted that in the US that business schools do not seem to offer an adequate number of courses in personal selling (Michaels & Marshall 2002). Further, it has been observed that approximately 120 university marketing courses exist for every one course in sales. However, the dichotomy that exists is based on the fact that there are approximately 60 sales positions for each marketing job (Cohen, 2009). Thus, the necessity and practicality of a greater focus of higher education on sales and sales-related courses would seem to be a logical implication of this research.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study reports on the perceptions of sales and sales topic coverage held by MBA students enrolled in marketing courses at two universities, one located in the US and the other located in the UK. While both universities have Colleges of Business which are AACSB accredited at all levels, have enrollments in excess of 20,000 students and are located in mid-sized metropolitan

areas, the characteristics of the respondents are not representative of all MBA students enrolled in courses. Thus, the first limitation pertains to the sample.

Second, the study requested student perceptions and student recall. While the study was conducted using only students enrolled in the core marketing course required of all MBA students, it did require that they report their perceptions and their recall of course coverage and content. Thus, the study is limited by the survey instrument used to collect information.

With regard to future research, studies should address the limitations of this research. Additional students should be included in the sample. Perhaps students enrolled in MBA programs in universities of varying sizes might be examined. Further research may also assess attitudes of MBA students enrolled in programs unaccredited by the AACSB to determine if differences exist. Additionally, research might assess post-graduate student perceptions of the relative importance of different aspects of their coursework to determine whether a greater emphasis on sales is required. Such an analysis may reveal that additional sales-related coverage is neither necessary nor advisable. Conversely, reviews by MBA graduates might reveal that a greater emphasis on sales and sales-related courses is warranted. Finally, future research may compare MBA student attitudes using a variety of nations and cultures to identify relevant differences.

Regardless of the directions of future research, this study provides an introductory evaluation of MBA student attitudes and perceptions as they relate to personal selling. While previous studies have examined undergraduate students' experiences and perceptions as they relate to sales, no research was uncovered that had evaluated MBA students. Further, this study provides insights in a comparative fashion as they relate to experiences from an international perspective, contrasting two related, but distinct cultures thereby providing insight into international attitudes and experiences.

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Chapter 9

A Success Framework to Investigate Critical Factors Associated with Implementation of Customer Relationship Management: A Fuzzy ANP Approach

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ABSTRACT

This paper suggests a novel success framework for customer relationship management (CRM) based on a conceptual implementation model to identify associated critical factors and their contribution to overall success/failure. Fuzzy analytic network process (FANP) is applied to identify the relative importance of each factor in successful implementation of each stage and the CRM initiative as a unified process. The results illustrate that CRM goals, change management, customer knowledge management, and top management support are the most critical factors for successful implementation of CRM projects within Iranian business contexts. The proposed success framework provides valuable insight into the CRM implementation process and its critical success factors (CSFs). It can be applied as a practical assessment tool that provides a pre-evaluation of the overall success of the CRM implementation project and identifies areas of weakness that negatively affect successful implementation of each stage of CRM initiative.

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INTRODUCTION

In today's dynamic and unpredictable business environment, organizations face the tremendous challenges of expanding markets, increasing competition and rising customer expectations. Building and maintaining a good relationship with customers are essential to long-term business survival in such an environment (Chang, 2007). Therefore, organizational executives are now turning to formulate appropriate customer-centric strategies and focus on managing customer relationships to support these initiatives (Wu, 2007).

According to Buttle (2009, p. xi), customer relationship management (CRM) can be defined as "the core business strategy that integrates internal processes and functions, and external networks, to create and deliver value to targeted customers at a profit. It is grounded on high-quality customer data and enabled by information technology". CRM is actually a business philosophy that integrates technology, software, processes, organizational change, etc. and is focused on the relationships between organizations and their customers to facilitate the inclusion of the customer as part of the organization (Rigby et al., 2002). It also enhances ability of the organization to improve customer service (Nguyen et al., 2007).

CRM incorporates information acquisition, information storage, and decision support functions to provide customized customer service. It enables customer representatives to analyze data and address customer needs in order to promote greater customer satisfaction and retention. It also helps organizations to interact with their customers through various means such as phone, web, e-mail, and salesperson. Customer representatives can access data on customer profile, product, logistics, etc. to analyze problems and provide online and rapid response to customer queries (Torkzadeh et al., 2006). Organizations use CRM to different customer-centric purposes such as creating customer profiles, anticipating customer

needs, conducting market research, and prompting customer purchase (Massey et al., 2001).

CRM is currently one of the most popular topics in the fields of marketing management and information technology (Wu, 2007). In recent years, many companies around the world have implemented CRM (Bull, 2003) and the number of companies that plan for its implementation is growing dramatically. However, previous studies report high rates of failure in CRM implementation. According to Verhoef et al. (2002), the success rate of CRM implementations varies between 30 and 70 percent. Zablah et al. (2004) and Rigby et al. (2002) have argued that the failure rate of CRM projects is ranging from 35 to 75 percent and Kale (2004) has estimated that 60 to 80 percent of CRM projects fail to achieve their objectives.

CRM implementation demands valuable organizational resources such as time, money, and human resources. In addition, a failed CRM implementation damages the relationships between organization and its customers (Lindgreen et al., 2006). Therefore, the high failure rates of the project strongly suggest that researchers and practitioners need to pay much attention to implementation issues (Shum et al., 2008). In current research, a consolidated success model is developed for CRM initiatives to investigate associated implementation issues. A framework is also proposed to identify relative importance of the critical factors considering their inter-relationships. Furthermore, it can be applied as an assessment tool that provides a pre-evaluation of the overall success of the CRM implementation project and helps identifying areas of weakness that negatively affect successful implementation of each stage of the CRM initiative.

The reminder of paper is organized as follows: firstly, the previous works in the field are reviewed. Then, success framework for CRM implementation is constructed and the identified critical factors are described. Thirdly, a fuzzy analytic network process approach is proposed to investigate the relative importance of critical success factors in

CRM implementations within Iranian business context. The next sections provide discussion on the obtained results and highlight some managerial implications of the study. Finally, the paper ends up with the research conclusions and some directions for future studies.

Literature Review

As CRM projects suffered from high failure rates, many previous works in the field have focused on implementation issues (Bull, 2003; Boulding et al., 2005; Bohling et al., 2006; Mishra & Mishra, 2009) and there has been a significant body of research on investigating and describing CRM critical success factors (CSFs), i.e. the factors necessary to ensure success of CRM implementation that must be given special and continual attention to bring about high performance and avoid potential failure (Lindgreen et al., 2006; Chang, 2007; Mendoza et al., 2007; King & Burgess, 2008). Case study and survey research have been adopted as dominant approaches in the field.

Bull (2003) has studied a case of CRM implementation at a U.K. based manufacturing company and identified that successful implementing CRM requires effective leadership, sourcing, targeting, and evaluation strategies. In another study, Raman et al. (2006) have investigated CRM implementation and proposed a model that explains the roles of organizational learning, business process orientation, customer-centric orientation, and task-technology fit to enable the transformation of CRM from a technological tool to an advantage-producing resource. Also, the implementation of CRM at a leading PC vendor in China has been examined by Wu (2007) and the key factors leading to success of CRM projects have been summarized in China context.

Henneberg (2006) has constructed an exploratory and qualitative research design primarily based on Delphi methodology to highlight some crucial aspects of CRM implementation while differentiating two clear CRM implementation foci,

namely hard and soft. Furthermore, Nguyen et al. (2007) have put forward strategies for successful implementation of CRM and discussed barriers as well as post-implementation difficulties to CRM in e-business and m-business. Mishra and Mishra (2009) have also investigated successful implementation of CRM from a process perspective in a trans-national organization with operations in different segments and Ocker and Mudambi (2003) have proposed a three dimensional model including intellectual, social, and technological factors to identify the firm's current CRM capability and necessary changes before embarking on the CRM initiative.

Lindgreen et al. (2006) have identified key areas in CRM with focus on automotive industry and developed an instrument to question, identify, and prioritize critical aspects of CRM. Mendoza et al. (2007) have proposed a model consisting of 13 CSFs with their 55 corresponding metrics serving as a guide for organizations to apply CRM strategy. In addition, Kale (2004) has described the most common reasons for unsatisfactory CRM outcome.

In two other studies, Bohling et al. (2006) have identified factors associated with successful CRM implementation after a survey of 101 U.S. based firms and Torkzadeh et al. (2006) have applied exploratory factor analysis and structural equation modeling to describe barriers to CRM success. Moreover, King and Burgess (2008) have developed a conceptual model for CRM innovation and proposed a simulation approach to investigate the underlying causes of success/failure. Chang (2007) have also applied interview survey methods to explore the relationship between business process reengineering, organizational learning, relationship quality, and organizational performance in CRM implementation. Balanced scorecard (BSC) approach has been adopted by the author to measure the organizational performance in different perspectives. Furthermore, Roh et al. (2005) have investigated a CRM success model comprising process fit, customer information

quality, and system support as CRM initiatives, efficiency and customer satisfaction as intrinsic success and profitability as extrinsic success using structural equation analysis.

CRM CSFs have been also investigated from various perspectives in many other works (Ryals & Knox, 2001; Ryals & Payne, 2001; Wilson et al., 2002; Croteau & Li, 2003; Chen & Chen, 2004; Boulding et al., 2005; Mack et al., 2005; Roberts et al., 2005; Chalmeta, 2006; Payne & Frow, 2006; Cooper et al., 2008). However, a detailed, integrated, and comprehensive list of CRM CSFs is lacking in the literature. Moreover, most of the previous works have investigated the CSFs from a particular point of view, not comprehensively. Keramati et al. (2009) have obtained an aggregated list of 25 risk factors for CRM implementation by investigating 23 published papers and prioritized the factors in Iranian business context while no inter-relationships between the identified factors have been considered and the factors assumed to be independent from each other. Such inter-relationships have been investigated in the conceptual success model proposed by King and Burgess (2008). But it lacks several other CSFs that significantly contribute to successful CRM implementation.

In current research, the CRM implementation is considered as a unified process comprising multiple stages to construct a new success framework which provides a comprehensive set of CRM CSFs. The inter-relationships between the factors are incorporated into the model to investigate relative importance of the factors and their contribution to overall success of CRM implementation.

The Success Framework for CRM Implementation

There are various CRM frameworks in the literature describing its different characteristics and features. The Gartner Incorporation has developed such a framework based on analysis of numerous CRM implementations in different industries. The

framework is very popular especially for practical applications and emphasizes the need to create a balance between the requirements of organization and its customers and maximizing their benefits. The Gartner's model determines eight building blocks of a CRM initiative as vision, strategy, valued customer experience, organizational collaboration, processes, information, technology, and metrics (Gartner, 2001). A strategic framework for CRM has been also constructed by Payne and Frow (2005) based on the five key cross-functional CRM processes: strategy development, value creation, multi-channel integration, information management, and performance assessment process. As another CRM framework, Buttle (2009) has proposed the CRM value chain incorporating a five-step process for developing and implementing a CRM strategy and a number of supporting conditions. Moreover, Winer (2001) has developed a CRM model from a marketing perspective including seven components of creating a database, analysis, customer selection, customer targeting, relationship marketing, privacy issues, and metrics. Herein, the frameworks proposed by Gartner (2001) and Payne and Frow (2005) are taken into consideration due to comprehensiveness and popularity to develop a process oriented conceptual framework for CRM implementation.

The CRM implementation is considered as a unified process. Like any other process, it incorporates a number of sub-processes and activities that should be followed in a step-by-step manner to accomplish a successful CRM innovation and achieve desired outcomes. The CRM initiative can be generally divided into three big phases: Pre-implementation (setting up), implementation, and post-implementation (evaluation). The first phase includes defining, redesigning, and preparation stages, the second includes complete initiative rollout and finally the third phase incorporates evaluation and continuous improvement activities. In addition, training, benchmarking, project management, and change management are other activities that should be implemented continually

in the entire three phases. Herein, we categorize these activities as transition stage.

The attainment of CRM implementation success depends on successful implementation of the CRM project, i.e. achievement to defined project targets, and realization of targeted CRM business performance outcomes. It is clear that successful implementation of the CRM project will affect its business outcomes as well. In view of such definition, it is argued that CRM success depends on successful defining, redesigning, preparation, rollout, evaluation, and transition. The components of the proposed implementation framework and related critical success factors are described in following paragraphs.

Defining

CRM implementation without a customer-centric mindset will not create desired outcome. True CRM means that individuals, teams, and the whole enterprise must become more focused on the needs and wants of the customer (Gartner, 2001). Therefore, it is necessary to change from product-centric to customer-centric approach. Such an approach is built upon previous sales, marketing, and customer service improvement initiatives. This factor is also discussed in the literature as one of CRM CSFs (Yim et al., 2004; Lindgreen et al., 2006; Chen & Chen, 2004; Raman et al., 2006; Strauss & Frost, 2002). Training is a key enabler in shifting to a customer-centric mindset.

In the defining stage, a CRM vision and strategy as well as CRM implementation goals are established. According to Gartner (2001), the CRM vision is how the customer-centric organization wants to look and feel to its customers and prospects. The customer value proposition and the corporate brand values are associated with the CRM vision. A successful CRM vision is the cornerstone to motivating staff, generating customer loyalty, and gaining a greater market share. Also, the CRM strategy takes the direction and financial goals of the business strategy

and sets out how the organization is going to build customer loyalty. The objectives of CRM strategy are to target, acquire, develop, and retain valuable customers to achieve corporate goals. Payne and Frow (2005) have argued that strategy development process requires a dual focus on the organization's business strategy and its customer strategy. Importance of strategy has been also discussed by other researchers (Lindgreen et al., 2006; Chalmeta, 2006; Mendoza et al., 2007; Roberts et al., 2005; Rigby et al., 2002; Payne & Frow, 2006). Benchmarking with other industry players can be helpful to establish an appropriate CRM vision and strategy.

Furthermore, a set of business goals are defined for CRM implementation. These goals are aligned with CRM vision and strategy and provide a basis to evaluate CRM results. In this stage, the industry and competitive environment are reviewed and analyzed as well. Defining clear and quantifiable business goals for CRM implementation is critical to success (Payne & Frow, 2006; Mendoza et al., 2007; Strauss & Frost, 2002) and failure in many CRM projects is due to lacking such goals (Chalmeta, 2006).

Identifying business processes for CRM is another task to be accomplished in the defining stage. Therefore, different touch points, customers, processes, and business activities that should be addressed by the CRM initiative are explicitly defined. It is based on the established CRM vision and strategy.

Redesigning

In this stage, the business processes identified for CRM are redesigned to improve customer relationships and values. Therefore, the "as-is" processes are analyzed and diagnosed and the "to-be" processes are then designed and modeled.

To make effective redesign decisions, it is necessary to carefully understand targeted customer requirements and their expectations. The customer experiences and feedbacks, value

propositions, and quality of customer collaboration and communication with the organization are also considered. According to Payne and Frow (2005), it is then identified what values to be delivered to customers, and thus, what values to be received by the organization.

The current value creation and other customer processes are then evaluated based on the obtained remarks. The process flow and its performance are examined and potential problems and shortcomings are discovered. The key processes to be redesigned are consequently determined.

The selected processes are redesigned through defining initial process visions, understanding best practices, creating and exploring alternative designs, and finally identifying optimal design. A good redesign methodology is required in this stage. Such methodology creates processes that not only meet customers' expectations, but also support the customer value proposition, provide competitive differentiation, and contribute to the desired customer experience (Gartner, 2001). From several redesigning methodologies, one that will meet the requirements of CRM project should be adopted. It should be understandable and appreciated by the project team members as well. Benchmarking may be helpful to adopt an appropriate redesign methodology.

Furthermore, having a good redesign of business processes highly depends on customer knowledge management. The customer knowledge refers to understanding customers, their needs, wants, and aims. It is essential to align business processes, products, and services to build real customer relationships. Knowledge management has been also identified as one of CRM CSFs in previous works (Lindgreen et al., 2006; Chen & Chen 2004; King & Burgess; 2008; Yim et al., 2004).

In addition, the redesigned business processes should be aligned with overall direction of organization and defined CRM strategy. Without such alignment, implementation of the redesigned processes will fail and make the project counter-productive.

Preparation

The organization should be fully prepared before initiating the implementation phase. Such preparation principally involves informational and technological aspects. In addition, the most appropriate combination of channels (e.g. field sales forces, direct mail, telephony, etc.) to use is decided to ensure that the customers experience highly positive interactions with the organization. Multi-channel integration is of great importance in this stage because it translates outputs of business strategy and value creation processes into value-adding activities with customers. It also represents the point of co-creation of customer value. The ability to execute multi-channel integration successfully is heavily dependent on the organization's ability to gather and deploy customer information from all channels and to integrate it with other relevant information (Payne & Frow, 2005). This factor has been investigated by Lindgreen et al. (2006) and Mendoza et al. (2007) as well.

In addition, an integrated flow of information is established across all customer interaction channels and contact points to collect accurate CRM related data and customer information to be used for analytical and decision making purposes as well as generating customer insight. Successful CRM requires an efficient flow of customer information around the organization and tight integration between operational and analytical systems. Having the right information at the right time is fundamental to CRM success (Gartner, 2001).

As technology decisions are key to enable CRM strategies (Gartner, 2001), developing the right CRM solution including CRM tools, applications, software, hardware, etc. is crucial to success (Payne & Frow, 2006). In this stage, the organization identifies and evaluates different tools and technologies available in the CRM market and chooses the most appropriate ones to implement. The organization also develops a prototype of the envisioned CRM to identify required applications and functional specifications of the desired CRM system. The optimal CRM solution is then built

A Success Framework to Investigate Critical Factors

by integrating the selected tools, technologies, and IT systems, as well as the right CRM software, hardware, and other related applications. The organization then makes buy/build decision for the identified CRM solution. Decision about the appropriate CRM tools and technology depends on the CRM vision and strategy (Rigby et al., 2002). It also depends on the requirements of redesigned processes, selected channels and designed information flow. Benchmarking with other organizations in the same industry can be also helpful in successful implementation of this stage.

Rollout

The rollout stage involves executing the CRM initiative as planned in the pre-implementation phase. It incorporates all the activities associated with complete CRM initiative rollout within the organization. In this stage, pilot programs are accomplished to identify best practices that can be replicated during full-scale implementation. The redesigned processes executed in pilot programs are then transformed into processes that are deployed on a whole organization scale. The targeted pilot program should deliver quick results in key markets and customer segments.

The redesigned business processes, identified channels, established information flow, and the developed CRM solution are fully implemented and deployed in this stage. Thus, new responsibilities are assigned to employees and they are asked to work within a customer-centric business structure.

The developed rollout program should be aligned with project goals and accounts for the organization's ability to change. It should comprise rollout scheduling, a phase-to-phase action plan, contingency plan, and testing procedures. The rollout program should be established considering selected tools and technologies and level of skills and competencies as they will clearly affect the implementation length. The required skills should be enhanced during the CRM implementation with appropriate training programs. Poor CRM skill

has been identified as one of the main causes of failure in CRM implementation (Forsyth, 2001).

In addition, the feedback of CRM users should be collected and carefully analyzed during the rollout stage to address and then resolve potential drawbacks of implemented system. Hence the rollout program may be revised several times based on the users' feedback. This factor has been emphasized as one of CRM CSFs by Strauss and Frost (2002) and Wilson et al. (2002) as well.

Evaluation

Evaluating performance of the implemented CRM initiative is another stage in the proposed implementation framework. It is to ensure that the organization's strategic aims in terms of CRM are being delivered to an appropriate and acceptable standard and to establish a basis for future improvements (Payne & Frow, 2005). Therefore, a performance evaluation methodology is applied to measure CRM business outcomes.

The evaluation of CRM business outcomes considers business objectives of CRM implementation, definition of CRM success to the organization, and asks whether the desired business results in terms of customer value, retention, satisfaction, loyalty, etc. has been achieved. The performance measures are identified based on the established goals in the defining stage.

For the evaluation stage, defining right CRM business performance measures is identified as risk factor associated with successful evaluation. Choosing right metrics to evaluate CRM business performance is of much importance to realize CRM benefits for the organization. The metrics should align with defined business objectives and link operations to defined strategy and its financial benefits to the organization. According to Boulding et al. (2005), inappropriate and incomplete use of CRM metrics can put the organization at risk of developing core rigidities, thus leading to long-term failure. Moreover, the identified performance measures should be cross-functional (Payne &

Frow, 2006) and process oriented (Boulding et al., 2005; Roberts et al., 2005). The performance measures can be benchmarked with other industry players, especially industry leaders.

Transition

There are some other necessary sub-processes or activities to be continually accomplished in all stages of the CRM implementation project. These activities are necessary to have a successful transition and change to a new organizational context, i.e. an organization with the CRM into practice. In general, the transition activities are the followings:

- **Training:** The training programs are executed to equip employees with required competencies for the CRM initiative. They are about customer-centric mindset, redesigned processes, and new business practices that should be applied by employees as the CRM users. The training also demonstrates how the new processes will affect individual employees' daily activities and provide them with necessary knowledge and skills. As little understanding of CRM leads to CRM failure (Forsyth, 2001; Croteau & Li, 2003; Raman et al., 2006), the CRM concepts and customer-centric philosophies should be focused in training process. According to Kale (2004), efficient training involves the culture change to make the organization customer-centric and ready for CRM. Moreover, since employees are the ones who develop relationships with the customers, training is also needed in the art of interacting, influencing, and servicing customers to optimal effect.
- **Benchmarking best practices:** CRM implementation in other industry players, especially industry leaders, are benchmarked to identify best practices of defining, redesigning, preparation, rollout, evaluation, project management, change management, and risk management that can be used in current project to obtain enhanced results. It also involves defining performance measures, collecting and analyzing comparative data, reviewing results, and thus identifying demerits and problems. Benchmarking is of much importance to CRM implementation success (Chalmeta, 2006; Payne & Frow, 2006).
- **Project management:** CRM implementation is an organization-wide project and demands project management practices similar to any other project initiative. Hence, a consolidated project management methodology is essential to CRM implementation success (Chalmeta, 2006). It involves project planning, organizing, coordinating, and control mechanisms to ensure smooth CRM implementation, address shortcomings, and take appropriate actions. Moreover, it demands project risk management to anticipate potential negative conditions, problems, and realities which incorporates formal methods for identifying, monitoring, and managing risks and ensures that sufficient resources are available to conduct related activities (Galorath, 2006). According to Ranong and Phuenngam (2009), effective project risk management depends on top management support, organizational structure and culture, communications, and training as the key factors to success. It is also required to define and monitor the right project performance measures as part of project management system.
- **Change management:** Organizational change has been identified as one of the most important causes to CRM failure (Forsyth, 2001). The change is evaluated and promoted continually through communication, rewards, employee involvement,

A Success Framework to Investigate Critical Factors

culture building, etc. Successful change management depends on strong leadership, continuous and targeted communications (Chalmeta, 2006; Mendoza et al., 2007; King & Burgess, 2008), organizational structure (Yim et al., 2004; Wilson et al., 2002), skills, culture (Ryals & Knox, 2001; King & Burgess, 2008), and employees' involvement and cooperation (Payne & Frow, 2006).

Without support and commitment from top management, even the most brilliant CRM undertaking is doomed to failure (Kale, 2004). Top management should consider the CRM project as part of the strategic plan of the organization and provide enough financial resources for its implementation (Mendoza et al., 2007). This factor has been emphasized as one of crucial factors in CRM success by many previous works (King & Burgess, 2008; Croteau & Li, 2003; Chen & Chen, 2004; Wilson et al., 2002; Ryals & Payne, 2001; Mack

et al., 2005). Top management support is the key to success in managing CRM project and necessary changes within the organizational context.

Continuous improvement is also necessary for every CRM initiative as a post-implementation activity. It involves exploring potential problems and the areas need to be improved based on the results obtained from CRM business performance measurement. The CRM support, maintenance, and upgrade as well as setting the appropriate mechanisms to respond new customer requirements are other relevant activities.

The proposed framework for CRM implementation and corresponding success framework incorporating 18 identified CSFs for CRM implementation are summarized and illustrated in Figures 1 and 2, respectively.

For further exploration, the proposed implementation framework is compared with the CRM frameworks developed by Gartner (2001) and Payne and Frow (2005). The results are given in Tables 1 and 2.

Figure 1. Conceptual CRM implementation framework

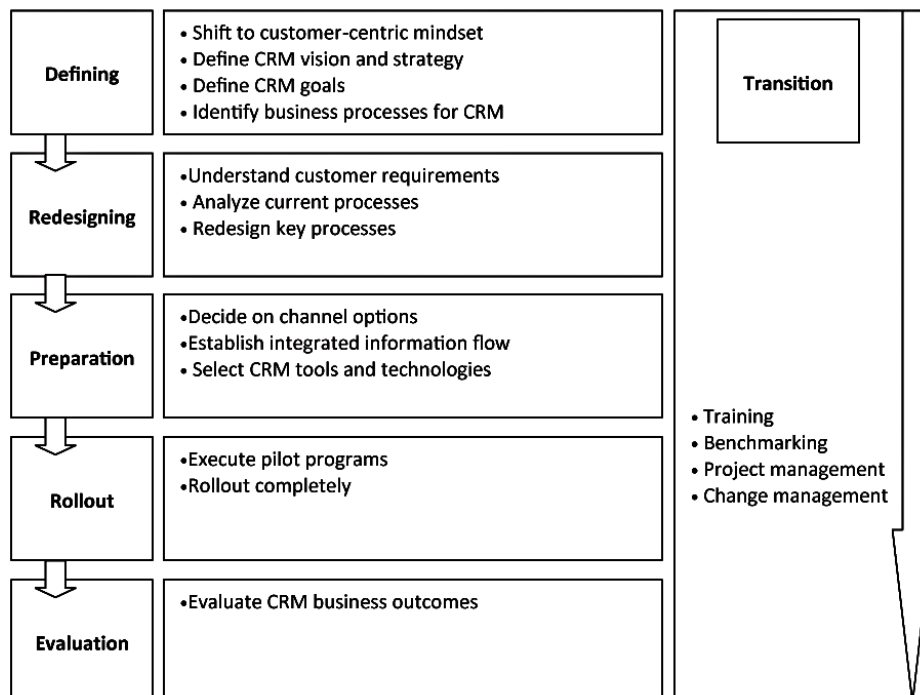
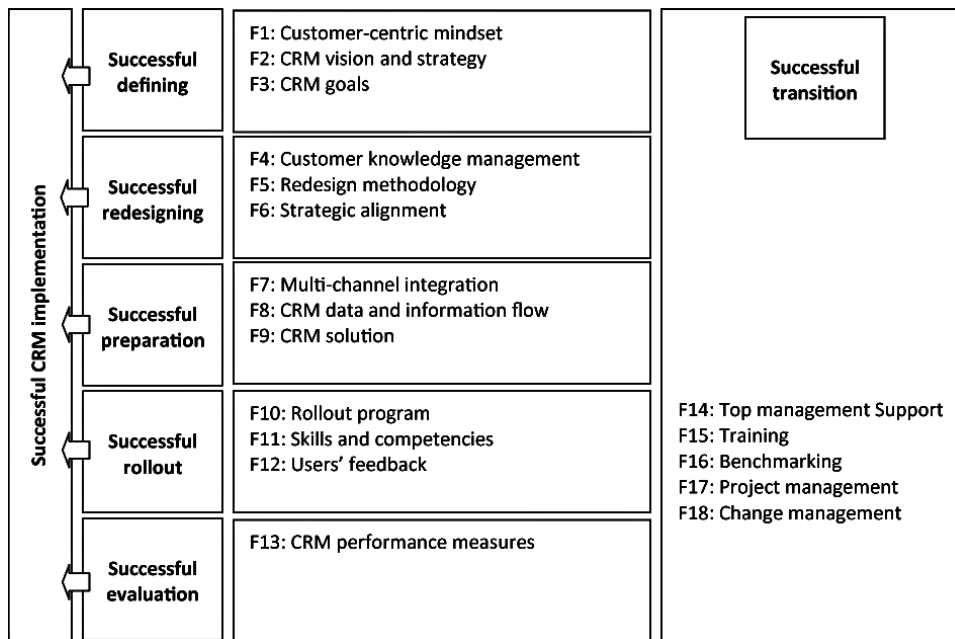


Figure 2. Success framework for CRM implementation



Relative Importance of the CRM CSFs

The identified CSFs are investigated to identify their relative importance in CRM implementation success. Herein, fuzzy analytic network process that is capable of addressing the inter-relationships between the factors is applied for this purpose.

Fuzzy Analytic Network Process

Analytic network process (ANP) is a multi-criteria assessment tool for decision structuring and analysis. It is a generalization of analytic hierarchy process (AHP) introduced by Saaty (1980) as a powerful and flexible decision making technique to help decision makers set priorities and choose the best alternative. While AHP represents only a framework with unidirectional hierarchical relationships and cannot deal with inter-connections between decision factors at the same level, ANP replaces hierarchies with networks and is a more powerful technique in

modeling complex decision environments. It can be applied to decision models involving a variety of interactions and dependencies and is capable of handling inter-relationships between the decision levels and attributes by obtaining the composite weights through the development of a supermatrix. The supermatrix is a partitioned

Table 1. Mapping building blocks of Gartner model to the proposed CRM implementation framework

CRM building blocks	Corresponding sub-process(s) in the proposed framework
CRM vision	Defining
CRM strategy	Defining
Valued customer experience	Redesigning
Organizational Collaboration	Change management
CRM processes	Redesigning & Rollout
CRM information	Preparation
CRM technology	Preparation & Rollout
CRM metrics	Evaluation

Table 2. Mapping processes of Payne and Frow model to the proposed CRM implementation framework

CRM processes	Corresponding sub-process(s) in the proposed framework
Strategy development	Defining
Value creation	Redesigning & Rollout
Information management	Preparation & Rollout
Multi-channel integration	Preparation & Rollout
Performance assessment	Evaluation

matrix, where each sub-matrix is composed of a set of relationships between two components or clusters in a connected network structure (Saaty & Takizawa, 1986; Saaty, 1996, 1999). The ANP technique consists of two parts: the first part is a control hierarchy or network of criteria and sub-criteria that controls the feedback networks and the second part is the networks of influence that contain those criteria and their clusters formed by logical grouping. Each control criterion or sub-criterion has a feedback network (Saaty, 2001). In this paper, the technique is used along with fuzzy set theory to identify relative importance of CRM implementation CSFs. Fuzzy set theory helps to mathematically express uncertainty and vagueness in the experts' judgments regarding the importance of the identified CSFs and their inter-relationships.

A popular fuzzy AHP approach namely Chang's extent analysis method (Chang, 1992, 1996) is applied to construct the fuzzy ANP (FANP) algorithm for the purpose of this study.

Box 1.

$$\mu(x/\tilde{M}) = \{0, \text{if } x < l \text{ or } x > u; (x - l)/(m - l), \text{if } l \leq x \leq m; (u - x)/(u - m), \text{if } m \leq x \leq u\} \quad (1)$$

The method is relatively easier than other proposed approaches and has been applied in several other cases (Kahraman et al., 2006; Kumar, 2007; Dagdeviren et al., 2008; Razmi et al., 2009).

Let $X = \{x_1, x_2, \dots, x_n\}$ be an object set and $U = \{u_1, u_2, \dots, u_m\}$ be a set of goals. According to the method of Chang's extent analysis, each object is taken and extent analysis for each goal is performed respectively. Therefore, m extent analysis values for each object can be obtained with $M_{gi}^1, M_{gi}^2, \dots, M_{gi}^m$ $i = 1, 2, \dots, n$, where all M_{gi}^j ($j = 1, 2, \dots, m$) are triangular fuzzy numbers.

Among various membership functions, the triangular fuzzy number is the most popular in the engineering applications. The triangular fuzzy number \tilde{M} is denoted simply by (l, m, u) and shown in Figure 3. The parameters l and u respectively represent the smallest and the largest possible values while m stands for the most promising value that describe a fuzzy event. Each triangular fuzzy number has linear representations on its left and right side such that its membership function can be defined as Equation (1) in Box 1.

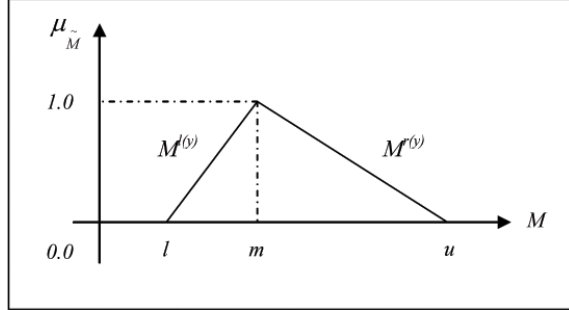
A fuzzy number can always be illustrated by its corresponding left and right representation of each degree of membership (see Figure 3):

$$\tilde{M} = (M^{l(y)}, M^{r(y)}) = (l + (m - l)y, u + (m - u)y), \quad (2)$$

where $l(y)$ and $r(y)$ denote the left side representation and the right side representation of a fuzzy number, respectively.

The FANP algorithm applied to identify relative importance of the CRM implementation CSFs is explained in the following steps:

Figure 3. A triangular fuzzy number, \tilde{M}



1. **ANP framework:** The proposed ANP framework is composed of a goal, a set of factors, and their relevant sub-factors. Conjunctive arrows are used to illustrate relationships between different components of the framework.
2. **Local weights:** The local weights of the factors/sub-factors are determined by pairwise comparisons. In this step, the factors/sub-factors are compared with each other assuming that there is no dependency among them. The general question is “How important is factor/sub-factor F_i compared with factor/sub-factor F_j ?” and the answer is a linguistic variable. To calculate the local weights, the values of fuzzy synthetic extent are first calculated by the following formula:

$$S_i = \sum_{j=1}^m M_{gi}^j \otimes \left[\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right]^{-1}, \text{ for } i = (1, 2, \dots, n) \quad (3)$$

where

Box 2.

$$V(S_i \geq S_1, S_2, \dots, S_n) = V[(S_i \geq S_1), \text{and}(S_i \geq S_2), \text{and} \dots \text{and}(S_i \geq S_n)] = \min V(S_i \geq S_j) \\ i, j = (1, 2, \dots, n); i \neq j \quad (5)$$

$$\left[\sum_{i=1}^n \sum_{j=1}^m M_{gi}^j \right]^{-1} = \left(\frac{1}{\sum_{i=1}^n u_i}, \frac{1}{\sum_{i=1}^n m_i}, \frac{1}{\sum_{i=1}^n l_i} \right). \quad (4)$$

For each convex fuzzy number S_i , $i = (1, 2, \dots, n)$, the degree of possibility to be greater than other convex fuzzy numbers S_j , $j = (1, 2, \dots, n)$ is then determined by Equation (5) in Box 2.

Assuming that $S_1 = (l_1, m_1, u_1)$ and $S_2 = (l_2, m_2, u_2)$, then

$$V(S_2 \geq S_1) = \sup[\min(\mu_{S_1}(x), \mu_{S_2}(y))] \\ = \{1, \text{if } m_2 \geq m_1; 0, \text{if } l_1 \geq u_2; \\ \frac{l_1 - u_2}{(m_2 - u_2) - (m_1 - l_1)}, \text{otherwise}\}. \quad (6)$$

The non-fuzzy weight vector would be as (7),

$$W = (\min V(S_1 \geq S_j), \min V(S_2 \geq S_j), \dots, \min V(S_n \geq S_j)) \quad (7)$$

The weight vector is normalized and used in the third step.

3. **Inter-dependent weights:** In this step, the inner dependence matrix of each factor is constructed regarding the other factors with fuzzy scale. The general question is “How important is the factor F_i when compared with factor F_j on controlling the factor F_k ?” and the answer is expressed with a linguistic variables. The relative importance weights of the factors are then calculated and arranged into the dependence matrix. This matrix is multiplied by the local factor weights

calculated in second step to determine the inter-dependent weights of the factors.

4. **Global weights:** The global weight for each sub-factor is determined by multiplying its local weight and the inter-dependent weight of the factor to which it belongs. The global weights express relative importance of the factors.

FANP Framework to Identify Relative Importance of CSFs

The algorithm described in a previous section is applied to identify the relative importance of CSFs of CRM projects within Iranian business context. The developed FANP framework is illustrated in Figure 4.

The framework incorporates successful CRM implementation as the ultimate goal, six main factors of defining, redesigning, preparation, rollout, evaluation, and transition where the transition factor impacts all the other ones. The main factors totally contain 18 sub-factors namely F1 to F18. The conjunctive arrows express the inter-relationships between the main factors and their relevant sub-factors.

A set of 15 CRM project managers and practitioners experienced in various CRM implementation projects in Iranian organizations have been interviewed to accomplish pair-wise comparisons based on their experiences of applying CRM in practice. Such a sample size is pretty enough in comparison with other studies in which the FANP approach is adopted (Dagdeviren et al., 2008; Wu & Chang, 2008). The linguistic variables given in Table 3 have been used to express relative importance. Figure 5 illustrates the membership functions for these variables.

The local weights, inter-dependent weights, and global weights of the factors and sub-factors have been consecutively calculated according to described FANP algorithm. The relative importance of each CSF corresponds to its global weight. The global weights of 18 sub-factors and six main factors are given in Table 4.

The global weights express how the CSFs contribute to overall success in CRM implementation. The higher the global weight, then the factor is more important to successful CRM implementation.

DISCUSSION

The global weight values identify that CRM goals (F3) is the most critical factor for CRM implementation. The importance of this factor has been investigated in many previous works (Payne & Frow, 2006; Mendoza et al., 2007; Strauss & Frost, 2002; Chalmeta, 2006; Keramati et al., 2009). Keramati et al. (2009) have identified CRM goals as the fourth important factor. However, it receives more importance as directly impacts many other factors.

The second important factor is change management (F4) according to its global weight. This factor has been identified as one of the most important causes to CRM failure (Forsyth, 2001; Chalmeta, 2006; Mendoza et al., 2007; King & Burgess, 2008; Yim et al., 2004; Wilson et al., 2002). However, Keramati et al. (2009) have not directly mentioned this factor in their proposed model.

The customer knowledge management (F18), and top management support (F14) are identified as the third and fourth important factors for CRM implementation projects within Iranian business context. These factors have been determined as the first and third important factors by Keramati et al. (2009), respectively. Again, the changes in

Table 3. Linguistic variables to describe relative importance

Linguistic variables for relative importance	Triangular fuzzy scale
(1) Equally important	(0.5,1,1.5)
(2) Weakly more important	(1,1.5,2)
(3) Strongly more important	(1.5,2,2.5)
(4) Absolutely more important	(2,2.5,3)

Figure 4. FANP framework to identify relative importance of CRM implementation CSFs

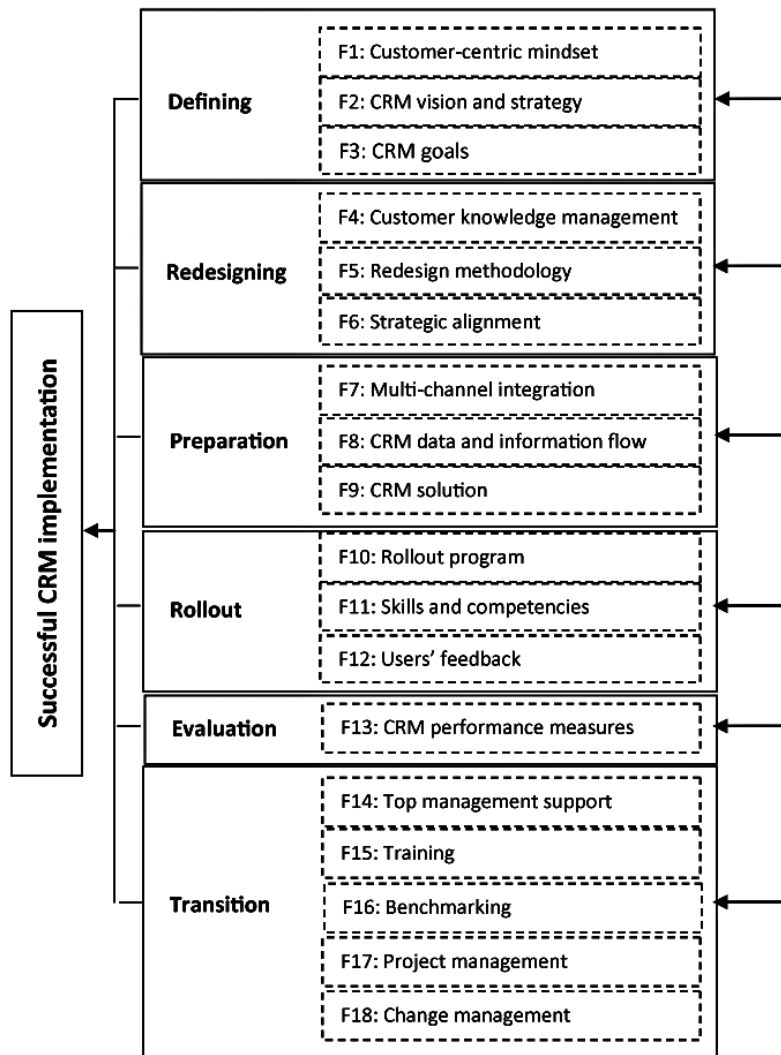
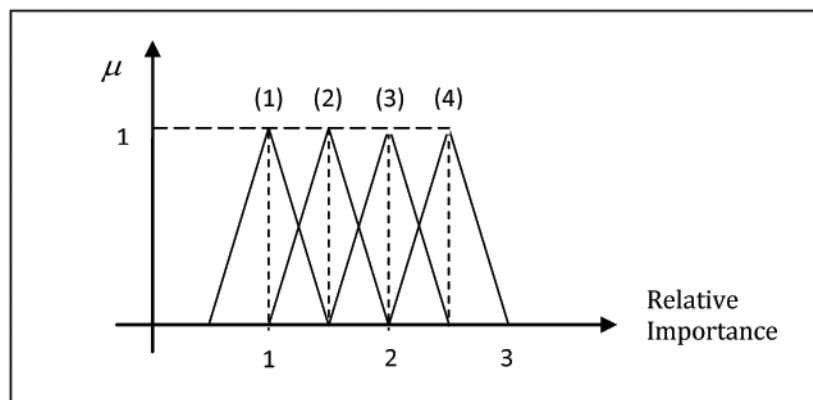


Figure 5. Membership functions of linguistic variables to describe relative importance



the ranking are due to incorporating the inter-relationships between the CSFs in the proposed framework that provides a more reliable and consistent result. Such inter-relationships have not been addressed in previous works.

In fact, all the factors incorporated in the proposed FANP framework are essential to implement the CRM project successfully. However, the mentioned factors are of the highest criticality. Hence, they necessitate paying more attention during the project. The results also illustrate that project management (F17) and CRM skills and competencies (F11) are the next critical factors according to their global weights.

MANAGERIAL IMPLICATIONS

The proposed success framework provides valuable insight into the CRM implementation process and its CSFs for CRM managers and practitioners. It also provides a ranking of the CSFs according to their importance in overall CRM implementation success. Therefore, the managers know what to consider and what to consider more precisely during the CRM implementation project.

In addition, the success framework identifies the CSFs associated with each stage of CRM implementation. Thus, it can be also applied as a practical assessment tool providing a pre-evaluation of success in each single stage of the CRM implementation and the overall success of the project. Such evaluation helps identifying areas of weakness that negatively affect successful implementation of the CRM initiative.

As an example, the assessment framework for the first stage, i.e. defining, is illustrated in Figure 6. It incorporates only the CSFs associated with successful defining and transition, i.e. F1 to F3 and F14 to F18.

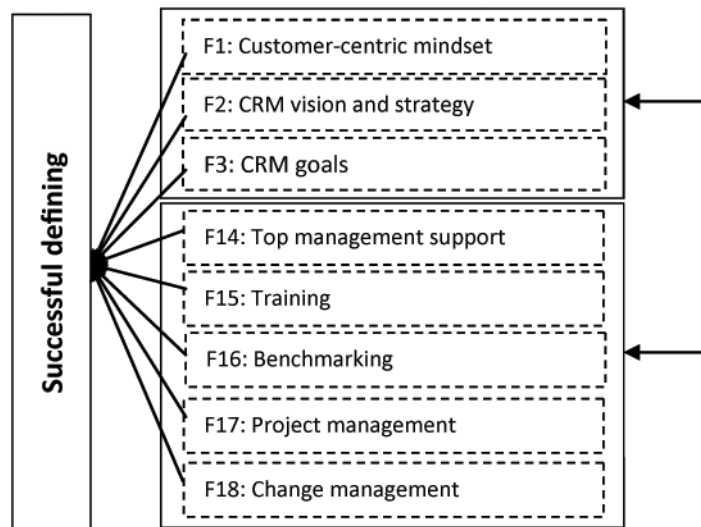
To apply the assessment framework, the global weights of incorporated CSFs are first normalized. Then, performance of the organization with respect to each factor is measured with

Table 4. Global weights of the CRM implementation CSFs identifying their relative importance

Factors	Local weight	Global weight
<i>Defining</i>		0.2295
F1: Customer-centric mindset	0.0955	0.0219
F2: CRM vision and strategy	0.3427	0.0786
F3: CRM goals	0.5618	0.1289
<i>Redesigning</i>		0.1560
F4: Customer knowledge management	0.5618	0.0876
F5: Redesign methodology	0.0955	0.0149
F6: Strategic alignment	0.3427	0.0535
<i>Preparation</i>		0.1107
F7: Multi-channel integration	0.2873	0.0318
F8: CRM data and information flow	0.5525	0.0612
F9: CRM solution	0.1602	0.0177
<i>Rollout</i>		0.1425
F10: Rollout program	0.0955	0.0136
F11: Skills and competencies	0.5618	0.0800
F12: Users' feedback	0.3427	0.0488
<i>Evaluation</i>		0.0090
F13: CRM performance measures	1.0000	0.0090
<i>Transition</i>		0.3523
F14: Top management support	0.2446	0.0862
F15: Training	0.1801	0.0634
F16: Benchmarking	0.0672	0.0237
F17: Project management	0.2392	0.0843
F18: Change Management	0.2688	0.0947

a pre-defined measurement scale. Thus, the level of success in implementing the defining stage is determined with sum of products of the normalized weight of each factor with its performance score. Then, an overall view of the project conditions in defining stage is obtained before embarking on the implementation. The risk level associated with defining stage can be also identified in proportion to the calculated success level. The potential risks of the project in this stage can be

Figure 6. Assessment framework for defining stage of CRM implementation



also identified and reduced and many implementation difficulties can be avoided.

Such an approach can be adopted for other CRM implementation stages as well. It provides CRM managers and practitioners with a quantitative measure of CRM implementation risks and their impact on other stages and to overall implementation success. In addition, it is valuable to identify appropriate risk mitigation strategies and action plans to reduce potential risks of the project and avoid most of the implementation challenges in upcoming stages.

CONCLUSION

In view of high rates of failure in CRM projects the CRM implementation CSFs have been focused. First, an implementation framework has been proposed which describes the CRM implementation project as a unified process including five stages of defining, redesigning, preparation, rollout, evaluation, and a number of continual activities categorized as transition stage. A success framework has been then constructed based on the

proposed implementation framework identifying a comprehensive set of 18 CSFs.

The relative importance of the identified CSFs has been investigated using a FANP framework. It has been illustrated that setting clear and quantifiable goals for CRM implementation, understanding the customers and their requirements, managing organizational change, and support from top management are the most critical factors for the CRM projects implemented in Iran. The proposed success framework is of great value for managers and practitioners as provides valuable insight into the CRM implementation process and associated CSFs. It can be also applied as a practical assessment tool providing a pre-evaluation of success in each single stage of the CRM implementation and the overall success of the project. Such evaluation helps identifying areas of weakness that negatively affect successful implementation of the CRM initiative.

As the FANP framework incorporates the inter-relationships between the CSFs, the authors argue that the proposed approach provides a more reliable and consistent ranking. However, the current research has some limitations that should be addressed in future works. The first limitation

is related to the respondents. As we have only asked CRM project managers and practitioners, it will presumably create a bias towards value creation for the organization. The CRM success can be considered from the users' or customers' perspective as well.

In addition, the pair-wise comparisons provided by the respondents are based on their experiences with a broad range of industries. Therefore, no specific industry has been focused in current research. However, industry variation could considerably influence the results. Furthermore, applying the model in other countries and different business environments may lead to different results.

For future research, it is also proposed to further investigate the inter-relationships between the identified CSFs. Some research hypotheses can be constructed and investigated using statistical analysis. Moreover, further validating the conceptual CRM implementation framework proposed in this research is left for future research.

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Chapter 10

Service Quality and WOM (Word-of-Mouth): A Study of the Indian Banking Sector

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ABSTRACT

The Indian banking industry is going through turbulent times. In this era of mature and intense competitive pressures, it is imperative that banks maintain a loyal customer base. To achieve this objective and improve their market and profit positions, many retail banks are directing their strategies toward increasing customer satisfaction and loyalty through improved service quality. In the present context, characterised by rapid change and sophisticated customers, it is important that banks in India determine service quality factors, which are pertinent to the customers' selection process, as well as the dimensionality of customer-perceived service quality. If service quality dimensions are identified, service managers can improve the delivery of customer perceived quality during the service process and have greater control over the outcome. The author suggests that customers distinguish four dimensions of service quality in the retail banking industry in India. These dimensions of customer-perceived service quality are customer-orientedness, competence, tangibles, and convenience. The results of this study offer strong support for the intuitive notion that improving service quality increases favourable behavioural intentions, namely WOM (Word-of-Mouth) communications.

INTRODUCTION

Regulatory changes in the banking industry have been phenomenal and have reduced or eliminated barriers to cross-border expansion, creating a more integrated global banking market. Structural

changes have resulted in banks being allowed a greater range of activities, enabling them to become more competitive with non-bank financial institutions. Technological changes have caused banks to rethink their strategies for services offered to both commercial and individual customers.

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Kangis and Voukelatos (1997) had suggested that in the future, the blurring of identity between banks, insurance companies, and of other possible competitors that will enter in the market, will accelerate, and that customers will shop around more than ever and profitability will come under pressure. The result of this “shopping around” culture, according to Kangis and Voukelatos (1997), will be a higher mobility among customers buying financial products. The authors went on to say that differentiation would continue to lead the marketing strategy of banks, but it would be centred neither on products, as they would be about the same, nor on price, as price differentials would be minimal. It is within this rapidly changing environment as foreseen by Kangis and Voukelatos (1997) that service quality issues are compelling the attention of all banking institutions, and retail banks are striving towards increasing customer satisfaction through improved service quality. This is because it is a well-known fact that high quality service stimulates WOM (word-of-mouth) communications by current customers, enhances customers’ perception of value, boosts the morale and loyalty of employees and customers alike and lends credibility to advertising and the field sales force (Berry & Parasuraman, 1991).

Financial Sector Liberalisation in India and Service Quality

The structural reforms initiated in the real sector of the Indian economy in 1991-1992, had a corollary in the reform of the financial sector. It was felt that a robust banking sector is essential for achieving the objectives of growth and development. A liberalised economy will not be adequately served if the banking sector remains highly regulated. In short, there was a need for banking reforms in the wake of economic reforms, as efficiency in both the mobilisation and the allocation of resources was required.

The financial sector reform in India was designed to infuse “greater competitive vitality in the

system”. To achieve this objective, the Narasimhan committee, among other things, recommended the liberalisation of entry norms and suggested that new banks be permitted in the private sector provided they conformed to the minimum startup capital and other requirements. The committee recommended too, a liberal policy towards allowing foreign banks to open offices in India. It was believed that the entry of foreign banks would have a beneficial impact from the point of view of improving the competitive efficiency of the Indian banking system as well as upgrading the technology. The committee also suggested that banks be encouraged to go in for term lending which was earlier considered the exclusive preserve of term lending institutions, and term lending institutions were to be permitted to provide working capital too. Since the implementation of many of the recommendations, many new private sector banks have been set up, many foreign banks too have set up shop and many more are waiting in queue to get permission from the Reserve Bank of India.

Since the reforms started, the interest rate structure has been deregulated to a great extent and banks have been given a great degree of freedom in determining their rate structure for deposits and advances, as well as their product range. Phenomenal growth in the capital market has also taken place since 1985. Non-banking finance companies have mushroomed, and have encroached upon the turf exclusively reserved for the commercial banks. Banking has also become more competitive in respect of the pricing of bank products and the location of points of sale, that is, the branch network. The end result is that market power is getting shifted from banks to their customers. The freedom of choice which bank customers did not have earlier because of standardised products and regimented interest rates has been given to the customers as a result of the changes taking place (Subramanian & Velayudham, 1997). Another interesting trend that is being observed in the Indian banking scenario today is the rush into retail banking. Shrinking margins coupled

with increasing risks in corporate banking are driving this retail rush. Foreign banks and private sector banks are trying to outdo each other so as to establish themselves in the retail market, with increasingly more and more retail products, like a variety of deposit products, credit cards, debit cards, housing and personal loans, flooding the scene, aiming to satisfy the consumer in every possible way.

In a nutshell, banks are functioning increasingly under competitive pressures emanating from within the banking system as well as from non-banking institutions. The consequent increase in competition has made service quality a key differentiating factor for banks attempting to improve their market and profit positions. In fact, studies have shown that there is a positive service quality-profitability relationship (Koska, 1990). However, the link between service quality and profits is not straightforward (Zahorik & Rust, 1992), and in order to delineate and understand the complex relation between the two, it is necessary to investigate the intermediate link. This important intermediate link between service quality and profits is the relationship between service quality and customers' behavioural intentions, which has not been well researched (Zeithaml et al., 1996). As Zahorik and Rust (1992) point out, studying behavioural responses to service quality can help managers estimate the financial consequences of investing in service quality. Hence, in order to better model the impact of service quality on profits, one has to first examine and comprehend how service quality influences behavioural responses.

Again, with this rapid change taking place in the banking industry in India, the presence of more sophisticated customers in today's Indian banking scenario, and the paucity of research on service quality issues in developing countries like India, it has become very important that banks in India determine the service quality factors, which are pertinent to the customer's selection process, as with increased competition, customers are now having greater difficulty in selecting one institution

from another. Moreover, considering the practical value of research on the link between service quality and customers' behavioural intentions, combined with the limited published research in this area, the purpose of this study is to understand the dimensionality of customer-perceived service quality and investigate the influence of service quality on customers' behavioural intentions in the Indian retail banking context.

Service Quality and Customers' Behavioural Intentions

The relationship between service quality dimensions and the multi-dimensional model of behavioural intentions of customers has not been investigated in the service quality literature. A considerable number of authors have argued that service quality is an important determinant of customers' behavioural intentions but its exact relationship has remained unclear (Gremler & Brown, 1996).

The relationship between overall service quality and certain dimensions of customers' behavioural intentions have been examined by Cronin and Taylor (1992), and Boulding et al. (1993). Cronin and Taylor (1992) focused solely on repurchase intentions whereas Boulding et al. (1993) focused on both repurchase intentions and willingness to recommend. Cronin and Taylor (1992) reported non-significant relationships, while Boulding et al. (1993) reported significant and positive ones. Zeithaml et al. (1996) proposed a model of the behavioural consequences of service quality. They suggested that perceived service quality was related with behavioural intentions, which could be viewed as signals of retention or defection. The results of a multi-company study showed different relationships between overall service quality and the dimensions of customers' behavioural intentions. For the companies included in the study, service quality is positively related to loyalty (WOM and purchase intentions) and negatively related to complaining behaviour.

However, the relationship between the service quality dimensions and the dimensions of customers' behavioural intentions remains unexplored in the service marketing literature.

Favourable Behavioural Intentions

Certain behaviours signal that customers are forging bonds with a company. When customers praise the firm, express preference for the company over others or increase their volume of purchases, they are indicating behaviourally that they are bonding with the company. Recent research offers some evidence that service quality perceptions positively affect the mentioned behavioural intentions. Studies by Parasuraman et al. (1988) and Parasuraman et al. (1991) report a positive relationship between customers' perceptions of service quality and their willingness to recommend the company, whereas Boulding et al. (1993), find a positive correlation between service quality and a two-item measure of repurchase intentions and willingness to recommend. Zeithaml et al. (1996) developed a conceptual model of the impact of service quality on particular behaviours such as WOM communications (saying positive things about the company, recommending the company to others, encouraging friends and relatives to do business with the company) and purchase intentions (doing more business with the company in the next few years, considering the company the first choice from which to buy services). It was found that the better a company's service quality performance, the higher is the propensity to engage in positive WOM and higher is the purchase intention.

Thus, by integrating research findings a list of specific indicators of favourable behavioural intentions can be compiled. These include saying positive things about the company to others (Boulding et al., 1993; Zeithaml et al., 1996), recommending the company or service to others (Parasuraman et al., 1988; Parasuraman et al. 1991; Zeithaml et al., 1996), encouraging friends and relatives to do business with the company

(Zeithaml et al., 1996), doing more business with the company (Cronin and Taylor 1992, Zeithaml et al., 1996), considering the company the first choice from which to buy services (Zeithaml et al., 1996) and continuing to do business with the company (Boulding et al., 1993). In fact, research on customer value management has also established that the return on customer relationship is driven by advocacy (recommending the company or service to others), retention (continuing to do business with the company) and growth (considering the company the first choice from which to buy services) (Hafiz & Hendricks, 2001).

WOM Communications

It has been suggested that service quality has a direct effect on organizations' profits, since it is positively related with customer retention and with customer loyalty (Baker and Crompton, 2000; Zeithaml & Bitner, 2000). According to Berry and Parasuraman (1991), for most services, existing customers represent by far the best opportunities for profit growth. As the retention rate goes up, so too does profitability (Reichheld & Sasser 1990; Buchanan & Gillies, 1990). In a pioneering article, Reichheld and Sasser (1990), lamented that accounting systems did not capture the value of a loyal customer and showed that reducing defections by just 5%, generated 85% more profits in one bank's branch system, and 50% more profits in an insurance brokerage. The greatest profit impact of long-time customers comes through their increased purchases and the positive WOM (referrals to other customers) that they engage in (Reichheld & Sasser 1990; Reichheld & Kenny, 1990). The WOM generated by long-term customers act as free advertising, thus saving the firm from high investments in this area.

WOM is one of the most powerful forces in the marketplace and is defined as informal conversations about the service or product between people who are independent of the company providing the product or the service, and in a medium in-

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dependent of the company (Silverman, 1997). Hence, it is different from advertising and sales promotions, both of which originate from the company and are communicated via a medium that the company owns or rents. In fact, WOM is particularly critical for certain services, such as banks and other financial services; research shows that personal referrals are responsible for 20% to 40% of bank customers and are a key factor in selecting financial service providers (Reichheld & Kenny, 1990).

WOM has been the subject of study since the 1960s, and research to date has largely focused on two main areas: determining the antecedents of WOM, which includes factors that encourage individuals to give or seek WOM, and the process of WOM communication. One of the earliest works on WOM communication was done by Dichter (1966), who reflected on the motivations for WOM communications and stressed that the assumption that no material interest is involved in the recommendation is the motivation for the listener in accepting the recommendation. What makes WOM so potent is its objectivity. The decision-maker feels that he is likely to get the whole, undistorted truth containing both negative and positive information about a product or service, from an independent third party without a vested interest. It is this credibility and the fact that the speaker conveys his personal experience with the product or service that gives WOM much of its power. Also, WOM marketing is an interactive process and is the most customer-driven of all the communication channels. This is because, the customer is given an opportunity to satisfy his queries, and it is the customer who decides who he will talk to and what he will listen to. In addition, WOM marketing is extremely cost-effective, in contrast to the high costs of mass media, and can often reach people faster than advertising, direct mail and even the Internet (Silverman, 1997). In fact, according to Silverman (1997), if the advertising and sales force were aligned with the WOM, one could have a faster launch, at a much lower

cost. Again, according to Silverman (1997), “it is what will go down the WOM channel and be amplified by it that should drive advertising and sales, not the other way around. This is a paradigm shift”. Silverman advocates the use of marketing as a WOM generating system and organising all the marketing elements such as advertising, sales, direct mail and endorsements around causing people to talk about the product in a way that would get them to use more, and their friends and colleagues to use more.

WOM marketing has been found to be particularly relevant to services. Although varying degrees of perceived risk characterise all consumer purchases, services, due to their fundamental nature are perceived to be particularly risky (Eiglier & Langeard, 1977; Zeithaml, 1981; Brown & Fern, 1981; Davis et al., 1979; George et al., 1985; Guseman, 1981; Murray & Schlacter, 1990). Services are conceptualised as experiential and it is difficult to evaluate a service in advance of the purchase event. Since services score low in both “observability” and “trialability”, and high in intangibility, the purchase risk is further amplified, thus resulting in a prolonged adoption and diffusion process. It has been found that beyond consumers’ general proclivity for personal sources of information; those sources are even more preferred and appear to instill a greater degree of consumer confidence than impersonal sources, in the context of service purchases, than in the purchase contexts involving goods (Murray, 1991).

The banking industry is one service industry where there is a tremendous potential to leverage WOM to reach out to people. The forces of deregulation, globalisation and advancing technology have greatly increased the competitive pressures in the banking industry. Increasingly, the orientation of banks is changing from being in the “business of banking”, meaning borrowing from one market and lending to another, to being in the “business of financial services”, where the focus is on customers’ needs. Moreover, the fact that WOM communication is particularly

appropriate when the service is expensive, risky, purchased infrequently or has social status (Ennew et al., 1997), WOM marketing, if used strategically, should go a long way in contributing to a bank's success.

Service Quality and Customers' Behavioural Intentions

The literature on services marketing has advanced to a level of considerable sophistication, and researchers are ready to take on the fundamental questions concerning an in-depth understanding of the concept of service quality. In defining the key constructs in the discipline, conceptual advances and nuances have been achieved, though differences of opinion remain. One area that has remained relatively underdeveloped, however, is the relationship between evaluations of service quality and behavioural intentions of service customers (Gremler & Brown, 1996). A considerable number of authors have argued that service quality is an important determinant of customers' behavioural intentions but its exact relationship has remained unclear (Gremler & Brown, 1996). Similar thoughts have been echoed by other researchers (Boulding et al. 1993), who state that there is hardly any research that explores the relationship between service quality perceptions and behavioural outcomes of importance to the firm.

In fact, research into customers' behavioural intentions has focused primarily on product-related issues, whereas customers' behavioural intentions in the case of service organisations, has remained underexposed (Gremler & Brown, 1996). However, there are a number of reasons why findings in the field of product quality cannot be generalised to service quality as far as customers' behavioural intentions are concerned (Keaveney, 1995; Gremler & Brown, 1996). In the case of services, customers' behavioural intentions are more dependent on the development of interpersonal relationships as opposed to customers' behavioural intentions in the case

of tangible products (Macintosh & Lockshin, 1997), for person-to-person interactions form an essential element in the marketing of services (Czepiel & Gilmore, 1987; Crosby et al., 1990). In the services context, intangible attributes such as reliability and confidence may play a major role in determining customers' behavioural intentions.

According to Zeithaml et al.'s (1996) model, the behavioural consequences of service quality intervene between service quality and the financial gains or losses from retention or defection. When customers' perceptions of service quality are high, the behavioural intentions are favourable, which strengthens their relationship with the organization. On the other hand, when service quality assessments are low, customers' behavioural intentions are unfavourable and the corresponding relationships with the company deteriorate. The conceptualization of behavioural intentions is an important part of this model and included the dimensions of WOM communications, purchase intentions and complaining behaviour. While customers' behavioural intentions is often included in service quality models as an outcome variable (Cronin & Taylor, 1992; Boulding et al., 1993; Zeithaml et al., 1996), it has remained unclear whether or not there is a direct relationship between service quality and customers' behavioural intentions. Zeithaml et al. (1996) report a relationship, whereas Cronin and Taylor (1992) failed to find one. The relationship between overall service quality and individual customers' behavioural intentions dimensions have been examined by Boulding et al. (1993) and Cronin and Taylor (1992). Cronin and Taylor (1992) focused solely on repurchase intentions, whereas Boulding et al. (1993) focused on both repurchase intentions and willingness to recommend. In the study by Cronin and Taylor (1992), service quality did not appear to have a significant (positive) effect on intentions to purchase again, while Boulding et al. (1993) found positive relationships between service quality and repurchase intentions and willingness to recommend. Again, customer evaluations following a

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negative service experience have received only limited attention in scales designed to measure customers' behavioural intentions (Singh, 1991).

As has already been highlighted, similar to customers' behavioural intentions, service quality has also been acknowledged as a multi-dimensional construct. So far, we have discussed the relationship between service quality as an aggregate construct and the various types of behavioural intentions. However, the explicit connections between the service quality dimensions and dimensions of customers' behavioural intentions have not been stressed upon in the services marketing literature so far and there appears to be no studies that have addressed the link between the individual dimensions of service quality and customers' behavioural intentions. A significant gap thus exists in the services marketing literature in explaining the relationship between service quality dimensions and customers' behavioural intentions dimensions; that is, the relationship at the level of the individual dimensions has remained virtually unexplored. Therefore, it would be of both theoretical and managerial interest to see how service quality and customers' behavioural intentions are related at the level of individual dimensions, rather than the perspective of their overall assessments, in order to gain an in-depth insight into this issue. Linking both constructs at their dimensional level increases the diagnostics of explaining customers' behavioural intentions. This multi-dimensional point of view has not previously been taken in the literature. Therefore, it is adopted here and is specified into the following research question:

How is the dimensions of customers' behavioural intentions, WOM related to the dimensions of perceived service quality?

The above mentioned body of work on service quality issues has doubtless provided considerable knowledge on the service quality concept. However the bulk of this research has been in the context

of US and European banking institutions. At this juncture, it is pointed out that it is important to also study banking institutions based in developing economies, because as banks in such countries as India mature, lessons may be learned from their experiences by banks in developed economies as well as in other developing countries. The purpose of this study is to add to the literature in the areas of service quality and WOM. This research extends the relevant literature in two important dimensions. First, the research explores the linkages between the service quality dimensions and WOM, an area which has not been explored in prior research, which has concentrated on how overall service quality influences customers' behavioural intentions. Second, this research explores the various dimensions of customer-perceived service quality and the link between the individual dimensions of customer-perceived service quality and WOM in the context of a developing economy, more specifically in the context of the Indian retail banking industry, which is poised at the crossroads. No research till date has focused on this area in the Indian banking industry.

METHODOLOGY

Sample Design and Data Collection

The major goals of this study are to identify the dimensions of customer-perceived service quality and to investigate the link between the service quality dimensions and WOMs in the Indian retail banking context.

For the study reported herein, responses were gathered from customers of four major banks in the retail banking industry of India (two leading public sector banks – the National Bank and the Century Bank and two leading private sector banks – the Millennium Bank and the Prudential Bank). All these four banks rank among the largest and strongly profitable banks in India in the public and the private sectors respectively; moreover

the banks have strong and significant retail presence. Five branches for each bank were randomly selected. The actual names of the banks have been changed in the study, for purposes of confidentiality. The study was conducted in Kolkata, a major metropolitan city in the eastern region of India with a large and diverse population. Questionnaires were self-administered to customers within the branches of the Century Bank, the National Bank, the Prudential Bank and the Millennium Bank. The branches were considered by the management to be largely homogeneous with respect to size and service operations. Every other customer entering the branches was asked to complete the questionnaire. A total of 1200 customers were contacted (300 customers were contacted in each of the four banks), and the overall response rate was 18.66% (224 completed, usable questionnaires). The bank specific response rates were 15% (45 completed questionnaires) for the Millennium Bank, 19% (57 completed questionnaires) for the Prudential Bank, 17.33% (52 completed questionnaires) for the Century Bank, and 23.33% (70 completed questionnaires) for the National Bank.

Demographic profiles of the samples from each bank (see Table 1) were reviewed by the managers in the respective banks and considered to be representative of their customer bases.

The questionnaire for the measurement of customer-perceived service quality followed the basic structure of the SERVQUAL instrument as developed by Parasuraman et al. (1991). With regards to operationalising service quality,

SERVQUAL is still the most widely used instrument and probably the best available (Yavas et al., 1997). Not only has research on this instrument been widely cited in the marketing literature, but its use in the industry has also been widespread (Brown et al., 1993) and it is the most popular measure of service quality. In fact, the SERVQUAL instrument, based on the gap model, has dominated research in service quality. The central idea in this model is that service quality is a function of the difference scores or gaps between expectations and perceptions. According to Parasuraman et al. (1988, 1991), SERVQUAL provides the basic skeleton underlying service quality and this skeleton, when necessary, can be adapted or supplemented to fit the characteristics or specific research needs of a particular organization, and context-specific items can be used to supplement SERVQUAL. This has also been advocated by other researchers of service quality, who have echoed that contextual circumstances have a bearing on the perception of service quality. Hence researchers and managers have been advised to consider which issues are very important to service quality in their specific environments, and modify the SERVQUAL scale as needed. In short, items used to measure service quality should reflect the specific service setting under investigation, and it is necessary in this regard to modify some of the items of the SERVQUAL scale and add or delete items from the SERVQUAL scale as required (Carman, 1990; Finn & Lamb, 1991; Dabholkar et al., 1996).

Table 1. The demographic profiles of the samples from each bank

Bank	Prudential	Millennium	Century	National
Sex -Male (%)	53	54	54	53
Sex-Female (%)	47	46	46	47
Mean age	40.74	40.71	41.83	41.24
Self-employed (Businessmen, doctors, lawyers) (%)	35	34	12	11
Salaried (%)	50	50	62	65
Others (Homemakers, retired persons, students) (%)	15	16	26	24

DESIGN AND DEVELOPMENT OF QUESTIONNAIRE

The questionnaire for the measurement of customer-perceived service quality consisted of two sections: an expectation section and a perception section. The expectation section required the respondent to indicate on a seven-point (strongly disagree to strongly agree) scale the extent to which the ideal service-providing organisation (in this case a bank) possesses the characteristic desired in each statement. In the perception section the statements required the respondent to indicate the extent to which the particular bank possesses the characteristic described, again on a seven-point (strongly disagree to strongly agree) scale. The original SERVQUAL instrument had 7 categories, that is, it employed a 7-point scale (Parasuraman et al., 1991). Hence the instrument used in this study for measuring customer-perceived service quality also employed a 7-point scale, anchored by strongly disagree and strongly agree at the endpoints 1 and 7, respectively. Other than conforming to the original SERVQUAL questionnaire, the other reasons as to why 7 categories were employed in the instrument used in this study are: (a) The greater the number of scale categories, the finer the discrimination among the stimulus objects that is possible. Traditional guidelines suggest that the appropriate number of categories should be 7 ± 2 that is, between 5 and 9 (Cox, 1980; Reynolds & Neter, 1982); and (b) According to Malhotra (1995), if the respondents are knowledgeable about the objects, many categories may be employed. In this study the respondents interviewed were knowledgeable about the subject and so seven categories could be used. Again, according to Givon and Shapira (1984) and Stem and Noazin (1985), if the data is to be analysed by sophisticated techniques such as multiple regression and factor analysis, 7 or more categories are required. The decision to use an odd number of categories was taken because a neutral or indifferent response is possible from at least some of the respondents.

An inventory of service quality items was identified. Items for measuring customer-perceived service quality were adopted from the service quality and service marketing literature (Parasuraman et al., 1991) and the bank marketing literature (Levesque & McDougall, 1996; Yavas et al., 1997; Parasuraman et al., 1988, 1991; Cronin & Taylor, 1992). SERVQUAL is the most widely used and the most popular measure of service quality. It has been well accepted by the service industry and as Rust et al. (1996), have observed, “no list of customer needs should be considered complete until it has been checked for representation of the SERVQUAL dimensions”. Hence, the inventory of service quality items identified in this study included items representing the dimensions of service quality (that is, the dimensions of the SERVQUAL scale), as described by Parasuraman et al. (1991). The bank marketing literature on the other hand, provided items that might be considered as enabling features, related to convenience and accessibility, which contribute to service quality by making the service easier or more comfortable for the customer and are specific to the banking industry. The list of items generated is shown in Table 2 and consisted of 24 items.

Ten items from this original list (see Table 2) were dropped, because they were either vague, repetitive or difficult to comprehend to respondents, in a pilot study done with 50 customers from the Prudential Bank, 40 customers from the Millennium Bank, 45 customers from the National Bank and 50 customers from the Century Bank. For instance, “Employees at your bank are neat appearing” was not included because the term “neat” meant different things to different people in the pilot study. Again the item “your bank gives you individual attention” was not used because 95% of the total number of customers surveyed in the pilot study felt that it essentially captured the same aspect of service quality as “your bank has employees who give you personal attention”. Of the total number of customers surveyed in the pilot study, 96% had problems

Table 2. Original list of items for measuring customer-perceived service quality

1. YOUR BANK has modern-looking equipment.
2. YOUR BANK's physical facilities are visually appealing.
3. YOUR BANK's employees are neat – appearing.
4. Materials associated with the service, such as pamphlets and statements, are visually appealing at YOUR BANK.
5. When YOUR BANK promises to do something by a certain time, it does so.
6. When you have a problem, YOUR BANK shows a sincere interest in solving it.
7. YOUR BANK performs the service right the first time.
8. YOUR BANK provides its services at the time it promises to do so.
9. YOUR BANK insists on error-free records.
10. Employees of YOUR BANK tell you exactly when services will be performed.
11. Employees of YOUR BANK give you prompt service.
12. Employees of YOUR BANK are always willing to help you.
13. Employees of YOUR BANK are never too busy to respond to your requests.
14. The behaviour of employees of YOUR BANK instills confidence in customers.
15. You feel safe in your transactions with YOUR BANK.
16. Employees of YOUR BANK are consistently courteous with you.
17. Employees of YOUR BANK have the knowledge to answer your questions.
18. YOUR BANK gives you individual attention.
19. YOUR BANK has operating hours convenient to all its customers.
20. YOUR BANK has employees who give you personal attention.
21. YOUR BANK has your best interests at heart.
22. Employees of YOUR BANK understand your specific needs.
23. YOUR BANK has convenient branch locations
24. It is very easy to get in and out of YOUR BANK quickly

understanding the items “your bank has your best interests at heart” and “your bank has modern looking equipment.” Again 97% of the total number of customers surveyed in the pilot study felt that the item “your bank provides its services at

the time it promises to do so”, captured the same aspect of service quality as “when your bank promises to do something by a certain time, it does so”, and hence the former item was dropped. The items “employees of your bank are always willing to help you” and “employees of your bank are never too busy to respond to your requests” were not included because 98% of the total number of customers surveyed in the pilot study felt that their essence was captured in other questions used in the scale. Also, the item “the behaviour of employees of your bank instills confidence in customers” was not included because it conveyed the same meaning to 94% of the total number of customers surveyed in the pilot study as “you feel safe in your transactions with your bank.” The item “it is very easy to get in and out of your bank quickly”, was also not included because it conveyed the same meaning to 96% of the total number of customers surveyed in the pilot study as “employees of your bank give you prompt service.” The respondents understood the other items of the questionnaire. The item “your bank insists on error-free records”, was not included, because according to Parasuraman et al. (1994), this item should be discarded on conceptual grounds, as customers generally have limited or no access to a company’s records and hence they may experience difficulty in assessing company performance on this item. However, one item was added, and this was “your bank has a large ATM network”, as all the customers surveyed in the pilot study indicated that this issue was very important with regards to banking services. The respondents were asked if Internet Banking Services should be included in the questionnaire but 91% of them replied that they did not use Internet Banking regularly and did not feel that it was important. In total, 15 items were arrived at to measure service quality in this study and this instrument was referred to as the modified service quality (SERVQUAL) scale (see Table 3).

Feedback from the managers in each of the participating banks who reviewed the question-

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Table 3. The items of the modified service quality (SERVQUAL) scale (V stands for variable)

Variable Description
V1.YOUR BANK’s physical facilities are visually appealing.
V2.Materials associated with the service (such as pamphlets and statements) are visually appealing at YOUR BANK.
V3. YOUR BANK has convenient branch locations.
V4. YOUR BANK has a large ATM network.
V5.When you have a problem, YOUR BANK shows a sincere interest in solving it.
V6.YOUR BANK performs the service right the first time.
V7. When YOUR BANK promises to do something by a certain time, it does so.
V8.Employees of YOUR BANK tell you exactly when services will be performed.
V9.Employees of YOUR BANK give you prompt service.
V10.You feel safe in your transactions with YOUR BANK.
V11.Employees of YOUR BANK are consistently courteous with you.
V12.Employees of YOUR BANK have the knowledge to answer your questions.
V13.YOUR BANK has operating hours convenient to all its customers.
V14.YOUR BANK has employees who give you personal attention.
V15. Employees of YOUR BANK understand your specific needs.

naire confirmed that the modified SERVQUAL had face validity. The questionnaire was administered in a pilot study to 50 customers from each of the four banks. Reliability (Cronbach’s alpha) for the modified SERVQUAL scale was tested for each of the four banks, for the private sector banks as a whole (both the private sector banks clubbed together), for the public sector banks as a whole (both the public sector banks clubbed together) and for the entire sample. The results are shown in Table 4.

It can thus be seen that the reliability figures are very high, all above the recommended lower limit of 0.70 (Nunnally, 1978).

FACTOR ANALYSIS OF THE SERVQUAL SCORES

In this study, for each customer, SERVQUAL scores were generated. A SERVQUAL score is

obtained by subtracting the expectation score from the perception score for each item. A description of the 15 SERVQUAL items used in this study is presented in Table 2.

Factor analysis is a generic name given to a class of techniques whose purpose often consists of data reduction and summarisation. The objective is to represent a set of observed variables in terms of a smaller number of underlying dimensions, called factors. Factor analysis has many applications in marketing research. For instance, factor analysis can be employed to determine the brand attributes that influence consumer choice and in market segmentation studies it can be used for identifying the underlying variables on which to group the customers. Factor analysis of the SERVQUAL scores for the SERVQUAL items was conducted to reveal the underlying dimensions of customer-perceived service quality, and was followed by a Varimax rotation. An important output from factor analysis is the factor matrix, which contains the factor loadings. The factor loadings are the correlations between the factors and the original variables, and are used to help interpret the factors. Although the initial or unrotated factor matrix indicates the relationships between the factors and the individual variables, it seldom results in factors that can be interpreted, because the factors are correlated with many variables. Only through rotation is the factor matrix transformed into a simpler one that is easier to interpret and

Table 4. SERVQUAL scale for public and private sector banks

Bank	Cronbach’s alpha
Prudential	0.9024
Millennium	0.8746
Century	0.9121
National	0.9236
Private sector	0.9028
Public sector	0.9218
Total pilot study sample	0.9271

that results in a clearer resolution of the factors. The most commonly used method for rotation is the Varimax procedure, which is an orthogonal method of rotation (orthogonal rotation results in factors that are uncorrelated) that minimises the number of variables with high loadings on a factor, thereby enhancing the interpretability of the factors. In this study, the number of factors extracted was determined by the percentage of variance criteria - that is, in this approach, the number of factors extracted is determined so that the cumulative percentage of variance extracted by the factors reaches a satisfactory level. In this study, 70% cumulative variance was chosen as the satisfactory level. For each bank, factor scores for the different factors obtained from the factor analysis were averaged to find out as to how each bank fared across the different factors. SPSS version 10.1 for Windows was used for doing the factor analysis.

WOM Communications

Customers’ willingness to engage in WOM about their banks was captured by the following questions:

- “How likely are you to say positive things about YOUR BANK to others?” with anchors at 1 (not at all likely) and 7 (extremely likely).
- “How likely are you to recommend YOUR BANK to someone who seeks your advice?” with anchors at 1 (not at all likely) and 7 (extremely likely).
- “How likely are you to encourage friends and relatives to do business with YOUR BANK?” with anchors at 1 (not at all likely) and 7 (extremely likely).

It has been assumed that all the above items are equally weighted.

Reliability was tested for the 3-item WOM scale. Reliability was tested for each of the four

banks, for the private sector banks as a whole (both the private sector banks clubbed together), for the public sector banks as a whole (both the public sector banks clubbed together) and for the total pilot study sample. The results are shown in Table 5.

It can thus be seen that the reliability figures are very high, all above the recommended lower limit of 0.70 (Nunnally, 1978).

RESULTS AND FINDINGS

Factor Analysis of the SERVQUAL Scores

For each customer, SERVQUAL scores were generated. A SERVQUAL score is obtained by subtracting the expectation score from the perception score for each SERVQUAL item. Factor analysis was conducted with the SERVQUAL scores for the entire set of 224 customers. A description of the 15 SERVQUAL items is presented in Table 6.

Factor analysis of the SERVQUAL scores for the SERVQUAL items was conducted, and was followed by a Varimax rotation to examine the dimensionality of the items. A 4-factor solution was obtained, and the 15 items could be reconfigured into four dimensions, namely, customer-orientedness, competence, tangibles and convenience. The factor loading matrix is presented in

Table 5. WOM scale for public and private sector banks

Bank	Cronbach’s alpha for WOM scale
Prudential	0.9134
Millennium	0.9313
Century	0.8885
National	0.9450
Private sector	0.9037
Public sector	0.9127
Total sample	0.9283

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Table 6. The Items of the Modified Service Quality (SERVQUAL) Scale (V Stands For Variable. The abbreviated names of the variables appear in parenthesis)

Variable Description
V1.YOUR BANK’s physical facilities are visually appealing (Physical facilities).
V2.Materials associated with the service, such as pamphlets and statements, are visually appealing at YOUR BANK (Materials).
V3. YOUR BANK has convenient branch locations (Branch locations)
V4. YOUR BANK has a large ATM network (ATM network)
V5.When you have a problem, YOUR BANK shows a sincere interest in solving it (Responsiveness).
V6.YOUR BANK performs the service right the first time (Right service).
V7. When YOUR BANK promises to do something by a certain time, it does so (Dependability)
V8.Employees of YOUR BANK tell you exactly when services will be performed (Service timing).
V9.Employees of YOUR BANK give you prompt service (Prompt service).
V10.You feel safe in your transactions with YOUR BANK (Safety).
V11.Employees of YOUR BANK are consistently courteous with you (Courteousness).
V12.Employees of YOUR BANK have the knowledge to answer your questions (Knowledge).
V13.YOUR BANK has operating hours convenient to all its customers (Operating hours).
V14.YOUR BANK has employees who give you personal attention (Personal attention).
V15. Employees of YOUR BANK understand your specific needs (Ability to understand).

Table 7. The total variance explained is detailed in Table A1 in the Appendix.

Variables 9, 11, 12, 13, 14 and 15 combine to define the first factor, which can be labeled as a customer-orientedness factor. Variables 5, 6, 7, 8 and 10 combine to define the second factor, which can be labeled as a competence factor. The third factor is correlated highly with variables 1 and 2 and can be termed as a tangibles factor. Variables 3 and 4 combine to define the fourth factor, which can be labelled as convenience. The factors identified from the factor analysis are shown in Table 8.

The first factor, customer-orientedness, accounted for the largest proportion, that is, 26.32% of the total explained variance. This factor was defined by six scale items and was primarily related to the attitude and skills of the employees providing the service. The second factor, competence, explained 21.71% of the variance and was constructed by five scale items, which were primarily associated with the concept of providing reliable services to customers. The third factor, tangibles, explained 11.77% of the variance and was constructed by two scale items, which were

primarily associated with the visual appeal of the banks’ physical facilities and communication materials to the customers. Finally, the fourth factor, convenience, explained 10.73% of the variance, and encompassed two items related to the convenience of the banks’ branch locations and the spread of the banks’ ATM networks.

The reliability coefficient (Cronbach’s alpha), of the modified SERVQUAL scale used in this study, was 0.9273 for the entire sample. The bank wise reliability coefficients (Cronbach’s alpha) for the modified SERVQUAL scale used in this study are shown in Table 9.

It can be seen that the reliability figures are very high, all above the recommended lower limit of 0.70 (Nunnally, 1978).

Cronbach’s alphas were also computed to assess the reliability of the four dimensions (customer-orientedness, competence, tangibles and convenience). At the dimension level, the Cronbach’s alphas are shown in Table 10.

Thus it can be seen that the Cronbach’s alphas for all the four dimensions were well above the recommended lower limit of 0.70 (Nunnally, 1978).

Table 7. Results of the factor analysis (Cumulative variance was 70.54%) Rotated Component Matrix^a

	Component			
	1	2	3	4
V1 (Physical facilities)	0.227	0.281	0.822	0.120
V2 (Materials)	0.306	0.209	0.790	0.194
V3 (Branch locations)	0.125	0.108	0.183	0.917
V4 (ATM network)	0.465	0.404	0.111	0.572
V5 (Responsiveness).	0.535	0.593	0.116	0.301
V6 (Right service)	0.473	0.654	0.140	0.109
V7 (Dependability)	8.782E-02	0.757	0.193	0.201
V8 (Service timing)	0.447	0.635	0.136	0.255
V9 (Prompt service)	0.523	0.483	0.298	0.294
V10 (Safety)	4.896E-02	0.661	0.187	-4.218E-02
V11 (Courteousness)	0.614	0.391	0.250	8.357E-02
V12 (Knowledge)	0.514	0.421	0.174	0.332
V13 (Operating hours)	0.809	-5.818E-02	0.211	6.121E-02
V14 (Personal attention)	0.836	0.246	0.197	7.707E-02
V15 (Ability to understand)	0.763	0.295	0.148	0.222

a. Rotation converged in 6 iterations
 Extraction Method: Principal Component Analysis
 Rotation Method: Varimax with Kaiser Normalisation

THE PERFORMANCE OF THE BANKS WITH REGARD TO SERVICE QUALITY

Effect of Customer-Perceived Service Quality on WOM

To study the influence of customer-perceived service quality on the willingness of customers to engage in WOM about their banks, multiple regression analysis was carried out. The factor scores of the four service quality factors obtained from the factor analysis (customer-orientedness, competence, tangibles and convenience) represented the independent variables, whereas customers' willingness to engage in WOM about their banks represented the dependent variable.

In this study, customers' willingness to engage in WOM about their banks was captured by the following questions:

- “How likely are you to say positive things about YOUR BANK to others?” with anchors at 1 (not at all likely) and 7 (extremely likely).
- “How likely are you to recommend YOUR BANK to someone who seeks your advice?” with anchors at 1 (not at all likely) and 7 (extremely likely).
- “How likely are you to encourage friends and relatives to do business with YOUR BANK?” with anchors at 1 (not at all likely) and 7 (extremely likely).

It has been assumed that all the above items are equally weighted and the responses across the three items were averaged in order to get a measure of WOM.

The reliability coefficient (Cronbach's alpha), for this three-item WOM scale is given in Table

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Table 8. Factors identified from the factor analysis

Factor 1 Customer-orientedness	Factor 2 Competence	Factor 3 Tangibles	Factor 4 Convenience
Prompt service	Responsiveness	Physical facilities	Branch locations
Courteousness	Right service	Materials	ATM network
Knowledge	Dependability		
Operating hours	Service timing		
Personal attention	Safety		
Ability to understand			

11 for the four banks and for the entire sample of 224 customers.

It can thus be seen that the reliability figures are very high, all above the recommended lower limit of 0.70 (Nunnally, 1978).

Independent variables: Customer-orientedness; Competence; Tangibles; Convenience; *Dependent variable:* WOM (word-of-mouth). The word “Sig.” in Table 12 stands for the observed significance level. It is the probability that a statistical result as extreme as the one observed would occur if the null hypothesis were true. The null hypothesis has been rejected when the observed significance level is less than 0.05.

It is thus evident from the adjusted R square, that the model (see Table 13) explains 57.6% of the variance in customers’ willingness to engage in WOM about their banks.

Table 14 indicates that the multiple regression model is statistically significant and that the independent variables have a systematic association with the dependant variable.

The regression coefficients indicated in Table 12 offer strong support for the facts that:

- All the four independent variables are significant predictors of customers’ willingness to engage in WOM about their banks.
- The service quality factor customer-orientedness is the most important factor for influencing WOM about the banks.

- The service quality factor competence is the second most important factor for influencing WOM about the banks.
- The service quality factor tangibles is the third most important factor for influencing WOM about the banks.
- The service quality factor convenience is the fourth most important factor for influencing WOM about the banks.

CONCLUSION

The analysis of the 15 items comprising the various aspects of service quality in this study suggests that customers distinguish four dimensions of service quality in the case of the retail banking industry in India. These four dimensions of customer-perceived service quality are: customer-orientedness, competence, tangibles and convenience. All the four dimensions have their own unique service quality characteristics inherent in the Indian retail banking environment.

The factor customer-orientedness is defined by variables such as the provision of prompt service, whether the employees are courteous, whether the

Table 9. Bank wise reliability coefficients for the modified SERVQUAL

Banks	Prudential	Millennium	Century	National
Cronbach’s alpha	0.9162	0.8848	0.9095	0.9261

Table 10. Dimension levels of the Cronbach's Alphas

Dimensions	Customer-orientedness	Competence	Tangibles	Convenience
Cronbach's alpha	0.8841	0.8657	0.8410	0.8408

operating hours are convenient, whether the employees give personal attention to the customers, whether they can understand the customers' needs and whether the employees have the knowledge to respond to customers' needs. This dimension is basically concerned with employees' attitudes toward their customers. Although technological advances (such as provision of ATM services) provide customers with automatic and impersonal services, customers still need direct help from the banks' employees to solve their problems and concerns. They may want to communicate with the banks' employees via traditional communication media, like telephone and face-to-face meetings. The service quality factor competence is defined by whether the bank performs the service right the first time, whether the employees of the bank tell customers exactly when services will be performed, whether the bank lives up to its promises, whether customers feel safe in their transactions with the bank and whether the employees show a sincere interest in solving the customers' problems. In short, this dimension is related to the banks' ability to perform the promised service accurately and dependably. The service quality factor tangibles are defined by whether the bank's

physical facilities and materials associated with the service are visually appealing at the bank. The service quality factor convenience is defined by the convenience of the branch locations and the spread of the banks' ATM networks. A recurring feature in the empirical studies, which have analysed and used SERVQUAL, is the wide variety of empirical factor structures obtained. These vary primarily in the number of interpretable factors, which consistently differ from the five-factor structure reported by Parasuraman et al. (1991). Contextual circumstances do have a bearing on the number of dimensions of SERVQUAL and it has been suggested that the five dimensions identified by Parasuraman et al. (1991) are not generic (Carman, 1990), that for some services the SERVQUAL instrument needs considerable adaptation (Dabholkar et al., 1996; Lundahl et al., 2009; Ganguli & Roy, 2010) and that items used to measure service quality should reflect the specific service setting under investigation, and it is necessary in this regard to modify some of the items and add or delete items as required (Carman, 1990). Two prior investigations in retail banking which focused on service quality items identified between five dimensions (Parasuraman et al., 1988), and one to three dimensions (Cronin & Taylor, 1992; Levesque & McDougall, 1996). Parasuraman et al. (1991) identified five dimensions of service quality, namely, tangibles, reliability, responsiveness, assurance and empathy in the service of retail banking. Tangibles consisted of the appearance of physical facilities, equipment, personnel and communication materials, reliability signified the ability to perform the promised service dependably and accurately, responsiveness implied the willingness to help

Table 11. Cronbach's Alpha for Three-Item WOM Scale

Bank	Cronbach's alpha
Prudential	0.9146
Millennium	0.9312
Century	0.8914
National	0.9361
Total sample	0.9286

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Table 12. Regression Analysis Results: The Effect of Service Quality on Customers' Willingness to Engage in WOM about their Banks

	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Standard Error	Beta		
Constant	5.060	0.064		78.618	.000
Customer-orientedness	0.803	0.065	0.542	12.442	.000
Competence	0.692	0.065	0.467	10.721	.000
Tangibles	0.370	0.065	0.250	5.730	.000
Convenience	0.141	0.065	0.095	2.182	.030

customers and provide prompt service, assurance comprised of the knowledge and courtesy of employees and their ability to convey trust and confidence whereas empathy dealt with the caring, individualised attention that the firm provides its customers. Cronin and Taylor (1992) in a study of the banking industry found that the 5-component structure proposed by Parasuraman et al. (1988) is not confirmed. Instead they found that all of the items with the exception of one item (item 19 of the original 22 item SERVQUAL scale, which dealt with employees giving personal attention to the customers) were loading on a single factor. A study of the banking industry by Mels et al. (1997), suggested that a two-factor solution, (intrinsic and extrinsic service quality), and not the five factors as suggested by Parasuraman et al. (1991) is the most interpretable structure. Extrinsic service quality refers to the tangible aspects of service delivery and consists of the tangible items of SERVQUAL, while intrinsic service quality consists of the reliability, the responsiveness, the assurance and the empathy items of SERVQUAL, which had significant loadings on it. In this study, a modified SERVQUAL scale was used and only those items were included from the original SERVQUAL scale, which customers felt they understood and which were not repetitive. Moreover two additional items were included, related to branch locations and the ATM network. These modifications and the fact that the modified SERVQUAL scale was

used in a context (the Indian retail banking sector) entirely different from the one in which Parasuraman et al. (1991) had conducted their studies, may explain the emergence of service quality dimensions different from the ones identified by Parasuraman et al. (1991).

This study also investigated the behavioural consequences of perceived service quality in the context of the banking sector in India and examined the relationship between service quality and WOM from a multidimensional perspective. Zeithaml et al. (1996) cogently argued that the behavioural consequences of service quality intervene between service quality and the financial gains or losses from retention or defection. When customers' perceptions of service quality are high, the behavioural intentions are favourable, which strengthens their relationship with the organization. On the other hand, when service quality assessments are low, WOM are unfavourable and the corresponding relationships with the company deteriorate. While customers' behavioural intentions is often included in service quality models as an outcome variable (Cronin & Taylor, 1992;

Table 13. Model summary

R	R Square	Adjusted R Square	Standard Error of the Estimate
0.764	0.584	0.576	0.9633

Table 14. ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	285.204	4	71.301	76.833	.000
Residual	203.233	219	0.928		
Total	488.436	223			

The letters "df" stand for degrees of freedom

Boulding et al., 1993; Zeithaml et al., 1996), it has remained unclear whether or not there is a direct relationship between service quality and customers' behavioural intentions. Zeithaml et al. (1996) report such a relationship, whereas Cronin and Taylor (1992) failed to find one. Boulding et al. (1993) reported that overall service quality perceptions were positively related with willingness to recommend and negatively related with complaining behaviour. Research on the relationship between service quality dimensions and the dimensions of behavioural intentions as proposed by Zeithaml et al. (1996) is still limited and the link between the individual dimensions of service quality and customers' behavioural intentions has not been addressed.

The results of this study provide strong support for the predictive power of perceived service quality on WOM communications. Also, the results yielded an intricate pattern of service quality-behavioural intentions relationship at the level of the individual dimensions. To determine the possible effects of service quality on WOM communications, and to identify which aspects of service quality have a stronger influence on the outcome measures multiple regression analyses were run, by using service quality factor scores as the independent and WOM communications, as the dependent variables. Equipped with this knowledge, bank executives can take necessary actions to improve those elements of service quality to induce favourable behaviours. The regression proved to be significant with R^2 (R square) values of 0.576 for WOM. These results suggest that customer-perceived service quality

influences WOM communications. The regression analysis done to find out the effects of the four factors of service quality (customer-orientedness, competence, tangibles and convenience) on customers' behavioural intentions offer strong support for the facts that customer-orientedness is most important for influencing WOM. The results thus provide evidence of the usefulness of service quality research, since WOM communications and purchase intentions have been suggested as important dimensions of the concept of service loyalty (Zeithaml & Bitner, 2000).

Lovelock (1991) classified services along two axes, namely: "relative involvement of goods" ranging from pure services that are low on goods (consulting, insurance), services with some goods or delivered through goods (air travel, retailing, couriers, hotels, banking, maintenance) to services embodied in goods (music, books) and "degree of consumer-producer interaction", from lower to higher. The author suggested that banking was in the sector featuring medium goods and higher customer-producer interactions, since in banking, consumers and service providers interact personally and the use of goods is at a medium level. Hence, in banking, where there are high customer-producer interactions, the quality of service is determined to a large extent by the skills and attitudes of people producing the service. According to Gronroos (1990), perceived service quality consists of two parts, technical quality and functional quality. Technical quality refers to what customers receive during the service or what remains when the service is over: a completed tax form, the use of a rental car or a

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night's lodging. Often customers can objectively measure whether the technical service quality was within the promised tolerances. For instance, they can see whether the rental car was ready as promised or the haircut properly done. However, in the case of services, because customers are often either direct observers of the production process or active participants, how the process is performed also has a strong influence on the overall impression of the quality of service. This is functional quality. A well-performed service encounter may even overcome the negative impression caused by poor technical quality as well as generate positive WOM, particularly if customers can see that employees have worked very hard to satisfy them in the face of problems outside their control. Employees are part of the process, which connects with the customer at the point of sale, and hence employees remain the key to success at these service encounters or "moments of truth". It is these encounters with customers during a service that are the most important determinants of overall customer satisfaction, and a customer's experience with the service will be defined by the brief experience with the firm's personnel and the firm's systems. The rudeness of the bank's customer service representative, the abruptness of the employee at the teller counter, or the lack of interest of the person at the check deposit counter can alter one's overall attitude towards the service, perhaps even reversing the impression caused by high technical quality. In fact, Bouman and Van der Wiele's (1992) research into car servicing identified three service quality factors – customer kindness, tangibles and faith. The authors found that customer kindness, that is, "the front office personnel's approach to the customer and his problems, regardless of the service delivered", was the only factor to have a significant relationship with intentions to engage in WOM recommendations. Levesque and McDougall (1996) also reported in their findings that the relational factor, epitomized by the provision of personalized, courteous service and helpful employees who understand

the customers' needs is the strongest driver for WOM. Similarly, Berry and Parasuraman (1991), also reported that the factor that most influences customers to recommend a bank was "the willingness to help". Again, in a survey of consumers to determine what their biggest complaints were about service, Wessel (1989), observed that the most frequently mentioned complaints were: staying home for delivery people who fail to show, salesclerks who are on the phone while waiting on a customer, salesclerks who say, "it's not my department", salespeople who talk down to customers and salesclerks who can't describe how a product works. In fact, the customer's impressions of a service will be determined by the impressions with each of the employees contacted. Hence this may explain as to why customers' willingness to engage in WOM about their banks is most influenced by this customer-orientedness factor, which is largely concerned with the attitude and the skills of the employees. In fact, for many services, employees remain the primary ingredients for success in the moment of truth, and according to Rust et al. (1996), a Gallup survey found that the most common definition for quality of services was employee contact skills such as courtesy and helpfulness.

It is also important to recognize the implications of marketing and service quality in the Indian context. Marketing in India for many years, like in many developing nations, was more a subject of socio-political criticism than a concern of professional management. There were many reasons for this comparative lack of interest including public acceptance of government, and industry-based agreements for "planned" production and distribution. Additionally, there were long post-war and post-independence periods (since 1947) of socialistic policies of controls and scarcities and the legacy of protected markets in the Indian economy. Slow economic growth and restrictive labor practices also made it difficult to shift resources into new marketing opportunities. However, with increased competition and a

more deregulated economy, Indian management has become much more sensitive to the role of marketing and many organizations have introduced marketing as a major functional component. As India entered into the 1990s, there grew a much deeper awareness of the need for managerial and especially marketing expertise. Further, Indian customers' expectations of quality service have increased many folds. Customer service has become an important integral component of many businesses in order to remain competitive. Again, the nature of the customer relationship is changing, particularly on the retail side of banking. As electronic banking becomes more prevalent, a bank's service quality may well be measured in terms of personal support rather than technical support. Although Indian consumers have become more and more technology savvy, they also have been demanding more and more of quality and personalized service from manufacturers and service providers alike. This is evidenced by the fact that although many banks have provided financial incentives for consumers to utilize automatic teller machines (ATMs), such as teller fees, etc., the "unique selling proposition" of a bank still appears to be personal banking services and services delivered with the "personal touch". In other words, as banks become more and more "high-tech," their technical services are becoming standardized, reducing the importance of such services as a differentiating factor; thus, consumers will evaluate banks based more on their "high-touch" factors than on their "high-tech" factors. In short, the standardization of "high-tech" banking and the resulting increased importance of "high-touch" banking as a differentiating factor.

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APPENDIX

Factor Analysis: Total Variances Explained

Figure 1. Total variance explained for the entire set of customers

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.69	51.27	51.27	7.69	51.27	51.27	3.95	26.32	26.32
2	1.14	7.57	58.83	1.14	7.57	58.83	3.26	21.71	48.04
3	.92	6.11	64.95	.92	6.11	64.95	1.77	11.77	59.80
4	.84	5.59	70.54	.84	5.59	70.54	1.61	10.73	70.54
5	.74	4.97	75.50						
6	.62	4.16	79.66						
7	.54	3.57	83.23						
8	.43	2.87	86.10						
9	.39	2.61	88.71						
10	.38	2.52	91.23						
11	.32	2.12	93.35						
12	.30	1.97	95.32						
13	.28	1.86	97.18						
14	.24	1.59	98.77						
15	.18	1.23	100.00						

Extraction Method: Principal Component Analysis.

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Chapter 11

Role of European Automotive Supplier Integration in New Product Development

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ABSTRACT

Over the past two decades, the automotive industry has experienced major changes as a result of globalisation, changing customer requirements and environmental legislation. The supplier integration in the new product development process is a significant step in facilitating reduction in the time to market of innovations and reducing costs. The aim of this work is to assess the extent of supplier integration in automotive organisations and to identify what barriers still exist. An exploratory Europe-wide survey was conducted, and 31 usable returns from automotive organisations spread across the EU. The survey confirmed the increasing importance of supplier integration in the automotive industry; however, the practice varies from organisation to organisation. They also indicate that most automobile manufacturers are engaged in functional rather than strategic supplier integration, indicating that the supplier integration is not yet fully developed, but progress in the first tier of suppliers is becoming common.

INTRODUCTION

The automotive industry plays an important role in the European economy. In 2002, it contributed 3% of the gross domestic product of the European Union (EU-15) and 8% of the total manufacturing

output (European Commission, 2005) providing 12 million jobs. Changes in its' business/manufacturing strategies and modus operandi are likely to affect many other businesses (Womack et al., 1990).

Environmental legislation, rapidly changing customer requirements, strongly segmented markets and global competition have been the drivers of significant changes in the automotive

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and other industries over the past two decades. In order to maintain profitability, the European automobile sector has evolved to reduce product life cycle and increase product customisation (European Commission, 2005). The recent trend is to deliver cars more quickly to reduce costs (Holweg & Miemczyk, 2003). Practice within the automotive industry has often been that the OEM pressure suppliers into accepting cost reductions using blackmail (Andreson, 2009). Paashius (1998) and Ulrich and Eppinger (2004) argue that competitiveness will depend on how quickly and effectively it can attain these goals. Modularisation and outsourcing subsystem manufacture are key strategies (Schilling, 2000; Novak & Eppinger, 2001), requiring efficient coordination between the original equipment manufacturer (OEM) and its suppliers. It is difficult to maintain the necessary close relationships with a large number of suppliers; consequently, developments have been characterised by a reduction in the supply base (Cousins, 1999) but with longer and closer relationships (Kamath & Liker, 1994). Truss et al. (2006) described the General Motors project to respond to customers more quickly with better IT frameworks, decision making processes to match supply and demand using collaborative planning, forecasting and replenishment, aligning business processes in trading partners by encouraging trust and collaboration. Childerhouse et al. (2003a) have identified the information flow “pains” that afflict automotive supply chains current practice, particularly the lack of transparency and its’ impact on trust between partners. In their second paper (Childerhouse et al., 2003b) they show that there are improvements to the amount of information shared between partners since 1998 in the area of product design.

Wynstra et al. (1999) argue that New Product Development (NPD) depends on collaboration. The research presented in this paper aims to obtain empirical results to verify the extent to which NPD supplier integration is a genuine feature of the European automotive industry. A review

of published supply chain integration and NPD literature provides the basis for a set of factors for analysis. The research methodology and survey design are described. The results are presented and their implications discussed.

LITERATURE REVIEW

Fischer (1997) classifies supplier integration based on whether the manufacturer produces commodity or innovative products. The primary aim of commodity manufacturers is to provide a reliable and stable supply at the lowest possible cost; consequently supplier involvement is operational, while the primary purpose of suppliers of market-driven innovative products is to respond quickly to unpredictable demand requiring strategic supplier integration, for example in clothing (Abecassis-Moedas, 2006). Cassivi (2006) has investigated the collaborative planning within a supply chain using e-collaboration initiatives by survey of telecommunications companies and finding that issues of information sharing could be overcome using electronic data exchange. This process also improved product innovation.

The automobile industry has become globalised and more market-driven, forcing companies to re-evaluate their operating procedures (Christopher, 1998). Collaboration between partners along the supply chain has emerged as one of the necessary conditions needed for manufacturers to achieve a sustainable competitive advantage (Fine, 1998; Handfield & Nichols, 1999; Jespersen & Skjott-Larsen, 2005). Al-Shelabi et al. (2008) have shown that of the Malaysian Automotive industry engaged in NPD 70% don’t have formal processes in place. Frohlich and Westbrook (2001) and Power (2005) have argued that the more suppliers are integrated into the supply chain, the greater the benefits will be to all stakeholders.

Traditionally, studies in supplier integration have focused on parts purchases and delivery schedules. However, several studies (Clark, 1989;

Dyer & Ouchi, 1993; Liker et al., 1998) suggest that suppliers can make a significant contribution to the NPD process. Ulrich & Eppinger (2004) point out that successful companies are those that understand market needs and quickly create products which meet these requirements. Iamratanakul et al. (2008) reiterates that earlier introduction of any new product allows an organisation to gain competitive advantage with lower costs from the learning curve over later competition and reduction of development time.

Supply chain integration enables reduced stocks and generally makes the flows of material and information faster (Handfield & Nichols, 1999). Streamlined processes will result in lower production costs. Supplier integration also allows companies to produce goods in a shorter time, thus satisfying the customer's demand more quickly increasing the service level.

Ulrich and Eppinger (2004) define NPD as "a set of activities beginning with the perception of a market opportunity and ending in the production, sale and delivery of a product". This is the definition we have adopted in this paper. Clark and Wheelwright (1994) divide the process of NPD into five stages, namely study, design, development, preproduction and production. In this study, the latter two stages are combined and described as the manufacturing stage.

- **Concept planning/study:** NPD begins with the identification of a gap in the market. The concept/planning stage involves determining customer preferences, establishing target specifications, generating and testing product ideas, and developing detailed specifications for valid ideas. Preliminary economic analysis is conducted and the development process is planned.
- **Design stage:** Detailed engineering designs are generated that will appeal to customers yet be relatively simple to manufacture.
- **Prototype stage:** Prototypes of the product are generated and tested; if the design

criteria are met, the process proceeds towards production. Otherwise, further development is required to improve product performance.

- **Manufacturing:** Final preparations for manufacturing take place and when the company is ready, series production begins.

In reality many of these stages of the NPD tend to be concurrent and iterative rather than sequential (Zirpoli & Caputo, 2002)

Supplier integration in the NPD process has several advantages. Firstly, time to market is reduced. In integrated product development, all functions follow highly specified procedures and consequently the overall process time is reduced (Viale, 1998). Secondly, inter-functional communication accompanies supplier integration and facilitates early identification of problems, leading to faster problem solving and less rework through the reduction of mistakes, and lower overall investment costs (Clark & Fujimoto, 1991). Significant cost reductions can result. Thirdly, product quality is improved since early supplier involvement allows for agreement of product attribute targets to take account of a wider range of factors during the design phase of the NPD. This can lead to the creation of products that are capable of more functions, that have greater durability, and that are manufactured more easily at lower cost (Takeishi, 1998). Fourthly, early supplier integration gives rise to a more efficient supply chain. Supply chain complexity can be minimised during the design phase of a product and incorporated as a factor in the optimisation of the product's characteristics (Handfield, 2009). Inventory levels can be reduced and material and information can flow more rapidly through the supply chain (Handfield & Nicols, 1999). Production lead times can be reduced, enabling customer demands to be met more quickly (Handfield, 2009). Sanongpang (2009) has proposed a wholly new NPD development procedure based on ISOTS 16949:2002 with the advantage of integrating performance measures.

Given these potential benefits it is not surprising that most automotive OEMs are pursuing increased levels of strategic supplier integration. Stevens (1989) suggests that a company can proceed through four stages while making the transition from operational to strategic supplier integration. At stage one, the company and its supplier have limited interaction; where there is only fragmented collaboration between the partners. Stage two is accompanied by cooperation in certain functions, usually purchasing or materials control. At stage three, the company shares its goals with its suppliers and it cooperates with its suppliers in an attempt to achieve these aims. Finally, at stage four, all members of the supply chain decide on the goals to be achieved and they all share effort and information in order to achieve it. All these approaches were found by Camuffo et al. (2005) to apply to Heat Exchanger design companies.

Takeishi (1998) outlines the process, adopted by Japanese motor vehicle companies to include suppliers into the overall development of new products, indicating the principal reason for adopting closer relations with suppliers was quality not cost. Suppliers that feel financially committed to the vehicle producer are more likely to be effective in the development process. The findings stress the *intra-firm* and *inter-firm* relations to be equally important and that corporate procedures may have to change to obtain the maximum benefits. The work at FIAT in the 1990's is described by Zirpoli and Caputo (2002) and Becker and Zirpoli (2003). The main conclusion is that it has proved very difficult to implement a design outsourcing strategy in this case. Problems occur with the loss of expertise in the parent company. The Aberdeen group quoted by Handfield (2009) have found that companies who involve their suppliers early in the design of new products reduce material costs by up to 18%; increase the accuracy of cost estimates; improve initial product quality; reduce time to market by up to 20% and capture a greater

market share. A number of lessons can be learned from this US experience i.e.

- Conduct a detailed supplier assessment before the project starts.
- Involve suppliers in setting technical goals.
- Joint setting of business goals has no effect on team effectiveness.
- Greater NPD team effectiveness improves the quality of the product design.
- Greater NPD team effectiveness improves the financial performance.
- Supplier involvement should be earlier rather than later.
- Supplier responsibility needs to be commensurate with the technical risk.

In the UK the EPSRC funded Foresight vehicle (COGENT) project between Cranfield University and Nissan included 100 suppliers aiming to improve the co-development process between the company and suppliers to obtain a world class performance with an impressive 30% cost reduction and 30% faster design time and 40% less development budget. Supplier self-sufficiency has increased by 7% per year. Vanale and Salles (2009) analysed Brazilian auto companies illustrating similar advantages for the cooperative model of co-development.

It seems evident from the literature that the integration of key automotive suppliers at an early stage of the OEM's NPD process can yield substantial benefits. A question that remains is to what extent is supplier integration being effectively implemented in the automotive industry at the moment. The issues identified as being important include the problem of communications; the effect of short term relationships with suppliers and what type of component benefits most from supplier participation in the design process. These issues have been tested in the European context to determine the current degree of cooperation and possible new research directions.

HYPOTHESES ON SUPPLIER INVOLVEMENT IN NEW PRODUCT DEVELOPMENT

Flow of Information

A key feature of any supply chain is the flow of information between interacting parties (Christopher, 1998; Handfield & Nichols, 1999). Several researchers have argued that the better the flow of information, the more successful the participating companies will be (Cooper et al., 1997, Handfield & Nichols, 1999, Morris et al., 2004; Jespersen & Skjott-Larsen, 2005). Effective information sharing is crucial to the success of supplier involvement in the new product introduction process (Frohlich & Westbrook, 2001).

The advent of the internet has facilitated the information sharing required for effective supplier involvement (Handfield & Nichols, 1999) by reducing communication barriers (Power, 2005) using:

- Electronic Communication Systems (ECS) including e-mail, electronic data interchange.
- Electronic Platforms (EP) which are web sites in which the OEM will set its specifications and
- Computer Aided Design and Manufacturing (CAD/CAM) electronic data exchange (EDI).

Ford and GM insisted on suppliers using Covisint's communications central hub for data exchange saving Ford \$350M in procurement costs in 2002 (Davis, 2004). Harding and Broadley describe an eBusiness approach to networking for SME's in The Birmingham area of the UK with increased collaboration and experience sharing in new product development. Berry et al. (1994) maintain that price dictates the way companies operate their supply chains in the electronics

industry even where technology is a crucial issue since supply chains can have excess capacity.

Another facilitator has been the emergence of supplier parks (Helper et al., 1999; von Corswant & Frediksson, 2002). The extent of communication can be measured by (a) the level of exchange of information on various attributes associated with NPD and (b) the ease with which communication is facilitated. Hence the first hypothesis to be tested is as follows:

H1: A greater extent of communication between suppliers and OEM will lead to more meaningful supplier involvement in the earlier stages of the NPD process.

Supplier-OEM Relationship

In the late 1990's, European automobile companies underwent a major change in their inter-organisational relationships. Spurred on by the success of the Japanese car-makers, Western automobile manufacturers began to narrow their supplier base and to engage in long term relationships with a select few suppliers (Bursa et al., 1997; Cousins, 1999). One major example of this was the co-generation development (COGENT) program initiated by Chrysler in the 1990s. This mode of interaction gained popularity in Europe as automotive companies realised there could be mutual benefits for both OEM and supplier (Handfield & Nichols, 1999).

Trusting relationships must be established for effective supplier involvement since the OEM becomes more dependent on their suppliers (Nishiguchi, 1994). Kamath and Liker (1994), Wynstra et al. (1999), and Tracey et al. (2004) indicate that once such relationships have been established, more strategic supplier integration occurs. This is especially important for the NPD process (Clark, 1989; Dyer & Ouchi, 1993; Liker et al., 1998). Companies with supplier involvement in NPD, reportedly, have reduced operational costs and hence, increased profitability (Handfield &

Nichols, 1999). Goffin et al. (2006) surveyed the close relationship between OEMs and suppliers finding that flexibility, commitment, joint problem solving and trust were important factors to allow cost reduction, improved quality and enhanced product development. Bititci et al. (2004) propose useful a value matrix for evaluating collaborative enterprises. Additionally, the literature suggests that such companies have managed to produce innovative, high quality products with shorter development times thus improving their market position. Thus the second hypothesis is as follows:

H2: Automotive companies with long-term supplier relationships involve their suppliers to a greater extent in their NPD and experience greater positive impact from their suppliers.

Component Characteristics and the Extent of Supplier Involvement

The development of a new product can be carried out in-house, it may be outsourced or it may be co-developed. In the past, most NPD was done in-house, but recent literature on automotive manufacture points to an increase in co-development and outsourcing (Mercer, 1995; McIvor et al., 1998). There are several types of outsourced components that automobile manufacturer's utilise (Mikkola, 2002):

- **Black box parts:** These are parts for which the company sets the functional specifications and provides a conceptual design, letting the supplier complete the engineering design and deliver the parts.
- **Full Service supplier parts:** Full service suppliers undertake the responsibility of creating the new part on their own. They are responsible for its design, manufacturing and its after sales service.
- **Proprietary parts:** These parts are similar to full service parts. However, the supplier is only responsible for design and manu-

facture of the part. The OEM assumes responsibility for the after sales service.

Results from recent studies (e.g. Robertson & Ulrich, 1998; von Hoek & Weken, 1998; Doran, 2003; Gerwin, 2004; Lau & Yam, 2005), advocate that the characteristics of the component should influence the form of NPD and the extent to which the supplier is involved in the process. Hence, a third hypothesis will be tested:

H3: The extent and impact of supplier involvement in the NPD process is dependent on the type of component supplied.

RESEARCH METHODOLOGY

The procedure adopted here adheres to the exploratory survey listed by Forza (2002) and conforms closely to the methods he described. Survey questionnaires were mailed to a sample of automotive companies selected from the AMA-DEUS and the FAME databases (AMADEUS and FAME databases provide financial data on European and British companies, respectively), with 31 returns. Statistical theory suggests that the sampling distribution for the mean approaches normality with sample sizes of 30 observations or more regardless of the distribution of the population (Runyon et al., 1996; Walpole et al., 1998), sufficient to obtain statistical significance.

The sample characteristics are shown in Table 1. The survey employed four question formats: Likert scales (Likert, 1932), metric measurement scales, multiple responses and rank scores.

Since 17 of the 31 responses were from the UK, which forms only 40% of the EU-15 automotive industry, a cluster analysis of the results with respect to location was conducted to ensure the results are representative of the EU-15. With the exception of three variables in the survey, the differences in means for the two samples were not significant at the 90% confidence interval (see Table 2). Significance was based on a one-way analysis of variance (ANOVA) test.

Table 1. Sample characteristics (N=31)

Sector of Company						
Original Equipment Manufacturer	Individual Component Supplier	Assembled Parts Supplier	Subsystems Supplier	Full Service Supplier	Engineering Consultancy	Other
6	5	5	1	2	3	8
Number of Employees						
≤10 (I)	11-50 (II)	51-250 (III)	251-1250 (IV)	1251 – 6250 (V)	>6250 (VI)	
5	3	6	5	6	6	
Country of Origin						
United Kingdom	Germany	Spain	Italy	Sweden		
17	8	2	3	1		
Turnover						
<1,000,000	1-10 M	10-100 M	100 – 1 Billion	> 1 Billion	n.s.	
7	4	11	1	5	2	

The data were analysed for homogeneity between subgroups and for correlations between variables. ANOVA tests were used to investigate differences in means between sub-samples. Correlations between data were investigated using the Pearson’s coefficient (Runyon et al., 1996; Walpole et al., 1998). Finally, in testing some of the hypotheses, a factor analysis approach was taken.

RESULTS

Methods of New Product Development

Table 3 shows the average values of the variables used to measure the amount and form of the NPD used by the respondents. The survey further revealed that 29% of the companies did all their NPD in-house. A further 42% used in-house development for more than two-thirds of all their NPD projects (see Figure 1). Co-development was the next most popular method with 38% of firms using this method for at least one-third of their NPD projects. Outsourcing was not a popular method

of NPD; in fact, almost a third of the sample did not use this method at all, and a mere 12% used this method for more than one-third of their NPD projects. This trend is not surprising; NPD is a key to competitive advantage in the automotive industry. To ensure that they are not beaten to the market, companies tend to be proprietary and prefer to develop products on their own or in conjunction with a few select suppliers.

Supplier – Company Relationships

Sixty one percent (61%) of the companies surveyed primarily engage in long-term relationships with their suppliers. Of the remainder, 13% engage in only short-term relationships with their suppliers and 26% engage in erratic relationships whose length and intensity are contingent on the activity involved rather than the specific supplier. This reflects the reported convergent trends in the automobile industry with a move towards a reduction in the number of 1st tier suppliers and the development of closer relationships with them, essential for the success of integrated NPD (see Figure 2).

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Table 2. Significant differences in mean value of clusters

Variable	Item	Mean Value			Asymptotic Significance
		Total	EU	UK	
D6.5	What is the level of information sharing between your company and its suppliers with respect to human resources?	1.42	1.79	1.18	0.080*
E3.3	What impact do you think supplier integration has on the prototypes stage of NPD? (0-4)	2.62	3.00	2.31	0.055*
E2.6	What impact do you think supplier integration has with respect to just-in-time delivery? (0-4)	2.87	3.29	2.19	0.015**

* Significant at the 90% confidence interval level.

** Significant at the 95% confidence interval level.

Table 3. Mean values for NPD items

Variable	Item	Mean	S.D.	Mode	Median
	Number of NPD projects which use: (0-4)				
B.2.1	In-house design & development	2.81	1.140	3	3
B.2.2	Outsourcing	0.87	0.806	1	1
B.2.3	Co-development with supplier(s)	1.39	1.086	1	1

Table 4. Mean values for supplier – company relationships

Variable	Item	Mean	S.D.	Mode	Median
C.1	Type of relationship with suppliers	1.58	1.01	1	1
C.2	Rank the following qualities used in supplier selection (1 – 8)				
	Quality	1.87			
	Price	2.83			
	On-time	3.13			
	Technology	3.20			
	Reputation	4.63			
	NPD contribution	4.83			
	Capacity	4.93			
	Other	7.77			
C.3	Number of NPD projects which use: (0-4)				
	Full service parts suppliers	1.07	1.27	0	1
	Proprietary parts suppliers	0.82	1.16	0	0
	Black box parts suppliers	1.29	1.33	0	1
	Co-developed parts suppliers	1.75	1.27	1	2

Figure 1. Methods of NPD used by automotive companies

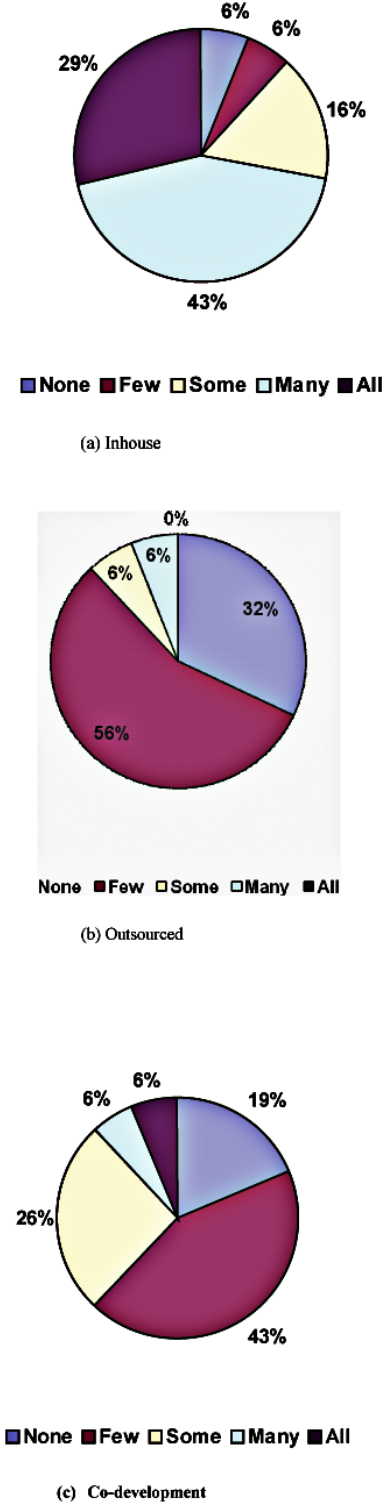
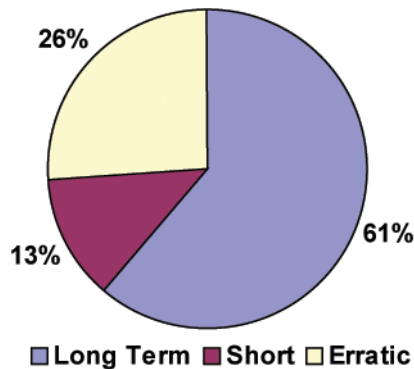


Table 4 outlines the main results of the supplier-company relationship indicated by the survey. The ranking order for the attributes used for choosing suppliers was (from most important to least): Quality, Price, On-Time delivery, Technology, NPD contribution, Reputation, Capacity for the mainland EU-15 countries, and Quality, Technology, Price, On-Time delivery, Reputation, Capacity, NPD contribution for the UK. For both groups, quality was the most important feature. This may be attributed to the increasing importance of quality as companies recognize that, with growing global competition, superior quality no longer guarantees a market; it merely allows a company to compete (Curkovic et al., 2000). Price was ranked as the next most important feature in mainland EU-15, and was ranked as third most important in the UK. This is to be expected; in order to maximize their profit the price of the components must be as economical as possible. On-time delivery was rated 3 and 4 respectively by the EU-15 and the UK.

A supplier capable of delivering its parts or components on time would be preferred within these integrated systems. Just-In-Time (JIT) or LEAN techniques are becoming prevalent in automotive manufacturing (Perez & Sanchez, 2001; Power, 2005). Technology is the second most important attribute in the UK automotive industry although it is only rated 4th in mainland EU.

The other three attributes, supplier’s reputation, capacity and contribution to NPD are lowly rated by the respondents. The research suggests that for better supplier integration in NPD, the OEM ought to consider the ability of the supplier to effectively contribute to the process during selection. However, the results presented here do not support this. They seem rather to indicate that either the companies do not consider their supplier’s involvement very beneficial for NPD or they are willing to help their suppliers improve the skills required for NPD.

Figure 2. Length of supplier relationship



The rankings on a whole are indicative of operational supplier integration associated with the manufacture of a commodity rather than strategic supplier integration associated with an innovative product (Fischer, 1997). It is instructive to note that the UK industry places much emphasis on technology in selecting its suppliers (2nd) but places the supplier’s ability to contribute to NPD as its least important attribute.

Figure 3 shows the proportions of different categories of suppliers; the most popular category is the co-developed parts supplier. Only 18% of all the companies surveyed do not use any co-developed parts in their products while almost 29% of the companies surveyed co-developed more than half of their parts.

Although only 7% of the respondents indicated that more than two-thirds of the parts they used in new products were black box components, a further 60% use these parts sparingly in their NPD. This would suggest that there is limited supplier involvement in either concept planning or design phases.

Full service and proprietary parts are not widely used; 47% and 57% of the respondents respectively do not use such parts at all. This is consistent with the literature and confirms the survey results which report that most companies are reluctant to completely outsource product design.

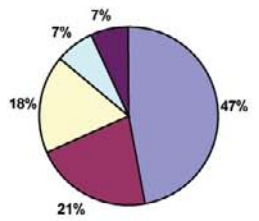
Supplier Involvement in NPD

The responses show that first tier suppliers are highly involved in the NPD processes of automotive companies in Europe; in fact, 65% of all respondents indicate a high level of involvement of which 23% of companies indicate involvement (see Figure 4). Only 15% of the respondents have no involvement of their first tier suppliers in the NPD process. The involvement of second tier suppliers in the NPD process is less; only 15% indicated a high level of involvement in the NPD while 19% have no 2nd tier supplier involvement. The remaining 65% has relatively low levels of involvement from their 2nd tier suppliers in NPD. Third tier suppliers have negligible involvement in the NPD process. 46% have no involvement from the 3rd tier suppliers while the remaining 54% have only a low level of involvement in the process. The OEM usually has a strong relationship with its 1st tier suppliers who in turn have strong links with the 2nd tier suppliers.

Using a variant of the Clark and Wheelwright (1994) model, NPD was defined as evolving in four stages: concept planning, design, prototype development/testing and manufacture. Table 5 suggests that in the European automotive industry there is the least involvement at the concept planning stage (1.77 on a Likert scale of 0 – 4), followed in order by the prototype development/testing phase (2.11), the design stage (2.34) and then the manufacturing phase (2.75). This is also seen in percentages of the surveyed companies which indicate that they have high levels of involvement at the four stages of NPD (i.e., 37%, 39%, 55% and 61%, respectively). This data suggests that the majority of European automotive companies prefer doing the concept and planning stage by themselves. This is also true for the prototype/testing stage.

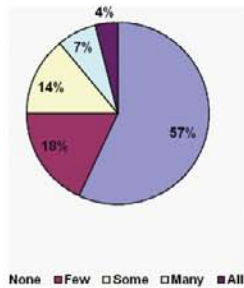
However, the majority of the companies involve their suppliers in the design stage. This helps the company to reduce the project development time and costs. Supplier involvement in the manufac-

Figure 3. Categories of supplies parts used in NPD



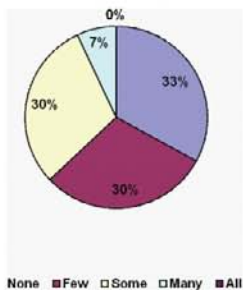
None ■ Few □ Some □ Many ■ All

(a) Full Service Parts



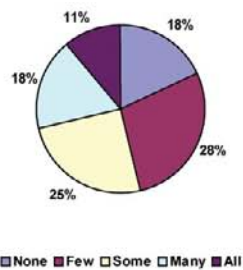
None ■ Few □ Some □ Many ■ All

(a) Proprietary parts



None ■ Few □ Some □ Many ■ All

(a) Black Box parts



None ■ Few □ Some □ Many ■ All

(a) Co-developed parts

turing stage is very high. This supports the literature that suggests that automotive manufacturing operations are most integrated. These findings on the supplier involvement at various stages of NPD support the data collected on the major types of parts supplied i.e. co-developed or black box parts where most of the collaboration comes during the manufacturing stage.

Information Sharing and Communication in NPD

Figure 5 records the respondents' impression of the forms of communication used and the information shared in the NPD process. The most widely used techniques (87% of all companies) are computer aided design and manufacturing systems (CAD/CAM) and electronic communication systems (ECS). Robertson & Allen (1993) report that CAD/CAM data exchange can have a major impact on the design phase of NPD when used as a communication medium. Liker et al (1996) report that CAD/CAM facilitates a reduction in the number of engineering revisions required more efficient data exchange and better informed decision making. Electronic Platforms, which support concurrent contributions from more than one supplier, are also used (39% of all companies). Only 16% of the respondents operated in supplier parks.

The information shared by the companies is also of significance. As shown in Table 6, the highest level of information was shared on customer requirements (2.68), followed in decreasing order by cost and risk (2.39), technology (2.23), equipment (1.71) and human resources (1.42). Respondents indicated that they communicate frequently with their suppliers on customer requirements, cost and risk, suggesting that companies are moving towards supplier integration in the concept planning phase of NPD. These results support the arguments of Clark & Fujimoto (1991). Companies are more reluctant to share technology information (i.e., only 42% of all respondents report a high frequency of data

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Table 5. Level of supplier involvement in the NPD process

Variable	Item	Mean	S.D.	Mode	Median
D.1.1	What is the level of involvement of 1 st tier suppliers in the NPD process at your establishment? (0-4)	2.5	1.36	3	3
D.1.2	What is the level of involvement of 2 nd tier suppliers in the NPD process at your establishment? (0-4)	1.38	1.06	1	1
D.1.3	What is the level of involvement of 3 rd tier suppliers in the NPD process at your establishment? (0-4)	0.83	0.87	0	1
D.2.1	What is the level of involvement of your supplier(s) at the concept planning stage? (0-4)	1.77	1.22	3	2
D.2.2	What is the level of involvement of your supplier(s) at the design stage? (0-4)	2.34	1.08	3	3
D.2.3	What is the level of involvement of your supplier(s) at the prototype/testing stage? (0-4)	2.11	1.07	2	2
D.2.4	What is the level of involvement of your supplier(s) at the manufacturing stage? (0-4)	2.75	1.14	4	3

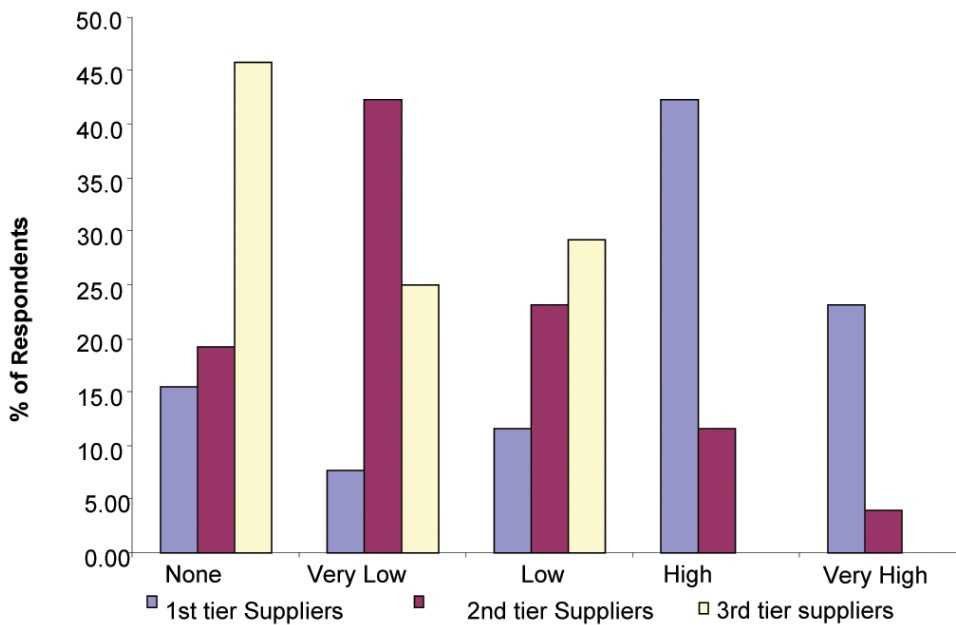
sharing). This may be attributed to the competitive nature of the automotive industry; companies attempt to retain their intellectual property (technological inventions) as much as possible since technology is a core competence.

There is very little information sharing with respect to manufacturing equipment or human resource management. These issues are considered organizational responsibilities and there will be minimal improvements in the NPD process due

Table 6. Information sharing on various NPD factors

Variable	Item	Mean	SD	Mode	Median
D3	Percentage of companies which have multi-functional cross-functional NPD teams? (0 –100)	86.6			
D.4	What level of communication is there between cross-functional members in your company? (0-4)	3.11	0.567	3	3
D.5	Percentage of companies using: (0-100)				
	Supplier Parks	16.1			
	Electronic Communication Systems	87.1			
	Electronic Platforms	38.8			
	CAD/CAM Data Exchange	87.1			
D.6.1	What is the level of information sharing between your company and its suppliers with respect to equipment? (0-4)	1.71	1.16	1	2
D.6.2	What is the level of information sharing between your company and its suppliers with respect to technology? (0-4)	2.23	0.99	2	2
D.6.3	What is the level of information sharing between your company and its suppliers with respect to customer requirements? (0-4)	2.68	0.98	3	3
D.6.4	What is the level of information sharing between your company and its suppliers with respect to cost and risk? (0-4)	2.39	1.23	3	3
D.6.5	What is the level of information sharing between your company and its suppliers with respect to human resources? (0-4)	1.42	1.06	1	1

Figure 4. Levels of supplier involvement



to the sharing of such information. Consequently, most of the respondents reported very little data exchange in these areas. Thus the difference in the means between the mainland EU and UK is not important; neither group considers this item often in their desirable supplier involvement attributes.

THE PERCEIVED IMPACT OF SUPPLIER INVOLVEMENT

Of the 31 companies surveyed, 27 (87%) responded that their supplier involvement had a positive impact on the NPD process. Table 7 outlines these results. The impact factors and their mean values in decreasing rank order are: quality (3.28), process lead-time (3.20), cost (2.93), new product introduction (2.87), JIT delivery (2.87) and transportation (2.63). All the variables have a mean value greater than 2, i.e. the OEM sees the net effect of their suppliers on each critical factor as positive. This supports the claims of Handfield

and Nicholls (1999). It is not surprising that quality is the highest ranked attribute; manufacturers must attain high quality to keep their market share (Takeishi, 1998). Process lead-time has decreased due to better communications between supplier and OEM. Better coordination between companies is resulting in suppliers having a positive impact on JIT delivery and transportation.

Supplier involvement is perceived as having a positive impact on all stages of the NPD process, with design and manufacturing being most significant (each having a mean value of 3.07). Prototype testing/development follow next (3.00), and concept planning (2.83). Early involvement of the supplier in design helps in the creation of more functional and more easily manufactured products. Manufacturing has long been an area of supplier involvement in NPD. Effective collaboration between supplier and OEM results in a faster, more reliable manufacturing process, prototype development and the testing phase of NPD. There is a fair amount of information sharing on customer needs along the supply chain.

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Figure 5. Techniques used for the facilitation of communication between NPD teams

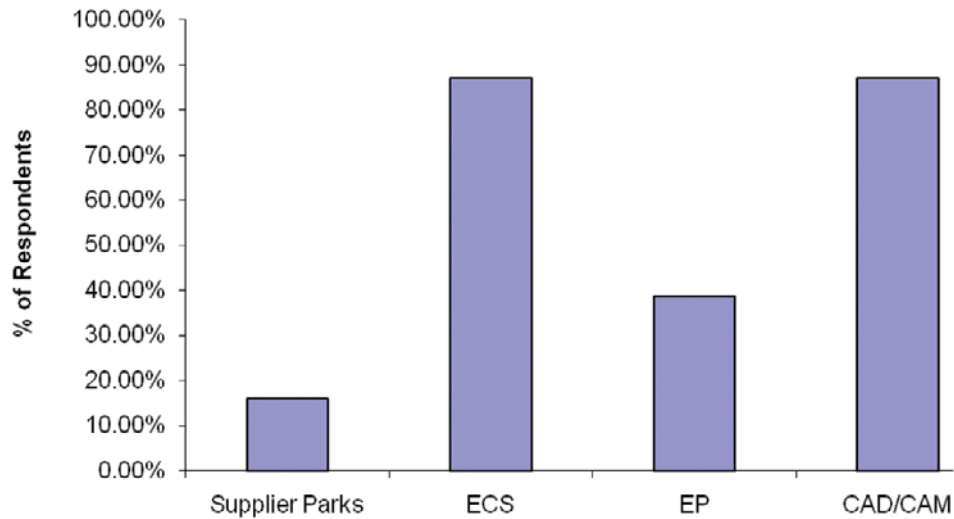


Table 7. Impact of supplier involvement in NPD

Variable	Item	Mean	S.D.	Median	Mode
E.1	How effective would you consider your supplier's involvement in the NPD process? (0-4)	2.90	.539	3	3
E.2.1	What impact do you think supplier integration has with respect to quality? (0-4)	3.21	0.774	3	3
E.2.2	What impact do you think supplier integration has with respect to process lead time? (0-4)	3.13	0.730	3	3
E.2.3	What impact do you think supplier integration has with respect to transportation time? (0-4)	2.43	1.15	3	3
E.2.4	What impact do you think supplier integration has with respect to cost? (0-4)	3.00	0.910	3	3
E.2.5	What impact do you think supplier integration has with respect to new product introduction? (0-4)	2.87	1.04	3	3
E.2.6	What impact do you think supplier integration has with respect to just in time delivery? (0-4)	2.70	1.26	3	3
E.3.1	What impact do you think supplier integration has on the concept-planning stage of NPD? (0-4)	2.62	1.15	3	3
E.3.2	What impact do you think supplier integration has on the design stage of NPD? (0-4)	2.97	0.944	3	3
E.3.3	What impact do you think supplier integration has on the prototype-testing stage of NPD? (0-4)	2.93	0.961	3	3
E.3.4	What impact do you think supplier integration has on the manufacturing stage of NPD? (0-4)	3.03	0.731	3	3

* Significant at the 90% confidence interval level.

** Significant at the 95% confidence interval level.

This information impacts the concept planning stage of the NPD phase, hence the relatively high mean for impact of supplier involvement.

ANALYSIS OF SUPPLIER INVOLVEMENT IN NPD

Several factors are used to describe the extent to which there is supplier involvement in the NPD process. In this section, the degree to which supply chain partners are involved in the process is examined as well as the degree of incorporation of the suppliers in the various stages of NPD (concept planning, design, prototype development and testing, manufacture). Additionally, the perceived impact of supplier involvement is also examined.

From Table 8, it can be seen that there is a strong correlation between the degree of involvement of first and second tier suppliers in the NPD process and the degree of involvement between second and third tier suppliers. (Note that a strong correlation between the suppliers need not imply that if there is high involvement of the 2nd tier supplier, there is necessarily high involvement from the third tier supplier. It just means that we can readily estimate the degree of involvement of 3rd tier supplier involvement in the NPD process of a given company given the degree of 2nd tier supplier involvement).

There is also a strong correlation between the perceived impact of the supplier in NPD and the involvement of each of the three tiers of suppliers. Furthermore, the perceived impact of the supplier is most strongly correlated with the concept planning phase of the NPD process. This concurs with the data discussed in the descriptive analysis. The most important information shared according to the survey results were customer requirements and cost/risk, which have greatest effect on the concept planning phase of NPD, hence the strong correlation between these two variables. A strong correlation is also seen between the involvement of suppliers in the design phase of NPD and their

perceived impact. The extent to which technology information is shared is most closely correlated to supplier involvement in the design phase of NPD.

Of the four stages of NPD, supplier involvement in manufacturing and prototype development/testing are most strongly correlated to one another. Hence, an OEM who engages its supplier in the manufacturing stages is may also use that supplier in the prototype development/testing phase. Supplier involvement in concept planning is strongly correlated to involvement in both the design and prototype phases of the NPD process. This might suggest that OEMs who have integrated their suppliers in the concept and planning phase of their NPD processes find it easier to incorporate these partners in the latter stages of NPD, i.e. in the design and prototype phases.

Finally an analysis of Table 8 shows that the correlation coefficients between each of the four stages of NPD and the perceived impact of supplier involvement exceed the corresponding coefficient for the actual involvement of the first tier supplier. This implies that although OEMs recognise the benefit of supplier involvement in all phases of NPD, they are lagging behind in introducing the very supplier involvement they allegedly desire.

HYPOTHESIS TESTING

Flow of Information

The extent of information flow between OEM and suppliers was presumed to depend on the communication technologies used and the type of information shared. These dependent variables were analysed to determine whether they could be grouped into a smaller set of underlying factors. To begin the process of factor extraction, one factor is assumed for each observed variable. A matrix of the correlation coefficients between the variables was calculated. Strongly correlated observed variables are assumed to rely on the

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Table 8. Pearson correlations for the degree of supply chain involvement (1 -3), perceived impact of the supplier involvement (4) and the supplier involvement at various stages of NPD (5 -8)

Variable	1	2	3	4	5	6	7	8
1. Involvement of the first tier supplier	1							
2. Involvement of the second tier supplier	0.614**	1						
3. Involvement of the third tier supplier	0.123	0.577**	1					
4. Perceived impact of supplier involvement	0.623**	0.715**	0.450*	1				
5. Concept Planning	0.509*	0.443*	0.428*	0.633**	1			
6. Design	0.362	0.498*	0.265	0.538**	0.428*	1		
7. Prototype Testing	0.530*	0.667**	0.616**	0.492*	0.451*	0.353	1	
8. Manufacture	0.365	0.461*	0.645**	0.433*	0.293	0.114	0.692**	1

* Significant at the 90% confidence interval level.

** Significant at the 95% confidence interval level.

same factor. Ideally, a few factors can be used to explain the pattern of relationships between the variables. Each variable is thus assumed to be a linear combination of a common portion which is explained by these underlying factors and a unique portion unexplained by the factors. The factor loadings indicate how much a specific factor correlates with an observed variable.

In this work a stepwise analysis was conducted to determine the appropriate number of factors. The correlation matrix between the dependent variables was determined. Items with factor loadings less than 0.5, items with substantial loadings from more than one factor and items with insufficient communalities were eliminated. Table 9 shows the results of this factor analysis. The results depended on only one inferred independent variable, which accounted for almost 52% of the variation seen in the data.

The data in the lower section of the table gives an indication of the reliability of using the data as a measure of the extent of communications. The theory of statistics suggests that:

A group of items is internally consistent if its Cronbach alpha is greater than 70% (Nunnally, 1978). The data collected satisfies this criterion.

The Kaiser-Meyer-Olkin measure of sampling adequacy indicates whether the variables may be grouped into a smaller group. A score of greater than 0.5 (Morrison, 1990) indicates that the data can be reliably compressed using factor analysis. The items collectively have a KMO of 0.798 and can therefore be reliably compressed.

The Bartlett test of sphericity (Morrison, 1990) is a measure of how close the residual correlation matrix is to the identity matrix i.e. it tests the null hypothesis that the variables in the group are uncorrelated. The significance level of $p < 0.00$, rejects this theory i.e. the items will therefore be well represented by a single factor.

Construct validity is supported since the eigenvalue of the items exceed the minimum threshold value of one (Morrison, 1990). Note that the factor accounts for almost 52% of the variance between items.

A composite “communication extent” term was calculated which used the weighted averages of the terms listed in Table 9. A regression analysis was then conducted between this term and the level of supplier involvement at the concept planning and design stages respectively (i.e., the early stages of NPD), the results of which are shown in Table 10.

According to Hypothesis H1a, there should be a positive correlation between the “communication extent” term and each of these parameters.

The standardized regression coefficient (0.627 and 0.474 for concept planning and design, respectively) confirms that there is a very significant (i.e., $p = 0.00$ and 0.09 , respectively) positive correlation between each of these variables and the extent of communication. Furthermore, about 40% (23%) of the overall variance in supplier involvement in concept planning (design) is explained by the variation in the communication extent. The hypothesis that a greater extent of communication between suppliers and OEM will lead to more involvement in the earlier stages of the NPD process is therefore supported.

Table 9. Factor analysis for communication

Communication Item	Factor Loading
<i>Type of Information shared</i>	
Equipment	0.762
Technology	0.826
Customer Requirements	0.793
Costs and Risks	0.793
<i>Communication Technology used</i>	
Electronic Communication Systems	0.521
CAD/CAM	0.572
<i>Reliability Statistics</i>	
Kaiser Meyer Olkin	0.697
Bartlett’s test of sphericity	76.23
Significance	0.00
Eigenvalue	3.12
Percent of variation	51.988
Cronbach’s alpha	0.7975

Supplier-OEM Relationships

Hypothesis 2 was tested using an analysis of variance (ANOVA) technique. Table 11 shows the corresponding results.

The results show that there are only significant differences in the means (i.e., $p = 0.46$, $p = 0.27$ and $p = 0.23$, respectively) of supplier involvement in prototype development and testing, supplier involvement in manufacturing and impact on prototype development. For the other stages of NPD (concept planning, design and manufacture), the relationship a company has with its suppliers is not a significant factor. Therefore, hypothesis 2 cannot be accepted. This may be attributed to a tendency in the automotive industry to cooperate with their suppliers on more functional commodities rather than their more innovative designs. The descriptive analysis of the attributes used for supplier selection supports this proposition.

Table 10. Regression analysis between communication extent and supplier involvement in concept planning and design respectively

Concept Planning		
	Standardised regression coefficient β	Probability
Communication Extent	0.627	0.000
R-squared	0.393	
ANOVA	df = 29 F=18.093 p=0.000	
Design		
	Standardised regression coefficient β	Probability
Communication Extent	0.474	0.009
R-squared	0.225	
ANOVA	df = 28 F=7.844 p=0.009	

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Table 11. Analysis of variance of means of supplier involvement and impact due to changes in the length of supplier-OEM relationships

Supplier Involvement in NPD						
		Sum of Squares	df	Mean Square	F	Significance
Concept Planning	Between Groups	2.533	3	0.844	0.538	0.661
	Within Groups	40.833	26	1.571		
	Total	43.367	29			
Design	Between Groups	0.774	3	0.258	.203	.893
	Within Groups	31.778	25	1.271		
	Total	32.552	28			
Prototype Development & Testing	Between Groups	8.561	3	2.854	3.097	0.046**
	Within Groups	22.118	24	1.571		
	Total	30.679	27			
Manufacture	Between Groups	10.985	3	3.662	3.622	0.027**
	Within Groups	24.265	24	1.011		
	Total	35.250	27			
Supplier Impact on NPD						
Concept Planning	Between Groups	0.996	3	0.332	0.631	0.602
	Within Groups	13.142	25	0.526		
	Total	14.138	28			
Design	Between Groups	1.764	3	0.588	1.456	0.251
	Within Groups	10.098	25	0.404		
	Total	11.862	28			
Prototype Development & Testing	Between Groups	4.975	3	1.658	3.761	0.023**
	Within Groups	11.025	25	0.441		
	Total	16.000	28			
Manufacture	Between Groups	0.279	3	0.093	0.242	0.866
	Within Groups	9.583	25	0.383		
	Total	9.862	28			

** Significant at the 95% confidence interval level.

Component Characteristics and Extent/Impact of Supplier Involvement in NPD

To investigate this hypothesis, a regression analysis was conducted, the results of which are shown in Table 12.

There is a strong positive correlation between the number of co-developed components and the

level and impact of supplier involvement in design (i.e., with correlation coefficients of 0.431 and 0.393, respectively at probabilities of $p = 0.25$ and $p = 0.47$). This is to be expected since suppliers and OEM get together at the early stages of NPD to design co-developed parts. With the other types of components, either the supplier (i.e., proprietary and full service components) or the OEM (i.e., black box components) takes

Table 12. Regression analysis between component characteristics and extent/impact of supplier involvement in NPD

	Full Service	Proprietary	Black Box	Co-developed
<i>Supplier Involvement in NPD</i>				
Concept	.205	.159	-.100	.134
Design	.201	.118	.353	.431*
Prototype Development & Testing	.505**	.115	-.139	.028
Manufacture	.313	.031	-.137	-.246
<i>Supplier Impact on NPD</i>				
Concept	-0.020	-0.005	-.170	.299
Design	-.035	.153	-.085	.393*
Prototype Development & Testing	-.104	-.201	-.252	-0.37
Manufacture	.160	.093	-.165	.104

* Significant at the 95% confidence interval level.

** Significant at the 99% confidence interval level.

complete responsibility for the design of the part; hence there is limited collaboration during the design phase. Table 12 also indicates a strong correlation between the number of full service parts used in new products and the level of supplier involvement in the prototype development and testing (i.e., Correlation coefficient of 0.505, $p = 0.009$). In this case the full service supplier is responsible for the complete development of the part; however, the OEM takes responsibility for integration of the component into the complete automobile product. Hence there is significant collaboration at the prototype testing stage before mass production of the part begins.

CONCLUSION

Despite a reported increase in the number of outsourced NPD projects (Mercer, 1995; McIvor, 1998), this work shows in-house development is predominant for NPD amongst European automotive OEMs. Where suppliers are involved in OEM product development, there is evidence that co-development seems to be preferred over outsourcing.

This research supports the theory that automotive OEMs are engaging in long-term trusting relationships with their suppliers. In fact, almost a third of all the companies surveyed indicated that their first tier suppliers were significantly involved in their NPD process. However, an analysis of the supplier selection criteria and the stages of NPD at which the supplier is involved (primarily manufacturing) points to operational rather than strategic supplier integration. Thus, for the sample examined, it appears that the supplier integration is not yet fully developed.

However, there are indicators which suggest that supply chains in the European automotive industry are poised to become more integrated. The level of information sharing is one such indicator. The survey shows that the supplier and OEM share information on customer requirements, cost and risks and technology. The two former factors are important at the concept planning stage and indicate that the OEM is optimizing its NPD process by involving its supplier at an early stage. The sharing of technology information seems to indicate that the supplier-OEM relationships are becoming more trusting. The forms of communication (Electronic Communication Systems

and Computer Aided Design and Manufacturing) are also strengthening the collaboration between supplier and OEM. In fact, Hypothesis H1 was supported i.e. the extent of the communication (determined to be dependent on the forms of communication and the type of information shared) was shown to be positively correlated to the perceived impact of supplier involvement at the early stages of the NPD process. The results also show that the perceived impact of the supplier is most strongly correlated to the supplier involvement in the concept planning phase of the NPD process.

Surprisingly, the responses obtained in this survey do not support the proposition H2 that car manufacturers involve their long-term suppliers in the NPD process more readily than they do their short term/erratic suppliers. This may be due to the attributes discussed above which show a predisposition towards functional rather than strategic supplier integration. It appears that the OEMs collaborate less with their suppliers on their more innovative products. However, there is evidence to support hypothesis H3 that the type and extent of supplier involvement in NPD is dependent on the type of product being manufactured.

Due to the limited number of responses, caution must be taken in generalising the results to the wider population. However, the study provides a launching point for further research in the area. Further research should investigate what factors are preventing 3rd tier suppliers becoming involved in the NPD process and how these advantages can propagate throughout the supply chain.

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Chapter 12

Citizen Lifetime Value in E-Government

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ABSTRACT

Customer Lifetime Value (CLV) is one of the most important measures of valuing the customers in private sector. CLV calculates customer contribution in the profits of organization. In this paper Citizen Lifetime Value (CzLV) is introduced to measure the financial value of citizens for the government. CzLV evaluates citizen contribution in cost reduction of the organization. This measure can be calculated based on past behavior of citizens in using the service and cost reduction of using online services rather than offline ones. Logistic regression is employed as a data mining technique to predict future use of online services by citizens. A service of Tehran.ir called “137,” one of the most important portals of Iran’s E-government, is considered as a case study. CzLV for the citizens of this service is calculated and four citizen segments are specified. Then each segment is evaluated based on different characteristic of citizens, and suitable strategies are presented to build more financial values for the organization.

1. INTRODUCTION

In the past two decades, companies tended to focus on either cost management or revenue growth. When a firm adopts one of these approaches it loses out on the other (Rust, Lemon, & Zeithaml, 2004). Assessing the value of individual custom-

ers and employing customer level strategies based on customers’ worth to the firm. Many customer oriented firms realize that the customers are valued more than the profit they bring in every transaction. Customers’ value has to be based on their contribution to the firm across the duration of their relationship with the firm. In simple terms, the value of a customer is the value the customer brings to the firm over his/her lifetime (Kumar, 2006).

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Valuing customers is a central issue of any commercial activity. The value of an individual customer is important for the detection of the most valuable ones, which deserve to be closely followed, and for the detection of the less valuable ones, to which the company should pay less attention. At the aggregated level, a marketing campaign targeting a group of customers can be budgeted more efficiently when the value of this group is known. Customers are an important asset, and as such, have to be precisely valued (Tarokh & Sekhavat, 2006).

Customer Lifetime Value (CLV) plays a major role in customer valuation, in particular Churn analysis and retention campaign management. In the context of churn analysis, the CLV of a customer or a segment is important complementary information to their churn probability, as it gives a sense of how much is really being lost due to churn and how much effort should be concentrated on this segment (Rosset et al., 2003).

Governments all over the world are developing electronic services because they found out the importance and benefits of e-government and its applications for citizens, businesses and governmental agencies. Because of vast networks of interacting organizations, responding to complex problems of societies and providing solutions and improvement of private sector in e-business, the traditional model of government is not working any longer. In fact, governments realized the vital necessity of improvement in order to sustain their position in the global and local competition (Sharifi & Zarei, 2004).

Because of the improvements in online services of businesses, citizens expect the governments to develop their websites so that they can do their task online. Most of the governments just have a “web presence”, that means they are just present in web and they just have a static website and don’t offer any valuable services. But some of them are moving to more interactive portals instead of a “web presence”. They are developing E-government business models to utilize the successful experi-

ences of private sector in Internet. Businesses are using online business models for more than two decades, but in e-government, business models are relatively new (Janssen et al., 2008). Janssen, Kuk, and Wagenaar (2008) believe that business models in e-commerce and e-government is the way of doing business, mostly the way of revenue generation, but in e-government, business models help to use Internet a value generation source in areas ranging from service delivery to political involvement.

Like business models, Customer Lifetime Value is a useful concept in the private sector, but in the public sector it is new. Customers of the businesses in the public sector are called citizens. So instead of Customer Lifetime Value (CLV), Citizen Lifetime Value (CzLV) is used here. Customer Lifetime Value is a way of recognizing more profitable customers. Unlike the businesses, governmental agencies don’t want to recognize and select the most profitable customers, because revenue generation is not their goal, but reduction of their costs is important for them. One of the main features of e-government is cost reduction. All of the involved stakeholders in e-government can receive their desirable services but the costs of these services are lower than offline services.

To calculate CLV, a company can calculate the present and future profits of each customer. But to calculate CzLV a public organization doesn’t consider the profitability of customers, instead of that, it can evaluate the contribution of each customer in the reduction of costs of the organization. This cost reduction occurs when a customer switches from offline to online services.

This paper at first reviews the literature of Customer Lifetime Value and its modeling approaches. Then E-government, and its definitions and models are described. The importance of Citizen Lifetime Value (CzLV), its calculating method and the reasons of using this method are mentioned later in the paper. At the end of the paper, a practical example shows the application of CzLV for a public organization.

2. CUSTOMER LIFETIME VALUE

In recent years several authors have developed models that focus on the allocation of scarce marketing resources based on CLV (e.g., Reinartz, Thomas, & Kumar 2005; Rust, Lemon, & Zeithaml 2004; Venkatesan & Kumar, 2004). These approaches use CLV to develop a rank order of customers and recommend devoting more resources to customers with higher ranks. Some authors go so far as to state that customers with low ranks (especially when these show negative CLV) should be abandoned completely to increase overall profitability of the customer base (Zeithaml, Rust, & Lemon, 2004).

Due to development in information technology and E-Business, customer data accumulates by an increasing quantity. Analytical Customer Relationship Management (CRM) consists of strategic and effective use of data mining tools to provide management with suitable decision-making possibilities, so it requires robust and accurate data processing technologies such as data mining tools and data ware housing (Tarokh & Sekhavat, 2006).

3. FUNDAMENTALS OF CLV MODELING

There are many definitions for CLV. Customer Lifetime Value is generally defined as the present value of all future profits obtained from a customer over his or her life of relationship with a firm. Different researchers offered different description of CLV. Roberts and Berger (1989) believe that CLV is the Net Present Value (NPV) of all future contributions to overhead and profit. Gupta and Lehmann (2003) defined CLV as present value of all future profits generated from a customer. Yamamoto, Sublaban, and Aranha (2008) described CLV as estimated monetary value that the client will bring to the firm during the entire lifespan of his/her commercial relationship with the company, discounted to today's value. A simple

mathematical model of CLV for a customer (omitting customer subscript) is (Gupta et al., 2004; Reinartz et al., 2003; Sheth et al., 2002; Tarokh, & Sekhavat, 2006).

$$CLV = \sum_{i=1}^n \frac{Ri - Ci}{(1 + d)^i} \quad (1)$$

Where i is period of cash flow from customer transactions; R_i the revenue from customer in period i ; C_i the total cost of generating the revenue R_i in period i ; d interest rate; and n the total number of periods of projected life of customer under consideration. Therefore the numerator is the net profit that has been obtained at each period while the denominator transforms the profit into the current value. This model is the most basic model that ignores the function of sales and costs. Expanding the model with data mining techniques can consider future customers' purchase behavior.

Researchers either build separate models for customer acquisition, retention, and margin or sometimes combine two of these components. For example, Thomas et al. (2001) and Reinartz, Thomas, and Kumar (2005) simultaneously captured customer acquisition and retention. Fader, Hardie, and Lee (2005) captured recency and frequency in one model and built a separate model for monetary value. However, the approaches for modeling these components or CLV differ across researchers. Gupta et al. (2006) described six modeling approaches:

- RFM Models
- Probability Models
- Econometric Models
- Persistence Models
- Computer Science Models
- Diffusion/Growth Models

RFM models create "cells" or groups of customers based on three variables: Recency, Frequency, and Monetary value of their prior purchases.

A probability model is a representation of the world in which observed behavior is viewed as the realization of an underlying stochastic process governed by latent (unobserved) behavioral characteristics, which in turn vary across individuals. Schmittlein and Peterson (1994), Colombo and Jiang (1999), Reinartz and Kumar (2000, 2003), Fader, Hardie, and Berger (2004) have all proposed probability models to compute CLV.

Econometric models deal with customer acquisition, retention, and expansion (cross-selling or margin) and then combine them to estimate CLV.

Like econometric models of CLV, persistence models focus on modeling the behavior of its components, that is, acquisition, retention, and cross-selling. When sufficiently long-time series are available, it is possible to treat these components as part of a dynamic system. To date, this approach, known as persistence modeling, has been used in a CLV context to study the impact of advertising, discounting, and product quality on customer equity (Yoo & Hanssens, 2005) and to examine differences in CLV resulting from different customer acquisition methods (Villanueva, Yoo, & Hanssens, 2006).

The vast computer science literature in data mining, machine learning, and nonparametric statistics has generated many approaches that emphasize predictive ability. These include projection-pursuit models; neural network models; decision tree models; spline-based models such as Generalized Additive Models (GAM), Multivariate Adaptive Regression Splines (MARS), Classification and Regression Trees (CART); and Support Vector Machines (SVM).

CLV is the long-run profitability of an individual customer. This is useful for Customer Selection, Campaign Management, Customer Segmentation, and Customer Targeting (Kumar, 2006). Whereas these are critical from an operational perspective, CLV should be aggregated to arrive at a strategic metric that can be useful for senior managers. With this in mind, several researchers have suggested that we focus on Customer Equity (CE), which is

defined as the CLV of current and future customers (Blattberg, Getz, & Thomas, 2001; Gupta & Lehmann, 2005; Rust, Lemon, & Zeithaml, 2004).

4. IMPROVED CLV MODEL

In spite of simple formulation (Equation 1), researchers have used different variations in modeling and estimating CLV. Some researchers have used an arbitrary time horizon or expected Customer Lifetime (Reinartz & Kumar, 2000; Thomas, 2001), whereas others have used an infinite time horizon (e.g., Gupta, Lehmann, & Stuart, 2004; Fader, Hardie, & Lee, 2005). Gupta and Lehmann (2005) showed that using an expected Customer Lifetime generally overestimates CLV, sometimes quite substantially.

Calculating CLV with the basic model has some deficiencies:

- It cannot consider customer churn probability.
- It cannot consider factors as cross-selling opportunity.
- The possibility of up-selling cannot be calculated.

Hwang (2003) suggested a complimentary model (Equation 2)

$$CLV_i = \sum_{t_i=1}^{N_i} \pi_p(t_i)(1+d)^{N_i-t_i} + \sum_{t_i=N_i+1}^{N_i+1+E(i)} \left(\frac{\pi_f(t_i) + B(t_i)}{(1+d)^{t_i-N_i}} \right) \quad (3)$$

where:

- T_i : service period index of customer i ;
- N_i : total service period of customer i ;
- d : interest rate;
- $E(i)$: expected service period of customer
- $\pi_p(t_i)$: Past profit contribution of customer i at period t_i ;
- $\pi_f(t_i)$: Future profit contribution of customer i at period t_i ;

- $B(t_i)$: Potential benefits from customer i at period t_i ;
- $\pi_p(t_i)$: Can be calculated from Equation (1) and $\pi_f(t_i)$ is the prediction of $\pi_p(t_i)$ in the future and can be calculated using regression techniques.

In order to calculate $E(i)$ we should describe the relation between expected service period of customers and customer defection (churn) rate.

Let y be the number of service time required until a customer service is stopped and let P_{Churn} be the churn probability of a customer. Then, the probability of mass function of service period is given by:

$$P(n) = P(y = n) = P_{Churn} \times (1 - P_{Churn})^{n-1}, n = 1, 2, 3, \dots$$

$$\therefore y \sim \text{Geo}(P_{Churn}) \Rightarrow E[i] = \frac{1}{P_{Churn}}$$

In order to calculate $B(t_i)$, we should use Equation (3) as follows:

$$B(t_i) = \sum_{j=1}^k prob_{ij} \times prof_{ij}$$

$$k = 1, 2, 3, \dots$$

= potential benefits of customer in period I (3)

where $prob_{ij}$ is the probability that customer i would use the service j among k -potential services. $prof_{ij}$ means the profit that a company can get from customers i who uses optional service j . it is available by substituting the cost of each optional service from the charge of each optional service. However, we should use data mining techniques in order to calculate $prob_{ij}$.

Later in this paper, Equation (2) used to calculate Customer Lifetime Value, but present and future value of the citizens calculated in a different manner.

5. E-GOVERNMENT

E-government means different things for different people. It varies from just a web presence to complex interaction with customers and allowing them to help the government in its policies. World Bank (2001) defined E-government as government owned or operated systems of information and communication technologies that transform relations with citizens, the private sector and/or other government agencies so as to promote citizens' empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency. Zarei and Ghapanchi (2008) believed that Electronic government is the provision of electronic information and services for citizens and businesses and among government agencies.

E-government projects may have different stakeholders but usually they categorized into 4 categories: citizens, businesses, governments and employees. The electronic transactions and interactions between government and each one of the stakeholder divides e-government relationships and the respective into four main blocks of e-government:

1. **Government to citizens (G2C):** Deals with the relationship between government and citizens.
2. **Government to businesses:** This category includes all of the interactions and transactions between the government and private sector (businesses).
3. **Government to government (G2G):** Includes communication between governmental agencies, and governments.
4. **Government to employees (G2E):** Refers to the relationship between government and its employees.

Most researchers and academics consider only the first three categories, without considering the fourth or simply regarding it as part of 'G2G' category (Ndou, 2004).

Lee, Tan, and Trimi (2005) classified e-government services and practices into five categories: G2C, G2B, G2G, Government Internal Efficiency and Effectiveness (IEE), and overarching Infrastructure (Ndou, 2008). Rowley (2011) developed a tool for identification of stakeholders, recognition of different interests of them and develop strategies to align stakeholder interests. But here because we deal with online government, we just consider three main stakeholders: citizens, businesses and government.

Citizen Lifetime Value calculates the value of each citizen for the organization through his or her relation period with the organization. So among the four mention e-government models, CzLV is more applicable to G2C.

6. CITIZEN LIFETIME VALUE

As said before, CLV is the value of each customer for a company, and most of the time it focuses on economical value and calculates the revenue that generates by each customer through his or her relation time period with the company. But for a public organization the revenue generation of citizens is not necessary. It aims to serve all of the citizens. So calculating CLV is not a useful idea for a public organization. But in this paper instead of revenue generation of a citizen, his or her role in reducing the costs of the organization is considered. Maybe for a public agency, profit earned from a citizen is not important, but reduction in costs and citizen satisfaction is valuable for it.

One of the most important advantages of E-government is cost reduction. Because online services caused less costs than offline services (Grönlund, 2002). Therefore, a citizen that uses online services instead of offline is valuable for the organization. The paper uses this idea in the Equation (2) and calculates Citizen Lifetime Value. It means that CzLV measures citizens' contribution in cost reduction of a public organization. Calculating CzLV is similar to CLV. It uses

data mining techniques to analyze the citizens' interaction history and calculate contribution of each citizen in reducing the costs of the organization. CzLV must be evaluated in a specific time period that a specific citizen uses the service of the organization.

By calculating CzLV, the organization can recognize different citizens and categorize them by their value. Then it can formulate suitable strategies for each category to reduce the costs of the services for the organization and increase the satisfaction of the citizens.

7. CALCULATING CITIZEN LIFETIME VALUE

In e-government, costs are important not profits and if a citizen uses a service of government so that he or she reduces the government's costs, this citizen is creating economic value for the governmental organization. So we replace profit with cost in Equation (3):

$$B(t_i) = \sum_{j=1}^k [OfC_j \times (1 - Pof_{ij}) - OnC_j \times Pon_{ij}] \quad (4)$$

where:

- **OfC_j**: Costs of service j if it is offline.
- **OnC_j**: Costs of service j if it is online.
- **Pof_{ij}**: Probability that citizen i would use the service j, offline.
- **Pon_{ij}**: Probability that citizen i would use the service j, online.

Similarly we can calculate the present value ($\pi_p(t_i)$) of a customer through Equation (4). If he or she is using offline services, present value is zero, and if he or she is using online services, present value is OfC minus OnC. A governmental agency can calculate the OfC and OnC through

all of the costs related to that service and considering the target population.

We suppose that a citizen has to use a governmental service whether online or offline, and he or she can't choose another alternative service. Because, most of the time, a service that the government presents has no similar service in private sector, and a citizen have to use it. So we have:

$$Pon_{ij} = 1 - Pof_{ij} \quad (5)$$

Regarding Equation (4) and (5) we have:

$$B(t_i) = \sum_{j=1}^k [Pon_{ij} \times (OfC_j - OnC_j)] \quad (6)$$

To calculate CzLV_i for customer i we must calculate B(t_i) by Equation (6) and then replace it in the Equation (2).

8. CASE STUDY

Many governmental websites are active in Iran, but most of them just provided a "web presence" for a governmental agency and they don't have much electronic services. Tehran.ir is a successful governmental website that presents various electronic services and is a leader of E-government design and implementation in Iran. 137 is one of the services of this website. Through this service, citizens can talk about their civic problems and then they can pursuit the process of its accomplishment. This system is available both online and offline for citizens of Tehran.

Data collection is done by an Internet questionnaire. The research targeted the people of Tehran. 1803 citizens of Tehran filled out the online questionnaire on the website of Tehran.ir. Items of questionnaire consist of some information that may affect citizen's future behavior for using the online service or not: gender, age, marriage, education, zone, region, the way that

citizen became familiar with the service and if he or she will use the service again in the future.

Logistic regression was used as a data mining technique. This method reveals some hidden relations between response variable and other variables. Here, response variable is citizen's willing to use the online service in the future. Other items were selected as independent variables. Equation (7) represents the logistic regression (Menard, 1995). Where β_0 is the constant value and β_i is model parameters.

$$P(y = 1) = \frac{1}{1 + \exp^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots)}} \quad (7)$$

We used SPSS software to establish logistic regression model. Using of online service by citizens was chosen as the response variable and backward step wise method with Wald statistics was implemented. In the first step, all variables entered into the model and then through null hypothesis test $H_0: \beta_i = 0$ some of them eliminated. In the first model, B is independent variable coefficient. Actually SPSS tests all of the independent variables and sees if they can be used to predict response or dependent variable. Using Microsoft Excel, the probability of Citizen using of online service was calculated for each customer.

After predicting the probability of using online service, the future value of each citizen for the organization can be calculated, and then we can specify some strategies to reduce the costs of the organization. As shown in Table 2, gender and zone of the customers are important to predict the probability of their using the service. Online and offline costs of the service is derived through interview with the managers of the organization.

8.1. Verification

There are several statistics which can be used for comparing alternative models or evaluating the performance of a single model (Menard, 1995). Here Chi-square is used.

In logistic regression, the statistic is analogous to the F-test in linear regression (Menard, 1995). By multiplying the log-likelihood by -2 it approximates a distribution (Menard, 1995).

$$G_M = D_0 - D_M \quad (5)$$

where D_0 is initial log likelihood and D_M is final log likelihood. D_0 is analogous to the total sum of square (SST) in linear regression analysis and D_M is analogous to the Error sum of square (SSE).

$$G_M \sim X_{0.99,k}^2$$

where k is degree of freedom and is equal to the number of remaining variables in the final step of modeling. Here, $G_M = 173.300$ and because $G_M > X_{0.99,2}^2 = 9.210$ the null hypothesis is rejected and model significance is verified.

8.2. Model Accuracy

SPSS creates Classification table for each step in the logistic regression model. Each classification table summarizes the observed and predicted value to interpolate predictive efficiency/accuracy for each step in the model. The bigger the percentage correct the better the model. The classification table is presented in Table 1.

8.2.1. Pseudo- R² Statistics

It is the proportion of the variance in the dependent variable which is explained by the variance in the independent variables. There are several Pseudo-R² statistics. Analogous to $R^2 = \frac{SSR}{SST}$ for linear regression is Pseudo- R² in logistic regression (Menard, 1995). Pseudo- R² indicates how much the inclusion of the independent variable in the model reduces the badness of fit. It varies between 0 (independent variable is useless in the prediction of the dependent variable) and 1 (Independent

variable in the model predict the dependent variable perfectly) and is calculated by dividing the model chi-square (G_M) by the initial log-likelihood function (Menard, 1995).

$$\text{Pseudo-R}^2 = \frac{G_M}{D_0} = \frac{G_M}{G_M + D_M} \quad (6)$$

Pseudo-R² is calculated for the model and variables eliminated by SPSS at each step are tested in Table 3.

8.3. Model Validation

Lift chart is one of performance test techniques (Hwang, 2003). The lift value is the ratio of the number of citizens who actually used offline service within the certain section to the total number of citizens who used offline service when we divide sections by sorting target citizens in ascending order of high probability of using offline service. The lift chart (see Figure 1) as proposed above generally shows the cumulative percentage of deviated citizens. We conclude that the reliability of the model is good when the graph is skewed to the left (Hwang, 2003).

8.4. Discussion

As shown in Figure 2, we can specify four segments of the citizens:

1. Citizens that have high present and future value for the organization. This segment is the most crowded segment. Citizens of this segment include 70% of all citizens. They are using online service now and we are willing them to use online service in the future too. These citizens are the most important segment to reduce costs of the service for the organization. After recognizing these citizens, the organization must retain the

Table 1. Classification table

Classification Table ^a				
Observed	Using	Predicted		Percentage Correct
		Using		
		0	1	
Step 1	Using 0	2	225	.9
	1	3	601	99.5
	Overall Percentage			72.6
Step 2	Using 0	2	225	.9
	1	3	601	99.5
	Overall Percentage			72.6
Step 3	Using 0	2	225	.9
	1	3	601	99.5
	Overall Percentage			72.6
Step 4	Using 0	1	226	.4
	1	0	604	100.0
	Overall Percentage			72.8
Step 5	Using 0	5	222	2.2
	1	3	601	99.5
	Overall Percentage			72.9
Step 6	Using 0	0	227	.0
	1	0	604	100.0
	Overall Percentage			72.7
Step 7	Using 0	0	227	.0
	1	0	604	100.0
	Overall Percentage			72.7

a. The cut value is .500

Table 2. Prediction of using online service

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
Step 2 ^a						
gender	.594	.185	10.253	1	.001	1.811
age	-.002	.007	.100	1	.752	.998
marriage	.120	.177	.458	1	.499	1.128
education	-.008	.067	.014	1	.905	.992
zone	.040	.012	10.979	1	.001	1.041
region	.060	.030	3.894	1	.048	1.061
q1Selected	-.068	.052	1.675	1	.196	.934
Step 3 ^a						
gender	.592	.185	10.268	1	.001	1.807
age	-.003	.006	.184	1	.668	.997
marriage	.121	.177	.462	1	.497	1.128
zone	.040	.012	11.237	1	.001	1.041
region	.059	.030	3.919	1	.048	1.061
q1Selected	-.069	.052	1.771	1	.183	.933
Step 4 ^a						
gender	.562	.172	10.730	1	.001	1.754
marriage	.087	.160	.300	1	.584	1.091
zone	.039	.012	11.074	1	.001	1.040
region	.055	.028	3.780	1	.052	1.057
q1Selected	-.074	.050	2.143	1	.143	.929
Step 5 ^a						
gender	.601	.156	14.753	1	.000	1.823
zone	.040	.012	11.789	1	.001	1.041
region	.058	.028	4.332	1	.037	1.060
q1Selected	-.068	.049	1.908	1	.167	.934
Step 6 ^a						
gender	.541	.150	12.939	1	.000	1.718
zone	.035	.011	10.020	1	.002	1.035
region	.050	.027	3.424	1	.064	1.051
Step 7 ^a						
gender	.700	.123	32.280	1	.000	2.014
zone	.037	.011	11.408	1	.001	1.037

a. Variable(s) entered on step 1: gender, age, marriage, education, zone, pastLivingInTehran, region, q1Selected.

Table 3. R² changes for Churn model (model 1)

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	24.109 ^a	.715	.953
2	24.281 ^a	.714	.952
3	24.730 ^a	.714	.951
4	25.563 ^a	.712	.950
5	26.562 ^b	.711	.948

a. Estimation terminated at iteration number 11 because parameter estimates changed by less than .001.

b. Estimation terminated at iteration number 10 because parameter estimates changed by less than .001.

- loyalty of them and try to increase this important factor for its most valuable citizens.
2. Those that have low present value and high future value. This is the second crowded segment. Citizens of this segment include 20% of all citizens. They are using offline service, but if we introduce online service and build the trust to new service, we can make incentives to move them from offline to online service and reduce the costs of the organization.
3. Third segment includes citizens that have high present value, but low future value. Citizens of this segment include 8% of all citizens. They are using online service but they are not satisfied, for example, they might be more familiar with offline services instead of online services. So in the future they are turning back to the offline service. The organization must recognize these citizens at first, and then identify the factors that affect their lack of satisfaction and try to resolve them.
4. The smallest segment consists of citizens that have low value for the organization in present and future. Citizens of this segment include 2% of all citizens. They prefer offline

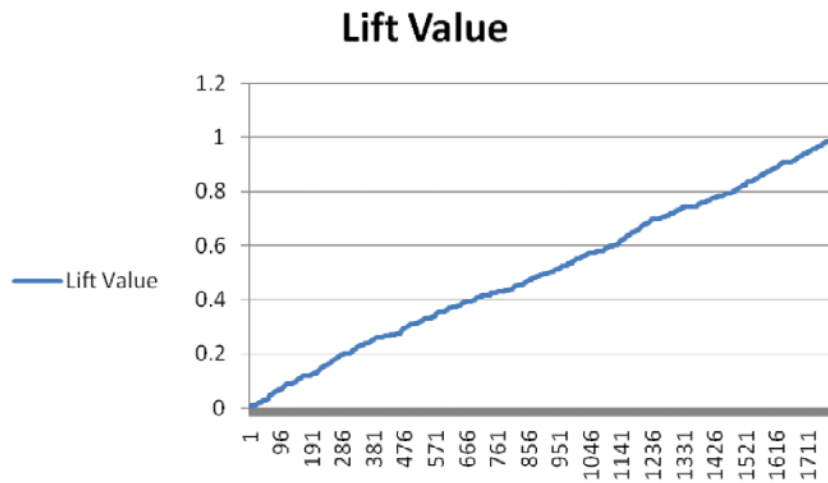
service. The organization can identify them and identify their problem in using online service.

A public organization can't act like a private company in dealing with customers. In private sector, a company categorizes the segments of its customers and then identifies the most valuable customers, and tries to serve them better than others. But a public agency must serve all of its citizens equally. So it categorizes the citizens, and then formulates strategies to deliver the services to each segment better. It must serve all offline and online customers equally. As we said before, using online services might reduce costs of the organization. So the organization must build incentives for each segment to move toward online service.

After specifying each segment we must study citizens of the segments more to understand citizens' behavior in using the online service of 137. Then we can formulate some useful strategies to encourage citizens to use online services rather than offline services.

As said before, segment 1 and 2 consist of the most valuable citizens. We must retain these citizens and try to create more incentives for them.

Figure 1. Lift chart for using offline service



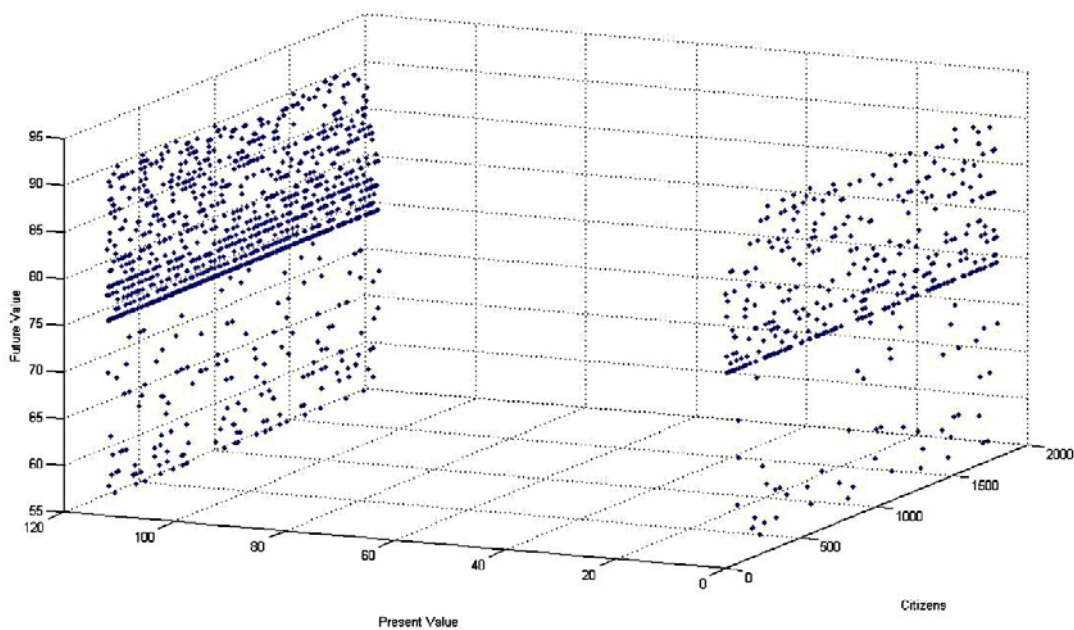
But segment 3 and 4 are reluctant to use online service. We must try to resolve their problems so that all of the citizens move toward online services.

Table 4 shows gender of citizens in all segments. Segment 1 and 2 mostly include males but segment 3 and 4 consist of females. This means that men used online service more than women.

So women need more attention. Managers of 137 must create some ways to encourage them to use online service more.

Table 5 shows that most of the citizens that filled out the questionnaire are between 20-40 years old. This is because of the nature of this service that young citizens are not usually its

Figure 2. Future and present values of the citizens



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customers. As we can see in Table 7, citizens that are more than 50 years old are considered as a small part of overall users of the service. As we can see in Table 5, citizens with different age are scattered in different segments similarly. Therefore we can't consider specified age related to any segments.

Table 6 shows that most of the respondents are married. In Iran usually someone that is married and responsible for family does municipal and governmental issues of family. Segment 1 that has approximately 70% of overall users has just 1% single and 80% married. But in other segments singles are more than segment 1. As a result married persons use online service more than single ones.

In Table 7 different levels of education in all segments are specified. These five levels are categorized based on educational system of Iran. Level 1 is the lowest level and level 5 is the highest level of education. Citizens in the level 1 are very rare in all of the segments. Most of the citizens in the level 2 are categorized in segment 1 and segment 2. This shows that they are using the online service now or they will use it in future. But most of the citizens in the level 3, 4 and 5 are categorized mostly in segment 3 and 4. This shows that they are reluctant to use online service. As a result those that have higher education level are unwilling to use online service of 137 rather than those have lower level of education. Therefore managers of this service must formulate some new plans and strategies to encourage citizens

Table 4. Gender of citizens in all segments

Segment Number	Male (Percent)	Female (Percent)	Not present (Percent)
1	77	3	20
2	76	4	20
3	0	89	11
4	0	93	7

with higher level of education to be more attracted to online service.

By studying Table 8 we can find out that most of the citizens are familiar with the service by watching online banners in Internet or real banners in the city. Therefore banners are best way of attracting people to this service.

City of Tehran is divided into 22 zones. Table 9 shows zones of citizens in all segments. But this table doesn't help us if we don't consider Table 10. Because some of zones are more populated than others or they may have more participants in the questionnaire. So we can't compare them. We must compare such zones that have similar respondents in the questionnaire. Table 10 categorized different participant in the questionnaire based on their zone. This table shows that zone 1 has most of the respondents (12%). Zone 2, 4 and 5 have seven percent of overall respondents. Zone 3, 7, 8, 14 and 20 have similar respondents in the questionnaire too. Rest of the zones has little percentage of overall respondents. If we want to evaluate different zones based on the segments, we must consider both Table 9 and Table 10 and compare similar populated zones. Zone 2, 4 and

Table 5. Age of citizens in all segments

Segment Number	Under 20 (Percent)	20-30 (Percent)	30-40 (Percent)	40-50 (Percent)	More than 50 (Percent)	Not present (Percent)
1	2	29	31	13	5	20
2	2	32	23	17	4	22
3	1	43	29	14	6	7
4	2	34	38	16	5	5

Table 6. Marriage status of citizens in all segments

Segment Number	single (Percent)	married (Percent)	Not present (Percent)
1	1	80	19
2	23	57	20
3	37	52	11
4	30	61	9

5 approximately scattered in all of the segments similarly. But among zone 3, 7, 8, 14 and 20, citizens of zone 3 are mostly categorized in segment 3 and 4. On the other hand zone 14 and 20 are mostly categorized in segment 1 and 2. As a result, among zone 3, 7, 8, 14 and 20, residents of zone 3 are unwilling to use online service but residents of zone 14 and 20 are using online service rather than offline one now or in the future.

9. LIMITATIONS AND FURTHER RESEARCHES

In this paper financial value of a governmental organization is considered valuable. Besides, financial value defined as cost reduction that caused because of using online services rather than offline ones. Future researches can find out further items that are important in this financial value of organization. Moreover, value in a governmental organization is not depended just on financial items. It has different stakeholders that have various wills.

The case study of this paper has some limitation too. It was done based on an Internet questionnaire. The respondents of this questionnaire are familiar with Internet. So probably they still want to use online services. Therefore in this paper we could just compare different segments that participated in the questionnaire based on their characteristics like gender, marriage status, and zone. If the questionnaire is based on the all citi-

Table 7. Education of citizens in all segments

Segment Number	Level 1 (Percent)	Level 2 (Percent)	Level 3 (Percent)	Level 4 (Percent)	Level 5 (Percent)	Not present (Percent)
1	2	25	11	29	13	20
2	3	30	9	24	14	20
3	1	6	17	40	21	15
4	2	9	14	48	20	7

Table 8. Way of being familiar with service in all segments

Segment Number	TV (Percent)	Newspaper (Percent)	Banners (Percent)	Others (Percent)	Not present (Percent)
1	21	7	29	23	20
2	20	6	31	23	20
3	1	16	17	56	10
4	25	5	35	28	7

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Table 9. Zone of citizens in all segments

Segment Number	More than 10 percent (zone)	Between 7 and 10 percent (zone)	Between 4 and 7 percent (zone)	Less than 4 percent (zone)	Not present (Percent)
1	-	1,2,4,5	3,7,8,14,20	6,9,10,11,12,13, 15,16,17,18,19, 21,22	20
2	-	1,2,4,20	3,5,7,14,16	6,8,9,10,11,12, 13,15,17,18,19, 21,22	20
3	2,3,5	4,9,11	1,7,8,10	6,12,13	11
4	2,4,5	1,3,8,12,13	6,7	10	7

Table 10. Percentage of respondents in questionnaire in all zones

More than 10 percent (zone)	Between 7 and 10 percent (zone)	Between 4 and 7 percent (zone)	Less than 4 percent (zone)	Not present (Percent)
1	2,4,5	3,7,8,14,20	6,9,10,11,12,13, 15,16,17,18,19, 21,22	14

zens of the city not just internet users, the result can be evaluated better.

10. CONCLUDING REMARKS

One of the most suitable approaches to organize government activities in Internet is to use successful experiences of private companies in this new environment. Customer Lifetime Value (CLV) is a measure of calculating the value of customers for a private company. A private company needs to know which customer is more valuable. But a governmental organization must serve all of the citizens and must be sure that everyone reached to the services. Usually these kinds of organizations try to decrease their costs rather than revenue generation. Using online services instead of offline services by citizens is a useful method of decreasing the costs. This decreasing generates financial value for the organization. In this paper CzLV introduced as a useful way of calculating this financial value for every citizens of every services of the organization.

In order to calculate CzLV, at first we must study history of citizens' interactions with services.

Then by employing logistic regression as a tool of data mining we can predict the probability of using each online service by each citizen instead of offline ones. By use of this probability and the difference of costs of online and offline services, financial value of each citizen in using each service of the organization will be calculated.

After calculating the CzLV for citizens we can categorize them and then evaluate their behavior in using the services. As a result we can formulate some strategies to encourage citizens to use online services.

As an example, a case study presented at the end of the paper. "137", an important service of Tehran.ir is considered in this case study. This service can be used both online and offline. Information about using the service by citizen is gathered by an online questionnaire. Then CzLV was calculated for every citizen of this service. Based on these values, citizens are categorized into four segments:

1. Those that has high present and future value.
2. Those that has low present value and high future value.

3. Those that has high present value and low future value.
4. Those that has low present and future value.

All of the segments are evaluated based on existed items in the questionnaire, so that we could plan some strategies for them. Afterwards we reached to some conclusions and found out some of the citizens needs more incentives to use online service of 137. As an example women are reluctant to use online service rather than men. Married person are using online service more than single ones, both now and in the future. Citizens with higher education are not eager to use online service. Finally using online service is depended on residential zone of the citizens. Among zone 3, 7, 8, 14 and 20 of Tehran, that have similar amount of respondents in the questionnaire, residents of zone 3 want to use offline service but residents of zone 14 and 20 want to use online one.

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Chapter 13

Effectiveness of Customer Relationship Management Program in Insurance Companies: An Indian Exploration

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ABSTRACT

Customer relationship management in the insurance industry is in the nascent stage. Firms are framing new strategies to combat stiff competition. Public and private insurance companies are implementing customer relationship programs to attract more customers and retain existing customers. The objectives of this study are (1) to study the customer relationship management program of the Life Insurance Corporation of India, and (2) to assess the effectiveness of this customer relationship management program. The study is based on the opinion scores of 182 policyholders of Life Insurance Corporation of India, who have been with the company for more than the last five years. Based on the average opinion scores before and after the implementation of the Customer Relationship Management program, it was concluded that the program is effective, which was evidenced by the results obtained from statistical analysis (Paired sample t-test).

INTRODUCTION

Customer Relationship Management consists of activities aimed at ensuring profitability of customers in an organization. Customer relationship management works on the concept of integrating

customer management activities in an organization- like customer billing, distribution and shipping, customer service provision, and website utilization. Objective of Customer Relationship Management is to increase acquisition, growth and retention of profitable customers effectively and efficiently by selectively initiating, building and maintaining appropriate relationships with

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them. Developments in information technology has helped to implement customer relationship programs with ease and make it possible to gather vast amounts of customer data and to analyze, interpret and utilize it constructively. In a recent review of Customer Relationship Management, Boulding et al. (2005) argue that the field of Customer Relationship Management has now begun to converge on a common definition: "Specifically, Customer Relationship Management relates to strategy, managing the dual-creation or value, the intelligent use of data and technology, the acquisition of customer knowledge and the diffusion of this knowledge to the appropriate stakeholders, the development of appropriate (long-term) relationships with specific customers and/or customer groups, and the integration of processes across the many areas of the firm and across the network of firms that collaborate to generate customer value".

Customer Relationship Management includes many aspects which relate directly to one another:

- **Front office operations:** Direct interactions with customers, e.g. face to face meeting, phone calls, e-mail, online services etc.
- **Back office operations:** Operations that ultimately affect the activities of the front office, e.g. billing, maintenance, planning, marketing, advertising. Finance, manufacturing, etc.
- **Business relationships:** Interaction with other companies and partners, such as suppliers/vendors and retail outlets/distributors, industry networks. This external network supports front and back office activities. Key Customer Relationship Management data can be analyzed in order to plan target-marketing campaigns, conceive business strategies, and judge the success of Customer Relationship Management activities, e.g. Market share, number and types of customers, revenues. Customer Relationship Management is a

term for methodologies, technologies and e-commerce capabilities used by companies to manage customer relationships. Customer Relationship Management may be regarded as a set of technological and organizational mechanisms intended to buffer market instability through better knowledge of environmental variables, particularly market variables in order to anticipate customers' needs, rendering production activities more stable and programmable (Rajola, 2003).

Academic research is stressing Customer Relationship Management as a fundamental business process with a significant impact on organization results. Rather, past academic research has been more narrowly focused on sales force automation (SFA). In particular the factors driving acceptance and use of information Technology by the sales force. Clearly a "bigger Picture" perspective of IT is indicated, especially a focus on CRM... as (a) business process (Leigh & Marshall 2001, p. 88). Effectiveness of Customer Relationship Management is a strategy that should help the company in getting and retaining customers better. The involvement of top management is also necessary to ensure that the roadblocks encountered during implementation can be overcome. Various activities are involved for effectiveness of Customer Relationship Management such as:

- **Customer centric process:** At the Customer Relationship Management planning stage, companies need to take cognizance of their processes from the customers' viewpoint and make necessary adjustments to enable higher customer facilitation. All processes that involve customers should be taken into account.
- **Internal Collaborations:** The Customer Relationship Management initiative should facilitate the collaboration process through the proper use of technology. An important

aspect that needs to be considered is the resolution of ownership issues and boundaries across departments.

- **Designing databases carefully:** Use of database is an integral part of Customer Relationship Management initiatives. The data that is collected should enable prediction of customer behavior with reference to propensity-to-buy, risk of churn, product affinity, and analysis of the data should enable opportunities for cross-selling and up-selling.
- **Choosing right Customer Relationship Management tool:** The issues that need to be considered while deciding a suitable Customer Relationship Management tool:- Ability to incorporate changing requirements, Usability from staff point of view, Existing systems' assimilation, Robustness and scalability.
- **Retaining customers through added benefits:** The key to customer retention is to understand the individual customers' behavior and predict their needs and demands.

PLAN OF REST SECTIONS OF THE STUDY

Next sections of the present study cover review of related literature, research gap and purpose of study, measurement scale of study, objectives, scope and hypothesis of the study, research methodology, data presentation, analysis, findings, conclusion and scope for future research.

LITERATURE REVIEW

Various studies have been conducted about Customer Relationship Management program in business. Since the era of stiff competition, every firm focuses on acquisition, growth and retention of customers.

Parvatiyar and Sheth (2001, 2002) concluded on the basis of their study that the domain of Customer Relationship Management extends into many areas of marketing and strategic decisions, from an academic point they told about their belief that Customer Relationship Management certainly has the potential and wished that Customer Relationship Management would happen because marketing will benefit enormously from it. The lessons learned from previous efforts both successful and unsuccessful of various marketing domains that have tried to become disciplines provide a good road map of how to develop Customer Relationship Management and relationship marketing into a distinct discipline. Objectives of this study were to explore the conceptual foundation of Customer Relationship Management by examining the literature on relationship marketing and other disciplines that contribute to the knowledge of Customer Relationship Management to propose a Customer Relationship Management process framework.

In the paper authors discussed about emerging practices, process and discipline of Customer Relationship Management. Definition of Customer Relationship Management was given and also mentioned about the offers it offered. Authors tried to identify the forces impacting on the marketing environment in recent years that have led to the rapid development of Customer Relationship Management strategies and tools and technologies. A typology of Customer Relationship Management program is presented to provide a parsimonious view of the various terms and terminologies that are used to refer to different activities. To better delineate the challenges of customer relationship formation, its governance, its performance evaluation, and its evaluation. Authors described the process model of Customer Relationship Management.

Contribution of several factors to the rapid development and evolution of Customer Relationship Management have been discussed-like growing de-intermediation process in many industries due to the advent of sophisticated computer and tele-

communication technologies that allow producers to directly to impact with end customers. Examples have been given like-success of online banking, Charles Schwab and Merrill Lynch's online investment program, direct selling of books, automobiles, insurance etc., on the internet all attest to growing consumer interest in maintaining a direct relationship with marketers. Role of Total Quality Management (TQM) in adoption of Customer Relationship Management has been explained. A Customer Relationship Management process framework has been developed which comprise of four sub-processes: a customer relationship formation process; a relationship management and governance processes; a relational performance evaluation process, and a Customer Relationship Management evolution or enhancement process.

Authors found out three successes and three failures for Customer Relationship Management in the journey from domain to discipline. These three success were-consumer behavior marketing strategy and service marketing; were as three failures were-international marketing, social marketing and business marketing. As per this paper Customer Relationship Management and relationship marketing have been presented based on many definitions and many programs. Three unique aspects to Customer Relationship Management and relationship marketing have been discussed. First it relates to one-to one relationship between the marketer and the customer. Second it occurs as an interactive process and not as a transactional exchange. The third and equally important unique aspect of Customer Relationship Management is that it is a value-added activity through mutual interdependence and collaboration between suppliers and customers.

In shifting Customer Relationship Management from domain to discipline authors suggested various alternatives: publish in top journals; publish a seminal book on the topic; encourage respected scholars; develop explanatory theory. In their study authors in the end discussed about an intervention strategy, which would be highly

desirable for relationship marketing and Customer Relationship Management scholars to organize their own association and their own scholarly journal.

Adele, Herbst, and Roux, (2005) argued that the implementation of one-to-one marketing of financial services in emerging markets do not differ from the way in which it would be implemented among customers in other economies. This requires organization in developing environments to pay attention to the issues of customer needs and differentiation in order to build long term customer relationship. Primary research objective of the study was to determine how the implementing of a Customer Relationship Management program could optimize the relationship between a leading bank and its clients, and thereby to gain competitive advantage in market place. Hypotheses linked to each of four steps namely; the identification of customers, the differentiation of service, interaction with customers and the differentiation among customers.

The research instrument used was developed by researcher and measured both the expectations and perceptions of the customers of the bank's actions. Structured questionnaires with 35 statements to measure the respondents' perceptions and expectations were sent out to 52 branches and to the call centre. A total of 950 questionnaires were distributed among branches and 50 were distributed to the call centre. The respondents were selected randomly and personal face-to-face interviews were conducted. Pearson's Coefficient was used to determine the level of association between the steps in the implementation process and customer service. The level of association as measured by Pearson's coefficient falls between -1.0 and +1.0, which indicates the strength and direction of association between the two variables.

Findings of the study were, (a) the association between the identification of the new and existing clients and customer service was significant statistically, (b) the association between differentiation and customer service was statistically

significant(c) the association between interaction and customer service was statistically significant, and (d) the association between customized service and customer service was statistically significant.

Managerial implications of these findings included a commitment to the implementation of Customer Relationship Management within the organization as well as a commitment to the provision of excellent customer service in order to affect the relationship building and implementation of Customer Relationship Management. Regarding future research scope, this study proposed that same study can be conducted to check whether these finding are consistent with other financial institutions or with other industry. Limitations of the study included the fact that this study was conducted in specific country and for specific industry, so generalization scope was limited.

Aaron, Laundry, and Arnald (2005) presented comprehensive and systematic review of sales related Customer Relationship Management literature. Themes found within the literature include the evolving nature of channel functioning and inter firm relationships, the strategic organizational processes involving the sales function, the evolving nature of sales role, both sales person and customer adoption of Customer Relationship Management technology. Contributions were derived from the extant literature for both theory and practice.

This study was conducted in 2005 to identify articles published over the past 10 years related to Customer Relationship Management; review includes both empirical studies and conceptual articles. From a total of 253 articles, 38 articles were ultimately selected for inclusion in this report. 30 of the articles received initial unanimous support from the judges. 8 achieved support after a second reading revealed oversights on the part of one judge. Author concluded that each of articles was determined to direct relevance to sales. The meager numbers of published works along with the practicality of the topic suggest that additional Customer Relationship Management research

would be opportune and beneficial. It is hoped that this systematic review proves useful in furthering those inquiries. Limitations of the study were related with initial computerized search failure to identify any prominent e-commerce journals with substantial number of articles with Customer Relationship Management focus.

Attharangsun and Ussahawanitchakit (2008) examined the relationship between antecedent and consequence of customer relationship management effectiveness and investigated the role of moderator of top management support and customer acceptance. They collected primary data from the directories of Thailand's Exporters Directory. They distributed 524 questionnaires to different firms. The results revealed that knowledge management, technological capability and communication competency have positive impact on customer relationship management effectiveness. Moreover customer relationship management effectiveness has positive influence on customer satisfaction, while customer satisfaction has positive influence on brand loyalty and repurchases intention.

Bohling et al. (2006) in the article concluded from their study that Customer Relationship Management implementation is remarkably situated process and that success depends on several factors- who champions it, what metrics are used to measure its success, the different components of Customer Relationship Management being implemented, the orientation of the implementing team, and how managers perceive Customer Relationship Management. Besides this equally important other findings were. Customer Relationship Management at its present stage in its evaluation is neither perceived as a resounding success nor a dismal failure in organizations. The last finding in particular suggested that Customer Relationship Management done right-has the potential to become a lasting source of competitive advantage for firms, one that is likely inimitable.

Objective of the study was to provide insight into practices that could be conducive to improving

the likelihood of successful Customer Relationship Management implementation and highlight the findings for the future research. For the study a survey of executives affiliated with 101 US based firms was undertaken to gain insight into factors that these executives perceived to be associated with the success of Customer Relationship Management. Firms participated in survey represents a wide range of industries such as financial services, manufacturing, communications and distributions. Size variation was as -56% had annual revenue exceeding \$50 million, 30% had annual revenues exceeding \$1 billion, and 6% had annual revenues exceeding \$50 billion. In case of respondents more than three quarters reported that they were Customer Relationship Management decision makers or influencers in their firm. In survey executives' perceptions were measured by using wide variety of issues including adoption of Customer Relationship Management practices, factors associated with success of Customer Relationship Management practices, and many other aspects of Customer Relationship Management implementation in their respective forms.

Respondents rated the perceived success of their Customer Relationship Management initiatives using 5 point scale (1=failure, 5=complete success). They also rated several factors perceived to affect the success of Customer Relationship Management initiatives. The later factors were correlated with the perceived success of Customer Relationship Management initiatives. Respondents indicated that Customer Relationship Management success was most strongly associated with Customer Relationship Management ownership being at corporate level. Pearson's correlation coefficients of perceived Customer Relationship Management success with various ownership models were as: corporate, 0.88; marketing, 0.63; sales, 0.54; customer service, 0.46; and IT, 0.34.

Executives possessed a wide variety of views about what Customer Relationship Management initiatives mean-arranging from direct mail, loyalty scheme and database management

to E-Commerce and internet enabled business. Respondents were presented with a list of 9 commonly pursued Customer Relationship Management initiatives and asked to rate how successful their firms has been in pursuing the initiatives (1=failure, 5=complete success). Results indicated a low incidents of failure for the 9 Customer Relationship Management initiatives examined, the percentage of respondents reporting failure, defined as a project stopped or on hold, ranged from 2% to 7%. Equally noteworthy was that for the 9th Customer Relationship Management initiative, the percentage of respondents reporting "complete success" ranged from 4% to 19% a rate of success that many would not view as overwhelming.

In respondents' rating of the importance (1=not important, 4=very important) of seven criteria that could be used to assess success of Customer Relationship Management initiatives by the respondents, externally oriented criteria dominated. Based on top-box score, the two most important criteria were (a) proven customer impact in terms of retention and satisfaction (46%) and (b) quantifiable revenue growth (46%). They were followed by (c) improved information and insight (25%), (d) quantifiable cost reduction (24%), (e) improved employee productivity (16%), (f) usage by employees (9%), and (g) Compliance to specifications (9%). These results suggested that research needs focus on understanding how each of these criteria related to each other in a comprehensive outcomes metrics that business can used to set priorities.

Also in the study based on qualitative research conducted with industry practitioners, the Customer Relationship Management strategy formulation and implementation process was broken down into 15 possible components that could be followed by business. Respondents rated how regularly each components was performed in their firm when embarking a new three Customer Relationship Management initiatives on a 4 point scale; always, often, sometimes, never. Finally the frequency rating for each of the 15 components were assumed

to have metric proprieties and multiple regression analysis performed relating them to perceived Customer Relationship Management success. The five components with the highest standardized coefficients, rescaled to sum to one, were Customer Relationship Management strategy and value proposition development (0.22), budget process change management (0.20), process change (0.12), governance (0.09), and change management (0.07). These results indicated importance of developing Customer Relationship Management strategy and value proposition as a part of the process for developing and implementing a new Customer Relationship Management initiatives.

Authors gave concluding comments as managers need to recognize that Customer Relationship Management is an enterprise wide concept that requires their business is to identify opportunities to simultaneously enhance customer value while reducing cost, two effects that together create sustainable competitive advantage and results into greater short-and long-run profitability. To achieve this, managers need to recognize that a business's Customer Relationship Management initiatives are an integral part of this overall marketing strategy and not just a separate program.

Shiu and Yu (2007) in the article found that the customization function poses greater influence on customer loyalty than the channel function and that the mediating role of affective commitment is supported. This paper had a purpose to investigate the effects of various relationship programs on improving customer loyalty. Also this paper extent prior research and contributes to the literature. The first valuable addition is to examine the impact of Customer Relationship Management on customer loyalty in the context of insurance. To our knowledge little has been known about how the functions of Customer Relationship Management influence insurer persistency rate. This article is one of the first to investigate such an issue in insurance. Thus this study can fill gap in the literature more over the findings can be compared with those of studies in other fields. The second

contribution may be methodological. Structural equation modeling approach was employed, which has comparative strengths in providing multiple constructs. Finally authors found that customization is instrumental in enhancing customer loyalty. In the study, hypotheses were framed. Data were collected by using questionnaire (Pre tested) for top five insurance Taiwan companies (by market share) namely Cathay Life Insurance company (23.3%), Nanshan Life Insurance company (14%), Shin Kong Life Insurance company (10.9%), ING Antai Life Insurance company (7.02%), Fubon Life Insurance company (5.5%). A total 700 questionnaires were issued. Usable response rate was 47%. Questionnaire was designed like structured questionnaire with the 5 point Likert scale, very satisfied, no comments, dissatisfied and very dissatisfied for scores of 5, 4, 3, 2, and 1. The study uses scale to measure intention strength of each question and then analyses the data and examines the hypothesis using LIRSEL 8.52, SPSS 10.0 and Excel 2003. Hypothesis tested as – the influence of the process and channel function on affective commitment (0.181), influence of process and channel function on calculative commitment (0.157), influence of customization function on affective commitment (0.445), influence of customization function on calculative commitment (0.259), influence of customization function on customer loyalty (0.193) and influence of affective commitment on loyalty (0.318) are all significant. Only the influence of process and channel function on customer loyalty (-0.025) and influence of calculative commitment on loyalty (0.056) failed to be significant.

Authors also concluded that owing to the prompt changes in industry environment tough competitions and high loses of customers in the financial industry, life insurance companies have to build long term customer relationship and increase the retention rate of their customers after the introduction of Customer Relationship Management. Provided that life insurance companies are efficient and flexible in responding to

the market changes, as well as offer professional financial insurance programs, consultations and innovative insurance products and services, such customization function, methods and measures will increase the reorganization of customer service value. As a result locating customers with development values from the data base flexibly responding to the customers' needs and questions and planning appropriate professional insurance services and financial products are the issues with the present life insurers have to work on.

Nath, Gugnani, Goswami, and Gupta (2009) made attempt to present a systematic view of customer relationship management in three industries viz. Insurance, Banking and Telecommunication. They brought to the fore a set of queries relating to the eminence of the phenomenon of customer relationship management and its different elements with the intention of explaining and improving its implementation in the selected service industries. In this paper, they provide a simple framework to plan and implement an optimized set of strategies for the development of organization-customer centricity, help organizations to overcome the budding challenges and bring out the importance of implementing customer relationship management in the proffer to exploit customer satisfaction and augment overall prosperity of the organization. This study is of substantial importance to organizations from a practical standpoint, which are in the nascent stage, and require to incorporate actions related to enriching relationship with their customers and use these complimentary relationships to triumph the loyalty of a customer and subsequently harvest the advantage of profitability. The results of the study are probable to offer them adequate insight into the use of customer relationship management as an instrument for captivating trust and confidence of customers.

Elmuti, Jia, and Gray (2009) conducted research to study the impact of customer relationship management on overall organizational effectiveness as a strategic approach and to categorize barriers that have an effect on success of

customer relationship management. A survey was conducted for 500 randomly selected financial service providers in the United States and to get the reliable information, follow-up interviews were also conducted with key managers among several financial service providers. The results of the study revealed that firms generally consider themselves successful at managing their customer relationship management programs. Authors provided insight through empirical analysis into the effectiveness of implementing a customer relationship management strategy approach for increasing the probability of success of the customer relationship management approach and recognize areas that require further exploration.

Krasnikov, Jayachandran, and Kumar (2009) examined the impact of customer relationship management program implementation on two metrics (operational efficiency and profit efficiency). Study used a large sample of commercial banks in United States. They used stochastic frontier analysis to estimate cost and profit efficiencies. To assess the impact of customer relationship management program implementation on profit and cost efficiencies they employed hierarchical linear modelling. Study findings revealed that customer relationship management program implementation is associated with a demur in cost efficiency but a boost in profit efficiency. They also found that two adoption-related factors (time of adoption and time since adoption), influence the relationship between customer relationship management program implementation and cost and profit efficiencies.

NEED FOR MEASURING EFFECTIVENESS OF CUSTOMER RELATIONSHIP MANAGEMENT

Measuring Effectiveness of Customer Relationship Management is of utmost importance as it includes cost component of all stakeholders of an organization. Since implementation of Customer

Relationship Management program requires huge investments, as it involves costing for Information Technology in terms of developing website, sales force automation, lead management, e-marketing etc. So after investing huge amount in the project, stakeholders want to measure that how effective if program.

In case of Life Insurance Corporation of India the company has implementing the Customer Relationship Management program to facilitate its customers but company hasn't taken any initiatives to measure the effectiveness of the program, which gives the research orientation for the present study.

FACTORS FOR MEASURING EFFECTIVENESS OF CUSTOMER RELATIONSHIP MANAGEMENT

Effectiveness of Customer Relationship Management consists of following elements:

- **Return on investment (ROI):** Return on investment is used for measuring effectiveness of an organization while using capital in order to earn more profit. This is with respect to the monetary sense of the term as compared to what it had actually invested initially when starting a business. Customer Relationship Management strategies and techniques can be widely used to enhance the overall effectiveness of a company. Now this is not achieved via earning on techniques involving customer support via promoting loyalty of present clientele as looking out for unique way to retain these customers.
- **Customer retention:** Customer retention is also used for measuring effectiveness of a Customer Relationship Management program in an organization because as Customer Relationship Management

program implementation incurs costs to the organization. Customer Relationship Management program is meant for developing good relationships with customers, so by counting number of customers retained after implementation of Customer Relationship Management program will express effectiveness of the program.

- **Revenue growth (quantifiable):** Growth in revenue due to Customer Relationship Management program implementation in an organization can be taken as measure for measuring effectiveness of the Customer Relationship Management program. Data of previous year can be taken as base for calculating annual growth in revenue.
- **Cost reduction (quantifiable):** Customer Relationship Management program is implemented in an organization will lead for reduction in the cost in long run, as it leads to reduction in paper work, reduction in processing time, increase in pace of getting information for customers. So costs are calculated in the organization before implementing the Customer Relationship Management program and to measure the effectiveness of program, reduction in the costs is calculated.

OBJECTIVES OF THE STUDY

Present study consist of the following two objectives

- To study the Customer Relationship Management program of Life Insurance Corporation of India.
- To assess the effectiveness of Customer Relationship Management program of Life Insurance Corporation of India.

SCOPE OF THE STUDY

The present study is confined to get opinion scores of policy holders Life Insurance Corporation of India about Customer Relationship Management program, which includes four aspects Product, People, Process and information technology.

HYPOTHESES OF THE STUDY

Four hypotheses were constructed to generalize the results drawn from the sample to the whole population. Since the measurement of effectiveness of the Customer Relationship Management program dealt with four dimensions as: Product, People, Process, and Information technology.

Product

H0: After opinion scores are equal to before opinion scores with respect to Product.

H1: After opinion scores are higher than before opinion scores with respect to Product.

People

H0: After opinion scores are equal to before opinion scores with respect to People.

H1: After opinion scores are higher than before opinion scores with respect to People.

Process

H0: After opinion scores are equal to before opinion scores with respect to Process.

H1: After opinion scores are higher than before opinion scores with respect to Process.

Information Technology

H0: After opinion scores are equal to before opinion scores with respect to Information technology.

H1: After opinion scores are higher than before opinion scores with respect to Information technology.

RESEARCH METHODOLOGY

Population Definition

Policy holders of Life Insurance Corporation of India in Uttarakhand, the northern state in India.

Sample Element Definition

Life insurance Policy holders for more than five years with Life Insurance Corporation of India in Dehradun region of Uttarakhand.

Sample Selection, Sample Size and Data Determination

The population studied is the Life Insurance Corporation of India policy holders. Sample size was selected on the basis of minimum five time number of questions asked in the questionnaire. For the present study, sample size was selected as to get adequate representation of population. A structured English medium questionnaire was designed using five point Likert's scale as very low acceptance (1), low acceptance (2), to some extent acceptance (3), high acceptance (4), very high acceptance (5), which incorporated the measures mentioned. The questionnaire was pretested and based on the debriefing of the pretest respondents (n=15), few changes in the statements were made, like in process dimension order of the questions changed and also in the technology dimension, to make clear about response, technology is changed to Information Technology as heading and also in questions prefix information was placed to technology.

Total numbers of completely filled 182 questionnaires were taken for analysis. The questionnaire was administered by researcher with the help

of references from own sources and visiting branch offices of Life Insurance Corporation of India.

Sampling Technique

Convenient sampling technique was employed as per the constraints of time and cost factors, and complete efforts were made to collect representative sample.

Research Design

Before and After

A research design where measurements are taken both before and after the introduction of an intervention to measure its effect. This design is used to measure the effectiveness of Customer Relationship Management program by analyzing the opinion scores given by the respondents.

Survey Instrument and Questionnaire

Structured questionnaire was used as survey instrument. Questionnaire was designed on the basis of four dimensions of measuring effectiveness of Customer Relationship Management program. Total fifteen questions were listed in the questionnaire to know about opinion scores on a scale varying from 1 to 5. Questions were distributed as four to product dimension, three to people dimension, four questions to process dimension, and four questions for information technology (Dyche, 2001).

Data Collection

Survey method was used to collect the responses from the respondents with the help of structured questionnaire. The survey was conducted in various parts of Northern region of India.

Reliability Test

Measure of construct reliability (Cronbach's alpha) was compared to each dimension Product, People, Process, and Information Technology both before and after opinion scores, to assess the reliability of the set of items forming that dimension. These alpha coefficients range from 0.637 to 0.768 (see Table 1). As a rule, alphas of 0.70 or greater represent satisfactory reliability of the items measuring the construct (dimension); although it may decrease to 0.60 in exploratory research (Hair et al., 2006). Therefore, the items measuring the dimensions appear to be sufficiently reliable.

DATA PRESENTATION

Respondents Profile

The questionnaire included a section on customer's profile, as various demographic and other factors were likely to influence the customer services offered by the company. Information on demographic features may also be helpful to provide services effectively. A demographic profile of the respondents is presented as follows.

Among the respondents 52.90% of the age group of 26 to 35, and 47.10% were of the age group 36 to 45. The majority of the respondents were males (70.6%) and female respondents were of less percentage of 29.4%. The majority of the respondents were married (67.6%), as percentage of unmarried was 32.4%. There were more graduate respondents (72.5%) than post graduate and others. Moreover the occupational variables showed that the respondents had major portion of professionals (62%), where as the percentage of self employment, wage employment, others were 17%, 11%, 12% respectively. In the survey it was also found that the respondents came from different income backgrounds; a major part of them (44%) earned more than Rs.10000 but above Rs.20000 were only 18%. As survey was confined to only

Table 1. Cronbach's alpha

Sr. No.	Construct	Reliability Statistics Before 2004		Reliability Statistics After 2004	
		No. of items	Cronbach's alpha	No. of items	Cronbach's alpha
1	Product	4	0.642	4	0.637
2	People	3	0.701	3	0.768
3	Process	4	0.694	4	0.678
4	Information Technology	4	0.702	4	0.678

the policy holders from more than 5 years with Life Insurance Corporation of India, so majority of the respondents belonged to that group (95%).

Data Analysis and Findings

SPSS 17.0 version is used to analyze the collected data. As the study is related to measure the effectiveness of the Customer Relationship Management program of Life Insurance Corporation of India. Compared t-test was conducted for each dimension (see Table 2).

FINDINGS AND DISCUSSION

Sample results from Tables 3 through 6 are showing clear indications of the higher average opinion

Table 2. Average

Serial No.	Dimension	Time frame	Average opinion scores
1	Product	Before 2004	2.490196
		After 2004	4.007353
2	People	Before 2004	2.578431
		After 2004	4.029412
3	Process	Before 2004	2.502451
		After 2004	4.00653
4	Information technology	Before 2004	2.387255
		After 2004	4.159314

scores for the time period after 2004, which gives the evidence to infer the results Customer Relationship Management program implemented by Life Insurance Corporation of India is effective in approach. Life Insurance Corporation of India is able to maintaining good relations with its policy holders after implementing Customer Relationship Management program.

HYPOTHESES TESTING

Product

Paired sample t-test was run to test the hypothesis with the help of SPSS 17.0 version and the output shows the range of acceptance of Hypothesis, while the calculated t value falls out of the range that is in the critical region. So the null hypothesis rejected that the opinion scores are equal to before opinion scores with respect to Product.

People

Paired sample t-test was run to test the hypothesis with the help of SPSS 17.0 version and the output shows the range of acceptance of Hypothesis, while the calculated t value falls out of the range that is in the critical region. So the null hypothesis rejected that the opinion scores are equal to before opinion scores with respect to People.

Table 3. Paired Samples t-Test

		Paired Differences				
		95% Confidence Interval of the Difference				
		Lower	Upper	T	Df	Sig. (2-tailed)
Pair 1	VAR00008 – VAR00009	-1.629	-1.313	-18.455	101	.000
Pair 2	VAR00010 – VAR00011	-1.878	-1.534	-19.709	101	.000
Pair 3	VAR00012 – VAR00013	-1.567	-1.257	-18.095	101	.000
Pair 4	VAR00014 – VAR00015	-1.577	-1.267	-18.197	101	.000

Table 4. Paired Samples t-Test

		Paired Differences				
		95% Confidence Interval of the Difference				
		Lower	Upper	T	Df	Sig. (2-tailed)
Pair 1	VAR00016 – VAR00017	-1.569	-1.255	-17.814	101	.000
Pair 2	VAR00018 – VAR00019	-1.665	-1.335	-18.005	101	.000
Pair 3	VAR00020 – VAR00021	-1.606	-1.276	-17.342	101	.000

Process

Paired sample t-test was run to test the hypothesis with the help of SPSS 17.0 version and the output shows the range of acceptance of Hypothesis, while the calculated t value falls out of the range that is in the critical region. So the null hypothesis rejected that the opinion scores are equal to before opinion scores with respect to Process.

Information Technology

Paired sample t-test was run to test the hypothesis with the help of SPSS 17.0 version and the output shows the range of acceptance of Hypothesis, while the calculated t value falls out of the range that is in the critical region. So the null hypothesis rejected that the opinion scores are equal to

before opinion scores with respect to Information Technology.

How Customer Relationship Management is being implemented in insurance industry with focus on Life Insurance Corporation of India: After entry of private insurance players in the insurance sector, Life Insurance Corporation of India is losing its monopoly in the market and there is a significant decrease in its market share. But Life Insurance Corporation of India responded to its customers. Life Insurance Corporation of India is investing in a large scale in the Customer Relationship Management program, so that existing customers can be retained and new customers can be attracted. As a result as per present statistics Life Insurance Corporation of India has crossed the mark of 25 crores insurance policy holders. By browsing official website, its annual reports,

Table 5. Paired Samples t-Test

		Paired Differences				
		95% Confidence Interval of the Difference				
		Lower	Upper	T	df	Sig. (2-tailed)
Pair 1	VAR00022 – VAR00023	-1.577	-1.267	-18.197	101	.000
Pair 2	VAR00024 – VAR00025	-1.878	-1.534	-19.709	101	.000
Pair 3	VAR00026 – VAR00027	-1.629	-1.313	-18.455	101	.000
Pair 4	VAR00028 – VAR00029	-1.577	-1.267	-18.197	101	.000

Table 6. Paired Samples t-Test

		Paired Differences				
		95% Confidence Interval of the Difference				
		Lower	Upper	T	df	Sig. (2-tailed)
Pair 1	VAR00030 – VAR00031	-.284	-.109	-4.441	101	.000
Pair 2	VAR00032 – VAR00033	-.261	-.092	-4.128	101	.000
Pair 3	VAR00034 – VAR00035	-.284	-.109	-4.441	101	.000
Pair 4	VAR00036 – VAR00037	-.272	-.100	-4.286	101	.000

news published in various newspapers, magazines, Customer Relationship Management initiatives taken by Life Insurance Corporation of India include (Source: <http://www.licindia.com>).

- **Corporate website:** It provides information on products, services, policy status, grievances and premium calculator.
- Touch screen information kiosks at central locations to provide 24x7 inquiry services to customers.
- Setting up of info centers at major cities to provide call center type services.
- **Alternate premium payment channels like:** ECS, internet payment gateways as well as ATMs of major banks are also available.
- Starting of push services like premium alerts and product information through SMS.

- Execution of agreement with HP India Sale Private Limited for implementation of Enterprise Document Management System (EDMS) in all 2100+ offices across country.

CONCLUSION

On the basis of average opinion scores found both before and after implementation of Customer Relationship Management program by Life Insurance Corporation of India from the sample it was concluded that Customer Relationship Management program started by the Life Insurance Corporation of India is effective in approach, which was evidenced by the results obtained from the statistical analysis (Paired sample t-test). Company is able to maintain good relationship with its customers and also this Customer Relationship Management

program is helpful for the company to compete with its competitors without losing its customers to them. With the introduction of Information technology, Life Insurance Corporation of India is now providing satisfactory services to its customers and customers are feeling very much updated with all the happenings about their policies. Life Insurance Corporation of India is providing more variety of products to their customers, process has become customer friendly. Employees and agents of Life Insurance Corporation of India have become more resourceful now, as compared to the before Customer Relationship Management implementation. In all it can be concluded that customer relationship program of Life Insurance Corporation of India is working in the right direction, and is effective in approach.

SCOPE FOR FURTHER RESEARCH

- To quantify return from the Customer Relationship Management program, which is also a good measure of measuring effectiveness, study can be conducted from company point of view in which company's financial expenses to implement Customer Relationship Management program can be taken into consideration.
- To measure the effectiveness of Customer Relationship Management program, quantitative parameters can also be taken. There is a scope for research to measure effectiveness of Customer Relationship Management program with the help of quantitative parameters.
- In the field of Customer Relationship Management, in insurance industry there is ample scope for research in the areas of how companies can best use Customer Relationship Management to benefit and retain its customers.

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Chapter 14

A Cross–Cultural Study of Relationship Proneness and Its Implications for Relationship Marketing

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ABSTRACT

This paper examines relationship proneness of consumers in a cross-cultural setting; specifically, the relationship proneness between Chinese and U.S. consumers of Generation Y (born from 1976 to 1995) and its effects on relational satisfaction and relationship commitment. Based on previous research (e.g., De Wulf, Odekerken- Schröder, & Iacobucci, 2001) and cultural theories (e.g., Hofstede, 1980, 2001), nine hypotheses were developed involving the effects of relationship building tactics (i.e., direct mail, preferential treatment, communication, and tangible rewards) on relationship proneness, relational satisfaction and store loyalty. This quantitative study used a survey among two samples of consumers in China and the U.S. The final sample size was comprised of 349 student consumers. The findings of the research provide managerial implications for international retailers. Relationship proneness is a meaningful personal characteristic that can be used to describe or predict consumer behavior across cultures. A relationship marketing strategy that works for one culture may also work well in another culture. It is possible and appropriate, at least with generation Y consumers, to employ standardized approaches in relationship marketing across cultures.

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INTRODUCTION

Relationship marketing has taken on a significant role in both marketing practice and academic study (Adjei, Griffith, & Noble, 2009). Dwyer, Schurr, and Oh's (1987) seminal article on relationships marked the new era of relationship marketing (Palmatier, Dant, Grewal, & Evans, 2006). Since then, numerous studies on relationship marketing and customer relationship management have been published, and various strategies of building and developing long-term customer-firm relationships have been introduced in relationship marketing (e.g., Musalem & Joshi, 2009; Reinartz & Kumar, 2000; Rigby et al., 2002; Winer, 2001). The results of prior research have shown that long-term relationships with customers help firms gain financial success and a competitive edge (e.g., Bhattacharya & Sen, 2003; Berry, Carbone, & Haeckel, 2002; Liu & Yang, 2009; Reinartz, Krafft, & Hoyer, 2004; Thomas, Blattberg, & Fox, 2004; Venkatesan & Kumar, 2004).

Generation cohort represents a subculture that reflects a distinctive set of values, beliefs, expectations, and behaviors (Dou, Wang, & Zhou, 2006; Egri & Ralston, 2004; Lester, Forman, & Loyd, 2005; Wei, 1997). Generation subculture theory suggests that social, political, and economic factors have a distinct impact on every generation resulting in a generational identity that remains relatively stable throughout a generation's lifetime (Inglehart, 1997, Strauss & Howe, 1991; Yang, Zhou, & Chen, 2005). Thus, a study of generation subcultures can help businesses better understand the nature of culture change that has taken place in a country and consumer behaviour of that generation.

Generation cohorts have attracted a great deal of research in Western countries (e.g., Lester, Forman, & Loyd, 2005; Strauss & Howe, 1991; Thau & Heflin, 1997), but there is little research on the characteristics of generation cohorts in China (McEwen, 2005; Ralston et al., 1999). Further, previous research based on generational cohort

theory suggests that generational differences in values, attitudes, and lifestyles are always more significant in those countries where rapid economic development is bringing great changes to the life of individuals (Abramson & Inglehart, 1995; McEwen et al., 2006). For example, a study of advertising attitudes of generation X consumers in China indicated that there had been a great change in the lifestyle of this segment (Wei, 1997). Dou, Wang, and Zhou (2006) investigated the media program preferences of the same generation in China and found that the cohort consumers, compared with their preceding generational cohorts, tend to pay more attention to entertainment-based media programs such as television drama series and radio pop music, and shun information-based topics such as news or business reports.

Generation Y (born from 1976 to 1995), especially the middle-aged members of this generation (ages 20–34), grew up along with various relationship marketing strategies. Generation Y are a large group of consumers in the marketplace that has purchasing power and may have an unprecedented impact on the economy (Noble, Haytko, & Phillips, 2009). There are 60 million Gen Y consumers in the U.S. (Lester, Forman, & Loyd, 2005) and about 200 million Generation Y consumers in China who have witnessed and experienced the dramatic changes as the country has been transformed from a socialist to a capitalist economy (Stanat, 2005). The generation is "highly coveted" consumers, but little research has been done on the motivations behind these individuals' consumption behavior and preferences (McEwen et al., 2006). This study attempts to address this gap by exploring the role of relationship proneness in the consumer behavior of college-aged Generation Y individuals, and its impact on outcomes of firms' relationship strategies.

Another objective of this research is to investigate the cross-cultural differences between Generation Y consumers in China and the U.S. The limited cross-cultural studies on generation cohorts have examined cultural values between

Chinese consumers and their foreign counterparts (e.g., Egri & Ralston, 2004; Stanat, 2005). For example, Egri and Ralston (2004) compared the generation cohort value orientations of Chinese and U.S. managers and professionals. They found that the different Chinese and U.S. generations demonstrate significantly age-related differences in attitudes towards change in their life and self-enhancement goals. While the younger generation shares similar value orientations the older generations are different in many aspects. Further, the value orientations of the younger Chinese generations reflect the impact of societal and organizational changes occurring in China. According to McEwen (2005), the Gallup Poll of China found that the Generation Y consumers were very different from the Generation X consumers. This Generation Y cohort is highly active information seekers and sharers, more interested in social media, and more likely to buy Western brands. However, Smith (2009) examined the cultural values of Generation Y Chinese consumers and did not find significant differences between this segment and the previous generation in spite of environmental influences. Generation Y Chinese are still very much collectivists with a high need for security, conformity, and benevolence. Smith thus suggested that relationship marketing concepts and strategies developed within the context of Western culture should be cautiously employed within the Chinese context which places more emphasis on group-oriented relationships than individual orientated relationships. The inconsistency in the literature motivated this cross-cultural research.

The major focus of this research is to compare Chinese and the U.S. Generation Y consumers in terms of relationship proneness and its impact on relationship marketing outcomes. By comparing the two culturally distinct countries (the U.S. as a typical individualistic culture and China as a typical collectivistic culture), this research can provide some useful managerial implications for international marketers operating in different

cultures and assist managers in deciding where they are likely to get the greatest response to their expenditures on customer relationship management and achieve a competitive advantage.

The present research selects retailing as the research context because retailing is a relationship intensive field in which customer-store relationships are initiated, maintained, and developed through various customer contact points and customer retention is critical to the success of a store (De Wulf et al., 2001; Srinivasan & Moorman, 2005). There is a growing research on the influence of relational factors on store loyalty (e.g., Sirdeshmukh, Singh, & Sabol, 2002; Van Heerde & Bijmolt, 2005; Seiders et al., 2005). The current research contributes to the marketing literature in two ways. First, the findings of this research can help both retailers and researchers understand how Generation Y individuals respond to the prevalent relationship strategies. Rigorous research in the domain of relationship proneness can help develop better and more generalizable theories of relationship marketing to guide retailing practice. Second, there is an increasing interest in research about the role of culture in consumer-store relationship among international marketers and academics (e.g., Ackeman & Tellis, 2001; Arnould, 2005; Davis, Wang, & Lindridge, 2008; Hirschman & Wallendorf, 1982; Mattila & Patterson, 2004; Michon & Chebat, 2004). The findings of this research can help researchers and practitioners better understand relationship proneness and its impact on consumer behavior across different cultures.

This paper is structured as follows: first, a review of prior research on relationship marketing is provided, establishing the salience of relationship investments. Second, we employ culture theory to compare the behavioral differences between the two groups of consumers from two distinct cultures. Third, research design and data analysis are presented. Finally, we provide managerial implications and conclusions.

LITERATURE REVIEW

Relationship Marketing

Relationship marketing deals with how to attract and retain customers in a profitable way as loyal customers are considered a company's "bedrock" that determine the future of a company (Jain & Singh, 2002; Jones & Sasser, 1995; Reichheld, 2001; Young, Gilbert, & McIntyre, 1996). Loyal customers are deeply committed to repurchasing "a preferred product/service consistently in the future, despite situational influences and marketing efforts directed at switching their behavior" (Oliver, 1997, p. 392). The literature suggests that to retain customers in long-term relationships, firms should make substantial investments and provide multiple forms of benefits (Fournier, 1998; Gwinner, Gremler, & Bitner, 1998; Kaltcheva & Parasuraman, 2009), because an individual is more likely to enter into strong, committed and meaningful relationships with those firms that can "satisfy one or more important self definitional needs" (Bhattacharya & Sen, 2003, p. 77; Dholakia, 2006). Relationship marketing investments can generate customer feelings of gratitude, which may lead to gratitude-based reciprocal behaviors (Morales, 2005; Palmatier et al., 2009). Relationship marketing would be more effective when consumer-firm relationships are more critical to customers (Palmatier et al., 2006). Moreover, research shows that customer-firm relationship is not based on a single dimensional evaluation involving one specific department but a multidimensional evaluation involving multi-departmental participation and commitment (Bloemer & Ruyter, 1998). Loyal relationships are also affected by other factors such as corporate social responsibility (Barone, Norman, & Miyazaki, 2007).

In retailing, store loyalty has been one of the major research areas, and a loyal customer base is essential to the success of the retailer (Grewal & Levy, 2007, 2009; Kau & Ehrenberg, 1984; Sirgy & Samli, 1985; Sirohi, McLaughlin, & Wittink,

1998). Prior research has found that store loyalty is affected by many factors such as store image (Lesig, 1973), the congruity between a consumer's self image and a retail store image (Bellenger, Steinberg, & Stanton, 1976), shopping orientations (e.g., Lumpkin, Hawes, & Darden, 1986), cost (Bell, 1998), loyalty programs (Meyer-Waarden, 2007), store brand (Corstjens & Lal, 2000), and a loyal relationship with the salesperson (Gremler & Gwinner, 2008; Reynolds & Arnold, 2000). There is a consensus that relationship quality is, among the factors, the prime driver of store loyalty overruling the impact of technical and functional quality (Odekerken-Schröder et al., 2003).

The literature regarding the influence of relationship marketing on store loyalty disagrees on the role of relationship investment in marketing. While the majority of research finds that relationship investments are beneficial to the sustainable development of a store (e.g., Seiders et al., 2005; De Wulf et al., 2001), some researchers assert that long-term customer-firm relationships can be a "double edge sword" to the firm (Kumar & Shah, 2004) and relationship marketing effectiveness likely varies across other factors such as culture and personality that influence customers' needs for strong relationships (Palmatier et al., 2006). Relationship proneness, a personality trait, is among those factors that should be paid more attention (Odekerken-Schröder, De Wulf, & Reynolds, 2004).

Relationship Proneness

Relationship proneness represents a personality trait that determines how each individual of a society is "predisposed" to engage in relationships (Christy et al., 1996). As a personality trait, relationship proneness is a relatively stable characteristic of an individual. Certain people are "relationship prone," i.e., they are "psychologically predisposed" to engage in relationships with organizations whereas others are more prone to establish arm's length transactions (Christy et al.,

1996, p. 177). Consumer relationship proneness plays an important role in consumer behavior because it has a direct impact on the perceptions of relationship marketing efforts by firms and how people make product decisions (e.g., Gaur & Xu, 2009; Parish & Holloway, 2010; Odekerken-Schröder et al., 2004; Vázquez-Carrasco & Foxall, 2006). The previous research has confirmed the link between the relationship proneness and relationship outcomes (Odekerken-Schröder et al., 2003; De Wulf & Odekerken-Schröder, 2000; De Wulf et al., 2001). For example, De Wulf et al. (2001) found that consumer relationship proneness has a positive impact on relationship commitment. Relationship proneness can lead to customer loyalty, because relationship prone consumers have a sense of being important and an overall sense of well-being enhanced by the firm relationship investments (Gwinner, Gremler, & Bitner, 1998; Liu, 2007). Palmatier et al. (2009) found that relationship prone customers are more likely to emotionally appreciate the relational benefits received, accompanied by a desire to reciprocate.

Also, prior research has found the moderating effect of relationship proneness on behavioral outcomes in retailing literature (e.g., Adjei & Clark, 2010; Odekerken-Schröder et al., 2003; Odekerken-Schröder et al., 2004). The literature indicates that not all consumers respond to store relationship investments actively and not all consumers are interested in a close relationship with the store (e.g., Dholakia, 2006; Musalem & Joshi, 2009; Sheth & Parvatiyar, 1995). For example, De Wulf et al. (2001) compared the store loyalty patterns of six consumer samples in three countries (the U.S., Netherlands, and Belgium) and found that the moderating effect of relationship proneness on loyalty is inconsistent across different samples, suggesting the effectiveness of relationship investment varies with country. Similarly, research in India also confirms that consumer relationship proneness moderates the link between relationship status and relationship marketing outcomes (Gaur & Xu, 2009). Because

of cultural differences in relationship proneness, it is suggested that aggressive relationship investment that is effective for certain consumers may not be effective for other consumers from different cultures (Dholakia, 2006).

THEORETICAL FRAMEWORK AND HYPOTHESES

Impact of Culture on Consumer Relationship Proneness

The burgeoning body of cross-cultural research has yielded strong evidence for the existence of cultural differences between consumers from different nations (e.g., Hofstede, 1997; Triandis, 1995; Warden et al., 2008). According to De Mooij and Hofstede (2002), despite of globalization, the use of same technology and disappearing differences in national income across countries do not lead to homogenization of consumer behavior; instead, consumer behavior is becoming more heterogeneous because of cultural differences. Findings from research consistently show that consumers in different cultures are likely to have different levels of relational expectations and engage in different relational behaviors (e.g., Saaksjarvi, Hellen, Gummerus, & Gronroos, 2008). Thus, it is important to know that retailers and consumers always interact in a cultural context in which stores compete for a role in the culturally constituted projects that consumers pursue by deploying their own cultural resources (Arnold, 2005).

Culture, representing the shared values and beliefs of a society, is an important contextual factor affecting the relationship proneness in a given region or country (Hofstede, 2001; Hofstede & McCrae, 2004). Culture is defined as the “collective programming of the mind which distinguishes the members of one group or category of people from those of another” (Hofstede, 1994, p. 4). Hofstede’s cultural dimensions (i.e., Power Distance, Uncertainty Avoidance, Individualism

versus Collectivism, Masculinity versus Femininity, and Long-Term Orientation) have been used to investigate culture's role in a variety of marketing settings. National cultures differ in those five dimensions determining the behavioral patterns of its citizens. Although the five dimensions are correlated, Individualism versus Collectivism and Long-Term Orientation seem to form theoretical foundation for relationship proneness (Hofstede & McCrae, 2004). Individualism/collectivism, representing two types of cultures in the world, consistently shapes an individual's self-construal and defines the self-other relationships (Hofstede, 2001). Long-term orientation is more significantly reflected in some Asian countries influenced by Confucian philosophy than the Western cultures (Hofstede, 1994). In cultures that promote individualism (Western cultures), the ties among individuals are loose and one is expected to look after oneself and one's immediate family only, while in cultures that promote collectivism (Asian cultures), people are integrated into strong, cohesive groups from birth that protect individuals in exchange for unquestioning loyalty (Hofstede, 2001). According to Hofstede and McCrae (2004), there is a strong correlation between individualism, long-term orientation, and personality (e.g., relationship proneness) among the 24 countries studied by Hofstede et al.

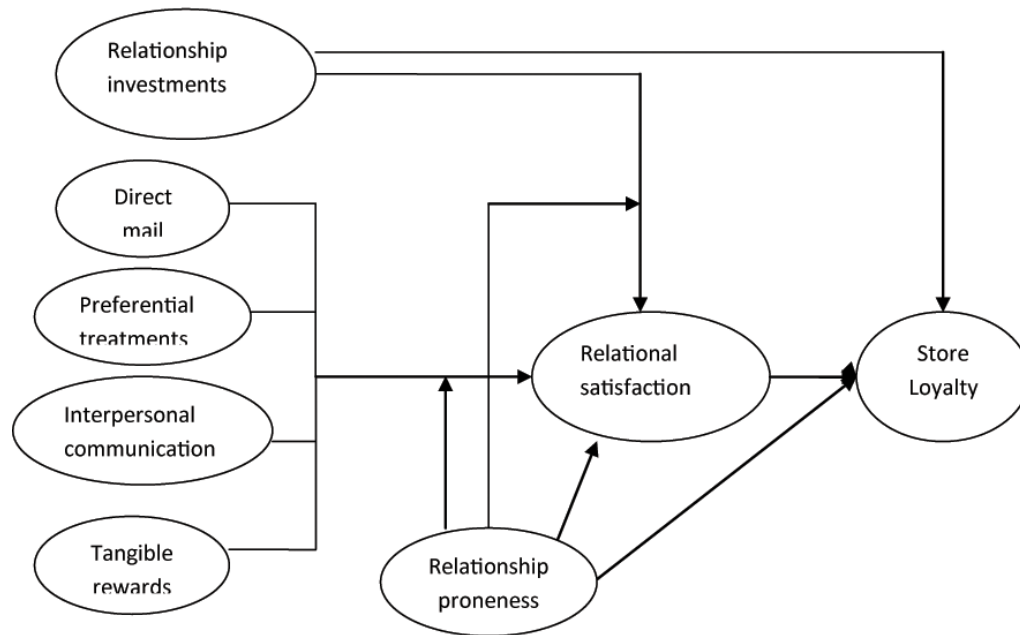
Also, a culture that scores high in Long Term Orientation (LTO) is interested in the "fostering of virtues oriented towards future rewards" while a culture that score low in LTO is more interested in the "fostering of virtues related to the past and present" (Hofstede, 2001, p. 359). Put differently, long-term orientation cultures prescribes to the values of long-term commitments, promotes savings and thriftiness, while short-term cultures emphasize respect for individual needs and self-actualization. In terms of consumption patterns, short-term orientation customers would desire changes more constantly and rapidly and expect immediate gratification, whereas long-term orientated-consumers would desire stable relationships

and expect delayed gratification (Hofstede, 1994). It is found that Long-term Orientation is strongly correlated with a country's economic growth over the past decades, which was much higher for the East Asian than for the Western countries (Hofstede, 1994; Hofstede & Bond, 1988).

United States is considered a typical individualist culture (the individualism score for the U.S. is 91 with the average score of countries around the world 54), while China is considered typical of collectivist culture (the individualism score for China is 20). The LTO is the lowest dimension for the U.S. at 29, compared to the world average of 45 (<http://www.geert-hofstede.com/hofstede>). The LTO score for China is 118, the highest-ranking factor among the five factors (Hofstede, 2001). The difference between the scores indicates that culture is very likely to affect consumer relationship proneness as well as consumer-firm relationships in the two types of cultures. The literature seems to provide some evidence for the postulation: American and Chinese consumers show significant attitudinal and behavioral differences in interpersonal and consumer-firm relationships (e.g., Earley, 1993; Ford, LaTour, & Henthorne, 1995; Li, Lam, & Qian, 2001; Tse et al., 1988; Ramaseshan, Yip, & Pae, 2006). The Chinese are more inclined to modify their own preferences and positions to conform to a group and behave more cooperatively than Americans/westerners (e.g., Ackerman & Tellis, 2001).

Based on Hofstede's cultural theories and previous research, a conceptual model is proposed (see Figure 1). It is postulated that Chinese consumers will score higher in relationship proneness, seek more relationship investment from businesses than their U.S counterparts, and respond to firm relationship building activities more actively. Relationship investment activities include four subcategories: direct mail, preferential treatment, interpersonal communication, and tangible rewards (De Wulf et al., 2001). It is predicted that the impact of perceived relationship investment on relational satisfaction will be moderated by

Figure 1. Conceptual model



relationship proneness. It is also postulated that relationship proneness will be an antecedent of relational satisfaction and loyalty in both the China and U.S. samples.

Hypotheses

In line with De Wulf et al., this research defines relationship proneness as “a consumer’s relatively stable and conscious tendency to engage in relationships with retailers of a particular product category” (De Wulf et al., 2001, p. 38). As a personality trait, relationship proneness is culturally clumped, subject to the influence of established and reasonably stable value systems of a culture, expressing national cultures (Hofstede & McCrae, 2004). According to Hofstede and McCrae, national culture helps shape an individual’s personality, and culture is constitutive of personality; as a child is born, he/she does not have culture, and hence has no personality and no social relationships. But growing up in a country he/she will acquire common personality

characteristics in the process of his/her development and learn to build relationships within the framework of the culture. National cultures even affect the way people respond to a personality test (Hofstede & McCrae, 2004).

The previous research indicates that some consumers from the same culture are intrinsically more inclined to engage in relationships than others (e.g., Christy et al., 1996; Garbarino & Johnson, 1999; Marcati, Barbaranelli, & Vecchione, 2007). For example, a study of age- and gender-based differences in relationship proneness indicates that young and female consumers are found to have higher relationship proneness than older and male consumers, and thus are more likely to be influenced by relationship marketing efforts and relational benefits on outcomes such as customer loyalty (Odekerken-Schröder, De Wulf, & Reynolds, 2004).

Based on the above discussion, it is reasonable to believe that consumer relationship proneness, influenced by value systems of the culture, very likely differs across cultures. There might be

a greater predisposition or propensity toward long-term relationship in some societies than in others due to the role of culture in the formation of personality. It is therefore feasible to predict that consumers from a society of individualism/STO (e.g. Americans) and consumers from a society of collectivism/LTO (e.g., Chinese) are very likely to show different levels of relationship proneness. Consumers from a culture of Collectivism/LTO are likely to be more prone to long-term relationships than consumers from a culture of individualism/STO.

H1: Chinese consumers will have a higher score of relationship proneness than the U.S. consumers.

Perceived relationship investment is defined as a set of short-term consistent loyalty programs or marketing activities offered by firms to attract new customers or reward loyal customers (De Wulf et al., 2001). Relationship marketing literature indicates that relational efforts lead to satisfaction, long-term relationships (e.g., Bolton & Kannan, 2000; Dowling & Uncles, 1997; Lewis, 2004), profitability (e.g., Reinartz & Kumar, 2000), consumer trust (e.g., Sirdeshmukh, Singh, & Sabol, 2002), and better interactions with customers (e.g., Berdie, 2003; Meuter et al., 2000). Living in a country of collectivism where relationships make up the social framework, Chinese consumers are expected to score higher in relationship proneness than Americans but score lower in relationship investment because they are hypothesized to expect more relationship investment by firms. The following hypothesis was thus created:

H2: Chinese consumers will have a lower score of perceived relationship investment than the U.S. consumers.

Relational satisfaction refers to the extent to which an individual customer is satisfied with the relationship with a firm (Verhoef, 2003). The find-

ings from previous studies show that customers' perceptions of their relationship with a firm are related to customer satisfaction and loyalty (e.g., Bendapudi & Berry, 1997). Satisfaction with past relationships can increase customer perceived dependence on the firm because customers' perceived relationship based on actual experiences with a firm's products, services or the firm itself, as well as in comparison with their relationships with the firm's competitors, has more powerful and permanent impact on repurchase decisions (Levitt, 1981; Sheth & Parvatiyar, 1995). Further, relationships buffer service organizations when service failures occur, and customers with higher expectations of relationship continuity attribute the failure to a less negative cause (Hess et al., 2003). It has been found that satisfaction levels are significantly related to customer loyalty (Bolton, 1998; Garbarino & Johnson, 1999), and completely satisfied customers are 42% more likely to be loyal than merely satisfied customers (Jones & Sasser, 1995).

Based on the above discussion, we predict that Chinese consumers are less satisfied with the relationship with businesses. We predict that relationship proneness has a direct impact on relational satisfaction and store loyalty. The following hypotheses flow from the above discussion:

H3: Chinese consumers will have a lower score of relational satisfaction than the U.S. consumers.

H4a: Relationship proneness has a main effect on relational satisfaction in both the U.S. and China samples.

H4b: Relationship proneness has a main effect on store loyalty in both the U.S. and China samples.

Moderating Effect of Relationship Proneness

The literature supports the moderating effect of relationship proneness on behavioral outcomes

in retailing literature (e.g. Adjei & Clark, 2010; Gaur & Xu, 2009; Odekerken-Schröder et al., 2003; Odekerken-Schröder et al., 2004). The results from previous research do provide a clear indication that relationship marketing efforts are relatively more effective if they are directed at certain consumers who may be prone to relationships (Palmatier et al., 2006). Relationship prone consumers appreciate relationship marketing efforts by the retailer much more than consumers who are less relationship prone (Saaksjarvi et al., 2008). Further, De Wulf et al. found that the moderating effect of relationship proneness on loyalty is inconsistent across different samples, implying that there might be a country difference in the moderating effect of relationship proneness. This study predicts that relationship proneness has different influence of relationship investment on relationship outcomes for the Chinese and American consumers because they are not equally prone to relationships. It is postulated that relationship proneness as a personal trait could regulate the impact of perceived relationship investment, and relationship building activities on relational satisfaction in the Chinese sample, but not in the U.S. sample. Specifically, those people who score high in relationship proneness should be more satisfied with their relationship with a store; and those who score low in relationship proneness should be less satisfied with their relationship with a store. Similarly, the impact of relationship building tactics on relational satisfaction is moderated by the level of relationship proneness. Thus:

- H5:** Relationship proneness moderates the effect of perceived relationship investments on satisfaction in the China and U.S. samples.
- H6:** Relationship proneness moderates the effect of direct mail on relational satisfaction in the China and U.S. samples.
- H7:** Relationship proneness moderates the effect of preferential treatment on relational satisfaction in the China and U.S. samples.

H8: Relationship proneness moderates the effect of interpersonal communication on relational satisfaction in the China and U.S. samples.

H9: Relationship proneness moderates the effect of tangible rewards on relational satisfaction in the China and U.S. samples.

RESEARCH METHOD

Sample and Data Collection Procedures

The hypotheses were tested using convenience samples of graduate students from the United States and the People's Republic of China. University graduate students were selected as respondents for this study for several reasons. First, sampling only college students enhances cross-national comparability by effectively controlling for important variables such as literacy, work experience, age, and education. Student samples are widely used in attitudinal and psychological studies of consumer research. Second, as a matter of practicality, student respondents are generally convenient, accessible, and through the support of administering professors, it was possible to maintain some degree of control over the testing environment. Finally, college students fall into the Generation Y category and are a convenient population that exhibits this generation's characteristics (Lester, Forman, & Loyd, 2005). Also, the college graduates fall within 21 to 34 age groups that represent the most "coveted" group of Generation Y consumers. Thus, the selected samples should be representative of a significant portion of potential consumers.

Data was collected from two universities located in two southern cities of the countries. Two hundred and fifty questionnaires were prepared for each location. The surveys were administered by the professors in six classes of each university, and respondents were told that their participa-

tion was voluntary and that their responses were completely anonymous.

Respondents were asked to write down in a space provided the name of one supermarket where they shopped most frequently in the past year. The instructions then informed the respondent to refer to this supermarket in responding to all questions in the survey. A total of 14 different supermarkets were listed by the Chinese respondents including international retailers such as Wal-Mart and nine supermarkets by the U.S. participants also including Wal-Mart. Two hundred questionnaires were returned in China, resulting in an 80% response rate. After eliminating returned surveys with incomplete responses, the number of usable responses was 175. Approximately 54% of the respondents were female. The average age was 27. One hundred and eight-five questionnaires were returned in the U.S., resulting in a 74% response rate. After eliminating incomplete responses, the number of usable responses was 174. Approximately 57% of the respondents were female. The average age was 25 (see Table 3).

The questionnaire consisted of three parts. The first part included name of the retailer, the distance of the store to his/her place, and behavioral loyalty. The second section covered questions about relationship proneness, direct mail, preferential treatment, interpersonal communication, tangible rewards, relational satisfaction, perceived relational investment, and store loyalty. The last section contained a few questions on background variables, including age, gender, marriage, and income. The questionnaire for this study was designed in English and translated into Chinese by a bilingual person who is a native speaker of the language. To ensure appropriate translation, the surveys were then back-translated from Chinese to English by a separate translator, and appropriate changes were then made before final distribution to the participants (Douglas & Craig, 1983).

Measures

Perceived relationship investment, relational satisfaction, loyalty, direct mail, interpersonal communication, preferential treatment, and tangible rewards were measured using the 3-item scales developed by De Wulf et al. (2001). The reliability test results showed that relationship proneness, direct mail, interpersonal communication, and tangible rewards had one item each in both samples that was not loading well on the factor and had to be dropped to achieve better Cronbach alpha values (above .60). The other variables had a good reliability alpha (see Table 1). Then the exploratory factor analysis results of the eight variables produced eight-factor solutions in both China and the U.S. groups. Results supported the *a priori* expected eight factor solution and the cross-loadings were relatively weak with only one exception. One of the direct mail items had a relatively high cross-loading on the relationship proneness factor in the China group. However, this item was not discarded due to its stronger identification with the factor.

A series of confirmatory-factor models, with correlation matrices as input, was estimated via LISREL 8.72 (Joreskog & Sorbom, 1993). Table 2 reports the values of the fit statistics. The chi-squares are all significant ($p < .001$; Bollen, 1989). The ratios of chi-square to degree of freedom are 2.09 and 2.05 respectively, within the acceptable range of 2 to 5 (De Wulf et al., 2001). The values for CFI, NNFI, root mean square error of approximation (RMSEA) and standardized root mean residual (SRMR) are acceptably close to the standards used by De Wulf et al. (2001) and Hu and Bentler (1999). Given that the overall fitness of the measures were tested by De Wulf et al. (2001), and given the high level of consistency across samples, no re-specifications of the model were made.

Since the current research compares two samples from two different cultures, the measurement invariance of the relational satisfaction,

Table 1. Constructs and reliability

Variables	Items	α	
		China	USA
Relationship proneness	1). Generally, I am someone who likes to be a regular customer of a store. 2). Generally, I am someone who wants to be a steady customer of the same store.	.751	.846
Relational satisfaction	1). As a regular customer, I have a high-quality relationship with this store. 2). I am happy with the efforts this store is making towards regular customers like me. 3). I am satisfied with the relationship I have with this store.	.895	.815
Relational Loyalty	1). I am willing to “go to the extra mile” to remain a customer of this store. 2). I feel loyal towards this store. 3). Even if this store would be more difficult to reach, I would still keep buying there.	.902	.836
Direct mail	1). This store often sends mailings to regular customers. 2). This store keeps regular customers informed through mailings.	.67	.691
Preferential treatment	1). This store makes greater efforts for regular customers than for nonregular customers. 2). This store offers better service to regular customers than to nonregular customers. 3). This store does more for regular customers than for nonregular customers.	.945	.786
Interpersonal Communication	1). This store takes the time to personally get to know regular customers. 2). This store often holds personal conversations with regular customers.	.905	.809
Tangible rewards	1). This store offers regular customers something extra because they keep buying there. 2). This store offers discounts to regular customers for their patronage.	.856	.778
Perceived relationship investment	1). This store makes efforts to increase regular customers’ loyalty. 2). This store makes various efforts to improve its tie with regular customers. 3). This store really cares about keeping regular customers.	.900	.849

loyalty, preferential treatment, and relationship investment constructs was examined following the procedures by De Wulf et al. (2001) and Steenkamp and Baumgartner (1998). The results show that metric invariance or partial invariance exists and internal consistency and dimensionality of measures exhibit a similar pattern across the two samples. After the two-group analysis provided a rigorous test of the cross-national applicability of the model, hypotheses tests were performed.

Hypotheses Testing

Hypothesis 1, 2, and 3 were tested using t-tests (see Table 3). Hypothesis 1 predicts that the Chinese sample will score higher in relationship proneness than the American one. The results show that there is no significant difference in the mean of relationship proneness between the two samples ($p > .05$) rejecting this hypothesis. Hypothesis 2 predicts that the Chinese will score lower

in perceived relationship investment than their American counterparts. The t-test results show that the hypothesis is supported (3.81 vs. 4.45, $p < .001$). Hypothesis 3 predicts that the Chinese sample will score lower in relational satisfaction

Table 2. Overall model fits

Fit Statistics	UNITED STATES (N=174)	CHINA (N=175)
χ^2	294.88	290.0
df	142	142
χ^2/df	2.09	2.05
GFI	.86	.86
AGFI	.79	.80
RMSEA	.077	.074
SRMR	0.052	0.066
NNFI	.97	.98
CFI	.98	.98

Table 3. Findings of differences between Chinese and U.S. Consumers

Sample characteristics	Chinese	Americans	Test of differences	Results
Sample size	175	174		
Average age	27	25		
Relationship proneness	3.65	3.82	t (347) = 1.681, p=.094	H1 Not supported
Perceived relationship investment	3.81	4.45	t (347) = 4.152, p<.001	H2 Supported
Relational satisfaction	3.61	4.36	t (347) = 4.653, p<.001	H3 Supported
Loyalty	3.90	4.22	t (347) = 1.95, p=.051	
Direct Mail	3.47	3.59	t (347) = 1.201, p=.231	
Preferential treatment	3.54	3.45	t (347) = .56, p=.573	
Communication	3.19	3.45	t (347) = 1.426, p=.155	
Tangible rewards	3.49	3.76	t (347) = 1.37, p=.169	

than the U.S. sample. The results show that the hypothesis is supported (3.61 vs. 4.36, p<.001).

Hypotheses 4a/b predicts that relationship proneness has a main effect on relational satisfaction and store loyalty in both samples. The regression results show that both hypotheses are supported (see Table 4).

Hypotheses 5 through 9 concerned the moderating effect of relationship proneness on the impact of perceived relationship investment, direct mail, interpersonal communication, preferential treatment, and tangible rewards on relational satisfaction. A moderator is a variable (qualitative or quantitative) that affects the direction and strength of the relation between an independent or predictor variable and a dependent variable (Baron & Kenny, 1986). Moderators are sought when there is weak or inconsistent relationship between independent and dependent variables. Moderators can be confirmed only if interaction between moderator and main independent variable is significant. To test the hypotheses, the statistical procedures and criteria of Baron and Kenny (1986) were used. This method has frequently been used by scholars to test the moderating effect in research. The method involves estimating separate regression equations for each level of the

moderator. First, the U.S. and China samples were split into two subgroups respectively according to the respondents' scores of relationship proneness. The two groups of respondents (low and high levels of relationship proneness) in each subsample were tested separately. The regression analyses on the relationship between relationship proneness and dependent variables were conducted for each of the subsamples, and the path coefficients were compared between the two subgroups of each sample. Where a significant difference is observed in the magnitude of the path coefficients, it indicates that relationship proneness may exert a moderating influence on the relation.

The results demonstrate that differences in paths coefficient existed across the groups, sug-

Table 4. Hypothesized results: main effects

Hypotheses	China sample	US sample	Results
H4a: Relationship proneness → Relational satisfaction	β= .35, p<.001	β= .35, p<.001	Supported
H4b: Relationship proneness → Loyalty	β= .48, p<.001	β= .31, p<.001	Supported

gesting that moderating effect of relationship proneness does exist in both samples (see Table 5). Hypothesis 5 predicts that relationship proneness moderates the effect of relationship investment on relational satisfaction. General regression was used on two subgroups of each sample separately. The regression results indicate that there was no difference in path coefficients between the low and high levels of relationship proneness within both samples. Thus, Hypothesis 5 is not supported. Hypothesis 6 predicts that relationship proneness moderates the effect of direct mail on relational satisfaction. The regression results indicate that Hypothesis 6 is supported. The comparison of path coefficients between two subgroups of the China sample indicates that direct mail is positively related to relational satisfaction for consumers with low level of relationship proneness but not for consumers with high level of relationship proneness. There is significant difference of path coefficients in the U.S. sample: direct mail is more positively related to relational satisfaction for consumers with low level of relationship proneness than for consumers with high level of relationship proneness ($\beta = .47$ vs. $\beta = .21$, $p < .001$).

Hypothesis 7 predicts that relationship proneness moderates the effect of preferential treatment on relational satisfaction. The regression results

indicate that there was a difference in path coefficients between the low and high levels of relationship proneness within both samples. Within both samples, preferential treatment has more effect on relational satisfaction for consumers with low levels of relationship proneness. The difference is larger within the U.S., sample suggesting that the moderating effect is stronger with the U.S. consumers ($\beta = .66$ vs. $\beta = .47$, $p < .001$) than the China sample ($\beta = .75$ vs. $\beta = .66$, $p < .001$). Thus, Hypothesis 7 is supported.

Hypothesis 8 predicts that relationship proneness moderates the effect of interpersonal communication on relational satisfaction. The regression results indicate that there was a difference in path coefficients between the low and high levels of relationship proneness within both samples. Within both samples, interpersonal communication has more effect on relational satisfaction for consumers with low levels of relationship proneness. The difference is larger within the U.S., sample suggesting that moderating effect is stronger with the U.S. consumers ($\beta = .75$ vs. $\beta = .65$, $p < .001$) than the China sample ($\beta = .74$ vs. $\beta = .69$, $p < .001$). Thus, Hypothesis 8 is supported.

Hypothesis 9 predicts that relationship proneness moderates the effect of tangible rewards on relational satisfaction. The regression results

Table 5. Hypothesized results: moderating effects

Hypothesized variable	U.S. Sample		China Sample	
	Relationship proneness level		Relationship proneness level	
	Low (n = 68)	High (n = 106)	Low (n = 87)	High (n = 88)
Perceived Relationship Investments	$\beta = .83$ $p < .001$	$\beta = .80$ $p < .001$	$\beta = .71$ $p < .001$	$\beta = .68$ $p < .001$
Direct mail	$\beta = .47$ $p < .001$	$\beta = .21$ $p < .05$	$\beta = .60$ $p < .001$	$\beta = .18$ $p > .05$
Preferential Treatment	$\beta = .66$ $p < .001$	$\beta = .47$ $p < .001$	$\beta = .75$ $p < .001$	$\beta = .66$ $p < .001$
Interpersonal Communication	$\beta = .75$ $p < .001$	$\beta = .65$ $p < .001$	$\beta = .74$ $p < .001$	$\beta = .69$ $p < .001$
Tangible Rewards	$\beta = .70$ $p < .001$	$\beta = .50$ $p < .001$	$\beta = .78$ $p < .001$	$\beta = .77$ $p < .001$

indicate that Hypothesis 9 is partially supported. The comparison of path coefficients between two subgroups of the China sample indicates that relationship proneness does not moderate the effect of tangible rewards on relational satisfaction ($\beta = .78$ vs. $\beta = .77$, $p < .001$). However, there is a significant difference of path coefficients in the U.S. sample: tangible reward is more positively related to relational satisfaction for consumers with low levels of relationship proneness than for consumers with high levels of relationship proneness ($\beta = .70$ vs. $\beta = .50$, $p < .001$).

DISCUSSION

This cross-cultural study investigated consumer relationship proneness between U.S. and China samples and its moderating impact on the effect of perceived relationship investment and relationship building tactics on relational satisfaction. Seven of our nine hypotheses were supported, and one hypothesis is partially supported. Surprisingly, the results did not show support for the first hypothesis: there is no difference in relationship proneness between the Chinese consumers and U.S. consumers, which is not consistent with the cultural theories of Hofstede (1980). This might be explained by the cultural changes taking place in China for the last 30 years. Cross-cultural research suggests that as a nation develops economically, its citizens' self concept tends to shift from collectivism toward individualism and as the gross national product (GNP) grows, its citizens become more individualistic (Hofstede, 1980). Prior research concerning China shows that as a result of modernization, Chinese consumers in Taiwan have shifted from a traditional collectivist self to an individualist and bicultural self (traditional-modern) (Lu, 2008; Lu & Yang, 2006). Consequently, the Chinese self consists of two opposing dimensions: the traditional self (or social-oriented self), which retains the essence of the traditional Chinese self, and the individual-oriented self (Yang, 1996,

2004), which represents the increasing influence of Western culture during the process of societal modernization (Lu, 2008; Yang, 1996). A recent study by Hsu and Nien (2008) also confirms that consumers in Taipei (capital of Taiwan) are more individualist than their Shanghai counterparts, due to the more advanced economic development and more exposure to foreign cultures in Taiwan.

The result of Hypothesis 5 suggested that perceived relationship investment is positively related to relational satisfaction in both samples, but no moderating effect of relationship proneness was found in either the China sample or the U.S. sample. This suggests that perceived relationship investment does not interact with consumer relationship proneness level. However, relationship proneness is found to interact with direct mail, preferential treatment, and interpersonal communication, suggesting that retailers should consider their target markets' relationship proneness levels in implementing those relationship marketing tactics. The only difference between the two samples lies in the moderating effect of relationship proneness on the influence of tangible rewards on relational satisfaction. The moderating effect was not found in the China sample, suggesting that tangible rewards may be equally effective with consumers who are prone to the relationships and who are not. However, relationship proneness is found in the U.S. sample indicating that tangible rewards will be more effective on consumers who are more prone to consumer-store relationship than those who are less prone. This implies that stores should offer more tangible rewards to consumers who are less prone to consumer-store relationships to help improve relational satisfaction of those consumers.

IMPLICATIONS, LIMITATIONS AND CONCLUSIONS

We believe that the results of this study have added breadth and depth to the inadequate empirical literature that has focused on cross-cultural in-

vestments in consumer relationships between the U.S. and China. Several marketing implications are suggested. First, while relationship proneness cannot be controlled by the retailer, segmenting consumers according to levels of consumer relationship proneness could increase the effectiveness of relationship strategies, decrease customers' sensitivity to price, induce greater resistance to counter offers or counter arguments and encourage word-of-mouth support and endorsement (Gaur & Xu, 2009; Parish & Holloway, 2010; Uncles et al., 2003). Careful customer segmentation can help retailers identify valuable relationship-prone consumers who may appreciate a relationship and have a higher tendency to remain loyal. The retailer should not waste resources on targeting unwilling customers. For instance, our data indicates that direct mail has no impact on relationship-prone consumers implying that the store should not use this tactic with them. This finding is consistent with the literature. Previous research concerning direct mail has found that direct mail and TV commercials are among the ads consumers dislike most (Elliott & Speck, 1998). During an interview involving receiving direct mail, nearly 95 percent respondents said that they did not want to receive any advertising mail (Rogers, 1989). Therefore, in the long term, the effect of direct mail on revenue is found to be very limited (e.g., Diepen, Donkers, & Franses, 2009; Rogers, 1996; Stafford, Lippold, & Sherron, 2003).

Second, relationship investment should be carefully considered by global retailers to attract local consumers. Cross-culture research suggests that cultural characteristics are markedly reflected in the behaviors of people and motivational differences across cultures can be striking. However, our results suggest that generation Y consumers from the U.S. and China are not really different in terms of relationship proneness. International retailers may consider using similar relationship strategies with them, although they should employ different strategies with different generational cohorts. To attain profitable shoppers, the international retailer

should first test their strategies on the local consumers before implementing in another market in full scale. Only those relationship investments and strategies that can bring competitive advantage to the store should be utilized (Koza & Dant, 2007; Liu & Yang, 2009).

Theoretically, marketing researchers and practitioners should take cultural changes into consideration when employing cultural theories to understand consumer behavior and predict consumer responses to relationship marketing strategies. Culture is a dynamic phenomenon changing constantly. Our study has confirmed that although the U.S. and China are different cultures, consumer relationship proneness of generation Y cohort is not significantly different across the cultures. Scholars and practitioners should continue to search for unknown cultural mechanisms that may exert greater influence on consumer decision making process of different generations or new theoretical frameworks to explain consumer behavior.

This study has several limitations, and thus it is prudent to caution against over-generalizing the results due to these limitations. First, a potential shortcoming in the study is common method bias. As we used one single questionnaire to measure all constructs included, so the relationships between these constructs may be somewhat inflated. No database information could be used as input for measuring actual behavior. This study could be improved with access to more substantial data on customer purchase histories that are not subject to potential recall loss. Second, this research kept some important variables constant. For example, more tangible elements in the retail mix such as pricing and promotion, product quality and assortment, and service quality could be added as additional antecedents of the customer retention orientation of the retailer. Third, the study could be replicated across different retailers to extend the external validity of the findings. This limits the findings as relevant only to these types of customers and service providers. Future studies need to

assess the generalizability of our findings to other contexts. It would be interesting to investigate how various retail stores could build customers loyalty across different cultures. Furthermore, future research should concentrate on issues that could help management identify, attract and retain relationship prone customers, as they will have strong position involvement, reveal a high affective commitment and will most probably be loyal to the retailer.

In conclusion, the results of this research reveal that there are minimal cultural differences in relationship proneness and effectiveness of relationship investment and tactics between the generation Y cohorts from the U.S. and China. A relationship strategy that works for one culture may work well in another culture. The present research makes theoretical contribution to the international marketing literature by demonstrating that it is possible and appropriate, at least with generation Y consumers, to adopt a universal approach in relationship marketing across cultures. Standardized strategies may benefit both firms and consumers across cultures as much as those culturally customized strategies.

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Chapter 15

Mining Customers Behavior Based on RFM Model to Improve the Customer Satisfaction

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ABSTRACT

Organizations use data mining to improve their customer relationship management processes. Data mining is a new and well-known technique, which can be used to extract hidden knowledge and information about customers' behaviors. In this paper, a model is proposed to enhance the premium calculation policies in an automobile insurance company. This method is based on customer clustering. K-means algorithm is used for clustering based on RFM models. Customers of the insurance company are categorized into some groups, which are ranked based on the RFM model. A number of rules are proposed to calculate the premiums and insurance charges based on the insurance manner of customers. These rules can improve the customers' satisfaction and loyalty as well as the company profitability.

1. INTRODUCTION

Today, competitive privilege includes not only the products and services, but also contains the profitable customer identification and also creation of close and long relationships with customers (Lee & Park, 2005). These relationships are based on

the mutual profit and trust. Under these conditions, companies must try to present particular and customized products and services from every possible channel (Payne & Frow, 2004). To obtain these positions, organizations transform the customer relationship management (CRM) into one of their most important business strategies. The organizations integrate some factors in different parts of businesses and relation points of customers and

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then, conduct them into specific strategies (Lee & Park, 2005). The factors are thoughts, techniques, tools of sales, marketing, and services. Recently, most of well-known companies have utilized the ability of the CRM to develop their market and customers (Lin, Su, & Chien, 2006). This situation converts the CRM into a valuable business. Primitive goals of the CRM are: 1) creation of long and profitable relationships with the selected customers, 2) reducing distances to these customers in each step of the relationship, 3) maximizing the proportion of the company in customers' purses (Choya, Lee, & Lo, 2002).

From the operational point of view, CRM targets are: integration of customers' data and making the data useful, offering these data to parts of the organization which need them, determining the value of customers, and also performing the required operations that increase the customers' loyalty (Helfert & Heinrich, 2003).

In other words, CRM helps the organizations to manage their customers' relationships in an organized manner. Briefly, CRM looks for finding, acquiring, and maintaining the customers. Many companies gather and store data about their customers, suppliers, and partners; but because of inability of these companies to discover hidden and valuable data, these data are not transformed into knowledge. Managers are interested in extracting hidden, reliable, and realizable information from their very big databases and also using this information to increase their profits.

Data mining is a new and powerful technique which can help companies to extract and mine patterns and trends in customers' data, and also improve the customers' relationships. Data mining is one of the well-known tools in the CRM field (Cheng & Chen, 2009). For most people, data mining is a tool to achieve interesting results. Data mining is very useful and meaningful in actual cases.

In recent years, data mining has been converted into a commercial activity. Many techniques in data mining can be divided into basic and rule-

based techniques. Some basic techniques are classification, clustering, association rules, regression analysis, and sequence analysis. Rule based techniques are genetic algorithms, decision trees, fuzzy logic, inductive learning systems, statistical methods, and etc (Witten & Frank, 2005).

In this paper, new policies are proposed to calculate the insurance discounts based on the customers' values. The rest of the paper is organized as follows: Some previous works are briefly reviewed in Section 2. The proposed methodology to extract new insurance policies is discussed in Section 3. Finally, concluding remarks are given in Section 4.

2. RELATED WORKS

The first customer relationship management (CRM) software is launched with Siebel systems in 1998. The CRM has strongly grown in UK and USA (Das, 2009). Gartner defined the CRM as a business approach which maximizes the profitability, income, and loyalty of customers by organizing segments of customers, predicting the behaviors that satisfy customers, and implementation of customer-based processes (Bligh & Turk, 2004). CRM is the best approach in the business and information strategy with the aim of improving the relationship with customers and focusing on customers in organizations (Bull, 2003a, 2003b).

Companies are trying to execute models and build decision support tools to improve marketing activities (Gui & Wong, 2004).

Customers in various groups have different values. CRM decision support tools can help companies to differentiate between valuable and low-value customers. Companies want to maintain and spend resources for valuable and profitable customers (Soopramanien & Juan, 2010). Organizations use the CRM for acquiring and retaining customers, increasing value, loyalty, and retention of customers, and also executing customer-based strategies. CRM can improve the relationship with

customers by analyzing customers' transaction data (Peppard, 2000).

Superior CRM tries to keep the existing customers and also acquiring new ones (Cheng & Chen, 2009). The cost of acquiring a new customer is about five times greater than retaining an existing one (Kotler, 1994; Peppers & Rogers, 1996). This result obviously shows the significance of having close and good relationships with existing customers.

Minami and Dawson proposed a model which indicates a direct effect of CRM on the financial outcome and indirect effects on loyalty marketing. This model is shown in Figure 1.

In 1996, Fayyad et al. explained the knowledge discovery in databases (KDD). The purpose of the KDD is the identification of valid, novel, useful and understandable patterns in data (Fayyad, Piatetsky-Shapiro, & Smyth, 1996; Fayyad, 1997). The KDD consists of several steps such as selection, preprocessing, transformation, data mining, and evaluation. Summarization, predictive modeling, clustering, segmentation/classification, and link analysis are five approach for data mining (Peacock Peter, 1998).

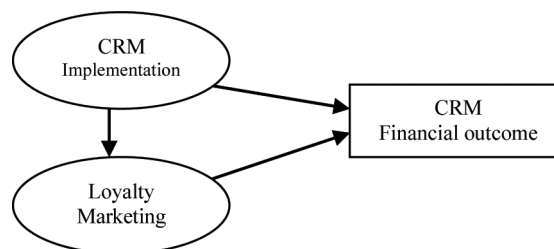
Using customers' data for promoting new techniques is very important. These techniques help the analysis of understanding or visualization of very big datasets (Liao & Chen, 2004).

Data mining is a new technique which can gain knowledge and also extract patterns, associations, changes, and structures from very big databases (Liao, Chen, & Wu, 2008; Liao, Hsieh, & Huang, 2008).

A recent research attempted to develop the classification (Witten & Frank, 2005; Kevork & Vrechopoulos, 2009). Determining the group of valuable customers needs to apply a value analysis method to customers' data (Cheng & Chen, 2009).

The RFM model which was proposed by Kaymak is one of the customer value analysis methods. This model uses some customers' behavior criteria and extracts characteristics of customers (Kaymak, 2001). Furthermore, RFM model can

Figure 1. Structure of CRM implementation and performance



measure the power of customers' relationships (Schijns & Schroder, 1996). Hughest proposed a RFM analytic model to distinguish valuable customers from a huge dataset. RFM has three attributes: R, F, and M (Hughes, 1994).

R, F, and M are the *recency* of the last purchase, the *frequency* of the purchases, and the *monetary* value of the purchases, respectively. Last researches showed that the purchases with higher values of R, F, and M are more valuable (Wu & Lin, 2005).

Cheng and Chen proposed a new procedure based on joining quantitative value of RFM attributes and K-means algorithm with the rough set theory (RS theory) to extract meaning rules. Their purposes are the conversion of continuous attributes into discrete ones to enhance the rough sets algorithm, clustering the customer value as output (customer loyalty), determining the best class with highest accuracy rate, and finding out the characteristics of customers in order to strengthen the CRM (Cheng & Chen, 2009).

Kuo et al. proposed a novel framework of data mining in an insurance industry on a medical database. Their method clustered the data followed by the association rules mining. They employed the ant system-based clustering algorithm (ASCA) and ant K-means (AK) to cluster the data in the first stage. The ant colony system-based association rules mining algorithm was applied to discover the useful rules for each group (Kuo, Lin, & Shih, 2007).

Wu et al. presented a case study, in which KDD/DM was utilized to explore decision rules for a leading insurance company. They used the ID3 classification method as a data mining mechanism to mine decision rules in their database and investigate the potential customers for an existing or a new insurance product (Wu & Lin, 2005).

3. METHODOLOGY

There are several methods to implement data mining projects. An important method is the organization of projects according to the cross industry standard process (CRISP) for data mining. The CRISP methodology is used in this paper. For both experienced and first-time data miners, using the CRISP for data mining will help us to organize and communicate our efforts. Business understanding, data understanding, data preparation modeling, evaluation and deployment are six steps in CRISP. We also perform these steps in our study.

However, the data mining is one of the necessary actions to improve the customers' relationships, having a suitable database is a serious principle. This study constructs a model for implement new policies in insurance industry by clustering customers' values based on RFM attributes. Figure 2 illustrates the research model which is used in this study.

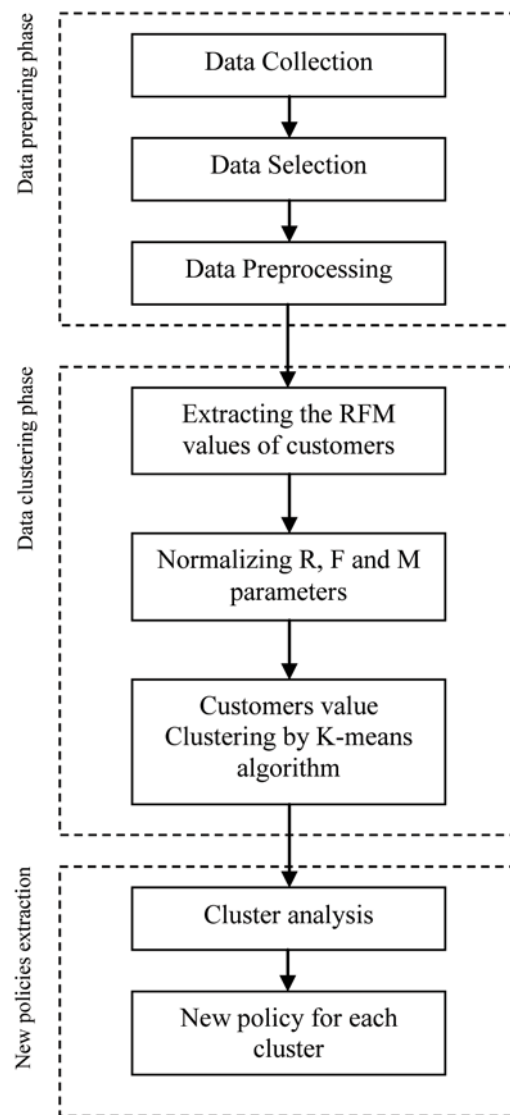
3.1. Initial Dataset

Initial data includes information about the customer, insured car, accidents which occurred in the insurance period, and etc.

3.2. Preprocessing

Because of poor organizing of the database, the preprocessing phase is very time consuming. The gotten experience is very helpful to improving the company's database structure.

Figure 2. The research model



The number of the records in the dataset is 65536 records. Some processes are done in this phase as follows:

- Some fields of records were entered in English and others in Farsi. We equalize all fields in English.
- Missing fields are completed and wrong field contents are corrected.

- All mistakes are corrected after the preprocessing phase and finally an integrated database are made.

3.3. RFM Definition in our Application

R , F and M attributes in the car body insurance industry are defined as follows:

- R (*Recency*) is the amount of time gap between a specific time and the latest request of the customer. In our application in the insurance industry, a customer requests the recompense when an accident occurs for his/her car. Therefore, unlike the purchase transactions in which a shorter recency (later purchasing transaction) is better, in this industry, a longer recency (older recompense requesting) is superior.
- F (*Frequency*) in the case of purchasing transactions is the purchasing frequency of a customer and hence, a high frequency is desirable. In our application, F is the frequency of the customer requests. In other words, a great value of F for a customer shows that he/she had a large number of accidents in a period and thus is not a good customer in the insurance industry. Since recompense requesting of a customer impose a financial cost to the company, lower value of F is more desirable.
- M (*Monetary*) is the summation of all recompenses that the company has paid to a customer. Smaller monetary values impose lower expenses to the company. Although, in the purchasing transaction tasks, a higher monetary (larger total purchasing amount) is better and causes more profit for a company, in our application, a smaller monetary value is more desirable.

With respect to the above definitions, a customer with higher R value and lower F and M values in a period of time is a valuable customer for an insurance company. Since the ID for each customer is uniqueness, values of frequency, monetary and recency for each customer are mined from the dataset. Some instances of R , F , and M values for some customers are given in Table 1. Minimum, maximum, and average values of R , F , and M for all 10624 customers are reported in Table 2.

3.4. RFM Normalization

R , F , and M are non-homogeneous parameters; therefore, to compute the customers' RFM values, these parameters must be normalized. The normalization is performed in two forms with respect to the effects of the parameters on the customer value. The normalization forms are *profit* and *cost* forms (Liu & Shih, 2005) and are shown in (1) and (2), respectively.

Table 1. Some data instances of R , F and M values of customers

ID	Recency	Frequency	Monetary
...
121073	472	2	10329000
167761	556	5	405027000
168658	401	3	23986970
169240	627	1	900000
170319	442	2	200000000
...

Table 2. Minimum, maximum, and average values of R , F , and M in our dataset

	Mean	Min	Max
Recency	312.366	8	647
Frequency	1.279	1	8
Monetary	9217727.256	144000	1180000000

$$X' = (X - X^S) / (X^L - X^S) \quad (1)$$

$$X' = (X^L - X) / (X^L - X^S) \quad (2)$$

where X^S , X^L , and X' are the smallest, largest, and the normalized value of X , respectively. In our application, R positively influences on the customer value. Therefore, the profit form is used to normalize the recency parameter (R). In addition, the cost form is used to normalize the frequency (F) and monetary (M) parameters, because of the negative impacts of F and M on the customer value. The normalized values of R , F , and M are represented by NR , NF , and NM , respectively. These normalized parameters are shown in Table 3.

3.5. Customer Clustering By Using k-Means Algorithm

Clustering is a process that categorizes a large number of different objects. Ideally, after clustering, objects in the same group are similar to each other and different from the objects in other groups (Han & Kamber, 2001). In our application, customers are clustered by using k-means algorithm. K-means is one of the clustering methods and purposed by Forgy (1965). The algorithm of k-means is presented as follows:

1. Specifying K objects for cluster centers.
2. Assigning all objects to these groups based on their distances from the cluster centers. An object is assigned to the cluster whose center is the closest cluster center to the object.
3. Updating the cluster centers: After assigning new objects to a cluster or devote to another cluster, the new center of the corresponding cluster is computed.
4. Repeating step 2 and 3 until no more reassigning.

Table 3. Minimum, maximum, and average values of normalized R , F , and M in our dataset

	Mean	Min	Max
NR	0.476	0	1
NF	0.96	0	1
NM	0.992	0	1

Clustering is performed based on NR , NF , and NM of the customers. Dunn index is used to determine the best number of clusters. Dunn proposed this cluster validity index in (Dunn, 1974). The definition of the Dunn index is represented as follows:

$$D = \min_{i=1, \dots, n_c-1} \left\{ \min_{j=i+1, \dots, n_c} \left(\frac{d(c_i, c_j)}{\max_{k=1, \dots, n_c} (diam(c_k))} \right) \right\} \quad (3)$$

where $d(c_i, c_j) = \min_{x \in c_i, y \in c_j} \{d(x, y)\}$ and

$diam(c_i) = \max_{x, y \in c_i} \{d(x, y)\}$. c_i is the i -th cluster

and n_c is the number of clusters. $d(x, y)$ is the distance between two data elements.

Large distances among different clusters and small diameters of the clusters are two main characteristics of the well-separated clusters (Halkidi, Batistakis, & Vazirgiannis, 2002). Therefore, the largest value of D determines the best clustering configuration. This index is calculated for different numbers of clusters and the results are represented in Table 4. According to these results, the best number of clusters is obtained equal to six clusters.

The number of members for each cluster is shown in Figure 3. Also, the normalized values of R , F , and M parameters of the cluster centers are given in Table 5. The second cluster includes only one member. The reason is that this customer impose very large monetary to the company rather than other customers. It can be observed by comparing the NM values of the second cluster with other clusters in Table 5.

Table 4. The results of Dunn index for different cluster numbers

K	D
3	0.2503191
4	0.4072405
5	0.2474256
6	0.4617681
7	0.3545556
8	0.2673738
9	0.3076459

The insurance company calculates the car body insurance premium with respect to the insured automobile price. For more expensive cars, the premium is greater. The period of insurance premium charge is one year. At the maturity time (beginning of the next insurance period) to compute the premium recharging amount for a customer, not only the price of his/her car, but also his/her insurance history in the company is considered.

A customer may gain some insurance discounts as follows:

- If a customer did not have any car accident in the first year, company grants 25% discount in the recharging amount of the second year. Discounts will increase if his/her good history repeats continuously in the following years. Maximum discount amount is 60% of the first premium amount.
- Upon an accident occurs, even with small damages, if a customer requests and receives the recompense from the company, his/her discount is completely finished for the next year.

This policy is equal in all Iranian insurance companies. Large companies such as the under consideration company with large number of customers and very big and helpful dataset, can

improve satisfaction and loyalty of their customers with a little changes in their policies and programs. Customers' satisfaction is the best advertisement for acquiring new customers.

As discussed earlier, the discount amount depends on the latest request of a customer for receiving the recompense. It means that the policy of companies is programmed only based on the customer recency.

3.6. Proposed Policies

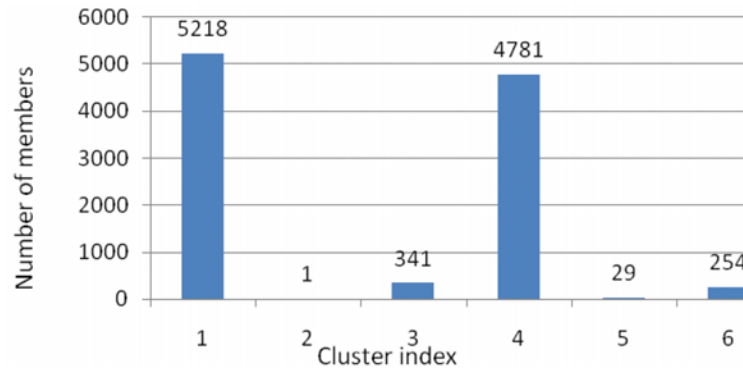
After studying carefully on the useful data, we propose a new policy of the recharge calculation for the company. As discussed in the previous section, if a customer requests the recompense from the company it causes his/her discounts to be completely canceled for the next year. Therefore, with these conditions, if a customer has an accident with a small damage, he/she has to pay his/her recompense for preservation of his/her discount for the next year. This event can decrease the customer satisfaction.

By implementing the new policy, the customer knows that a small recompense request will not cancel all of his/her discounts. Therefore, if an insurance company adjusts its policies, it will improve the customers' satisfaction. Furthermore, it causes acquiring new customers which is the important goal of the CRM.

Table 5. Clusters characteristics

Cluster	K1	K2	K3	K4	K5	K6
\overline{NR}_i	0.65	0.742	0.283	0.293	0.517	0.614
\overline{NF}_i	0.986	1	0.658	0.969	0.926	0.669
\overline{NM}_i	0.994	0	0.98	0.994	0.704	0.975
Q_i	2.63	1.742	1.921	2.256	2.147	2.258
Cluster rank	1	6	5	3	4	2

Figure 3. Clusters of customers



To implement the new policy, the customers must be clustered into some groups based on their values. The value of a customer depends on the number of his/her accidents and the volume of damages that the insurance company has to pay to him/her. For example, if a customer requests a small recompense from the insurance company for an accident, it will not decrease his/her value significantly, therefore his/her discount still remains. But if a customer has some accidents with big damages, he/she is not a valuable customer for the company and his/her discounts must be decreased.

In this paper, we use the RFM characteristics for clustering the customers. Therefore, we can categorize all customers by using their RFM characteristics and then new policies for each cluster can be designed and implemented. These new policies can improve the customer satisfaction and also the level of the customer relationship management in the company.

Table 6. The characteristics of two example new customers

	R^*	F^*	M^*
Customer 1	360	1	1450000
Customer 2	370	3	445419000

An *eligibility* parameter is defined to determine the value of each cluster. This parameter is calculated as follows:

$$Q_i = \overline{NR}_i + \overline{NF}_i + \overline{NM}_i \quad (4)$$

where \overline{NR}_i , \overline{NF}_i , and \overline{NM}_i are the normalized values of the recency, frequency, and monetary of the i -th cluster center, respectively. Q_i is the measured eligibility criterion for the i -th cluster. Higher value of this criterion indicates that the corresponding cluster is more valuable. Computed eligibility values of the clusters are shown in Table 5. The clusters are ranked based on these eligibility values.

According to the results given in the last row of Table 5, it can be deduced that the first cluster is the most valuable and profitable cluster. The second cluster is the worst cluster according to its least eligibility criterion among all clusters. Sixth cluster is very good cluster because of its

Table 7. The normalized characteristics of two example new customers

	NR^*	NF^*	NM^*
Customer 1	0.551	1	0.999
Customer 2	0.567	0.714	0.623

Figure 4. Distribution of customer genders in clusters

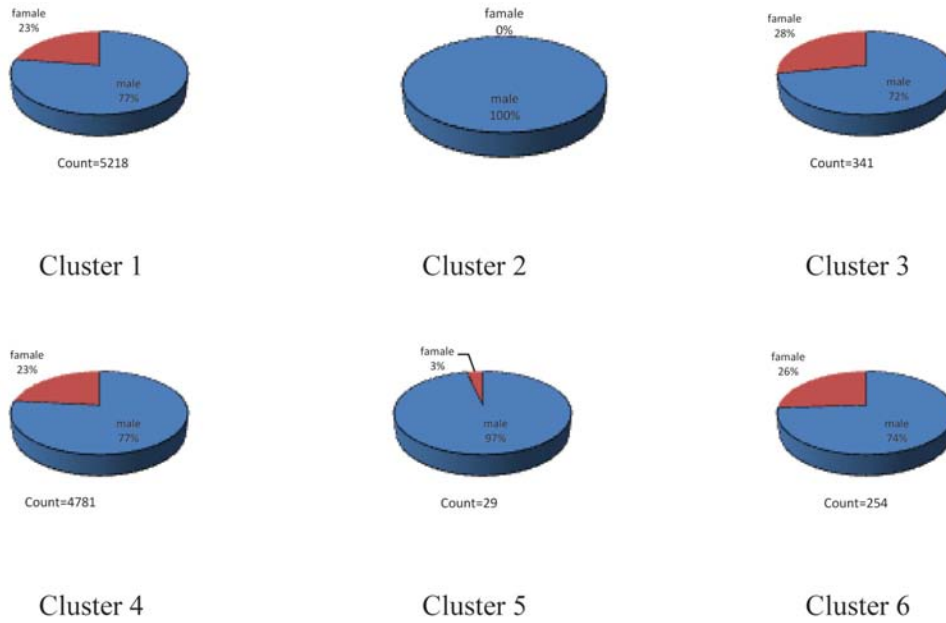


Figure 5. Distribution of different customers' age categories in clusters

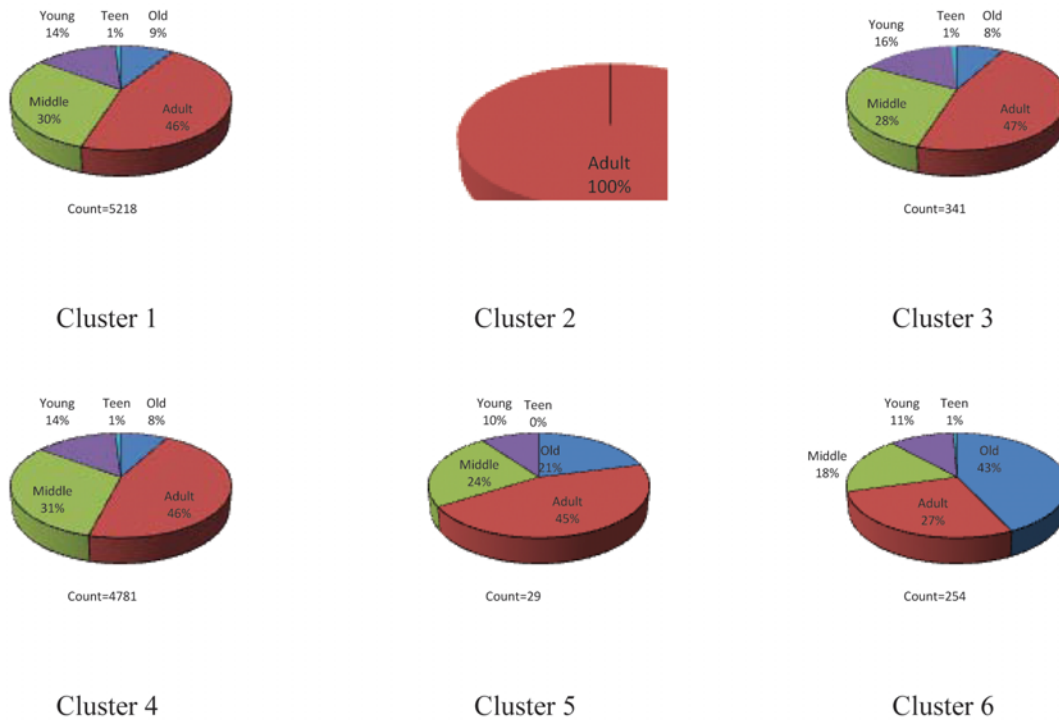
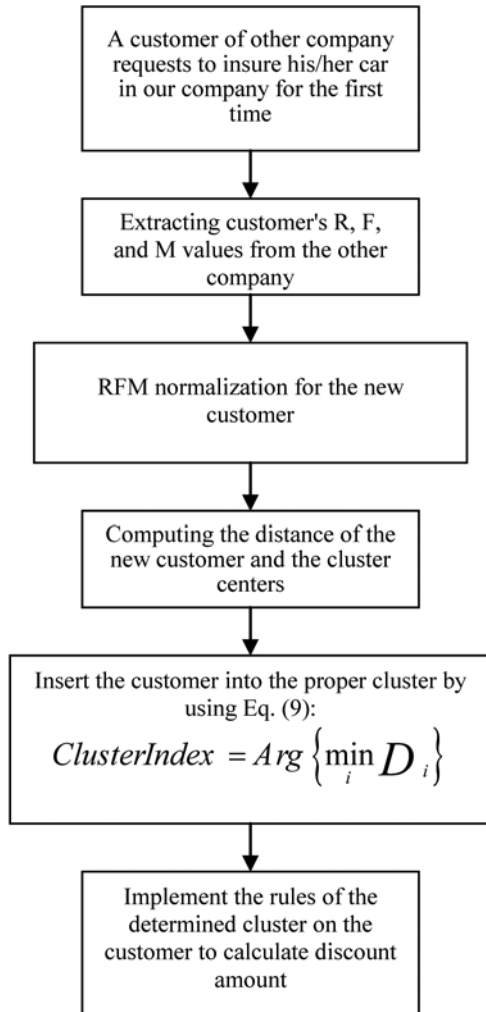


Figure 6. Framework of the proposed method for new customers



high eligibility value. The fourth cluster is not advisable one and the fifth cluster has normal value. Third cluster is not a good cluster.

Our experiments show that the values of the clusters are independent to the gender and age

of the customers. Figures 4 and 5 respectively show different categories of genders and ages of the customers in different clusters. It can be observed that in each of these two charts, the ratios between different categories in various clusters are approximately equal.

As an example, in Figure 4, in all six clusters, about 77% of the customers are male and the rests (about 23%) are female. It demonstrates the independency of the clusters' eligibilities to the customers' genders. Similar results are obtained for the customers' ages. Hence, we find that the policies of discount calculation should be independent to the genders and ages of the customers.

The current policy of the Iranian insurance companies is that the discounts may give to the customers who have insured their cars in the same company for continuous years. In other words, if a customer changes his/her insurance company, he/she must pay the complete premium and no discounts are given to him/her in the first year.

Our second offer is that the company gives discount even to the costumers who were not insured their cars in the same company. That means if a customer of other insurance company decides to insure their cars in our company for the first time, we gives discounts to him/her proportional to his/her insurance manner or history in his/her previous company.

A simple method is that we assume the customer was insured his/her car in our company and thus, the two above-mentioned offers can be used to calculate the discount amount. In this way, to execute the proposed method on a sample new customer, we have to determine that the customer is belonged to which of the clusters. For this purpose, *R*, *F*, and *M* values of the customer

Table 8. The distances between two new customers and all clusters' centers

	D_1	D_2	D_3	D_4	D_5	D_6
Customer 1	0.100109	1.017094	0.434912	0.259903	0.306034	0.337795
Customer 2	0.467454	0.707495	0.459609	0.531747	0.232389	0.357963

are taken from the previous company. These parameters should be first normalized as follows:

$$NR^* = \frac{R^* - R^S}{R^L - R^S} \quad (5)$$

$$NF^* = \frac{F^L - F^*}{F^L - F^S} \quad (6)$$

$$NM^* = \frac{M^L - M^*}{M^L - M^S} \quad (7)$$

Then, the distance between the customer and each cluster center should be calculated. The minimum distance determines the cluster which the customer belongs to it. The Euclidean distance measure is used to calculate the distances.

$$D_i = \sqrt{(NR^* - \overline{NR}_i)^2 + (NF^* - \overline{NF}_i)^2 + (NM^* - \overline{NM}_i)^2} \quad (8)$$

Minimum distance between the customer and the clusters' centers determines the customer's cluster. The index of the customer's cluster is obtained as follows:

$$ClusterIndex = Arg \left\{ \min_i D_i \right\} \quad (9)$$

After determining the customer's cluster, the rules which have been extracted for this cluster are applied to the customer. In other words, the discount is calculated based on the determined cluster for the customer. The structure of these processes is shown in Figure 6. Two instance of cluster determining for a new customer are explained in the following:

The extracted characteristics of two new customers from their previous companies are given in Table 6. Their normalized characteristics are shown in Table 7. Table 8 shows the distances between these two customers and all clusters centers. According to the distance values listed in Table

8, the clusters of the *customer 1* and *customer 2* are the first and fifth clusters, respectively. It means that the company, according to the new clusters law, gives the different discount amounts to *customer 1* and *customer 2*.

4. CONCLUSION

In this paper, an approach is proposed to improve the customers' satisfaction and loyalty and also the profits of the insurance company. In our proposed approach, the discounts should be calculated based on the latest recompense requesting date, total amounts of the paid recompense to the customer, and also the number of customer's accidents. Moreover, the company gives discounts even to the costumers who have insured their cars in other companies in last year. In these cases, the discounts are proportional to their insurance manner or history in their previous companies. Surely, the implementation of these policies not only improves the customers' satisfaction and loyalty, but also increases the company profits and income. Moreover, implementing the second offer increases the new customer acquiring for the company.

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Chapter 16

Investigating Switching Cost Roles in Determining Loyalty in the Mobile Telecommunications Market

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ABSTRACT

The paper evaluates various roles (direct antecedent, mediator or moderator) of perceived switching costs in determining customer loyalty in the mobile telecommunications market. Data were collected through a field survey of mobile phone users in Pakistan. Structural equation modeling was used to evaluate hypothesized relationships. Perceived switching costs were found to play all three roles. Findings suggest that perceived switching costs directly influence customer loyalty, mediate the impacts of perceived service quality, value, and trust on customer loyalty and negatively moderate the relationships of satisfaction and perceived service quality with customer loyalty. Implications of these findings are discussed.

INTRODUCTION

Loyal customers are vital to the success of organization since they award suppliers with increased revenues from price premiums, customer referrals, reduced operating costs, increased purchases, and

greater balances (Reichheld & Sasser, 1990). In mobile telecommunications, loyal customers are especially important because of increasingly intense competition. To develop a loyal customer base, managers use several strategies, the imposition of high switching costs a common one (Jones, Mothersbaugh, & Beatty, 2000; Yang & Peterson, 2004). When switching costs are high, even dissatisfied customers continue relationships

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with current service providers (Jackson, 1985). Switching costs reduce customer sensitivity to satisfaction levels (Hauser, Simester, & Wernerfelt, 1994), perceived service quality and value (Wang, 2010), and trust (Aydin, Ozer, & Arasil, 2005). They help service providers retain customers in times of inevitable, temporarily sub-optimal performance. Switching costs are also valuable to firms with satisfied customers; these firms want protection against switching due to changes in perceptions (Jones et al., 2000; Wang, 2010). For these reasons, switching costs recently gained more attention from researchers investigating development of customer loyalty.

Research into switching costs inconsistently conceptualizes the roles of perceived switching costs in determining customer loyalty. Many authors (Huan, Xu, & Li, 2005; Kim, Park, & Jeong, 2004; Seo, Ranganathan, & Babad, 2008) consider switching costs a direct antecedent of customer loyalty. Others (Aydin et al., 2005; Wang, 2010; Yang & Peterson, 2004) regard it as a moderator that influences the relationships between customer loyalty and various antecedents. Still others (Aydin & Ozer, 2005; de Matos, Henrique, & Rosa, 2009; Zeng & Zhang, 2008) examine switching costs as a mediating variable that explains the underlying relationships between customer loyalty and other variables.

Given prominent use of switching costs as an instrument for customer loyalty, it is desirable to know what role and to what extent they play in determining customer loyalty. Few studies exist that simultaneously consider all three switching costs' roles, especially in modelling customer loyalty. Only recently, de Matos et al. (2009) investigate these roles in a single satisfaction-loyalty model.

To understand the complex nature of the interrelationships among switching costs and other factors, this study proposes and tests a model that allows for assessment of the roles perceived switching costs play in customer loyalty in the mobile telecommunications market.

CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

This paper adopts the attitudinal approach to customer loyalty, reflected and measured by customer preference, likelihood to recommend, and intention to re-patronize a preferred service. Several authors advocate this approach because it emphasizes cognitive and affective loyalty aspects and differentiates true from spurious loyalty (de Matos et al., 2009; Javadein, Khanlari, & Estiri, 2008). Adoption of this attitudinal concept also allows use of cross-sectional data available for this study.

There are many possible antecedents of customer loyalty in general services industries. Research into mobile phone industries over the last decade suggests a number of factors that influence customer loyalty (see Table 1).

Since this study investigates the roles of perceived switching costs, a model must include (1) all direct impacts of these factors - including switching costs - on customer loyalty, (2) all direct impacts of the other factors on switching costs itself that explain the mediating role of switching costs, and (3) the moderating impacts of switching costs on the relationships of other factors with customer loyalty. Figure 1 presents such a model and is followed by explanations of the constructs and hypothesized relationships.

THE ANTECEDENTS OF CUSTOMER LOYALTY

Perceived Switching Costs

Switching costs are costs customers bear when switching from one service provider to another (Burnham, Frels, & Mahajan, 2003); they include both monetary and non-monetary expenses (Burnham et al., 2003; Dick & Basu, 1994; Lam, Shankar, Erranmilli, & Murthy, 2004). In markets with high switching costs, customers tend to buy

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Table 1. Antecedents of customer loyalty in the mobile telecommunications market

Antecedents	Studies Involving Antecedents of Customer Loyalty											
	1	2	3	4	5	6	7	8	9	10	11	12
Perceived switching costs	√	√						√	√	√	√	
Customer satisfaction		√	√	√	√	√	√	√	√	√	√	√
Perceived service quality	√			√					√			
Perceived value				√			√		√			√
Trust	√	√										
Corporate image						√						

Note: 1-Aydin and Ozer (2005), 2-Aydin et al. (2005), 3- Lee, Lee, and Feick (2001), 4- Wang, Lo, and Yang (2004), 5- Gerpott, Rams, and Schindler (2001), 6-Turkyilmaz and Ozkan (2007), 7-Wang and Lo (2002), 8-Kim et al. (2004), 9-Huan et al. (2005), 10-Seo et al. (2008), 11-Edward et al. (2010), 12-Lai et al. (2009)

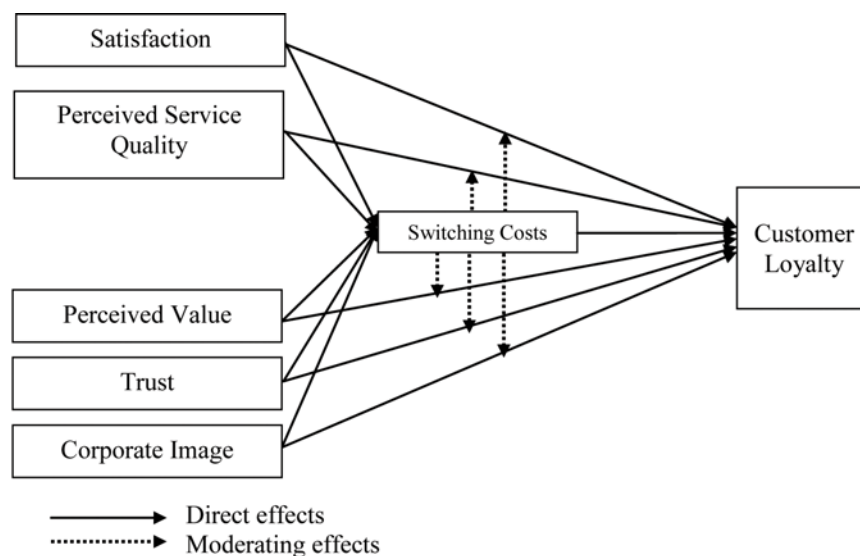
the same brand they are already using even though functionally-identical and cheaper brands exist (Klemperer, 1987). Therefore, perceived switching costs are expected to positively influence customer loyalty as evidenced by many authors (Aydin et al., 2005; Chou & Lu, 2009; de Matos et al., 2009; Edward, George, & Sarkar, 2010; Kim et al., 2004):

H1: Customers' perceived switching costs have a positive effect on customer loyalty.

Customer Satisfaction

The service marketing literature commonly identifies customer satisfaction as an antecedent to customer loyalty. It is an affective assessment based on the purchase and consumption experiences of a product over a period instead of at specific service encounters or purchase occasions (Anderson, Fornell, & Lehmann, 1994; Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Johnson & Fornell, 1991). This cumulative approach was chosen since it offers a holistic picture of customer

Figure 1. Conceptual model of the study



satisfaction, a concept likely to positively impact loyalty and suggested by many studies (Cronin, Brady, & Hult, 2000; Edward, et al., 2010; Jones et al., 2000; Homburg & Giering, 2001; Kassim & Abdullah, 2008; Kim et al., 2004; Wang & Xu, 2008; Yang & Peterson, 2004). Therefore, it is assumed that:

H2: Satisfaction has a positive effect on customer loyalty.

Perceived Service Quality

Following Cronin and Taylor (1992) and Teas (1993), this study adopts the SERVPERF (performance-only) based approach to define and measure service quality instead of the SERVQUAL (performance perceptions minus expectations) approach. Perceived service quality is defined as a customer's judgment of the overall excellence or superiority of certain service providers' performance (Cronin & Taylor, 1992; Teas, 1993). Through good service quality, firms improve customer intentions to buy again, buy more, be less sensitive to price increases, and recommend services to others (Venetis & Ghauri, 2000). All of these factors constitute customer loyalty (Aydin & Ozer, 2005), which is enhanced by improving perceived service quality. Many authors in various industries support this relationship (Aydin & Ozer, 2005; Fassnacht & Kose, 2007; Huan et al., 2005). Therefore, it is hypothesized that:

H3: Perceived service quality has a positive effect on customer loyalty.

Perceived Value

Perceived value is the consumer's perception of utility in comparison to what is exchanged for a product (Zeithaml, 1988). Based on goal and action identity theories, super-ordinate goals regulate subordinate goals. Perceived value is a super-ordinate goal and customer loyalty is a

subordinate goal since it is a behavioural intention. Therefore, perceived value regulates the behavioural intention of loyalty toward service providers (Sirdeshmukh, Singh, & Sabol, 2002). The positive effect of perceived value on customer loyalty is suggested by numerous studies (Fassnacht & Kose, 2007; Huan et al., 2005; Lai, Griffin, & Babin, 2009; Lin & Wang, 2006; Yang & Peterson, 2004). Therefore, it is proposed that:

H4: Perceived value has a positive effect on customer loyalty.

Trust

Trust is the eagerness of a party to be susceptible to the actions of another with the belief that the action is important to the trustee, irrespective of the ability of the trustor to monitor or control the other party (Mayer, Davis, & Schoorman, 1995). The trust of one party toward another is indication of a positive attitude. Thus, when customers trust a particular service provider, they build a positive buying intention toward the brand (Lau & Lee, 1999). This demonstrates a positive relationship between trust and customer loyalty (Aydin & Ozer, 2005) and is espoused by studies in service industries (Aydin & Ozer, 2005; Fassnacht & Kose, 2007; Kassim & Abdullah, 2008; Lin & Wang, 2006; Yieh, Chiao, & Chiu, 2007). Therefore, it is hypothesized that:

H5: Trust has a positive effect on customer loyalty.

Corporate Image

Corporate image is an impression held in the minds of the public about a firm (Barich & Kotler, 1991); it is a process outcome that starts with ideas, feelings, and consumption experiences with a firm that are retrieved from memory and transformed into mental images (Yuille & Catchpole, 1977). According to Fishbein and Ajzen (1975), attitudes are related functionally to behavioural intentions,

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which predict behaviour. Since corporate image is an attitude, it affects behavioural intentions such as customer loyalty (Johnson et al., 2001) and indicates a positive relationship between corporate image and customer loyalty. Many studies (Kristensen, Gronholdt, & Martensen, 2000; Juhl, Kristensen, & Ostergaard, 2002; Nguyen & Leblanc, 2001) support a positive link between corporate image and customer loyalty. Therefore, it is hypothesized that:

H6: Corporate image has a positive effect on customer loyalty.

The Antecedents of Switching Costs

When customers are satisfied with a service provider, perceive quality services, think that they are getting value, develop trust with that service provider, and enjoy its corporate image, then they believe it is risky to switch to a new service provider. The reason is the services of the new service provider may not meet expectations. This feeling of risk is a type of perceived costs customer face when switching to a new service provider and prevents them from switching. When perceived satisfaction, quality, and value are high, the risk is also high; the higher the risk, the higher are perceived switching costs. Customers with higher levels of satisfaction, perceived service quality, and perceived value exhibit greater perceived switching costs. The studies of de Matos et al. (2009) and Zeng and Zhang (2008) indicate a positive influence of satisfaction on perceived switching costs. Research Aydin and Ozer (2005) and Chou and Lu (2009) suggests a positive relationship between perceived service quality and perceived switching costs. Therefore, it is assumed that:

H7: Satisfaction has positive effect on perceived switching costs.

H8: Perceived service quality has a positive effect on perceived switching costs.

H9: Perceived value has a positive effect on perceived switching costs.

H10: Trust has a positive effect on perceived switching costs.

H11: Corporate image has a positive effect on perceived switching costs.

Moderating Role of Switching Costs

According to the economic model of buyer behaviour, customers evaluate the costs and benefits of all decisions (Hauser & Wernerfelt, 1990). One inference of this model is that as customers' perceived switching costs increase, they outweigh the perceived benefits of switching arising from dissatisfaction with the service provider. Thus, when perceived switching costs are high, even dissatisfied customers stay with the service provider since the perceived costs of switching outweigh the benefits of switching. This implies that perceived switching costs negatively moderate the relationship between satisfaction and customer loyalty. Given the high correlations of perceived service quality, value, trust, and corporate image with customer satisfaction, perceived switching costs affect the associations of these factors with loyalty in the same way they do the relationship between satisfaction and customer loyalty. Therefore, the following moderating effects are assumed:

H12: The relationship between satisfaction and customer loyalty is weaker for customers with high switching costs as compared to those with low switching costs.

H13: The relationship between perceived service quality and customer loyalty is weaker for customers with high switching costs as compared to those with low switching costs.

H14: The relationship between perceived value and customer loyalty is weaker for customers with high switching costs as compared to those with low switching costs.

H15: The relationship between trust and customer loyalty is weaker for customers with high switching costs as compared to those with low switching costs.

H16: The relationship between corporate image and customer loyalty is weaker for customers with high switching costs as compared to those with low switching costs.

METHODOLOGY

Measurements

To measure the constructs of the study, scales were adapted from extant literature. For customer loyalty, a multi-item scale developed by Narayandas (1996) was used that includes three operational measures: (1) repurchase intention (next use), (2) resistance to switching to competitor's product that is superior to the preferred vendor's product, and (3) willingness to recommend preferred vendor's product to friends and associates. Customer satisfaction was measured with a multi-item scale developed by Cronin et al. (2000) and perceived service quality with a subset of a scale developed by Kim et al. (2004), which includes four operational measures: (1) call quality, (2) value-added services, (3) customer support, and (4) convenience in procedures. Perceived value was measured with a scale from Lai (2004) and trust was captured by adapting the scale developed by Aydin and Ozer (2005), which includes four operational measures including reliability, ethics, service quality (of billing system only), and cumulative process. For the perceived switching costs, the scale used by Aydin and Ozer (2005) was used; it includes five types of costs, which make up overall perceived switching costs: (1) perceived monetary costs, (2) uncertainty, (3) evaluation, (4) learning, and (5) set-up costs. Finally, a scale used by Aydin and Ozer (2005) was used to measure corporate image. The constructs and items are summarized in the first column of Table 3.

Questionnaire Design and Data Collection

The questionnaire consisted of forty items of which thirty-three related to the constructs and seven captured demographics. A five-point Likert scale was used to measure the latent constructs with "strongly disagree" and "strongly agree" as the anchors. The measurement items of the constructs are presented in the first column of Table 3.

A field survey of mobile phone users was conducted in the Province of Punjab in Pakistan; four cities and four villages were selected for data collection. Punjab is the largest province in terms of population and includes about 60% of the total mobile phone users of Pakistan. All of the five mobile phone operators in the country - Mobilink, Ufone, Zong, Telenor, and Warid - provide competitive services in the Province. To minimize sampling bias in the study and obtain a representative sample, mobile phone users were selected based on different age groups, genders, educational levels, income levels, marital statuses, and areas of residence. Mobile phone users were also selected from cities with different characteristics, specifically from two big and two small cities. The study made certain that the cities were located in different parts of the province, specifically from the upper, central, and lower parts of Punjab. Approximately seven hundred questionnaires were distributed of which five-hundred ninety-four were returned. Among the responses, twenty-six were incomplete and excluded from the sample, resulting in a sample size of five-hundred sixty-eight responses. Characteristics of the sample are shown in Table 2.

Analytical Techniques

Structural equation modelling (SEM) was selected to estimate the direct, mediating, and moderating roles of perceived switching costs in determining customer loyalty. Compared with more common regression analyses, SEM corrects measurement

Table 2. Sample characteristics

Variable	Criteria	Frequency	%
Age	= < 30 years	305	53.7
	> 30 years	263	46.3
Gender	Male	335	59
	Female	233	41
Income (in Pak Rupee)	= < 10, 000	304	53.5
	> 10, 000	264	46.5
Education	Up to college level	316	55.6
	University level	252	44.4
Marital status	Unmarried	279	49.1
	Married	289	50.9
Area of residence	Urban	277	48.8
	Rural	291	51.2
Profession	Job	214	37.7
	Student	123	21.7
	Business	106	18.7
	Household ladies	69	12.1
	Farming	49	8.6
	Any other	7	1.2
Mobile Phone Operator	Mobilink	202	35.6
	Ufone	121	21.3
	Telenor	118	20.8
	Warid	93	16.4
	Zong	34	6.0

errors in the estimation process (Hair, Black, Babin, Anderson, & Tatham, 2006; Lam et al., 2004). Many researchers advocate SEM (Homburg & Geiring, 2001; Kline, 2005) and have used it extensively in recent marketing research (Kassim & Abdullah, 2008; Lai et al., 2009; Walsh, Evanschitzky, & Wunderlich, 2008; Yieh et al., 2007).

To estimate and test significance of indirect effects, we follow Preacher and Hayes (2004; 2008) and use bootstrapping procedure. This approach establishes the confidence interval of the product of two direct effects between the predictor and mediator and the mediator and the dependent variable through a re-sampling process. The mediation effect is significant if zero is not included in the

confidence interval. Many authors recommend this procedure (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002, 2004) due to higher power while maintaining reasonable control over Type 1 errors. In addition, bootstrapping does not impose the assumption of normality of the sampling distribution and is appropriate for small and medium samples.

To test the moderating effects of perceived switching costs on the relationships between customer loyalty and its antecedents, multi-group analysis in SEM was conducted using a χ^2 -difference approach as suggested by Byrne (2010). The first step split mobile phone users into low and high-switching costs subgroups and then assessed whether a difference in χ^2 values between the non-restricted model (all regression paths in the model are free across subgroups) and the restricted one (all regression paths in the model are fixed across subgroups) was significant, indicating a moderating effect. Once a moderating effect was confirmed, further analyses were conducted to find moderating effect for each relationship individually. Again, significantly different χ^2 values between non-restricted and restricted relationships were assessed. Although the use of multi-group analysis results in some loss of information on the switching costs variable that could be retained by a more conventional moderated regression analysis, the method was selected since all constructs used in the model are latent (Homburg & Giering, 2001).

MEASURES VALIDATION

Confirmatory factor analysis (CFA) was performed to assess the validity of the constructs, summarized in Tables 3 and 4. It should be noted that in the context of scale validation, CFA is superior to more traditional criteria - such as coefficient alpha - since less restrictive assumptions apply (cf. Homburg & Giering, 2001; Bagozzi, Yi, & Phillips, 1991).

Table 3. Results of the confirmatory factor analysis (CFA)

Constructs and Scale Items	Loading	CR	AVE
Customer loyalty 5. I will continue using service of this mobile operator. 6. If I buy a new mobile connection, I would prefer this mobile operator. 7. I recommend this mobile operator to others. 8. Even if the other operators' billing is cheaper, I would go on using service of this mobile operator.	0.72 0.80 0.79 0.64	0.79	0.55
Customer satisfaction 4. My choice to subscribe this mobile operator is a wise one. 5. I think I did the right thing when I subscribed to this mobile operator. 6. Overall, I am satisfied with services of this mobile operator.	0.76 0.81 0.71	0.82	0.58
Perceived service quality 6. My mobile operator provides sufficient geographical coverage. 7. I get clear and undisturbed voice. 8. My mobile operator provides a variety of value-added services. 9. The staff of my mobile operator treats me friendly when I report a complaint. 10. It is easy to subscribe or change a service.	0.49 ^a 0.78 0.75 0.83 0.76	0.89	0.61
Perceived value 5. By using services of this mobile operator at this price, I am getting my money's worth. 6. I feel I am getting good mobile phone service for a reasonable price. 7. I feel that subscribing to this mobile operator meets both my high quality and low price requirements. 8. I would value this mobile operator as it meets my needs for a reasonable price.	0.76 0.80 0.86 0.87	0.89	0.67
Trust 5. I feel that I can rely on this mobile operator to serve me well. 6. I trust the billing system of this mobile operator. 7. I believe that this mobile operator will not try to cheat me. 8. My mobile operator is reliable because it is mainly concerned with customer's interests.	0.74 0.76 0.72 0.77	0.86	0.56
Perceived switching costs 8. Switching to a new mobile operator causes monetary cost. 9. If I switched to a new mobile operator, the service offered by the new mobile operator might not work as well as expected. 10. I am not sure that the billing of a new mobile operator would be better for me. 11. To switch to a new operator; I should compare all mobile operators (on account of services, coverage area, billing, etc.). 12. Even if I have enough information, comparing the mobile operators with each other takes a lot of energy, time and effort. 13. If I switched to a new mobile operator, I could not use some services (MMS, GPRS, WAP, etc.), until I learned to use them. 14. I would be concerned about the people who would dial my previous number and could not reach me.	0.63 0.73 0.71 0.45 ^a 0.58 0.55 0.42 ^a	0.75	0.42
Corporate image 6. My mobile operator is stable and firmly established. 7. My mobile operator is innovative and forward-looking. 8. My mobile operator has a social contribution for society. 9. My mobile operator is a leading firm in the mobile telecommunications market of Pakistan. 10. My mobile operator has a positive image.	0.71 0.59 0.63 0.66 0.73	0.82	0.44

Notes: ^a These items are dropped since their factor loadings are less than 0.50. AVE = Average Variance Extracted, CR = Construct Reliability

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Investigating Switching Cost Roles

Following Hair et al. (2006), construct validity was analyzed by examining convergent, discriminant, and nomological validities. As shown in Table 3, the majority of the factor loadings are well above the minimum criteria of 0.5 (Hair et al., 2006). Since three items did not meet the threshold value, these were dropped during subsequent analyses. Except for perceived switching costs and corporate image, the average variance extracted (AVE) for all constructs are above the recommended value of 0.5. However, this is not a major concern since other tests for convergent validity show that these constructs converge adequately. Since the construct reliability (CR) values for all constructs are well above the suggested 0.7 value, this indicates internally reliable constructs. The AVE estimates of each construct (see Table 3), which are greater than the squared inter-construct correlation estimates of the corresponding construct (values above the diagonal in Table 4), provide evidence of discriminant validity (Hair et al., 2006). In the directions predicted, the correlations among the constructs in the model exhibit nomological validity (see Table 4).

ANALYSIS AND FINDINGS

Figure 2 represents the structural model estimated using AMOS. The results demonstrate that although the χ^2 value (847.06) was significant ($p < 0.00$), the ratio of χ^2 to degrees of freedom ($\chi^2/df = 2.38$) was below the cut-off value of 3, indicating that the model is acceptable (Kline, 2005). An assessment of other fit indices such as GFI (0.91), CFI (0.94), NFI (0.90), and NNFI (0.93) indicate that all were above the threshold point of 0.9 (Kline, 2005). RMR (0.04) and RMSEA (0.05) were equal to or less than benchmark values of 0.05 and 0.08, respectively (Kline, 2005, Lam et al., 2004). Overall, these fit indices provide evidence that the data fit the model well.

Direct Effects

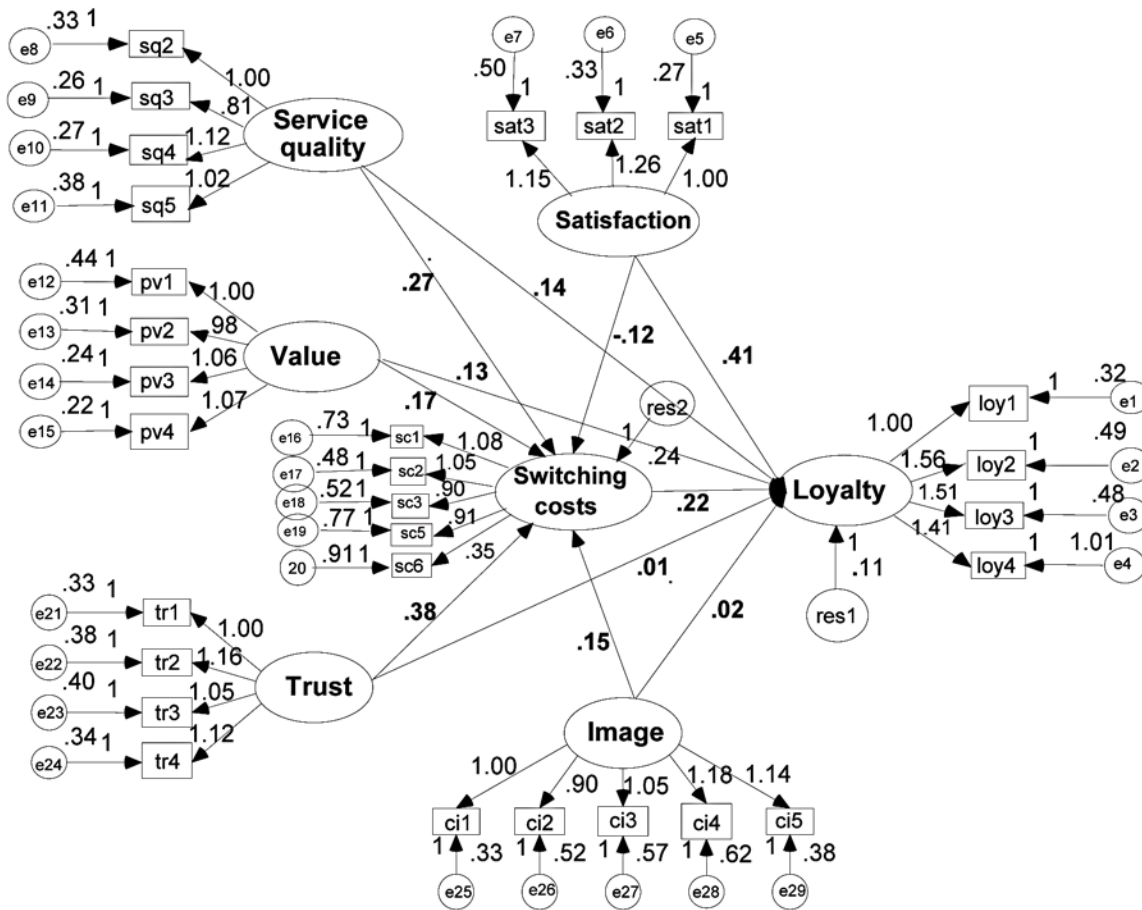
Table 5 shows that the direct impacts of satisfaction, perceived service quality, perceived value, and perceived switching costs on customer loyalty were very significant at $p < 0.01$, while that of trust and corporate image were insignificant. Among the antecedents of customer loyalty, satisfaction influenced it most significantly, while perceived service quality and value affected it least significantly. Perceived switching costs stood between satisfaction and perceived service quality and value as an explanation of customer loyalty. Overall,

Table 4. Correlation coefficients

	Loyalty	Satisfaction	Service Quality	Perceived Value	Trust	Switching Costs	Corporate Image
Loyalty	1	0.53	0.42	0.44	0.35	0.37	0.25
Satisfaction	0.73	1	0.37	0.36	0.27	0.16	0.20
Service Quality	0.65	0.61	1	0.25	0.23	0.27	0.20
Perceived Value	0.66	0.60	0.50	1	0.53	0.34	0.30
Trust	0.59	0.52	0.48	0.73	1	0.40	0.38
Switching Costs	0.61	0.40	0.52	0.58	0.63	1	0.26
Corporate Image	0.50	0.45	0.45	0.55	0.62	0.51	1

Note: All values below the diagonal are correlation coefficients; above the diagonal, squares of the coefficients are shown.

Figure 2. Structural model



these antecedents explained 69% of the variance in customer loyalty.

Regarding the direct impact of various factors on switching costs, all factors except satisfaction affected it significantly at $p < 0.05$. Among significant factors, trust affected perceived switching costs most significantly, than perceived service quality, and finally perceived value and corporate image with nearly equal influence. Overall, these factors explained 48% of the variance in perceived switching costs.

The significant direct impacts of satisfaction, perceived switching costs, perceived service quality, and perceived value on customer loyalty supported extant studies (Aydin & Ozer, 2005; Fassnacht & Kose, 2007; Huan et al., 2005; Kim et al., 2004; Lai et al., 2009; Lin & Wang, 2006;

Yang & Peterson, 2004). The non-significant impact of corporate image on customer loyalty was consistent with Aydin and Ozer (2005) and Lai et al. (2009) in their studies of Turkish and Chinese mobile telecommunications. However, the non-significant effect of trust on customer loyalty was not consistent with the findings of Aydin and Ozer (2005). Such inconsistency could be due to the type of mobile phone users (pre and post-paid) in the two countries. In Pakistan, the share of post-paid mobile phone users is 2% (Pakistan Telecommunication Authority, 2010) of the market; in Turkey, this figure is about 43% (Aydin & Ozer, 2005). Generally, post-paid mobile phone users develop a closer relationship with their service providers in comparison to pre-paid users, thereby giving more importance to trust.

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Table 5. Analysis of direct effects

Direct Effects	Regression coefficients	P-values
Perceived switching costs Loyalty (H1)	0.22***	0.000
Satisfaction Loyalty (H2)	0.41***	0.000
Perceived service quality Loyalty (H3)	0.14***	.001
Perceived value Loyalty (H4)	0.13**	.010
Trust Loyalty (H5)	0.01	0.920
Corporate image Loyalty (H6)	0.02	0.748
Satisfaction Perceived switching cost (H7)	-0.12	0.098
Perceived service quality Perceived switching costs (H8)	0.27***	0.000
Perceived value Perceived switching costs (H9)	0.17*	0.014
Trust Perceived switching costs (H10)	0.38***	0.000
Corporate image Perceived switching costs (H11)	0.15*	0.045

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

The significant effect of perceived service quality on perceived switching costs is in line with Aydin and Ozer (2005) and Chou and Lu (2009). However, the insignificant impact of satisfaction on perceived switching costs is in contradiction with de Matos et al. (2009). So far, no study evaluates the impacts of perceived value, trust, and corporate image on perceived switching costs. The results of these impacts are a contribution to these topics.

Table 6. Analysis of indirect effects

Indirect Effects	Regression coefficients	P Value	Confidence Interval
Satisfaction Switching cost Loyalty	-0.03	0.119	(-0.079, 0.007)
Perceived service quality Switching costs Loyalty	0.06***	0.001	(0.022, 0.111)
Perceived value Switching costs Loyalty	0.04*	0.034	(0.003, 0.088)
Trust Switching costs Loyalty	0.08***	0.001	(0.033, 0.187)
Corporate image Switching costs Loyalty	0.03	0.087	(-0.005, 0.093)

Note: *** $p < 0.001$, * $p < 0.05$

Indirect Effects

While conducting bootstrapping in SEM, the number of samples was one thousand. The results of indirect effects are shown in Table 6. It was found that perceived service quality, perceived value, and trust influenced loyalty through perceived switching costs while satisfaction and corporate image did not. This was supported by confidence intervals, which did not include zero for three indirect effects. This means that perceived switching costs act as a mediator between customer loyalty and its three antecedents: perceived service quality, perceived value, and trust.

The role of perceived switching costs as a significant mediator between perceived service quality and loyalty confirms the findings of Chou and Lu (2009). However, the result of insignificant mediation of perceived switching costs for satisfaction and loyalty contradicts de Matos et al. (2009) and Zeng and Zhang (2008). This may be due to differences in the studies' contexts. De Matos et al.'s (2009) and Zeng and Zhang's (2009) studies were conducted in the banking industry, supermarkets, and department stores. Support for the mediating role of perceived switching costs in association with perceived value and trust with customer loyalty offers new findings.

Moderating Effects

In the analysis of moderating effects, trust and corporate image were dropped due to non-significant

impacts on customer loyalty (see Table 5). Thus, the moderation of switching costs on the relationships of satisfaction, perceived service quality, and perceived value with customer loyalty were investigated.

A χ^2 -difference between the non-restricted and restricted models ($\Delta\chi^2=22.9$, $df = 3$) was significant at $p<0.01$, indicating a moderating effect of perceived switching costs. Results for the moderating effects of perceived switching costs on each of three individual relationships are summarized in Table 7. Perceived switching costs negatively moderated the relationships between perceived service quality and customer loyalty, and perceived value and customer loyalty. Evidence of negative moderation of perceived switching costs for satisfaction and loyalty supports the findings of Aydin et al. (2005) and Jones et al. (2000).

DISCUSSION AND IMPLICATIONS

This paper contributes to the literature with a comprehensive model that considers all possible roles of perceived switching costs in determining customer loyalty simultaneously. Analyses demonstrate that perceived switching costs, satisfaction, perceived service quality, and perceived value have significant positive impacts on customer loyalty. Perceived service quality, perceived value, trust, and corporate image are significant antecedents of perceived switching costs. Furthermore, perceived switching costs are a mediator between the relationships of customer loyalty with perceived service quality, perceived value, trust, and corporate image. Finally, perceived switching costs moderate the relationships of satisfaction and perceived service quality with customer loyalty. These findings suggest that perceived switching costs play all three roles - direct antecedent, mediator, and moderator - in determining customer loyalty this could explain an overwhelming role of switching costs as a policy instrument for customer loyalty in mobile telecommunications.

The evidence that perceived service quality, perceived value, trust, and corporate image affect perceived switching costs indicates the mechanism through which customers' switching costs perceptions build. For example, trust had the highest influence on perceived switching costs while satisfaction had no impact. The insignificance of satisfaction on switching costs could be due to a strong direct influence on customer loyalty.

As mediator, perceived switching costs transfer positively the impact of perceived service quality, perceived value, and trust to customer loyalty. While significant, the indirect impacts were small. Thus, perceived switching costs as a mediator may not greatly explain loyalty. Perceived switching costs were found to negatively moderate the relationships of customer loyalty with satisfaction and perceived service quality. This implies that an increase in perceived switching costs weakens the impact of satisfaction and perceived service quality on loyalty. Combined with the positive direct impact of switching costs on customer loyalty, this finding suggests an interesting conclusion: aimed at increasing customer loyalty and facing the choice between policies focused on satisfaction and service quality and those focused on switching costs, it is more cost effective to implement satisfaction and service quality policies and use switching cost as a last resort. This is in line with reservations found in the literature concerning

Table 7. Analysis of moderating effects

	Perceived switching costs		χ^2	$\Delta\chi^2$, ($df=1$)
	Low	High		
Satisfaction Loyalty	0.83	0.54	73.1	5.7**
Perceived service quality Loyalty	0.67	0.44	81.9	5.3**
Perceived value Loyalty	0.49	0.49	68.4	0
$\Delta\chi^2=22.9^{**}$, $df=3$				

**significant at $p<0.01$

the overuse of switching costs as customer retention instruments. For example, Burnham et al. (2003) observed that when it becomes essential to impose switching costs, organizations should increase switching costs in ways that add value to customers by helping customers learn how to better use the service, identifying unique features, offering bonuses or loyalty services, and engaging customers in more meaningful relationships.

Fornell (1992) reminds marketers of two problems with switching costs: (1) customer awareness of switching costs hinders new customer acquisition and (2) switching costs are neutralized or eliminated by external forces. The first reservation recommends that switching costs be managed with a focus on customer acquisition while the second suggests firms drop efforts to maintain customer satisfaction and regularly monitor switching costs perceptions.

As a by-product of the model, satisfaction was found to be the strongest direct predictor of customer loyalty, advocating emphasis on improving satisfaction as part of customer loyalty programs. Mobile telecommunications managers should observe the evolution of satisfaction levels among customers to evade or reduce situations that cause dissatisfaction.

Findings suggest all three roles of perceived switching costs in forming customer loyalty; it affects customer loyalty directly, transfers perceived service quality, value, and trust to customer loyalty, and weakens satisfaction and perceived service quality on customer loyalty. Switching costs are a powerful tool of last resort to avoid customer defection. Future research on switching costs should consider all three roles simultaneously in customer loyalty models; exclusion of a role underestimates the explanatory power of models.

LIMITATIONS

Data were collected from customers in Pakistani mobile telecommunications markets, an industry

recently liberalized for domestic and international investors and dominated by pre-paid customers. The industry's nature limits generalizations of findings. However, the model and analytical methods easily apply to other studies. Due to the availability of cross-sectional data only, this study measured customer loyalty attitudinally; it could be used as a behavioural construct in longitudinal studies.

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Chapter 17

Exploring Determinants Influencing the Intention to Use Mobile Payment Service

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ABSTRACT

Mobile services are becoming increasingly commonplace in everyday life; however, Mobile payment (M-payment) is not among frequently used mobile services. The slowness of the diffusion of this service is the point of departure of the current research. The authors discuss why consumers are slow in adopting M-payment service and develop a proposed model that measures the customer's attitude and intention to use this technology in Egypt. Different theories from diverse fields are reviewed to formulate the study's conceptual framework. Empirical data were collected via an online survey for a sample of 490 students in "open education", a type of e-distance learning. The results suggest that although the most important determinants influencing the customer's attitude toward the service are perceived behavioral control and perceived usefulness, those influencing the intention to use it are perceived innovativeness, perceived expressiveness, facilitating condition, perceived usefulness, and social pressure. The results of the research differ from those of previous studies because of the effect of the Egyptian culture. Service providers can benefit from the results when formulating the marketing strategies to increase the usage of this service, improving mobile commerce.

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INTRODUCTION

The diffusion of mobile services in our daily life is due to the flexibility, interaction and efficiency they provide for the users (Balasubramanian & Sirka, 2002; Leung & Wei, 2000). In this electronic environment, companies need to recognize the ways of interacting with their customers and presenting their services. To achieve this, it requires an understanding of the driving forces (determinants) that may affect customers' intention to use these kinds of services and their perception of the high value that results from using them (Anckar & D'Incau, 2002). To date, there is a limited extent of studies that reinforce a well built theory on the essential aspects of developing mobile commerce (Jih, 2007; Nysven et al., 2005a; Yang, 2005), which mobile phone and its services are considered to be the most important tools of it (Anckar & D'Incau, 2002; Mort & Drennan, 2005). Previous studies have recommended the importance of a deeper vision to get to a better understanding of the determinants that may either compel the user to use mobile services or impede this use (Rao & Troshani, 2007). The revolution that took place in the financial services sector brought about untraditional forms of transactions, such as M-payment service (Dewan & Chen, 2005; Mckechnie et al., 2005). The mobile has become an important instrument in increasing and activating financial transactions and using mobile commerce, which is defined as mobile commerce which defined as "the use of wireless communications networking technology as the primary interaction vehicle between buyers and sellers of products or services" (Jih, 2007, p. 35). The emergence of new contexts, such as the internet and mobile commerce, create further requirements for feasible and convenient payment methods. Consequently, M-payment systems have been introduced. M-payment is an alternative payment method for goods, services, and bills/invoices. It is defined as points to direct sales through mobile devices and wireless communication technologies, these devices allow users to connect to servers, perform authentica-

tion and authorization, make M-payments, and subsequently confirm the completed transaction, the gross transaction value of payments made via mobile phone for digital and physical goods will exceed \$300 billion globally by 2013 (Kim et al., 2010). M-payment has special features, which make its adoption different from other payment methods. These features are personalization, ubiquity, nonexistence of time and place constraints in the implementation of the service, inseparability from users, (Rao & Troshani, 2007) and also is lower cost in terms of time and effort compared with opening a bank account, or depending on traditional postal services. Moreover, traditional payment cards taking into consideration the possibility of tapping and viewing, stealing a card or the data it contains (Chmielarz & Nowak, 2010). In addition, M-payment is viewed as safer and more convenient than banking services because it requires neither holding nor dealing with cash money (Mallat & Tunaninen, 2008; Nina et al., 2003).

As the most densely populated country in the Arab world, Egypt possesses one of the fastest growing markets in the field of mobile communications in the region. This growth expresses the degree of acceptance to use mobile technology by its users despite its relative novelty. However, the issue in this matter is not only in increasing the number of users of this technology, but also how to transform them into users of mobile commerce (Qingfei et al., 2008) which requires the application of M-payment service. In Egypt, the noticeable decline in the number of users of M-payment service from the total sum of users of the mobile constitutes a phenomenon revealing a relative slowness in its diffusion in comparison to its rapid acceptance in certain developing countries like Kenya and Tanzania. The Egyptian Central Bank has postponed the initiation of M-payment until an understanding of the extent to which the market is responding to this unprecedented service is eventually reached. This fact shows, among other things, the importance of this study.

Many studies conducted on mobile technology and mobile commerce, (Qingfei et al., 2008; Wong & Hsu, 2008) assert that their unique attributes require the enlargement of their acceptance models so as to include the determinants that suit their nature. It is noteworthy that the variation of mobile services, each with its own marked out traits, entails the diversity of their users' motives, hence the difficulty of studying these services as an integral entity. The diversity of the tasks that are undertaken by any technology necessitates studying the degree to which customers accept each of these tasks apart from each other (Muthitacharoen et al., 2006). Henceforth, there exists a real need to develop a proposed model, which includes its own suitable determinants for measuring the degree of acceptance of M-payment service, as it is expected to reveal customers' attitude and their intention to use in the Egyptian environment. This will be done with a view to verify the impact of cultural factors on the users' acceptance of this service, and also to underscore the importance of such factors as they are reflected on the determinants of the proposed model (Meso et al., 2005; Qingfei et al., 2008; Rao & Troshani, 2007). It goes on to arrange these determinants according to their relative importance, that is, in view of their effects on the attitude and the intention to use M-payment. Despite the notable deficiency in the application of these studies on the developing countries, it is expected that the conditions of such countries exert diverse impacts on the users' acceptance (Meso et al., 2005).

The remainder of this paper is organized as follows: review the previous studies to develop a conceptual framework that puts into consideration the determinants of the technology acceptance theories and models, and their relevance to M-payment service. Next, test this framework to develop the proposed model of M-payment acceptance on the Egyptian market. In the final section, we present the discussion, conclusion, managerial implications, limitations and future research.

LITERATURE REVIEW

The success or failure of technological innovations depends on the latitude of their users' acceptance (Wong & Hsu, 2008). Due to the unique nature of M-payment service, the most reputed models for measuring technology acceptance have become insufficient and unsuitable for application on mobile commerce. Furthermore, studies that deal with this service are scarce (Dewan & Chen, 2005; Nysveen et al., 2005a; Varnali & Toker, 2010), since it is a service that is still in infancy (Mallat & Tunainen, 2008). In order to develop the conceptual framework of the current study, an in-depth review of the concepts and models in this field has been undertaken, including the technology acceptance model (TAM) (Davis, 1989), which is considered to be the basis of most of the studies conducted in this area (Bhatti, 2007). Many studies have been conducted concerning users' intentions for adoption of mobile services, most of which have been based on the model of Davis's (1989). However, parsimony has been one of TAM's strengths, but also its major weakness consists in its limited use in explaining users' behavioral intention to adopt complex mobile services (Venkatesh & Davis, 2000). That is the reason why the current study sought to extend this model through adding new determinants to fit it well with the characteristics of mobile services (Amin, 2007; Qingfei et al., 2008; Snowden & Spafford, 2006; Wong & Hsn, 2008; Yang, 2005). Social pressure has been adapted from the theory of reasoned action (TRA) (Teo & Pok, 2003; Venkatesh & Davis, 2000). Perceived behavior control as predicted in the theory of planned behavior (TPB) (Ajzen, 1991) has also been included in the conceptual framework since users of mobile services depend on their available resources. In the same context, it has seemed appropriate to include non-utilitarian determinants when explaining consumers' intention to use mobile services, such as expressiveness and enjoyment that are often included in studies on mobile services within uses and gratifications

research (Leung & Wei, 2000) and domestication research (Nysveen et al., 2005b). Finally, facilitating conditions and consumer innovativeness partake of the innovation diffusion theory. Therefore, to explain and analyze consumers' intentions to use M-payment service, we have combined diverse theories from organizational contexts (information systems theories) to theories that explain the technology usage in everyday life (uses and gratification theory & domestication theory). They form complementary views that attempt to predict behavior in using such complex services (Dewan & Chen, 2005). In the following section, we will develop the study's conceptual framework and set forth its hypotheses.

Determinants of the Use of M-Payment Service

'Perceived Ease of Use' refers to "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989, p. 323). In the mobile setting, it represents the degree to which individuals associate freedom of difficulty with the use of mobile technology and its services in everyday usage (Knutson et al., 2005). Any technology that is not hard to understand will be less threatening to individuals so, the degree of its complexity is certainly a factor that determines the intention to use it (Agarwal & Prasad, 2000; Bhatti, 2007; Moon & Kim, 2001; Venkatesh & Davis, 2000; Venkatesh, 2000). This holds true of M-payment service in particular (Kim et al., 2010). According to the theory of the diffusion of innovations, there is a negative relationship exists between the individuals' awareness of the complexity of the technology and their acceptance (Bauer et al., 2005). Ease of use is perceived through variables such as the diversity of the modes of insertion and the clarity, understanding and ease of operating, among others. In addition, this determinant affects the attitude towards mobile services in general (Amin, 2007; Nysveen et al.,

2005b; Pagani, 2004; Roa & Troshani, 2007), and M-payment in particular (Nysveen et al., 2005a; Schierz et al., 2010).

Considering the arguments above, we suppose the following hypotheses:

H1.a: Perceived ease of use has a significant influence on the attitude towards M-payment service.

H1.b: Perceived ease of use has a significant influence on the intention to use M-payment service.

'Perceived Usefulness' is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989, p. 320). This determinant has been given different names such as utility expectancy or performance expectancy in order to adapt it to the nature of diverse technological applications (Qingfei et al., 2008; Venkatesh et al., 2003). Perceived usefulness of M-payment service is affected by several variables, the most effective of which are both the rapidity and convenience in achieving the dealings compared with other payment methods (Dewan & Chen, 2005). This determinant affects the attitude towards mobile services in general (Amin, 2007; Nysveen et al., 2005b; Pagani, 2004; Rao & Troshani, 2007), and M-payment in particular (Schierz et al., 2010; Kim et al., 2010) which is consistent with TPB (Taylor & Todd, 1995). According to TAM, there is also a significant impact of perceived usefulness on intention to use resulting from an outside motive, such as achieving a certain goal or gaining a reward (Davis, 1989; Venkatesh & Morris, 2000). An empirical research has also confirmed that users will use M-payment systems for practical reasons, that is, for the relative advantage those systems provide in financial transactions (Kim et al., 2010). Considering the arguments above, we suppose the following hypotheses:

H2.a: Perceived usefulness has a significant influence on the attitude towards M-payment service.

H2.b: Perceived usefulness has a significant influence on the intention to use M-payment service.

‘Social Pressure’ refers to the degree to which individuals perceive that important or significant others believe they should use an innovation, this determinant is included in both TRA and TPB as an important determinant in the usage of the technology (Rao & Troshani, 2007). Venkatesh and Morris (2000) emphasized its role in the technology acceptance model; however, the effect of social pressure may decrease over time as experiences related to the system are accumulated. This means that it is more significant in the earlier phases of adoption rather than in the later ones, because most users lack reliable information about usage details. Thus, the relevance of the social network opinions for individual attitude formation increases (Schierz et al., 2010). The importance of social pressure also in regards to the attitude has positively been established in the context of mobile applications (Nysveen et al., 2005a), and in M-payment in particular (Schierz et al., 2010). On the other hand, Nysveen et al. (2005a) showed that social pressure directly affects behavioral intention, regardless of the attitude. Although an individual may have a negative or neutral attitude towards using the technology, he may also have the intention to use it. Ajzen (1991) evidences the impact of social pressure on behavioral intention in general, but many studies have identified its effect on customers’ intention to use the mobile technology in particular (Bauer et al., 2005; Bhatti, 2007; Nysveen et al., 2005b; Park et al., 2007; Rao & Troshani, 2007; Teo & Pork, 2003).

Considering the arguments above, we suppose the following hypotheses:

H3.a: Social pressure has a significant influence on the attitude towards M-payment service.

H3.b: Social pressure has a significant influence on the intention to use M-payment service.

‘Facilitating Conditions’ refer to external controls which make adoption behavior less difficult by removing any obstacles to adoption and sustained usage (Venkatesh & Morris, 2003). These conditions are achieved in the field of mobile through several facilities such as, technical support given by the service providers, creating effective promotion through advertisement campaigns which help in making information available, and supporting an environment marked by integrity, and trust. Customer’s trust plays a crucial role in the success of mobile commerce (Wong & Hsn, 2008). The growth in mobile financial services such as M-payment depends not only on technological advances, but also on customers’ trust in the service provider (Weber et al., 2010). Trust is formed of two main elements, namely, privacy and security that will reinforce customers’ confidence in the service. Conversely, the absence of these two elements accounts for one of the major barriers that obstruct users from taking up the service (Qingfei et al., 2008; Snowden & Spafford, 2006; Wong & Hsn, 2008). Secure electronic transactions are marked out by a set of distinct attributes, like confidentiality, and data integrity. In regards to privacy, the main threat comes from data collections and unauthorized access to information (Amin, 2007; Dewan & Chen, 2005). With the increasing awareness of the importance of privacy, and the growing concern for its protection, we find that these determinants must be examined in studies conducted on technology acceptance in the field of mobile technology (Qingfei et al., 2008). The availability of both security and privacy exerts a positive effect on the intention to use mobile services and mobile commerce (Amin, 2007; Dewan & Chen, 2005; Rao & Troshani, 2007). Customers’ acceptance of mobile technology is also significantly affected by the information which they receive through the new service, and this, in turn, affects their attitude and intention

to use (Roa & Troshani, 2007). Pagani (2004) confirmed also that price discounts as marketing stimuli have an effect on perceived usefulness which directs the users' attitude toward mobile services. Concerning the overall effect of facilitating conditions on customers' attitude, the results of previous studies vary; whereas certain studies evidence the effect of this determinant on the customer's positive attitude towards mobile services (Roa & Troshani, 2007), others did not ascertain this effect upon its application on customers (Park et al., 2007). However, regarding the facilitating condition, it exerts a direct effect on customers' intention to use the services (Amin, 2007; Teo & Pork, 2003; Venkatesh et al., 2003; Yang, 2010).

Considering the arguments above, we suppose the following hypotheses:

H4.a: Facilitating conditions have a significant influence on the attitude towards M-payment service.

H4.b: Facilitating conditions have a significant influence on the intention to use M-payment service.

'Perceived Behavioral Control' has attracted a considerable attention in the literature on adaptation theory (Rao & Troshani, 2007). According to TPB, it is defined as "people's perception of the easy or difficulty of performing the behavior of interest" (Ajzen, 1991, p. 183). In the domain of mobile services adoption, this refers to the individual perception of how easy or difficult it is to get mobile services which also includes the individual's ability to afford the costs associated with mobile services (Bahatti, 2007). If users believe that they are not in control of the service they may choose to use other channels (Nysveen et al., 2005a), hence this determinant in the adoption of M-payment service becomes very important. Perceived behavioral control is composed of elements related to the individual limitations that are related to the individual user's economy, experience and

skill in using a service. The user's experience and knowledge determine his ability to understand and put to good use the new technology, which affects his awareness of how sophisticated this technology is. Certain studies clarified that the effect of this determinant, especially the availability of knowledge with regard to the user—is a positive one on the attitude toward using these services. Furthermore, the existence of a positive attitude, accompanied by both the absence of skills to put them to use and their high cost, leads to decrease the intention to use (Nysveen et al., 2005a). In general, this determinant exerts a positive effect on the intention to use the technology, either in the field of information systems (Ajzen, 1991; Mathieson, 1991; Qingfei et al., 2008; Taylor & Todd, 1995) or in the field of mobile services (Nysveen et al., 2005a; Pagani, 2004). Considering the arguments above we suppose the following hypotheses:

H5.a: Perceived behavioral control has a significant influence on the attitude towards M-payment service.

H5.b: Perceived behavioral control has a significant influence on the intention to use M-payment service.

'Perceived Enjoyment' refers to "the extent to which the activity of using the (computer) technology is perceived to be enjoyable in its own rights apart from any performance consequences that may be anticipated" (Davis et al., 1992, p. 113). Bruner and Kumar (2003) have added this constraint to the original TAM. Perceived enjoyment is considered as one of the most important motives in accepting and using mobile services (Ankar & D'Incau, 2002; Cyr et al., 2006; Kaufaris, 2002; Leung & Wei, 2000; Novak et al., 2000). This determinant affects the attitude towards the service (Bauer et al., 2005; Nysveen et al., 2005a; Pagani, 2004; Rao & Troshani, 2007), and, as another study asserted it also directly affects the intention

to use mobile services (Nysveen et al., 2005a). This determinant has a considerable importance in the field of mobile commerce applications. Since, from a point of view adopted by Qingfei et al. (2008), the term expected performance has been exchanged with expected benefit because of the importance of enjoyment in achieving the benefit from these kinds of applications, which include personal entertainment. However, the availability of enjoyment is not a requisite in all the applications of mobile commerce services, especially those related to financial dealings that require more sensible and practical involvement.

Considering the arguments above we suppose the following hypotheses:

H6.a: Perceived enjoyment has a significant influence on the attitude towards M-payment service

H6.b: Perceived enjoyment has a significant influence on the intention to use M-payment service.

‘Perceived Expressiveness’ is defined as the ability of the individual to express his/her emotions, identity and social status. The user of mobile services can express his/her self image, lifestyle, and social standard through these services (Cassidy et al., 1992). Studies in domestication research reveal the importance of using mobile technology, for example to express fashion, style, and individual identity. This determinant has been taken into consideration in a limited number of studies recommending the importance of placing it under the spotlights of studies related to mobile services (Nysveen et al., 2005a, 2005b; Venkatesh et al., 2003); such studies also reveal that perceived expressiveness has an effect in forming a positive attitude toward this service and the intention to use it. This suggests that self-expressiveness seems to be a determinate for using mobile services. Considering the arguments above, we suppose the following hypotheses:

H7.a: Perceived expressiveness has a significant influence on the attitude towards M-payment service.

H7.b: Perceived expressiveness has a significant influence on the intention to use M-payment service.

‘Personal Innovativeness’ refers to “the willingness of an individual to try out new information technology” (Agarwal & Prasad, 1998, p. 205), and their related services for accomplishing specific goals (Bhatti, 2007). Personal innovativeness influences the individual’s beliefs about new technologies as well as his/her perception of their capabilities (Thatcher & Perrewe, 2002). The individual with higher personal innovativeness is more likely to take risks, and thus become an early adopter of the new technology and more open to the new ideas and experiences it offers (Agarwal & Prasad, 1998; Steenkamp et al., 1999). These features justify why personal innovativeness is one of the current study’s determinants, which is closely related to the personal traits of individual users. The acceptance of the technology depends on personal differences between individuals concerning their search for modernity and variety, and their tendency to discover the new technology (Yang, 2005). Endowed with such high creative abilities, these innovators are prone to develop positive attitudes toward adopting these novel systems and their services. The early adopters are also likely to shape the opinions of late adopters, as they become engaged in frequent advise-giving capacities (Agarwal & Prasad, 1998). The individual’s creative tendency is linked to the formation of a favorable attitude toward mobile services (Agarwal & Prasad, 1998; Bauer et al., 2005; Pagani, 2004; Rao & Troshani, 2007), and also affects the tendency to use, due to the individual’s ability to deal with higher levels of uncertainties (Leung & Wei, 1998; Mort & Drennan, 2005).

Considering the arguments above, we suppose the following hypotheses:

H8.a: Personal innovativeness has a significant influence on the attitude towards M-payment service.

H8.b: Personal innovativeness has a significant influence on the intention to use M-payment service.

The above arguments reveal the diversity and multiplicity of the determinants that affect the adoption of M-payment service. From the viewpoint of previous studies, the availability of these different determinants, specially perceived usefulness, perceived ease of use, security and privacy of the service is indicative of a sense of optimism among customers about the benefits gained from this new service, which accordingly strengthens the intention to use it (Dewan & Chen, 2005). However, the research at issue tests the extent to which all these previously mentioned determinants affect the attitude towards this service and the intention to use it in the Egyptian society.

The Relationship between Attitude and Intention to Use M-Payment

The present study also includes attitude into the study's conceptual framework as a predictor of behavioral intention. 'Attitude' is defined as "an individual's positive or negative feelings (evaluative affect) about performing the target behavior" (Fishbein & Ajzen, 1975, p. 216). The positive effect of attitude towards technology on behavioral intention has been proposed in the following models: TRA; TAM; and TPB. Whereby, individuals perform the behaviors that coincide with their attitudes. Attitude has been validated as a significant predictor of behavioral intention to use technology in such previous studies as (Davis et al., 1989; Schierz et al., 2010; Yang, 2010), all assuming the presence of a positive effect of behavioral intention on actual behavior (Dabholkar & Bagozzi, 2002).

Our study focused on the intention to use for theoretical and practical reasons. Theoretically,

there is a strong and significant relationship between behavioral intention and actual behavior to the extent that the former may be considered as an alternative to the latter (Mathieson, 1991; Qingfei et al., 2008; Venkatesh & Morris, 2000). Practically, the focus will be on the intention to use due to the limitations of M-payment service applications and the bounds of their diffusion, this is in line with most of the research conducted on this new technology which test the tendency to use for the same reasons (Yang, 2005). Considering the arguments above, we suppose the following hypotheses:

H9: Attitude towards using M-payment service has a significant effect on the Intention to use it.

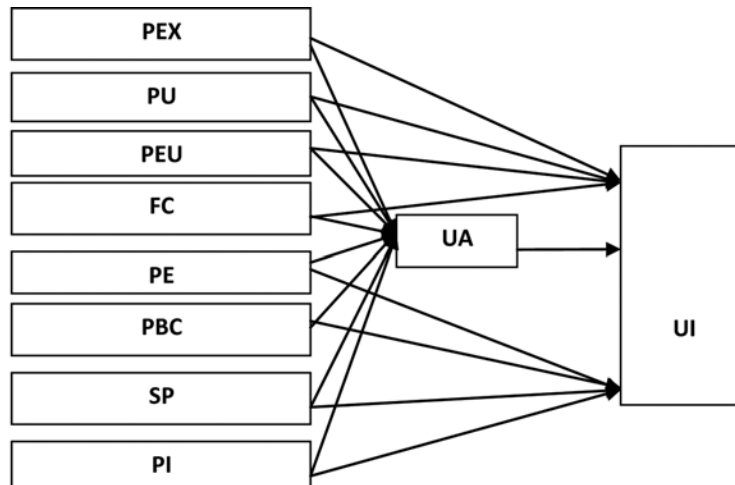
Earlier researches have shown the shortcomings of studies examining the degree of acceptance of the technology of M-payment service. Although the diffusion of this new technology around the globe started to expand, studies that reflect the viewpoints of M-payment adopters are extremely limited (Chmielarz & Nowak, 2010; Dewan & Chen, 2005; Kim et al., 2010; Mallat & Tunainen, 2008; Schierz et al., 2010; Varnali & Toker, 2010). This is what drove this research to focus on identifying and recognizing the main M-payment service determinants, and their effect on both the attitude and the intention to use. This will help in increasing the acceptance to use this technology in ways that support mobile commerce. Accordingly, a conceptual framework has been developed to include the determinants, which suit the unique nature of M-payment service, as illustrated in Figure 1.

RESEARCH METHOD

Sample

The population of the study comprises all customers of mobile companies in Egypt, due to the

Figure 1. The conceptual framework (Note: PEX= Perceived Expressiveness, PU= Perceived Usefulness, PEU=Perceived Ease of Use, FC= Facilitating Conditions, PE= Perceived Enjoyment, PBC= Perceived Behavioral Control, SP= Social Pressure, PI= Personal Innovativeness, UA=Use Attitude, UI= Use Intention)



refusal of these companies to fill out the questionnaire using their customer’s database, a sample of students from the ‘Open Education’ (a type of e-distance learning in Cairo University) was selected. Those students represent a large e-society consisting of around 70000 students through whom an online survey can be conducted, we used this method because reliance on an online survey is a recommended method in conducting research related to information technology like internet and mobile (Park et al., 2007). The questionnaire has been up-loaded on the Open Education website. A total of 490 respondents participated in the study, and no significant biases in the sample could be identified, because each individual student was identified as a potential participant in this survey. Of the (490) respondents that were collected, only (451) proved to be appropriate. The response rate was significantly weak; this may be because Egyptians gives little concern to response to e-survey.

Measures

Based on our review of the relevant literature and the exploratory study, we constructed our survey instrument. The measures were based on many sources as indicated in Table 1. We utilized a multi-item method, we asked respondents to rank their level of agreement with items arranged according to five-point likert scale ranging from strongly disagree (1) to Strongly agree (5). The initial version of our survey instrument was modified after consulting a number of professors to test its content validity. It was also examined on a convenience sample consisting of 37 graduate students. Weak items were discarded, and other written expressions were modified to match the scale to the nature of the service under study and the Egyptian language expressions. In addition, some explanatory examples were added to clarify the meaning of certain expressions due to the results of the survey test. (The survey items are shown in the Appendix.)

Prior to the data analysis, tests for convergent and discriminate validity were applied. For con-

Table 1. Sources of the measures

Sources	Constructs	Items
(Bhatti, 2007; Bruner & Kumar, 2003; Choi & Kim, 2007; Davis, 1989; Dewan & Chen, 2005; Muthitacharoen et al., 2006; Pagani, 2004; Venkatesh et al., 2003).	Perceived usefulness, from (TAM)	PU 1-4
(Bhatti, 2007; Davis, 1989; Nysveen et al., 2005 a, 2005b; Venkatesh et al., 2003).	Perceived ease of use, from (TAM)	PEU 1-9
(Nysveen et al., 2005a).	Social pressure, from (TRA)	SP 1-3
(Bruner & Kumar, 2003; Cyr & Lavanov, 2006; Leung & Wei, 2000; Nysveen et al., 2005a; Venkatesh et al., 2003).	Perceived enjoyment from, uses and gratification studies	PE 1-3
(Bhatti, 2007; Nysveen et al., 2005a; Taylor & Todd, 1995; Venkatesh et al., 2003).	Perceived behavioral control, from (TPB)	PBC 1-3
(Amin, 2007; Dewan & Chen, 2005; Choi & Kim, 2007; Venkatesh et al., 2003).	Facilitating conditions, from Innovation Diffusion Theory.	FC 1-9
(Nysveen et al., 2005a).	Perceived expressiveness, from domestication studies	PEX 1-3
(Bhatti, 2007; Nysveen et al., 2005a; Venkatesh et al., 2003; Yang, 2005).	Personal innovativeness, from innovation diffusion Theory	PI 1-5
(Muthitacharoen et al., 2006; Nysveen et al., 2005a; Venkatesh et al., 2003).	Intention to use	UI 1-3
(Davis, 1989; Nysveen et al., 2005a; Venkatesh et al., 2003).	Attitude	UA 1-4

vergent validity, a unidimensional Factor Analysis was first conducted, and accordingly, the extent of the adequacy of the sample was ascertained in accordance with (KMO) Kaiser – Mayer – Olkin test. Its values ranged from 0.7 to 0.93 which is considered good as they must not be less than 0.5 (Schmidt & Hollensen, 2006, p. 302). The significant correlation between the variables of each factor reached less than 0.01. Based on the results one item has been excluded related to perceived ease of use. Second, a confirmatory factor analysis (CFA) was preceded; the fit statistics of the measurement model indicate fit data for each scale, as indicated in Table 2. The values of CFI–TLI–IFI–NFI–RFI were reaching (1.0). Accordingly, most of the indicators are above the generally accepted level of 0.9 (Schmidt & Hollensen, 2006, p. 523), with the exception of four items that were excluded as follows: an item from perceived usefulness; another from perceived behav-

ioral control; and two items from facilitating conditions.

Table 3 indicates the average variance extracted (AVE) for each scale; all determinants exhibit indices closer or superior to the reference values (AVE =0.5) (Fronell & Larcker, 1981), this evidences a high convergent validity. In addition, for assessing discriminate validity, the results in Table 3 show that AVE for each individual constructs were greater than the shared variances (squared correlation) between the constructs when compared. This supports the discriminate validity of the measures (Fronell & Larcker, 1981).

Also, the measurement instruments were evaluated for reliability using Cronbach’s α test as shown in the Appendix. The Cronbach’s α ranged from 0.76 to 0.92, which is considered to be a high value in social sciences.

Table 2. Measures of fitness of CFA for convergent validity analysis

Constructs	X2	df	P	NFI	RFI	IFI	TLI	CFI	RMSEA
PU	71.15	2	0.00	0.91	0.53	0.91	0.54	0.91	0.27
PEOU	309.4	28	0.00	0.88	0.91	0.89	0.82	0.89	0.15
SP	0.078	1	0.78	1	0.99	1	1	1	0.000
PE	2.73	1	0.09	0.99	0.97	0.99	0.98	0.99	0.06
PBC	32.9	1	0.00	0.95	0.73	0.96	0.73	0.95	0.26
FC	554.8	28	0.00	0.81	0.69	0.82	0.70	0.81	0.2
PEX	18.28	1	0.00	0.98	0.86	0.98	0.87	0.98	0.19
PI	49	6	0.00	0.96	0.91	0.97	0.92	0.97	0.13
IU	5.9	1	0.01	0.98	0.89	0.98	0.91	0.98	0.10
AU	23.7	3	0.00	0.97	0.91	0.98	0.92	0.98	0.12

P < 0.05

RESULTS

Descriptive Statistics

Table 4 presents means and standard deviations computed for various determinants. It reveals a reduction in the mean values for all the acceptance determinants of the service. There are low expectations toward achieving any benefit from the service. The tendency to use the service is also low, in spite of the availability of ease of use, learning how to operate it, and resolving any

problems occurring during the operation of the service, among others. The effect of social pressure is weak, in spite of its importance in motivating potential customers to adopt the new technology. Perceived enjoyment stimulated by this service is weak too, and similarly the effect of perceived behavioral control, since the availability of both previous experiences in the field of mobile and financial requirements to use are prerequisites for using this technology. In addition, users show little concern for facilitating conditions of the service. The view that this service is an expressive tool

Table 3. Measures of discriminate validity analysis

Constructs	PU	PEOU	SP	PE	PBC	FC	PEX	PI	IU	AU
PU	0.77									
PEOU	0.64	0.64								
SP	0.24	0.19	0.68							
PE	0.31	0.24	0.45	0.81						
PBC	0.37	0.29	0.25	0.42	0.76					
FC	0.44	0.58	0.22	0.31	0.46	0.68				
PEX	0.26	0.25	0.43	0.41	0.45	0.36	0.68			
PI	0.17	0.20	0.35	0.35	0.38	0.34	0.49	0.78		
IU	0.34	0.37	0.38	0.38	0.45	0.45	0.56	0.61	0.57	
AU	0.22	0.19	0.17	0.18	0.21	0.20	0.19	0.13	0.21	0.74

Note: Diagonal represents the AVE, while other matrices represent the shared variances

Table 4. Summary of descriptive statistics of the constructs

Constructs	Mean	Std. Dev.	Std. Error
PU	1.84	.86	.042
PEOU	1.66	.87	.053
SP	2.63	1.14	.056
PE	2.38	1.14	.055
PBC	2.08	1.03	.050
FC	1.80	.85	.042
PEX	2.47	1.14	.055
PI	2.47	1.09	.053
IU	2.26	.98	.047
AU	1.65	.83	.043

for personal traits was also diminished, and the sense of personal innovativeness was undermined. There is also, a strong negative attitude toward the service and a weak intention to use it in the future that may be adduced to the availability of alternative methods like credit cards, or the users' misunderstanding of the nature of the service. It is noteworthy that the relative novelty of this technology may also involve fear of using it.

HYPOTHESES TESTING

Structural Equation Modeling (SEM) was evaluated in order to test the hypotheses among all constructs by using (AMOS 18) program; comparison of all fit indices with corresponding recommended values provided evidence of the acceptable model fit ($\chi^2/df = 21/10$, CFI = 0.99, TLI= 0.98, IFI =0.99, RFI=0.96, NFI = 0.99, RMSEA =0.05). Figure 2 shows the proposed model.

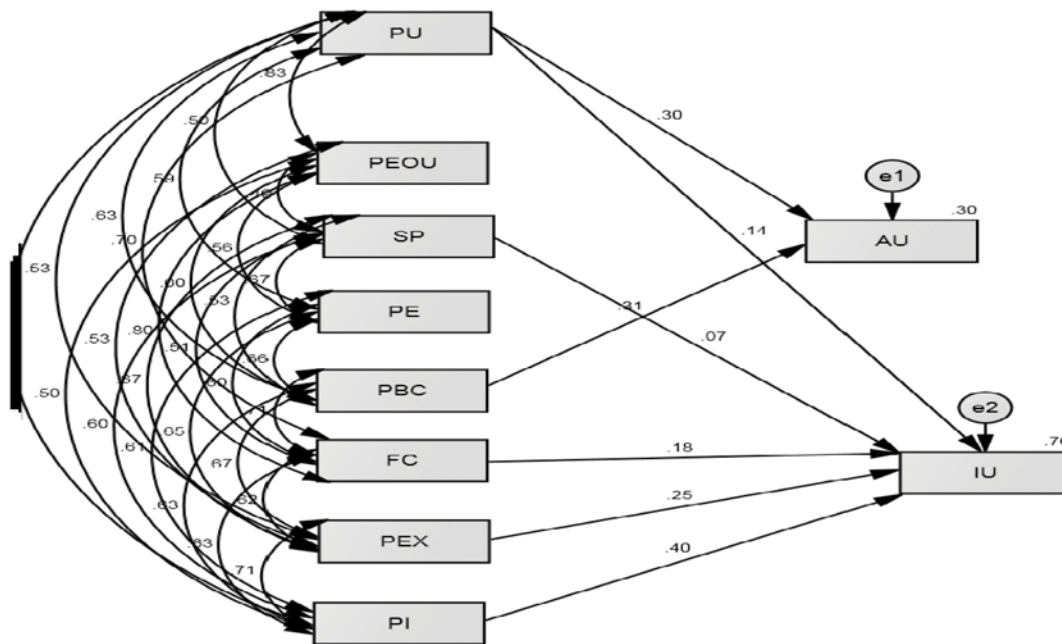
It shows the main determinants affecting attitude in the sequence of their importance, as follows: perceived behavioral control; then perceived usefulness. They explain 30% of the variation in attitude. One of the most effective determinants on Intention to use is perceived innovativeness, followed respectively by the fol-

lowing: perceived expressiveness; facilitating conditions; perceived usefulness; and social pressure. An examination of the squared multiple correlations for the endogenous constructs show that this proposed model explain 76% of the variations in the intention to use. In addition, due to the absence of a direct effect between attitude and intention to use, the total effect of the proposed model's determinants are equated to and also return to the direct effect between attitude and intention to use each separately from the other. In the light of these findings, the study's hypotheses have been accepted and rejected, as indicated in Table 5.

DISCUSSION

The SEM was used to assess the adequacy of our conceptual framework. Surprisingly, the majority of the hypotheses were rejected. Accordingly, we have identified the most important determinants that predict a user's adoption of M-payment in Egypt as follows: the determinant which has a direct effect on both attitude and intention to use M-payment service simultaneously is perceived usefulness, this finding underscore the importance of building customers' awareness to an understanding of the benefits of using this service in their daily life in ways that create a positive attitude and the intention to use. This result coincides with both of studies regarding the effect of perceived usefulness on attitude (Park et al., 2007; Bauer et al., 2005; Schierz et al., 2010), which holds true to the phase of introducing new services, and studies regarding the effect of perceived usefulness on the intention to use (Davis, 1989; Kim et al., 2010; Pagani, 2004; Park et al., 2007; Nysveen et al., 2005a; Venkatesh & Morris, 2000; Wong & Hsu, 2008). Others studies adding that the impact of perceived usefulness on the intention to use is an indirect effect through attitude (Meso et al., 2005; Nysveen et al., 2005a; Wong & Hsu, 2008). However, the Egyptian proposed model

Figure 2. The proposed model



did not verify the existence of any indirect effects because there is no relationship between attitude and intention to use.

The only determinant effect on attitude, which does not extend to the intention to use, is perceived behavioral control. This may return to the fact that with the rapid spread of mobile technology, the intention to use it does not need knowledge and proficiency as prerequisites for using its new applications. Hence, the intention to use M-payment does not relate to that determinant. Such results differ from other studies on this area (Bhatti, 2007; Mathieson, 1991; Taylor & Todd, 1995, 2005).

The findings also confirm the effect of four other determinants-besides perceived usefulness-on the intention to use the service, and are in the sequence of their importance according to the estimate values of SEM analysis as follow, the first is perceived innovativeness that is in line with other studies conducted on the diffusion of the technology (Bhatti, 2007; Leung & Wei, 1998). It is noteworthy that an individual who possesses creative tendencies is highly qualified to conduct

an information search for new ideas. The second is perceived expressiveness, coinciding with results reached by Nysveen et al. (2005a) study. The third is facilitating conditions, this is in line with other studies investigating this determinate (Amin, 2007; Dewan & Chen, 2005; Park et al., 2007) and arguing that the rapid development of the technology brought about the need to secure the mobile commerce network. However, there are still lots of challenges that are met in this field, the most important of which is customers' confidence, which affects the growth of mobile commerce (Ahasanul, 2004). Several studies support the idea that the customer would put up with such attributes as the reputation and quality of the technology applications if his/her security and privacy were carried out; the fulfillment of this condition will determine the extent to which customers are able to trust the security of their dealing with mobile commerce (Wong & Hsu, 2008). This foregrounds the vital role played by the service promotion activities; these activities must give attention to the advantages of the ser-

Table 5. Results of hypotheses testing

Hypotheses		C.R.	Estimate	P value*	Result
H1.a	PEOU→AU			0.92	Rejected
H1.b	PEOU→IU			0.72	Rejected
H2.a	PU→AU	5.18	0.30	0.00	Accepted
H2.b	PU→IU	3.85	0.14	0.00	Accepted
H3.a	SP→AU			0.13	Rejected
H3.b	SP→IU	2.15	0.07	0.03	Accepted
H4.a	FC→AU			0.13	Rejected
H4.b	FC→IU	4.46	0.18	0.00	Accepted
H5.a	PBC→AU	5.35	0.31	0.00	Accepted
H5.b	PBC→IU			0.22	Rejected
H6.a	PE→AU			0.28	Rejected
H6.b	PE→IU			0.48	Rejected
H7.a	PEX→AU			0.21	Rejected
H7.b	PEX→IU	6.20	0.25	0.00	Accepted
H8.a	PI→AU			0.47	Rejected
H8.b	PI→IU		0.40	0.00	Accepted
H9	AU→IU	10.68		0.43	Rejected

* P < 0.05

vice over other alternative competing methods in terms of achieving the availability of privacy, security and top technical assistance that go along with using it. The fourth determinant is social pressure; this result is in line with both Bhatti (2007) and Park et al. (2007) studies. Social pressure influences buying intentions, regardless of the buyer’s attitude; this means that the effect of reference groups on intention to use is strong in the Egyptian society, which is marked out by the significant effect of certain social determinants on individual consumers, such as the strong bent on imitation and over confidence in others. This is particularly true about M-payment, which is still a relatively new technology as there is no previous experience that may contribute to decrease the importance of the effect of social pressure within a long span of time.

There are two determinants have shown no significant impact on either attitude or intention to use. The first is perceived ease of use. This

result is considered as one of few studies evidencing the insignificance of this determinant- as in Szajana, (1996) - and in opposition to most previous studies that were applied either on the same service or on other technological services (Bauer et al., 2005; Bhatti, 2007; Dawn & Chen, 2005; Pagani, 2004; Park et al., 2007; Nysveen et al., 2005a; Venkatesh, 2000). Though this result may be regarded as questionable, it returns to the fact that the service is not widely in use, hence little concern is given to the scope of its convenience in comparison to other more important determinants from the customer’s point of view. The second determinant is perceived enjoyment. In spite of the fact that other previous studies have marked out its importance in the fields of internet and mobile (Bruner & Kumar, 2003; Cyr & Lavanov, 2006; Moon & Kim, 2001) our results have evidenced the opposite view. This is probably because perceived enjoyment goes along with other types of mobile services like communication, promotion,

entertainment, and advertisement (Bauer et al., 2005; Nysveen et al., 2005a).

As a final point, the results of the study did not elicit any significant effect of attitude on the intention to use which disagree with most of the previous studies (Nysveen et al., 2005a; Wong, 2008; Park et al., 2007; Bauer et al., 2005; Schierz et al., 2010). This unexpected result may be ad-ducible to the fact that most of the determinants that verify the intention to use this kind of service are mostly governed by rational factors rather than by enjoyment and ease of use. This means that the intention to use M-payment service is not determined by the attitude.

CONCLUSION

Both researchers and service providers give special importance to studies on mobile technology applications, in order to identify and understand the determinants, which persuade users to adopt it. After reviewing the different theories for accepting the technology, a conceptual framework encompassing several determinants including the ones that have been overlooked in previous studies, has been suggested. In general, the proposed model has shown that the main determinants affecting attitude are in sequence of their importance: perceived behavioral control; then perceived usefulness. They explain 30% of the variation in the attitude. The major determinants affecting the intention to use are in the sequence of their importance: personal innovativeness; perceived expressiveness; facilitating condition; perceived usefulness and social pressure. Together, they explain 76% variations in intention to use. Such results support the importance of the cultural dimension in measuring the users' intention to use M-payment which confronts the challenge of the scarcity in studies conducted in this area (Park et al., 2007; Varnali & Toker, 2010). The results also reveal a reduction in the mean values for all the acceptance determinants of the service, and there

are negative attitude toward it and low tendency to use. Our results are adequate for the characteristics of M-payment and to the nature of Egyptian culture, and this justifies the variance between the results of the current study and previous ones. By demonstrating these differences, the research has presented an addition, which contributes to guidance towards a better understanding of the mechanism governing the customers' intention to accept M-payment service in Egyptian culture. Thus, both marketers and mobile companies must pay a closer attention to this mechanism to ensure the success of the service, especially when a new service is developed in this renewable field; for the determinants vary from one service to another due to the differences in the customers' awareness of the properties of each service.

MANAGERIAL IMPLICATIONS, LIMITATION AND FUTURE RESEARCHES

Several Managerial implications can be drawn. First, the providers and marketers of M-payment service need to have a better understanding of the determinants affecting the customer's acceptance of this service in each culture separately. Second, the service marketers should benefit from the results by identifying the elements, which they must focus on when designing the marketing communications with customers. Concerning personal innovativeness, service marketers must pay a closer attention to the users, especially the innovators, or early adopters of M-payment who desire to experience the service due to its relative novelty, as these may perform the role of opinion leaders, and thus help in the spread of this service. The innovators may also form reference groups who exert an important social effect on the intention to use. It is noteworthy, that caution must be observed while designing a special marketing strategy for this category, since this may possibly disappoint other categories of users. Regarding

perceived usefulness, there is a need to provide enough information on the relative advantages and opportunities, which could be gained from using the service, and persuade customers that applying M-payment is better and more convenient than cash transactions. This should be done through different types of advertisement that explore the service's unique attributes. Moreover, the availability of adequate information on the complexity of the service and its financial requirements is expected to cover the factor related to perceived behavioral control. Additional efforts must be exerted to train salespersons, and arm them with the necessary details in different fields that enable them to bring forth the service's features and answer all questions raised by the innovators. Due to the effect of facilitating conditions, represented in information, it is important to access customers to the information and knowledge relevant to M-payment service, which will definitely contribute in adopting it. Third, in view of the effect of perceived behavioral control on attitude, the service should be given free for a certain period of time to allow customers to try it before adoption and perceive its benefits (trust, confidentiality, privacy). Through this trialability customers will be able to verify, among other things, that the service is cheaper than other payment methods, which will create a positive attitude towards it. Although there is no significant effect of attitude on behavioral intention, but this effect may be achieved on a long term. Fourth, due to the effect of perceived expressiveness on the intention to use, it is of importance to allow the user to express his personality and social identity through this service. Service providers must also take into account the changes that occur in fashion and life styles when they set out to renew the service so as to meet the changes in the user's identity. Finally, it is recommended to rely on reference groups to influence potential customers' intention to use this service, for such groups' reactions affect others who may (or may not) have an adequate experience to use the service.

Some limitations may be noted in this research: first, the applicability of its results may be restricted to Egypt or other similar regions and cultures. Second, we used students' data to inform our analysis, however in this case, students were an appropriate set of users from which to sample, because they share a common interest in the kind of innovations found in mobile services. Third, we did not incorporate actual usage behavior into the conceptual framework because the service is not yet largely applied in the Egyptian market. Finally, the study was conducted with an awareness of the existence of other determinants that can affect the intention to use M-payment, such as mobile efficacy, compatibility, accessibility and ubiquity, among others.

Our research also elicits the need for further studies in the field of wireless technology acceptance, especially M-payment services. The range of innovations in this new field offers a rich arena for research that may affect the determinants of its acceptance model. The current study may be of significance in the following areas; testing the proposed model of our research in different cultures and under various demographic factors with a view to increase marketers' knowledge about the users of M-payment services, and deepen their understanding of their behavior; evaluating the actual results that companies will achieve from applying the proposed model in the field of M-payment services; studying the impact of a positive attitude towards the service on the intention to use over time (longitude study), as the current study did not tackle the temporal dimension which may exert an impact on the relationship between them; investigating the moderating variables that may fortify the relationship between attitude towards the service and the intention to use it in the Egyptian society. Such studies partake of the need to give more attention to cross-cultural studies in the domain of mobile marketing.

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APPENDIX

M-Payment Survey: The following are the items used in the survey (each was answered on a five-points Likert Scale from strongly disagree to strongly agree):

1. (PU) Perceived Usefulness ($\alpha= 0.84$)
 - I will use Mobile Cash Service, if it gives me a greater ability to control and monitor my funds compared with other methods (cash or credit card payments).
 - I will use Mobile Cash Service if it contributes to achieve my financial dealings in a way that saves my time.
 - I expect that Mobile Cash Service will be useful in money transfer dealings.
 - I expect that Mobile Cash Service will be useful in financial payments related to my various dealings.
2. (PEOU) Perceived Ease of Use ($\alpha= 0.92$)
 - I will use Mobile Cash Service if interaction with it is clear and understandable.
 - I will use Mobile Cash Service if it is more convenient than other methods in financial payments or transfers.
 - I will use Mobile Cash Service if it facilitates my purchases for products.
 - I will use Mobile Cash Service if I see a trial demo first.
 - I will use Mobile Cash Service if learning to operate it is easy for me.
 - I will use Mobile Cash Service if the problems that occur while operating it are easily resolved.
 - I will use Mobile Cash Service if clear operating instructions are available.
 - I will not use Mobile Cash Service if time-consuming technical tasks will be required to get the service.
 - I will not use Mobile Cash Service if it takes the company a long time to execute my dealing instructions.
3. (SP) Social Pressure ($\alpha= 0.85$)
 - People important to me will regard as clever when using Mobile Cash Service.
 - People who are important to me think that I should use Mobile Cash Service.
 - I believe that all those who use Mobile Cash Service, including my family, friends, and colleagues, are in a higher position and status than those who do not use it.
4. (PE) Perceived Enjoyment ($\alpha= 0.86$)
 - I expect that using Mobile Cash Service will be entertaining.
 - I expect that using Mobile Cash Service will be exciting.
 - I expect that using Mobile Cash Service will be pleasant.
5. (PBC) Perceived Behavioral Control ($\alpha= 0.85$)
 - I will use Mobile Cash Service if I can afford the expenditures required for its use.
 - My previous experience with mobile services will help me use Mobile Cash Service.
 - My previous experience in the field of technology in general will help me use Mobile Cash Service.
6. (FC) Facilitating Condition ($\alpha= 0.85$)

Exploring Determinants Influencing the Intention to Use Mobile Payment Service

- I will use Mobile Cash Service if technical support is available to give assistance in facing various difficulties during operating the service.
 - I will use Mobile Cash Service if I receive enough information about it from the service provider.
 - Advertisement campaigns for Mobile Cash Service will impel me to use the service.
 - The efforts of the company's salesmen play an important role in understanding the properties of Mobile Cash Service.
 - I will use Mobile Cash Service if the company presents it in attractive and competitive price offers.
 - I will not use Mobile Cash Service unless the service provider has a good reputation.
 - I am concerned if I use Mobile Cash Service, some financial transactions will exploit my account without my notice.
 - I am concerned if I use Mobile Cash Service, the privacy of my financial dealings will be invaded.
 - I will not use Mobile Cash Service if the service providers exaggerate in their request for personal information to subscribe for the service.
7. (PEX) Perceived Expressiveness ($\alpha= 0.87$)
- Mobile cash is something I will often talk with others about or use together with others.
 - Using Mobile Cash Service is part of how I express my personality.
 - I will use Mobile Cash Service if it matches different aspects of my life style.
8. (PI) Personal Innovativeness ($\alpha= 0.90$)
- I consider myself an adventure lover.
 - I like to be around unconventional people who dare to try new things.
 - If I hear about a new product, I would look for ways to purchase it.
 - Among my peers, I am usually the first to try out new products.
 - I usually provide new information of new products to others.
9. (IU) Intention to Use ($\alpha= 0.77$)
- I intend to use Mobile Cash Service if it is widely used.
 - I intend to use Mobile Cash Service in the next six months.
 - I intend to benefit from the applications of Mobile Cash Service.
10. (UA) Attitude to Use the Service ($\alpha= 0.89$)
- A Five-point scale was developed on the characteristics of the service as follows:
 - Absolutely not a wise idea – Not a wise idea – neutral –A wise idea – Very wise idea.
 - An absolutely unfavorable idea– Not a favorable idea – neutral – A favorable idea – A very favorable idea.
 - Absolutely not a positive idea – Not a positive idea – neutral– Positive idea – Very positive idea.
 - An idea that is absolutely unworthy of attention – An idea unworthy of attention – neutral– An idea worthy of attention –An idea very worthy of attention.

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Chapter 18

The Mediating Role of Job Embeddedness between Internal Marketing and Turnover Intention

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ABSTRACT

This study contributes to the stream of research on job embeddedness and internal marketing. Greater attention needs to be paid to understand the mechanisms and processes through which internal marketing influences work-related attitudes such as turnover intention in order to develop complete understanding of the effect of internal marketing on job embeddedness. This study fills this research gap using a sample of respondents employed by telecommunication companies in Egypt. The author examines whether job embeddedness mediated the effects of internal marketing on turnover intention. Results from Structural Equation Modeling (SEM) showed that job embeddedness fully mediates the relationship between internal marketing and turnover intention. Results also support that internal marketing has obviously positive influence on job embeddedness and a clearly negative influence on turnover intention; finally, internal marketing has direct and indirect influences on turnover intention through job embeddedness. Implications for research and practice of the findings are discussed.

INTRODUCTION

Since the mass layoffs of the 1970s, the careers literature has paid a great deal of attention to employees' job mobility (Arthur & Rousseau, 1996; Sullivan, 1999; Ng et al., 2005). However, over

the past several years, an interesting alternative question has emerged: Why do people stay in their organizations and occupations even when other opportunities are available elsewhere? Beginning with the research on job embeddedness, scholars have been paying more and more attention to issues of job stability (Mitchell et al., 2001).

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Previous research has revealed job embeddedness to be a more effective predictor of employee retention than any of the other variables utilized by all of the major turnover models, including job satisfaction, organizational commitment and job alternative variables (Holtom & O'Neill, 2004; Lee et al., 2004; Holtom & Inderrieden, 2006).

However, how job embeddedness (JE) is developed, or what factors cause employees embedded in their jobs to keep them from leaving the organization still requires investigation, a few studies focused on these factors (Bergiel et al., 2009; Chen et al., 2010), we suggest that internal marketing may be one of the factors that causes employees embedded, which in turn influences employees' turnover intention.

The concept of internal marketing (IM) originated in the field of marketing research in the service industry (Berry, 1981; Grönroos, 1981), emphasizing that enterprises should value and respect their employees and regard them as internal customers. Internal marketing concept challenges traditional marketing methods, which focus on serving external customers only. The main objective of internal marketing is to help internal customers (employees) to gain greater job satisfaction, which should promote job performance and facilitate the organization accomplishing its ultimate business objectives (Chang & Chang, 2007). Some researchers sustain that the IM objective is selling the firms to their employees by identifying and satisfying their needs as individuals and service providers (Vary, 1995), in order to get that they become really conscious of their services performance, IM also is a way to develop customer-oriented dynamic teams (Vasconcelos, 2008).

The goal of the present study is to examine the relationship between internal marketing and job embeddedness and the mediating role of job embeddedness in the relationship between internal marketing and intention to turnover.

THEORETICAL FRAMEWORK AND HYPOTHESES

Job Embeddedness

Job embeddedness is a new construct developed by Mitchell et al. (2001), it represents a combination of factors that influence an employee's decision to remain in or leave the organization. This approach of turnover focused on the factors that make an individual more likely to stay in the job, or leave an organization. This approach built on the earlier turnover models and added a new dimension to our understanding of turnover (Ramesh, 2007).

On the other hand, Mitchell and Lee (2001) define job embeddedness as a multidimensional construct that focuses on the factors that make an individual more likely to stay in the job, namely the work, social, and non-work attachments that are developed over a period of time. Individuals with more types of restraining forces are more embedded and less likely to voluntarily exit the organization (Sekiguch et al., 2008), while Yancey (2009) defined job embeddedness as the combined forces which keep a person from leaving his or her job.

Job embeddedness is characterized by three sub-dimensions: (a) the extent to which people have links to other people or activities inside and outside the organization, (b) the extent to which their jobs and communities fit other aspects in their "life spaces", and (c) what they would give up if they left their present settings (Mitchell et al., 2001). These three sub-dimensions are considered in two over-arching dimensions: an employee's organization (on-the-job) and community (off-the-job), generating the six dimensions of the job embeddedness construct: links-organization, links-community, fit-organization, fit-community, sacrifice-organization and sacrifice community (Bergiel et al., 2009).

This study focuses only on-the-job dimensions of embeddedness, because organizational aspects and practice especially internal marketing is more

related to on the job factors, so off-the-job embeddedness (community embeddedness) is irrelevant in this study.

Links-Organization Dimensions

In general, links are formal or informal connections between a person and institutions or other people (Mitchell et al., 2001), also Wheeler et al. (2010), define Links- Organization as formal or informal connections that exist between an employee and other people or groups in the organization.

Links can be thought of as strands that connect an employee with his or her work team members, supervisors and other colleagues with whom he or she is working. The greater the number of links, the stronger the web and therefore the more tightly the individual is bound to the job and organization (Mitchell et al., 2001). This linking process or social integration increases with employee tenure and thereby reduces an individual's desire to work elsewhere (Abelson, 1987; Bergiel et al., 2009).

Research related to the link dimension of JE suggests that pressure from work colleagues is an important factor that determines employees' attachment to their job (Prestholdt, Lane, & Mathews, 1987; Reitz, 2009). Therefore, Links are connections that a person has with other individuals and institutions. The more connected an individual is with the organization, the more difficult leaving is and the more embedded the person is.

Fit-Organization

Fit denotes an employee's perceived compatibility or comfort with the organization and with his or her environment (Mitchell et al., 2001). An employee's personal values, career goals, and plans for the future must fit with the larger corporate culture. This enables the employee to feel connected to the organization and the demands of his or her immediate job.

Accordingly, the better the fit, the higher the likelihood an employee will feel professionally and personally tied to an organization. O'Reilly et al. (1991) found that misfits with the organization's values terminated slightly faster than fits. Therefore, when organizational entry produces poor person-organization fit, employees are likely to leave the organization (Chatman, 1991; Bergiel et al., 2009).

Organization Sacrifice

Sacrifice is the third attribute of JE; it refers to the perceived costs associated with leaving. These costs may be physical or psychological. Leaving may mean giving up the advantages associated with tenure in the organization (pay, corner office), as well as the personal losses such as close friendships with coworkers or benefits unique to the organization. So, individuals who are high on a JE scale might choose to stay with an employing organization, even if circumstances are less than ideal (Harman et al., 2009).

Little studies concern about factors that influence job embeddedness for example, Bowman (2009) explored the role of a supervisor in job embeddedness, which was operationalized in his study as leader member exchange (LMX). On the other hand, Wheeler et al. (2010) indicate that human resource practice effectiveness compensates for low quality LMX relationships in building job embeddedness, which then leads to decreased employee turnover intention.

Chen et al. (2010) examines the relationships between organizational context (organizational open-mindedness; organizational commitment; planning autonomy and personnel autonomy), JE, and knowledge work team effectiveness. The results showed that open-mindedness and organizational commitment are positively related to JE, JE also has strong relationship with knowledge work team effectiveness, but, the relationship between job autonomy and JE is not significant.

From the above discussion, it is clear that few studies focused on the causes of JE, and they were not interested in examining the influence of internal marketing on JE, although the researchers paid more attention to study the impact of internal marketing on some other organizational behavior, especially organizational commitment and job satisfaction.

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Internal Marketing

In last two decades the internal marketing (IM) concept has experienced an impressive advance. IM was first introduced by Berry in the 1970s, he focusing primarily on 4Ps, and posited that employee could be considered as internal customer and the job could be seen as the firm's products. He developed traditional marketing models and approaches that were based on the idea of making the worker's job attractive and desirable in the belief that employee satisfaction would lead to customer satisfaction which would, in turn, build more customer loyalty.

In the 1980s, Grönroos (1984) introduced a new approach to IM. In his view, it is not sufficient that employees are motivated to perform better but they must also be sales minded. Thus, the employees facing customer were key to the firm's success. Each employee should be trained as a marketer to do add-on, cross-selling and the like along with customer retention skills that would enable the building of ongoing customer relationships (Grönroos, 1984). The critical difference between Grönroos' approach and that of Berry is that Grönroos focuses attention on creating customer orientation in employees through a process of influencing, rather than satisfying and motivating employees (Farzad et al., 2008).

In the 1990s, Rafiq and Ahmed developed a hybrid approach to IM. In their approach, they proposed that IM was inherently difficult to implement because of inter-functional conflicts between departments, management and employees and the firm's inherent resistance to change (Rafiq & Ahmed, 1995).

Rafiq and Ahmed (2000) define IM as a planned effort using a marketing-like approach to overcome organizational resistance to change and to align, motivate and inter-functionally co-ordinate and integrate employees towards the effective implementation of corporate and functional strategies, in order to deliver customer satisfaction through process of creating motivated and customer oriented employees.

Internal marketing scholars have rapidly investigated its concept to produce 92 unified IM definitions. Unfortunately, as yet, scholars haven't been able to create a single IM definition which is universally used. The literature review indicates that in many cases there are a number of competing definitions and activities which all claim to address the IM concept (Mat, 2008).

Lings (2004) noted that, there have been two schools of thought on the conceptualization of IM: total quality management perspective and human resources perspective. The first strand views all employees and departments as simultaneously being internal customers of, and internal suppliers to, other employees and departments in the firm (e.g., Barrett, 1994; Lukas & Maignan, 1996). The basic premise of this approach to IM is that, by increasing the quality of service transactions with internal customers, organizations can positively influence the quality of service transactions with external customers (e.g., Marshall et al., 1998; Brooks et al., 1999; Frost & Kumar, 2000). Advocates of internal marketing suggest, therefore, that managements should attempt to "sell" ideas about appropriate attitudes and behavior to their workers.

A second strand of IM literature concentrates on a human resources perspective. This approach more closely aligns with the human element of the services marketing mix (Booms & Bitner, 1981) and the internal and boundary relationships identified in the services marketing triangle. It is grounded in the belief that external marketing success is, in part, depends on having satisfied and motivated employees which are the main role of IM (Berry, 1984; Berry & Parasuraman, 1991). The focus of this strand of the IM literature is, therefore, on the relationship between the company and its employees and how this relationship can facilitate the relationship between the employees and customers (Lings, 2004).

Internal Marketing and Organization Behavior

Yang (2010) concluded to, If IM activities carried out effectively, it can thus change employee attitudes and behaviors. So, previous research showed a positive relationship between IM and employee attitudes especially with job satisfaction and organizational commitment. Berry and Parasuraman (1991) pointed out that enterprises must promote services to internal employees first and allow them to find pleasure in work to be capable of providing effective service to external customers of the enterprise. Thus, IM activities, when correctly focused, have the capacity to improve the job satisfaction of employees (Peltier et al., 2006; Chang & Chang, 2007; Yang, 2010).

Relationship and development of IM and organizational commitment have been generally elaborated by marketing scholars to show the importance of internal marketing criteria in influencing organizational commitment (Bell et al., 2004; Bernstein, 2005; Farzad et al 2008; Chang & Chang, 2008).

Some empirical studies focused on the relationship between internal marketing and both organizational commitment and job satisfaction together, Which pointed out that the employees of an organization with the concept of IM have generally higher job satisfaction and organizational commitment (Bennett & Barkensjo, 2005; Chang & Chang, 2007; Liao, 2009) highlighted the important role of IM in enhancing job satisfaction, commitment of employees and customer-oriented behavior in the organization. In addition, he concluded that job satisfaction mediates the relationships of internal marketing with both organizational commitment and customer orientation.

According to Mitchell et al. (2001), organizational commitment and job satisfaction have some similarities with and differences from JE. The distinction between JE and related constructs especially job satisfaction, organizational commitment has a particular importance when one

The Mediating Role of Job Embeddedness

considers broad theories of job mobility, in which the reasons why people are attached are less important than the extent to which they are attached. According to model of turnover, job satisfaction and the various forms of commitment represents specific reasons for being attached. In contrast, JE represents a general attachment construct that assesses the extent to which people feel attached, regardless of why they feel that way, how much they like it, or whether they choose to be so attached.

Studies have highlighted relationship between IM and both organizational commitment and job satisfaction, and there were not interested in studying the relationship between IM and JE. It is expected that the greater the attention paid to employee as internal customer, the more he embeddedness in his job. Then, the first hypothesis is:

H1: Internal marketing is positively influences Job embeddedness.

Relationship between Internal Marketing and Turnover Intention

Empirical studies have shown negative relationship between IM and turnover intention (Taylor & Cosenza, 1997, 1998; Chang & Chang, 2008; Lee et al., 2010). Budhwar et al. (2009) noted IM strategy can used to reducing turnover in public accounting firm. Tai (2002) showed that all of the IM practices have positive impact on job satisfaction and organization commitment, but negative impact on employee turnover intention. IM provided the basis for managers to reinforce their IM so as to arise the degree of job satisfaction and organizational commitment, and reduce the employee's turnover intention.

Previous studies of IM and turnover intention have focused on analyzing the relationship between them at a single event; fewer studies have focused on the IM and turnover intention in the emergencies. Chen et al. (2006) examined the relationship between the IM and turnover intention when situation of a Dangerous Outbreak of

Illness like (SARS). Results showed that there was negative correlation between IM and turnover intention after the SARS outbreak. Then, the second hypothesis is:

H2: Internal marketing negativity influences turnover intention.

Turnover Intention and Job Embeddedness

Prior to the establishment of JE as a formalized construct, research examined the relationship between turnover and perceived on-the-job fit. These results suggested that employees who either perceived themselves as having a poor fit with their organization, or were deemed a lesser fit through objective measures, were more likely to either leave their organization (or leave more quickly) than employees who either were, or perceived themselves to be a more appropriate fit with their organization (Chatman, 1989; O'Reilly, Chatman, & Caldwell, 1991).

Since the theory of JE published, a number of studies have confirmed its predictive capacity. Across two samples Mitchell et al. (2001) found JE significantly predicted subsequent voluntary turnover, Mitchell and Lee (2001) argued that the construct may dissuade voluntary turnover and turnover intention because the shocks which employees experience on the job would be "buffered" by their embeddedness, this shows that the turnover decision is not depend only on the individual's attitudes towards work or about the actual opportunities in the labor market but these decisions are also the result of an analysis of complex web of factors that are labeled JE.

Additional research has demonstrated the utility of JE as a predictor of voluntary turnover and intention to turnover and found JE to be negatively related to these two types of turnover (Mitchell et al., 2001; Lee et al., 2004; Allen, 2006; Slugoski, 2008; Trevor & Nyberg, 2008; Felts et al., 2009; Bowman, 2009).

While Caldarola (2010) showed that the impact of JE with the intention of turnover mediated by organizational commitment; information that was not available from prior studies of retention. Then, the third hypothesis is:

H3: Job embeddedness negativity influences turnover intention.

The Mediating Role of Job Embeddedness

Mediation, or as it is sometimes called, indirect effect, explains the relationships between three or more variables. In a mediated model the independent variable is correlated to both a mediating and dependent variables. That mediating variable is also correlated with the dependent variable, in the social sciences especially there are often multiple mediating variables that influence the relationship between an independent and dependent variables, and completely eliminating the influence of one mediator will not completely negate the relationship between the independent and dependent variables (Barron & Kenney, 1986; Bowman, 2009).

According to Reitz (2009), JE represents a mediating construct between various “on the job” (organizational) factors, “off the job” (community) factors and employee retention. Mitchell et al. (2001) proposed that JE plays an important mediating role in understanding how socialization tactics influence turnover; they assert that JE is a mediating variable between on-the-job constructs, such as work-family conflict, and turnover without offering support for that-assertion.

Subsequently, some researchers have studied the role of JE as a mediator; Allen (2006) examined JE as a partial mediator of socialization tactics in predicting turnover, the result showed that JE did not mediate five of six forms of socializa-

tion tactics. Allen concluded that JE partially mediates the relationship between investiture socialization tactics and turnover. Bowman (2009) also found that JE also partially mediates the relationship between leader-member exchange and job search behaviors, while Yancey (2009) examined the potential mediating effect of JE on the job satisfaction, tenure relationship, and found that the Job satisfaction and tenure were found to be mediated by on-the-job links, finally Bergiel et al. (2009) examined JE as mediator of the relationship between human resource practices (Compensation, Supervisor support, Growth opportunities, Training) and employees’ intention to quit, they found that JE mediated all human resource practices except training in relation to employees intention to quit.

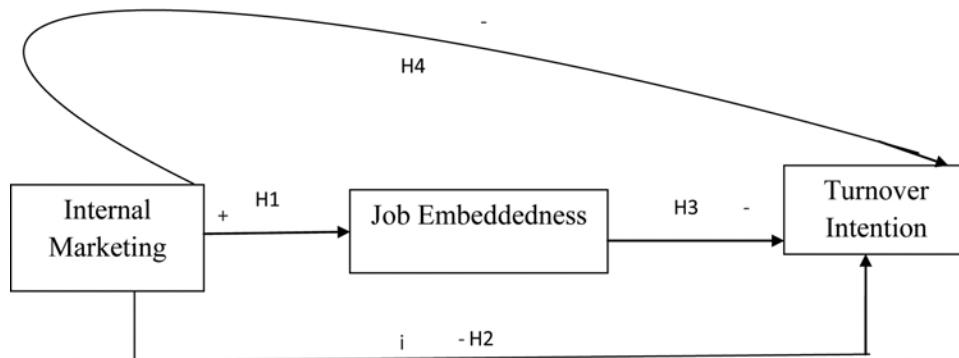
Tai (2002) studied the mediating role of job satisfaction and organization commitment among IM and turnover intention, however, a meta-analysis by Griffeth et al. (2000), indicated that organizational and attachment variables have relatively little explanatory power, explaining only four to five percent of the variance in turnover behavior. Previous empirical results have revealed that JE to be a more effective predictor of employee turnover intention than job satisfaction, organizational commitment (Holtom & O’Neill, 2004; Besich, 2005; Holtom & Inderrieden, 2006).

In this study we assume that job embeddedness will be mediate the relationship between internal marketing and turnover intention. Then, the fourth hypothesis is:

H4: Internal marketing negatively and indirectly influences turnover intention through job embeddedness.

Based on the above arguments, the theoretical framework that guides the present study is presented in Figure 1.

Figure 1. The research model



Methods

Sample and Procedure

To test proposed hypothesis empirically, this study selected respondents employed by the three telecommunication companies in Egypt. Total of 500 questionnaires were distributed. Of the 336 copies returned, 11 were excluded due to incomplete answers, which gave a total 325 effective copies were retrieved and a valid response rate of 65%, which is relatively high. All data were collected and administered during work time. However, before completing the survey, employees were assured of confidentiality. This study analyzes the reliability of each construct using Cronbach's coefficient. In general, a questionnaire's Cronbach's coefficient should exceed 0.6 (Churchill, 1979). In this study all Cronbach's coefficients satisfy this requirement (Job Embeddedness = 0.88; Internal Marketing = 0.79, and Turnover Intention = 0.89).

Measures

1. *Job Embeddedness* was measured using the 23 JE items published by Mitchell et al. (2001); JE consists of three dimensions fit, links, and sacrifice sub-scales that combine to form one overall assessment of JE. The first dimension of the JE is organizational fit. An employee's perceived compatibil-

ity or comfort with his or her career and organization was measured with seven items (a sample item is: 'you can have a good career in corrections'). The 7 items were then averaged to create the composite scale of fit. The second dimension of JE is organizational links and is comprised of 7 items, this component of JE assesses the quantifiable links the employee has with the organization, other employees within the organization, and other various links established as a by-product of being employed by their current organization (a sample item is: 'How many coworkers do you interact with regularly?'). The last dimension of the JE is organizational sacrifice, the perceived cost of material or psychological benefits that may be forfeited by leaving one's job. This facet of JE uses 9 items to assess attitudes regarding compensation for performance level, potential sacrifices if leaving their current job, and the freedoms of the job (a sample item is: 'I would sacrifice a lot if I left this job'). Likert-type scale was used from never to every day (0 = never to 6 = every day). The Cronbach's alpha coefficient of this scale was 0.88.

2. *Internal Marketing* was measured using a 22-items scale adapted from (Liao et al., 2004). They developed the IM scale based on the marketing mix concept and human

resources management activities, their IM scale contains five underlying dimensions, which they term communication (items related to information sharing from company for example; ‘Company often announces new policies to us by holding seminars’), supervisor’s leadership (items related to direct supervision for example; ‘Our direct supervisor can motivate us to give him/her our best’), intangible benefits (items related to intrinsic work quality for example; ‘The company treats us with respect’), compensation (items related to investigating compensation of competitors for example; ‘The company regularly investigates and understands the benefit policy of competitors’), and intermediary (items related to upward communication within company for example; ‘The company often announces and shares work-related information on the intranet’). Likert-type scale was used from never (0) to every day (6). The Cronbach’s alpha coefficient of this scale was 0.79.

3. *Turnover intention* was operationalized as the likelihood that a person will seek employment elsewhere rather than remaining in his/her present job. We assessed turnover intention using the measure used by Mitchell et al. (2001). A sample item is: ‘Do you

intend to leave the organization in the next 12 months?’). The three items were scored on a five-point, Likert-type scale was used from strongly disagree (1) to strongly agree (5). Higher scores indicated higher levels of turnover intention. Cronbach’s alpha coefficient of this scale was 0.89.

Hypotheses Testing

Table 1 presents means, standard deviations, and correlations among the study variables the correlation coefficient values among original internal marketing factors (Communication, Leadership, Intangible benefits, Compensation, and Intermediary) range from .49 to .58, indicating that they are highly related concepts. As for job embeddedness sub factors (link, fit, and Sacrifice) are highly interrelated (r) range from .52 to .71.

Table 1 shows a significant relationship between the variables were in the expected direction. Internal marketing sub-dimensions was positively related to job embeddedness sub-dimensions, and negatively to turnover intention, finally, all job embeddedness sub-dimensions was negatively related to turnover intention.

SEM analyses were used to test study model and hypotheses 1, 2,3 and 4 (see Figure 1). In addition, the higher the model fit, the higher us-

Table 1. Descriptive statistics and correlations for all variables

Variable	M	SD	1	2	3	4	5	6	7	8
1.Communication	4.01	.99								
2. Leadership	3.23	1.24	.49**							
3. Intangible benefits	3.51	.62	.58**	.53**						
4. Compensation	3.72	1.04	.55**	.53**	.51**					
5. Intermediary	3.94	.56	.57**	.57**	.58**	.44**				
6. Link	3.90	.75	.39**	.45**	.41**	.49**	.33**			
7.Fit	4.65	.93	.38**	.40**	.38**	.33**	.52**	.62**		
8. Sacrifice	4.38	.87	.31**	.24**	.61**	.22*	.71**	.66**	.65**	
9. Turnover intention	1.88	.51	.23*-	.28**-	.39**-	.40**-	.32**-	.36**-	.33**-	.44**-

Significant at * p, .05; ** p, .01.

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ability the model has, as far as the model fit assessment is concerned. That also means that parameter estimates are more meaningful. The goodness-of-fit of the models was evaluated using absolute and relative indices. The absolute goodness-of-fit indices calculated were (Jöreskog & Sörbom 1986): (1) the χ^2 goodness-of-fit statistic; (2) the Root Mean Square Error of Approximation (RMSEA); (3) the Goodness of Fit Index (GFI); (4) the indicators of incremental fit indexes Normed Fit Index (NFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Incremental Fit Index (IFI).

Table 2 shows the goodness-of-fit to the model proposed, since χ^2 is significant ($p < 0.05$), as well as the ratio between df/χ^2 is less than 2; then the hypothesized model fits the data, as well as the values of (RMSEA) less than (0.05), so this indicator of an acceptable fit, as well as (GFI) was up and close to one, this indicate also that the study model fit with sample data, finally the indicators of incremental fit indexes (NFI), (CFI), (TLI), and (IFI) for all four relative-fit indices, as a rule of thumb, values greater than .90 are considered as indicating a good fit.

From results mentioned in Table 2, it is clear that the proposed model is characterized by the availability of the best values for the goodness of fit indicators combined, indicating a certain amount of truth to confirm the proposed model and that explains the significant effect among the variables it contains.

Table 3 shows the values of standardized regression weights for the effects of direct and indirect of the variables in the model. The linear structural relationship model was applied to examine relationships among internal marketing,

job embeddedness, and turnover intention. Results show that:

1. There is a positive relationship between internal marketing and job embeddedness as shown in Figure 2, where estimates of standardized regression weights for the path from internal marketing to job embeddedness is 0.35 and $p < 0.01$, this indicates that internal marketing has an evidently positive influence on Job embeddedness. So, Hypothesis 1 is therefore, supported.
2. There is a negative relationship among internal marketing and turnover intention (direct effects). As illustrated in Figure 2, standardized regression weights for the path from internal marketing to turnover intention is (-0.22); which reaches significance ($p < 0.05$), reflects a negative relationship and indicate that internal marketing has an evidently negative influence on turnover intention. So, Hypothesis 2 is, therefore, supported.
3. There is a negative relationship between job embeddedness and turnover intention. As illustrated in Figure 2, parameter estimates of the path regression among Job embeddedness and turnover intention is (-0.54), which reaches significance ($p < .01$). This reflects a negative relationship and indicates that job embeddedness has an evidently negative influence on turnover intention. So, Hypothesis 3 is also supported.
4. There is a negative relationship between internal marketing and turnover intention through job embeddedness (mediating effects of job embeddedness). In addition to the direct effect of internal marketing to

Table 2. Fit indices of structural equation models

	df/ χ^2	GFI	RMSEA	NFI	CFI	TLI	IFI
5.54	0.306	0.978	.08	.98	.97	0.98	0.99

turnover intention, Job embeddedness has played a mediating role in the relationship between internal marketing and intention to turnover. As illustrated in Table 3, the regression weights for the path regression IM to JI to TI is (-0.19, $p < .05$), Which reflects a significant mediator effect of job embeddedness in this relationship between internal marketing and intention to turnover, which in turn increase the negative impact of internal marketing on turnover intention. So, Hypothesis 4 is also, supported.

Table 3. Standardized regression weights of direct and indirect effects of variables of the model

Direct, indirect, and total effects	Regression Weights
Direct effect IM→ JI	0.35**
IM→TI	-0.22*
Ji→TI	-0.54**
Indirect effect IM→JI→TI	-0.19*
Total effect IM→TI	-0.41**

Significant at * p, .05; ** p, .01.

DISCUSSION

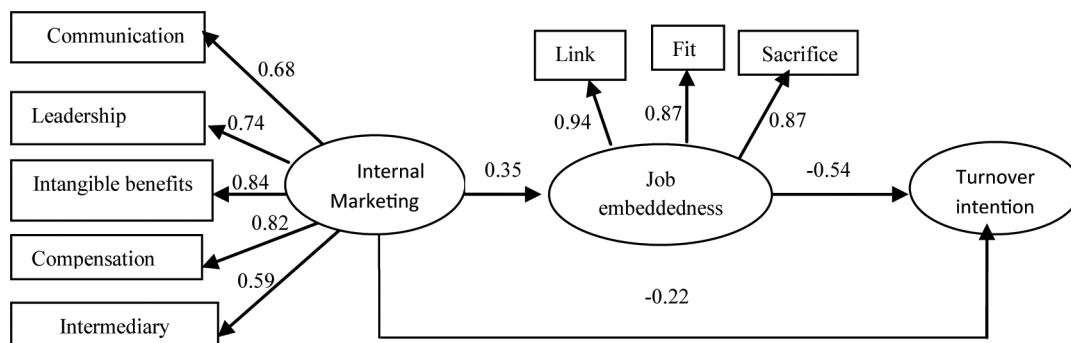
The purpose of this study is to examine the mediating role played by job embeddedness in the relationship between internal marketing and turnover intention. It was found that, as hypothesized, job embeddedness mediates the impact of internal marketing and turnover intention: that is; an increase in internal marketing is related to an increase in job embeddedness, which, in its turn, is negativity related to turnover intention.

In addition Internal marketing has obviously positive influence on job embeddedness, because of when organization treats their employees as a customers by applying internal marketing principles, employees will be more embedded in their jobs. For example, when the organization has a communication and intermediary system, which

is given to workers the chance to understand the company policies and how to practice it, shares work-related information, make the company regularly, communicates its philosophy and values, and provides employees with good channels for filing their complaints. As a result, employees feel linked to and fit with their organizations, also when organization provides to its employees satisfied compensation and intangible benefits, this in turn, leads to greater potential sacrifices for employees and they will not decide to look for or pursue other employment.

As well as this study supports the idea that internal marketing has a clearly influence on changing employee attitudes and behaviors. Previous research showed a positive relationship between internal marketing and employee attitudes

Figure 2. The final model (standardized regression weights)



especially with job satisfaction and organizational commitment (Besich, 2005; Holtom & Inderrieden, 2006), but this study concluded that internal marketing also increase another employee attitude which is job embeddedness.

Study results also support that internal marketing has a clearly negative influence on turnover intention, this also agrees with assertions made in previous relevant studies (e.g., Hang & Chang, 2008; Lee et al., 2010) which indicated that employees have a low level of turnover intention when organization adopt internal marketing. This means that taking perspective of internal marketing transforms the employee needs to activities helped in reducing the turnover intention.

Further, our research supports the theoretical arguments offered in previous literature about the existence of a negative relationship between job embeddedness and turnover intention (e.g., Mitchell et al., 2001; Harman et al., 2009; Burke & El-Kot, 2010; Gong et al., 2011). This confirms that when employees feel linked to their organizations, when they believe that they have a personal fit with its culture and values, and when they perceive that the cost of organizational benefits that would be sacrificed if they left would be greater than the gain of leaving the company (the three components of work embeddedness). Then, Those employees are more likely to stay with the organization and as a result there intention to turnover will be decreased.

Finally, our results show some additional and appealing aspects of the indirect relationship among internal marketing and turnover intention. First, internal marketing not only directly influences turnover intention but also influences turnover intention through job embeddedness. This result argues with previous result of Holtom and Inderrieden (2006) whom state that "JE is conceived as a key mediating construct between specific on-the-job and off-the-job factors and employee turnover. Wheele et al. (2010) explained that organizational systems are the key to develop JE, which in turn, is associated with increased

employee retention. If organization wants to increase employee retention, it must foster sufficient employee JE through some mechanisms. This study argues that internal marketing are one of such mechanisms that sufficiently fosters JE to decrease employee turnover intention.

Second, the finding of the current study supports an early results of some studies which showed that job embeddedness mediates the relationship between on-the-job (organizational) factors and turnover intention (e.g., Bergiel et al., 2009; Wheele et al., 2010), and the results of Tai (2002) which showed that employee attitudes and behaviors meditate the relationship between internal marketing and turnover intention.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Current study has some limitations that should be mentioned. First, our results may partly be influenced by common method variance because self-report questionnaires were used to measure internal marketing, job embeddedness and turnover intention, and it has been influenced by numerous factors, such as defensiveness, misrepresentation, personal emotion and other personal attitudes.

Second, this study applied on telecommunication companies, so; results may be differs when we change application field (e.g., Banks, Financial markets, etc.). Then, this might not be appropriate to generalize the findings to other organizations. Thus, future research needs to obtain more diversified samples to achieve better generalizability.

Third, this study examined the impact of internal marketing on job embeddedness without exposure to the impact between internal marketing and job embeddedness sub-dimensions (fit, link, and sacrifice) and, therefore, future research needs to examine this relationship to demonstrate the impact of internal marketing on these sub-dimensions to show any of these more affected by the internal marketing.

- Focus Online: ايناملأ
 - Machu Picchu: ةينابسإلا
 - Museodel Prado: اينابسإ
 - Venezuela Tuya: ةينابسإلا
 - The White House: ةدحتمل تايالولأ
 - El Confidencial: اينابسإ
 - Telegraph.co.uk: ةدحتملا ةكلمملا
 - OneIndia: ةيدنلأ
 - G1 Globo: ليزاربلأ
 - Zeit Online: ايناملأ
 - La Información: اينابسإ
 - NouvelObs: اسنرف

Finally, This study examined internal marketing depending on the scale adapted from Liao et al. (2004) Which contains five dimensions although there are other internal marketing scales which consists of other dimensions and thus future studies need to rely on this other measures of internal marketing to determine whether the results revealed in this study will differ according to internal marketing scales or not. On the other hand, this study focused on intention to turnover, so, the study would have been improved if we had measured actual voluntary turnover rather than intention to turnover. Thus, future research should be covered all these concerns.

PRACTICAL IMPLICATIONS AND CONCLUSION

The accumulating research findings on internal marketing and job embeddedness have added considerably to our understanding of implications for building more effective organizations. The findings in this study have some implications for managerial practices in organizations. Managers need to be aware the important role of internal marketing in decreasing employee turnover intention through applying internal marketing activities that develop employee JE.

Managers must treat employees as customers and corporate partners, providing them with communication systems that make them share information from company. for example, about new policies, work-related information, its philosophy and values and enable them filing complaints either through meetings or training courses or participation with external sponsors and put a compensation system that allow them regularly investigates and understands the employee benefits of competitors and sets up different incentive programs for different departments. Also, managers must treat employees well and enhance their interpersonal relationships which allow them to develop their talents and potential, provide them with a very comfortable working environment and make their work interesting.

As a result, Employees become more closes links, better fit with their company and perceive that they would be great sacrificed if they left the company which makes them more embedded in their job and keep them from leaving the organization.

In conclusion, current study sets out to examine the relationships between internal marketing, job embeddedness, turnover intention, and mediating role of job embeddedness among internal marketing and turnover intention. This study results extends three bodies of literature. First, it establishes that internal marketing enhances job embeddedness; thus, this study represents an empirical exploration of how organizations can increase employee job embeddedness beyond other organization practices like human resource practice. Second, this study provides more evidence on the role of internal marketing in reducing turnover intention, and finally, the study confirmed that job embeddedness represents a mediating construct between various job factors and employee retention.

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Chapter 19

Egyptian Electronic Government: The Citizen Relationship Management (CRM) Case Study

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ABSTRACT

Many developing countries' governments have invested heavily in increasing the number of e-government projects. However, there is a lack of clear case material, which describes the potentialities and consequence experienced by governments trying to manage with this change. The Ministry of State for Administrative Development (MSAD) is the organization responsible for the e-Government program in Egypt since early 2004. This paper presents the findings of the CRM case study, one of the e-service projects led by MSAD. Semi-structured interviews have been used as primary data collection techniques. The findings of the study reveal that the main driver to the success of the project is changing the organizational culture and thinking. It is noticed there is an influence of the project on citizens' encouragement for public participation as it was able to increase their satisfaction levels. Also, the findings emphasised the problems that face the overall e-government program in Egypt. They also explain the relationships among those identified problems of governmental e-service development.

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INTRODUCTION

E-Government has become a universal trend. Developing countries have been initiating E-Government strategies and projects, as a way to promote development and reduce poverty (Schuppan, 2009). These projects can strengthen the performance of government and public administration; and for economic and social development as well (Hassan, Shehab, & Peppard, 2011). E-Government projects can contribute to solving administrative problems in developing countries whose public administration is characterized by inefficiency, limited capacity, and poorly-trained personnel (Abanumy, Al-Badi, & Mayhew, 2005). Electronic or “online” channels can facilitate government communication functions more rapidly, efficiently and cheaply than offline channels (Heeks, 2001; Lau, Aboulhosen, Lin, & Atkin, 2008).

Yet, given the e-government requirements of very complex socio-technical system, highly dependent upon overall institutional maturity, regulatory/policy frameworks, and socio-cultural considerations, the level of e-government implementation is lower than planned or expected in the developing countries (Hassan, Shehab, & Peppard, 2008). The gap between developed and developing countries in Internet technological infrastructures, practices, and usage has been wider rather than narrower over recent years (AlShihi, 2006). Besides the lack of sufficient capital to build up an expensive national information infrastructure (NII) on which electronic service is based, developing countries also lack the sufficient knowledge and skill to develop suitable and effective strategies for establishing and promoting electronic government (Chen, Chen, Ching, & Huang, 2007).

The project of electronic government is one of the strategic projects for building information base in Egypt. The Egyptian Government set up a secure hub for e-government based on the UK’s Gateway system. Egypt had a deal with Microsoft to be in

charge of the e-government implementation and the Government Gateway (MCIT, 2010). The launch of the system for the secure e-government transactions was in 2004. Egypt initially expressed an interest in the UK Gateway technology at a meeting with UK officials two months before the licensing deal. The first services offered through Egypt’s Gateway was electricity and telephone billing and payment of traffic fines. MSAD moved on many fields for speedy implementation and launch of this strategic project. This includes setting up required infrastructure, i.e., laws and regulations, technological frameworks, government’s website, rules and specifications. This axis included issuance of four documents concerning government networks, security systems, safety, application exchange documents’ archiving. This is in addition to putting license contracts of PC programs into effect in cooperation with Microsoft. The other axis includes services such as electronic payment of telephone and electricity invoices and the like. The third axis focuses on mechanization of ministries’ cabinets and affiliated authorities. Contracts have been concluded for the implementation of related applications on resource planning and management, including inventory, purchases, budget accounts, and personnel affairs. MSAD has taken great strides in the implementation of e-government. Similar strides are needed for qualifying the Egyptian society for benefiting from the services offered by the project.

The questions this paper addresses can be divided into two parts. The first question focuses on the types of e-government initiatives that are being undertaken in governmental organizations in Egypt. The second question focuses on the barriers and challenges that face the Egyptian government as it tries to implement an e-government program. The paper hence focuses on one application of electronic government in Egypt and examines how this initiative can be successfully implemented. This is done by investigating the factors that impeded the development and/or the

implementation of previous and on-going successful projects. As a result, many lessons are learned and implications are emphasized to be taken into consideration in further implementation in these projects, or in repeating the experience other new e-service projects in the Egyptian government to be successful and widespread.

The structure of this paper is as follows. First, a background of the e-government in Egypt as one of the developing countries is given, as well as a background of the CRM project as one of the crucial e-government projects in Egypt. Then, the methodology adopted for this study is presented to explain how it was conducted. The situation before the project implementation is described and a description of the key benefits resulting from the project will follow. Then, a description is given of how the project was implemented by identifying the strategies used, the key development and implementation steps, the main obstacles encountered and how they were overcome. Finally, the paper is concluded with the impact of the project and the lessons learned.

E-GOVERNMENT PROGRAM IN EGYPT

Egypt has taken an e-Government initiative since the introduction of the Ministry of Communication and Information Technology (MCIT) in 1999, as part of its plan to turn Egypt into an information-based society (Azab, Kamel, & Dafoulas, 2009). Egypt's commitment to utilizing technology for the purpose of economic and social progress was further realized when the Egyptian government announced an effective e-Government program that integrates ICT technologies to deliver government services at citizens' convenience (MCIT, 2004).

The e-Government program officially started in July 2001 by (MCIT). Current Minister of MSAD has acted as the program director back then (Mubarak, 1999). In 2004, E-government program director appointed as the new Minister

of MSAD. As a result, the e-government development program has become the responsibility of MSAD. The MSAD perceives Information and Communication Technologies (ICT) as a strategic tool that could be used in implementing the National Development Program, which seeks to raise the efficiency of the state's administrative body, and delivering governmental services to citizens at a fast pace in an environment that is highly effective and effective through various interactive service channels at their convenience. Therefore, the ministry develops and implements a number of projects that achieve this vision through a system of integrated management for the modernization of the Egyptian Government.

The vision of e-Government initiative in Egypt is "delivering high quality government services to the public in the format that suits them". Such mission relies mainly on three principles (MSAD, 2010) that include:

1. Citizen centric service delivery;
2. Community participation; and
3. Efficient allocation of government resources.

With the new cabinet announced in Egypt in July 2004, a confirmation and commitment of Egypt to capitalize on the evolution of ICT for the purpose of government services and processes improvements were re-enhanced (Darwish, 2008).

The official inauguration of the Egyptian e-Government portal (www.egypt.gov.eg) took place on 25 January 2004 and was attended by Bill Gates during his first visit to Egypt, as Microsoft was chosen to be in charge of the project's implementation. Some services were placed in the portal to pilot test the project such as telephone e-billing, birth certificate issuing, etc. (Microsoft Egypt Press, 2004).

Egypt's e-Government program has identified a number of objectives to realize a successful implementation of e-Government and that includes (but not limited to):

1. Tailoring government services to meet citizens' expectations;
2. Creating a conducive environment to investors (local and international);
3. Availing accurate and updated government information;
4. Increasing government efficiency through modern management techniques and new working models;
5. Reducing government expenditure; and
6. Fostering local competitiveness and increasing globalization readiness

The implementation of e-government is hindered with several challenges. Accordingly, several projects were created in the program each directed towards a category of problems. The CRM project is among these projects created to increase efficiency and provide high-quality service delivery to citizens (Azab, Ali, & Dafoulas, 2006).

METHODOLOGY

This study is interpretive in nature since the authors are interested in exploring and understanding an e-government project in the Egyptian context by interpreting perceptions and human factors. Therefore, the authors assume that understanding the e-government phenomenon through the ways that people make sense of it is an appropriate method, especially through sharing their experiences via the medium of language as suggested by Easterby-Smith (2002).

The selection of the case study method is justified by several reasons. First, the implementation of e-government projects particularly in Egypt is a relatively new phenomenon and there is no strong theoretical base for the study. Case research is particularly appropriate for these types of problems in which research and theory are at their early stages of formulation (Benbasat, Goldstein, & Mead, 1987). Second, the case research strategy is well-suited to capturing the knowledge of prac-

tioners and developing theories from it. Third, since the nature of this study is exploratory, case studies are suitable (Robson, 2002). Fourth, the use of a case study is also suitable for this study because it addresses a contemporary phenomenon of e-service development and implementation, which the authors have no control over. The case study is preferred as it is suitable in examining contemporary set of events and when the relevant behaviours cannot be manipulated (Benbasat et al., 1987; Yin, 1994). Finally, the use of a case study claims to offer a richness and depth of information not usually offered by other methods.

This study uses semi-structured interviews as primary data collection technique. The reason for this choice is that interviews is the most fundamental of all qualitative methods help to generate insights into how respondents see the studied phenomenon. Through the one-to-one basis between the authors and the interviewees, semi-structured interview technique gives the authors the opportunity to probe deeply to uncover new clues, open up new dimensions of the studied phenomenon. This helped a lot in securing accurate accounts that are based on the interviewees' personal experiences.

When identifying the interviewees, the authors began with initial choices of key senior officials. They are chosen based on their interest and involvement in the e-service development process in the Egyptian government, either as individuals or as representatives of a group. Those initial interviewees were asked to recommend others who they think they are eligible for this study interview (snowballing technique). Eventually, data for this case study was collected by conducting 8 semi-structured interviews. Those are: Deputy to the minister (MSAD), Government Services Development Program director (MSAD), Head of Policies and Program Sector (MSAD), General project manager (CRM project), Advisor of strategic projects (MSAD), e-government program coordinator (MSAD), vice president of the Egyptian State Council and legal advisor of the

minister (Egyptian State Council and MSAD), and National Databases Program director (MSAD).. Also, some data has been acquired from some official documents obtained from MSAD and MICT, in addition to the authors' field notes and observations collected during the interviews.

Before proceeding in conducting the interviews, the authors had to take the necessary permissions to approach the identified interviewees. An official letter was sent, addressing all the required interviewees, attaching the interview questions, requesting them kindly to participate. When agreements are received, the authors started to arrange meetings with the interviewee. The interviews duration ranged from 60 to 90 minutes each and they were all tape-recorded. In addition to these recordings, the authors had taken notes to record their own observations about the meetings. These notes helped later to write a full report for each interview meeting along with the recordings transcription. These notes were also guarantee in case the tape recordings failed. The authors also were given some internal official documents from some of the interviewees. These documents include annual reports, magazines, statistics, guidelines, codes of practice, recommendations, standards, and meetings minutes and presentations.

PROCESSING AND ANALYSING DATA

The collected raw data (Direct tape recordings, Field notes, and official documents) had to be processed before they are available for analysis. Direct tape recordings have been transcribed into text and then translated. The raw field notes taken during the interviews were converted into reports to add back some of the missing comments said in the interviews but were not added to the notes. Then, all records has been organised, as recommended by Yin (1994) in a database along with primary data (interview transcripts for each interviewee and authors' field notes) and sec-

ondary data (official documents collected from concerned ministries). As described in Miles and Huberman (1994) the information obtained from each interview was analysed separately where each interview was first broken down into themes. According to those themes, the authors assigned meanings to the descriptive information compiled during the interviews.

Also, due to the large amount of the data that need to be analysed, coding process for the interviews has been done using the NVivo as it is very valuable in following a systematic approach to analyzing and reducing the vast amount of data. The software was used to code the data visually and in categories, annotating and gaining accessed data records accurately. Using the data reduction technique available using NVIVO, the authors were able to illustrate the outcome of the data of the project in a model (network) which helped in explaining the findings (shown in Figure 2). This model represented inferential picture organising the field study data. The model shows the different objectives of the project, the prospective benefits attained from it and the drivers that facilitated the launch and the implementation of the project as emphasized by the group of interviewees. All these groups of elements are then associated with the groups of barriers that appeared throughout the project life.

THE PROBLEM

Prior to the project, citizens faced a lot of difficulties in sending their complaints (in paper form or sometimes over the phone) to government agencies. Examples of such difficulties include: not knowing how to complaint, to whom to submit the complaint, and even what to expect and how to follow up. And in extreme cases, citizens may have had to travel to other cities where the organization is located (Hamner & Al-Qahtani, 2009). Also, sometimes complaints were not delivered to the relevant authority.

The main problems and obstacles that were faced prior to the initiative can be summed up as follows:

- Complain procedures were lengthy (some complaints took months to be resolved);
- Reliance on ineffective and inefficient procedures;
- Lack of monitoring and follow up internal processes;
- Inefficient procedure to deliver a service;
- Need to process an ever growing number of complaints;
- Inability to track each individual complaint;
- No guarantee for a feedback;
- No clear, well defined, interactive channel for communications;
- Unequal allocation of human resources.

These were all complications that rather had a direct impact influencing various social groups negatively (Pinteri, 2010). With the growing number of citizens and services, it was impossible to keep track of citizens' complaints. The paper-based system became ineffective as a communication channel between the various government entities including ministries and the public sector, and citizens with different governmental entities.

KEY BENEFITS

The main achievement of the project was a huge increase in the efficiency and effectiveness of the complaints-handling at all levels within government agencies where the system have been implemented.

In July 2006, the Citizen Relationship Management (CRM) project was launched by (MSAD). It involved integrating different interactive communication channels through a unified phone number and one email address, centralized call center, automation of complaint-handling, and integration with other government systems with the aim

of improving the services offered to citizens and businesses. Figure 2 shows the project's structure. Achievements of the project are:

- Providing a quick and easy procedure for citizens to send their complaints to relevant authorities by phone, through a short number (19468), or through using the National e-Government Portal or using the organization's website and providing them with a case number in order to track their complaints. The system ensures a quick response is taken in order to resolve the citizen's complaint.
- It became much simple to develop services to meet the citizens' needs through the statistics generated from the CRM system.
- Fast handling for urgent inquiries such as the health and the utilities sectors
- All complaints are delivered to the authorized representative directly
- Integrating different communication channels such as the CRM module within the Ministries' websites, the e-Government Portal and the central call center. This was done to improve customer experience, increase efficiency of request handling, and to eliminate duplication of efforts.

The introduction of ICT tools to complaint-handling within the government has helped managers define and enforce specific rules, policies, and procedures; thereby increasing the efficiency of day-to-day operations (Dutta & Coury, 2003).

The CRM system's deployment at 40+ government bodies, allowed for building a performance management platform dubbed the "Public Service Dashboard". It is used by MSAD officials to monitor complaint patterns and other key performance indicators (KPI's), to pinpoint areas within the government where improvements are needed the most. Finally, the feedback received from citizens revealed an increase in the satisfaction level since, for the first time, they are capable of tracking their complaints and receive a feedback.

THE PROJECT IMPLEMENTATION

The original idea started in 2005/2006 with a limited implementation plan to serve as a support to the government Portal services. The online complaint forms availed on the government portal were supported by a limited number of outsourced seats at a call center, accessed via a unified short fixed phone number 19GOV (19468) (see Figure 1).

MSAD launched a pilot project for the initiative at its inception. That pilot project encompassed availing CRM services for the National e-Government Portal and online services. Upon the success of the pilot project and the experience gained from its implementation, two government agencies were identified for solution deployment. These further systems were a great success, and it was then decided to implement the solution at a national-level. MSAD's ramp-up approach was critical in building the capacity of the implementation team, as well as demonstrating the benefits that can be realized by such a system.

The progress and accumulated experience continued to mid-2007 which allowed MSAD to establish a platform and a mechanism to develop and host similar services in different organizations. The importance of the CRM seconded by a call center became more obvious in times of national crises, most notably the Avian Flu. By the end of 2007, 11 different entities were either connected to MSAD CRM hub, or were running their own platform (MSAD supported other entities establishing their own system based on the same methodology).

With the increasing number of sites, MSAD used the services of a professional data center to host and manage the technical infrastructure, thus offloading MSAD and the involved entities from all technical burdens.

In 2008, other entities such as the water and electricity companies as well as governorates (municipalities) engaged similar initiatives with MSAD. At the end of 2010, 53 different entities were engaged with MSAD in this system.

The main challenge encountered during project implementation was building capacities within government agencies to switch from the paper-based complaints system to a computer-based one. The project started by teaching civil servants computer skills, and then, step by step, training them on the CRM system till they became professional users of both computers and the CRM application.

The challenges we faced are broken down under two main umbrellas.

Technical Implementation Challenges

One of the challenges was the integration of the different systems, linking documents throughout the business cycle with the CRM system and then consolidating the scattered data across all ministries and providing MSAD officials with a unified view over the performance (Fedorowicz, Gogan, & Culnan, 2010).

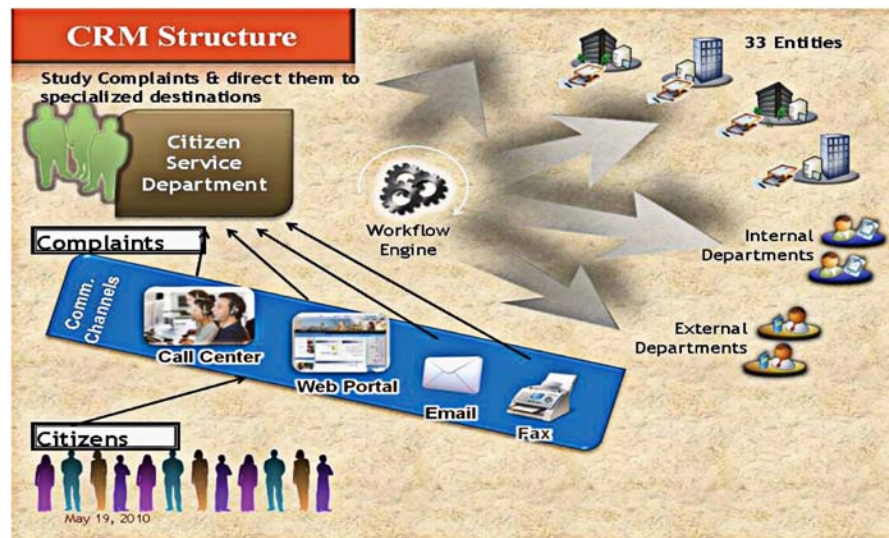
Another challenge was that the CRM application was hosted in a data center that was over 50Km away from where the call centre was based (Dadashzadeh, 2010). This was overcome by choosing a CRM system that is based on a thin client web application which uses minimal network traffic.

From infrastructure perspective, unreliable electricity and internet connections at some remote

Figure 1. Unified short fixed phone number 19GOV (19468)



Figure 2. CRM project structure



locations and weak infrastructure at remote areas were unforeseen obstacles. Strong political support came in action to overcome this by upgrading infrastructure at those locations (Andersen et al., 2010).

Organizational Implementation Challenges

The main challenge was to train government employees on how to use the system, as they were operating on a paper-based model. To help overcome the challenge, an easy-to-use bilingual CRM system was chosen.

Changing the government’s work culture, promoting transparency as well as transforming attitudes into becoming more customer-service oriented was a hard task that required the convincing and cooperation of key influencers and a series of courses promoting the concept (Pina, Torres, & Royo, 2010).

DISCUSSION

As mentioned earlier, a network is elaborated in the course of piecing together the identified factors in the project case (shown in Figure 3). The reason for creating such network is that text and network together communicate more than either could alone. The study is aiming toward an explanation- not just a description- of what happened in the case. The created network illustrated clearly the outcomes of the case and displayed the most important dependent and independent variables (shown in nodes) and the relationships among them (shown by arrows). The plot of these relationships is directional, rather than solely correlational (i.e., some variables exert an influence on others). The approach used to generate the network is the “constructive” or “generative” approach. Accordingly, a full set of network variables are generated and come directly from the case data. As recommended by Miles and Huberman (1994), this is done by listing all the events, factors, outcomes, processes that seem to be important in each case and then turn them into variables that can be scaled.

The figure shows the different objectives for the project, the prospective benefits attained from

them and the drivers that facilitated the launch and the implementation of the projects as emphasized by the group of interviewees. All these groups of elements are then associated with the groups of barriers that appeared throughout the life of each of the two projects. The figure shows this link between each of those elements (objectives, benefits, and drivers) with the barriers. Some of the elements shown in the figure participate in eliminating some barriers. For example, one of the project's main objectives can be related to overcoming a persistent problem that concerns a group of stakeholders. On the same level, one of the main benefits attained of the projects, and/or one of the main drivers behind the projects can be associated with the solution of the occurred barriers, or even has a role of the attainment of one of the main projects' objectives.

Figure 3 shows the major goal of the project that is to serve people. To do so, the governmental organisations have to communicate and exchange documents and data to save trips the citizens have to make between offices. This is where the importance of the project is highlighted where citizens now have the communications channel which they can use to submit their complaints without the need to go to the related offices.

The project shed light on all the issues and common problems that may face efforts to establish e-government. It provides the options for an effective management and satisfaction by the citizens and businesses to the services provided to them. The main driver to the success of the project has been identified as "change of organisational culture and thinking" as the general manager of the CRM project has confirmed:

The success of e-government requires a change in the government work and performance, how they interact with information and how officials see their jobs and interact with the public citizens. It also requires achieving active participation between government, citizens, the private sec-

tor and the civil sector. CRM project needs to introduce and ongoing feedback from and to the citizens and officials who deal with e-government services and use.

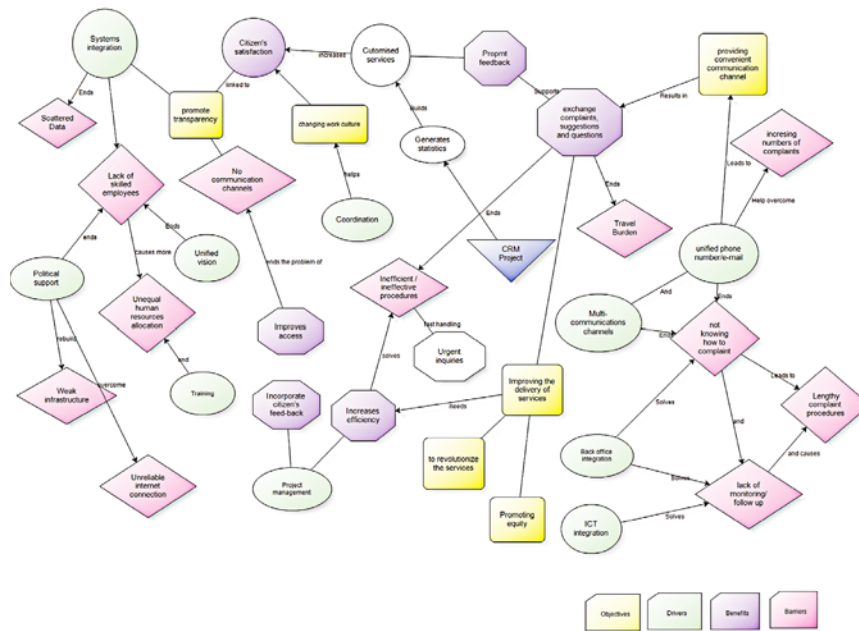
In addition, it is noticed there is an influence of the project on citizens' encouragement for public participation. Through the same concept of submitting their complaints through the different communication channels, the public, including the private sector, civil society and individuals can participate effectively in the affairs of e-government. Hence, the project is noticed to be contributing the success of the electronic government initiative as a whole as public participation is an important element in many of its phases from the interpretation of the vision and determining the priorities of the community, to report E-readiness and management of projects. The public can comment on the plans of e-government, retrieve information, for example, through surveys assembly, focus groups, or e-mail and participation in the dialogue between citizens and planners and implementers of the e-government.

To conclude, as a result of the CRM implementation it was able to increase citizen satisfaction levels through reducing the average turnaround time for incoming calls and opened tickets. Moreover, the solution has increased operational efficiency, improved service quality and accuracy through history tracking and monitoring tools and opened new channels of communication with citizens through the automated call centre and bilingual website.

The project became a nationwide project including the Presidency, the Cabinet of Ministers, over 12 ministries and authorities, and 5 governmental entities providing them with internal tracking and satisfaction.

With the more recent ministry integrations, traffic has increased significantly on both the call centre and portal. MSAD and all other participating Ministries have been proactively handling

Figure 3. CRM case project network



problems due to the fact that they are able to detect problem areas and patterns early on and resolving them.

Doing a proper analysis of the complicated infrastructure and work culture prior to implementation and launch of the CRM solution proved to be very important in predicting problems and planning to work around them ahead of time. Also, a phased approach is proved to be best for a project of such scale. Short-term targets help in securing political support for the project, and hence financing.

The initiative's sustainability is ensured by the high levels of satisfaction it has garnered among public service beneficiaries; citizens and businesses. The initiative is sustained at each government agency that the system is deployed at by building capacities there to ensure the smooth operation of the CRM system. Also, MSAD periodically monitors performance at agencies to ensure that the agencies are abiding by a set of service levels. In addition, to sustainability the initiative was transferred to +40 different government entities.

The project is foreseen to be consolidated into a National Citizen Interaction Center within fiscal year 2010/2011, to serve all government/public administration bodies that request the service, and probably be operated as an autonomous call centre.

The literature and the findings of this study are in agreement on several issues. The first issue is that they refuse the common misconception about the transformation to e-government being easy and simply a technological change. The interviews with all stakeholders revealed their obvious opinion about the development of e-government being a complicated transformation with diverse challenges. Although technology is a part of these challenges, but the findings show that technology was not difficult to overcome as it is relatively not expensive and very efficient. In addition, the savings achieved from the project justifies the cost of technology. In addition, the Egyptian government tries to overcome kinds of technological difficulties by signing agreements with multinational companies such as Microsoft and IBM to provide the latest technologies to the

government. Though, Egypt cannot still take the full advantage of the digital information age.

Secondly, the opinions emerged from the findings indicated that the process of implementing electronic government projects in developing countries such as Egypt is more difficult (as supported by literature) than in developed ones. The reasons lie behind many reasons according to many interviewees including the difficult economic conditions, weak human assets in developing countries and the gap between developed and developing countries in Internet technological infrastructures, practices, and usage.

Based on literature, the administrative group of barriers include poor organisational infrastructure, complexity and poor project management, lack of coordination among organisations/departments, conflicting priorities of organisations, old structure and processes, lack of e-service applications, lack of partner readiness and cooperation difficulty in reengineering of internal processes (Chen, Pan, Zhang, Huang, & Zhu, 2009; Gottschalk, 2009; Schuppan, 2009)

The findings of this study came consistent with those of literature in some of the factors. The identified organisational barriers based on the study evidence include the complicated procedures needed for introducing the new electronic services, the inability of the governmental back offices to handle the e-services transaction, and the lack of coordination among ministries due to their different priorities. Also, lost strategy is one of the administrative barriers found in some governmental organisations in Egypt. Literature handled the lost strategy as a barrier that obstructs managing the change resulting from introducing the e-service initiative (Andersen, 2009; Heeks & Santos, 2009).

Despite the previous similarities between the study findings and the prior studies in literature, this study revealed more emphasis on cultural issues of e-government transformation in Egypt, more than any other issue emphasized by these studies. Findings show the Egyptian e-government

transformation concerns focus more on cultural than administrative, political, and legislative barriers. Although these groups of barriers exist with different degrees, it is expected that due to the social and cultural problem roots, the e-government development and transformation in Egypt would be complicated and time consuming challenge and requires long-terms solutions.

CONCLUSION

This study focused on Egypt's specific factors affecting the e-service development. It conducted a case study from the Egyptian e-service projects to specify the different groups of factors that might hinder the development of e-service projects in the Egyptian government. This is believed to help Egypt and any in planning and implementing e-service projects. The findings of this study are also of importance to various groups such as Government officials: and decision that is directly or indirectly responsible for e-service development in Egypt; or academic researchers interested in examining the e-service area. They can examine in depth each group independently and their effects on different contexts.

The main limitations of this research are related to the qualitative approach and the case study method. One of the major issues is associated with the replicability of the obtained results which cannot be achieved easily in qualitative research and the little basis for scientific generalization that case studies provide. Another limitations encountered was travel to Egypt and setting up meetings with top management officials who had very tight schedule.

There are some potential researches for future work that would be helpful:

- Study cases from the e-service projects that have failed or did not achieve all of their intended benefits to determine the reasons behind their failures. This could be done in

different context or in different countries. This can lead to improve the level of success of future e-service projects, particularly within the government sector.

- As the studied project in this study is dedicated to citizens, the research in this context could be extended by identifying the factors affecting the use of e-services from citizens' views. Also the approach in this case would be different as it can depend on the quantitative techniques with the use of questionnaire based surveys. The citizens' views as major stakeholders can participate in the planning, design, implementation, and evaluation of the e-service projects process. This could also have an important impact in increasing the effectiveness of e-government program and increasing the usage rate of e-services through the new channels. It could also provide the decision makers in the government with some indicators of the type of projects needed and favoured to the beneficiaries.

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Chapter 20

The Effect of Information and Communication Technology on Customer Relationship Management: Jordan Public Shareholding Companies

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ABSTRACT

The essence of the information technology revolution and in particular, Information Communication Technology (ICT) is the opportunity offered for companies to choose how they interact with their customers. This research paper investigates the influence of Customer Relationship Management (CRM) factors benefiting from information communication technology on (CRM) performance. The results suggest that the three elements have positive relationships with CRM performance. Questionnaires numbered at 330 have been distributed to 110 public shareholding companies (PSCs) in four economic sectors in Jordan; banking, service, industrial, and insurance. The findings further suggest that CRM performance mediates the effects of marketing orientation, IT investment and mass customization on customer network effect.

INTRODUCTION

In the last decade, considerable development and enhancement seen in information and communication technologies (ICT) had a great affect on all business areas. ICT has become the core

of many major applications such as e-business, Supply Chain Management (SCM), Knowledge Management (KM), and Customer Relationship Management (CRM); thus ICT has become one of the major investments and the price of entry for manufacturing and service companies to the competitive electronic global market. ICT empowered the organizations with capabilities

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to better understand and control their marketing information, and shift towards customer-centric business models (Roberts, 2000). Further, CRM emerged in the ICT era as a set of strategies that generate a 360 degree view on customers across all functional areas. It is aiming to provide customers with a maximum level of services and to generate long-term one-to-one relationship with the customers (Seeman & O'Hara, 2006). CRM has its roots in Sale Force Automation (SFA) tools that focus more on *selling*, rather than on administrative activities, by automating routine activities like tracking customer contact information, and sales forecasting. In addition, it has roots in relationship marketing, which concentrates on attracting and improving customer relationships for the purpose of developing long-term profitability. It does so by moving towards customer retention, by managing customer relationships rather than transaction-based marketing aiming to gain new customers. Hence, CRM is a sophisticated application that provides comprehensive knowledge about customers by mining customer data to predict their behavior, hidden trends, and buying patterns (Chen & Popovich, 2003; Light, 2003). Despite the humble start of CRM, the last decade witnessed a massive growth of CRM systems in many business industries, thus the emergence of ICT has positively affected the CRM by introducing a new era of IT based CRM models. In summary, with the help of data from existing PSCs in Jordan, this paper will demonstrate the effect of ICT on CRM performance; it is one of the first studies about the effect of CRM and ICT in this sector.

Literature Review

CRM research can be classified into many areas which address it in terms of concept, framework, software, applications, strategies, technologies,

and performance. However, minimal research on CRM and ICT has derived the need to discuss the relationship between ICT and CRM performance and the effect of CRM factors, such as, market orientation, IT investments, and mass customization, benefiting from ICT on CRM performance.

CRM Background

CRM can be viewed as a set of comprehensive strategic, process-oriented, cross-functional, value-creating for buyer and seller, and a means of creating superior organizational performance, and superior value for customers (Lambert, 2010). These comprehensive sets of strategies for attaining and maintaining knowledge about customers, and partnering with customers involves the integration of marketing, sales, customer service, and supply chain functions of the organization to achieve greater performance in creating and delivering customer value (Ngai, 2005). Moreover, from an Information Technology (IT) perspective, CRM is considered as an enterprise wide communication and integration of various technologies such as: data warehousing, web site, intranet and extranet, mobile application system, marketing, accounting, and sales (Bose, 2002). Moreover, CRM can be defined as a set of activities that utilize technology to gather, analyze, and distribute data about existing and future customers. This will enable one to generate better understanding of customers and thus create longer relationships with them. Peppard argued that the enhancement of CRM strength and capabilities relies on Information and Communication Technologies (ICT), by benefiting from massive computing power, enormous database and storage facilities, and communication technologies, via networking on the internet (2000). Thus, ICT can be considered a major factor in the success of CRM, and it plays a key role in achieving a better CRM experience.

CRM AND ICT

CRM and Market Orientation

The first CRM factor that was examined in this study is market orientation; it is defined as a customer-led approach that focuses on the process of creating, collecting, coordinating, and sharing information about target customers to generate better response and fulfillment of customer needs (Javalgi *et al.*, 2005; Desppande & Farley, 1998). Market-driven organizations focus on delivering the right product to the right customer at the right time and place, with the right amount, using the right channel, and at the right price. Smith and Chang argued that organizations need to adopt a customer-centric model to attain significant benefits from CRM applications, regardless of the industry type (2010). Therefore, ICT made this approach attainable through the use of intelligent data gathering techniques that allow the organization to continuously collect and evaluate more reliable, accurate and on-time customer data. This would allow for the assessment of customer behavior and the prediction of new trends and patterns, which leads to better responsiveness (Bolton *et al.*, 2004).

CRM and IT Investment

IT investments is the second CRM factor in this study; the recent advancements in IT have massively changed the business industry and extensively affected organizational processes and outcomes; this makes marketing operations more transparent and thus more challenging to attain and sustain a competitive advantage. However, IT opened new opportunities and frameworks to gain competitive advantages; hence in the era of IT; CRM can be seen as a major competitive advantage for organizations (Kimiloglu & Zarali, 2009). IT investments reflect organizational behavior towards IT; it involves developing an IT infrastructure that includes appropriate software,

hardware, application and people, and choosing applicable ICT for the organization. Moreover, IT investments in CRM focus on better integration and communication between organization processes, better communication with customers to increase information sharing, and creating best practices. IT facilitates CRM by enabling collection and analysis of customer data, predicting customer behavior, identifying hidden trends and patterns, and thus responding to customers' needs by delivering add value products to customers based on their own preferences McKim and Hughes (2001) and Karimi *et al.* (2001), argued that organization can create a full picture about their customers by using IT to achieve optimization through the process of continuous learning from previous interactions with customers to develop better future behavior (2001). CRM collect, maintain, and disseminate customer data through the organization; advancements in storage capabilities, networks, client/server computing, and business intelligence applications are crucial elements in CRM development (Peppard, 2000). Furthermore, data warehouses, Enterprise Resource Planning (ERP) systems, and the Internet are the core architecture of CRM.

CRM and Mass Customization

This study analyzes another CRM factor: mass customization. The concept of mass customization revolves around the idea of delivering products and services to customers based on their own preferences, needs and taste. Mass customization requires the ability to benefit from customer opinion and feedback in the production process. This can be achieved with access to customer information, which in return, will identify customer needs, and buying behavior in each market segment in the organization's target market (Pitta, 1998). According to Dewan (2000), ICT made mass customization far more possible through the use of data warehouses that enable-organizations to store vast amount of information about custom-

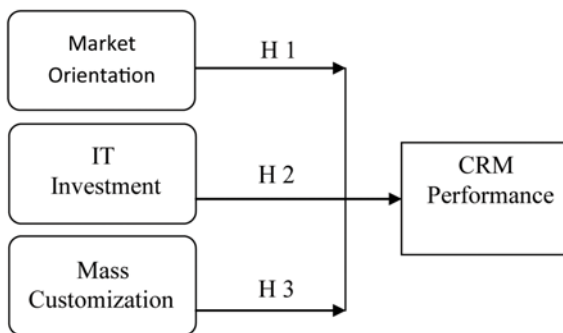
ers. It also has the ability to use a wide range of data mining tools that can analyze a massive amount of customer information. This will help identify hidden patterns and trends, and to develop knowledge about customers, their behavior, and expectations. The model for the research problem is shown in Figure 1.

Research Model

Research Methodology

The research problem was restated in order to identify the knowledge aimed in this research: 'analyzing the influence of ICT on CRM performance'. From the research problem, it is argued that this study is aimed at providing descriptive and explanatory knowledge about CRM performance in Jordanian public shareholdings companies (PSCs), through the use of questionnaires to gain information from them the descriptive section is intended to outline CRM in those companies. The resulting configuration is analyzed to explain CRM factors. The explanation states the companies' reasons for using a certain configuration and the extent of IT investments, Mass Customization, and market orientation influences in CRM. This is the type of knowledge pursued in this research.

Figure 1. The research model



Questionnaire Design

The questionnaire was developed in two phases: the initial design; is the development of the survey instrument, and the second, was pre-testing: the enhancement through a panel of expert opinions. In the initial design phase the researcher should take in consideration many criteria in order to keep the questionnaire short, accurate and bias free (Franklin, 1971; Sekran, 1992). In this particular research, the first part of the questionnaire included a brief description on how to answer the questions that followed. The first page holds the research title and a small letter to the respondent to encourage them to answer the questions below. The first section on the questionnaire asked about the respondent's demographic information such as age, scientific qualification, and income. The second section consists of multiple choice questions which are divided into five sections, each section was about one of the studied factors on the research model, and each one holds 6-7 questions. Table 1 identifies the number of paragraphs, the section, the main variable and the variable type on the questionnaire. To obtain reliability, the second phase of the questionnaire was overviewed by CRM experts during the design process. Modifications were made according to their knowledge on the topic and related opinions. Likert fifth measurement was used for this study to measure the study variables using the following weights.

Research Design

The method was developed by taking into account the knowledge needed to answer the research questions as well as practical conditions that influence the applicability of this specific method. According to Verschuran, knowledge is divided into five different types: descriptive, explanatory, predictive, evaluative, and prescriptive knowledge. This research paper is aimed at generating descriptive and explanatory knowledge. Hence, the questioner was selected as the research method

Table 1. The questioner measurement for independent variables

Deeply Agree	Agree	Neuter	Don't Agree	Deeply Don't Agree	Independent variable
5	4	3	2	1	IT investment
5	4	3	2	1	Market orientation
5	4	3	2	1	Mass Customization

for generating descriptive knowledge about CRM requirements and factors that influence CRM performance in the selected companies. This method was selected based on its suitability for building descriptive and explanatory knowledge from the field. Characteristics of case study research appropriate for this study are the ability to employ different data collection techniques as well as the ability to conduct both quantitative and qualitative analyses. Lastly, a literature review was used for descriptive knowledge about CRM.

POPULATION AND SAMPLE SELECTION

In order to be able to answer the research problem, a research strategy is formulated as seen in Figure 2. The study's population was retrieved from the Jordanian public shareholding-companies which are registered in the Amman Financial Market. The number of companies has increased to two-hundred and fifty—because this is a written paper, not a mathematical model, so the number must be spelled out), which are then divided into four economic sectors. According to Amman Financial Market's list for September, 2010, figures are as follows:

- **Banking sector:** 16 Companies.
- **Insurance sector:** 28 Companies.
- **Service sector:** 127 Companies.
- **Industrial sector:** 79 Companies.

Unite of Analysis

A stratified random sample was taken from-two-hundred and fifty (PSCs) which were distributed in the four economic sectors in Jordan (the manufacturing, service, insurance, and banking sector). Following the percentage of each sector according to community being studied, in which the questionnaires were distributed on the e-commerce directorates or their representatives (who represent the analysis unit in this study) a questionnaire equivalent for statistical analysis was taken back, the answering percentage reached eighty percent (80%) (This is in fact a good percentage level for scientific purposes). Moreover, the sample volume law was used for computing the sample volume in this study.

$$no = \frac{z^2 p(1-p)}{e^2} \quad n = \frac{noN}{no + (N - 1)}$$

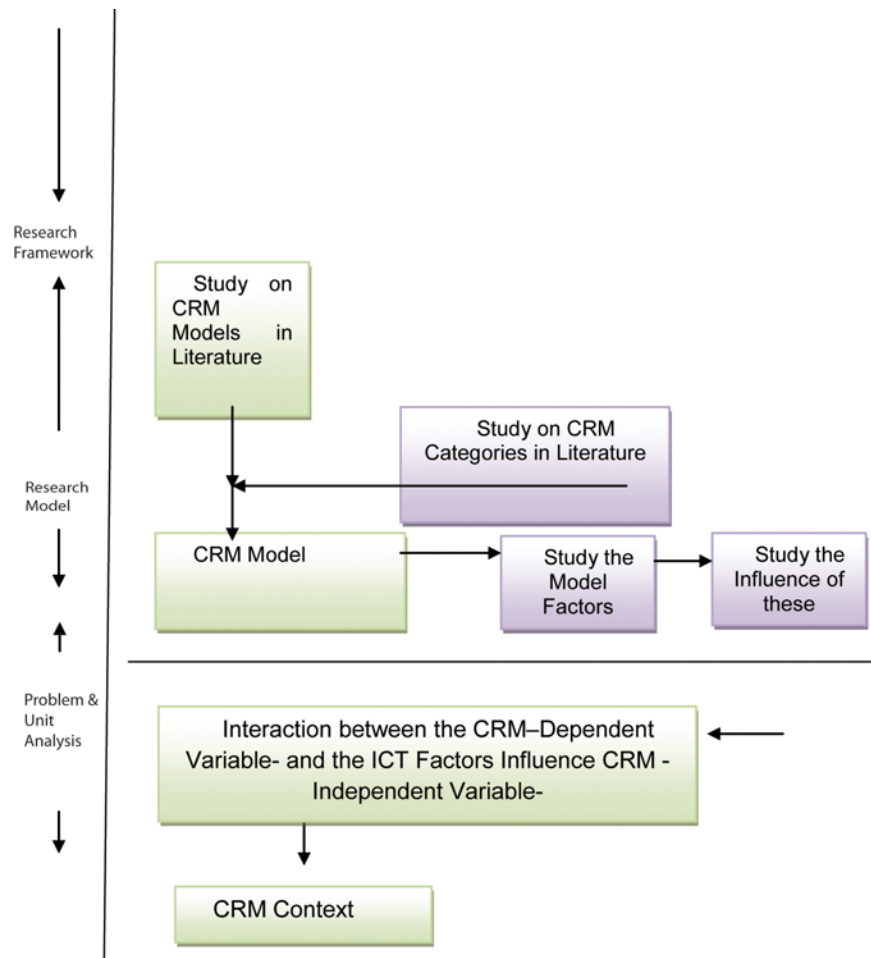
whereas:

- No =the sample volume without the correction Coefficient, z= Interval Level
- e= Review Error, p= Choosing percentage, N= community volume

Table 2. The questioner measurements for dependent variable

CRM performance	Deeply Agree	Agree	neuter	Don't Agree	Deeply Don't Agree
	5	4	3	2	1

Figure 2. Research strategy



- n= Sample volume with the existence of correction coefficient

Therefore, the questionnaire will be distributed throughout one-hundred and ten (110) companies.

Hypothesis Testing

- **Hypothesis 1 Ha (see Table 3):** There is a significant relationship between communication and information technology and CRM performance in public shareholding companies in Jordan.

Multiple regression was used to test our hypothesis and it was found that (calculated $F=27.685$) is greater than tabulated F . According to our decision rule: accept H_0 if calculated value is less than tabulated value and reject H_0 if calculated value is greater than tabulated value. So we will reject H_0 and accept H_a . In that case, there is a significant relationship between communication and information technology and CRM performance in public shareholding companies in Jordan.

- **Hypothesis Ha 2 (see Table 4):** There is a significant relationship between market orientation and CRM performance in public shareholding companies in Jordan.

Simple regression was used to test our hypothesis and it was found that (calculated $T=6.42$) is greater than tabulated T . According to our decision rule: accept H_0 if calculated value is less than tabulated value and reject H_0 if calculated value is greater than tabulated value. So we will reject H_0 and accept H_a . In that case there is a significant relationship between market orientation and CRM performance in public shareholding companies in Jordan.

- **Hypothesis Ha 3 (see Table 5):** There is a significant relationship between IT investment and CRM performance in public shareholding companies in Jordan.

Simple regression was used to test our hypothesis and it was found that (calculated $T=8.237$) is greater than tabulated T . According to our decision rule: accept H_0 if calculated value is less than tabulated value and reject H_0 if calculated value is greater than tabulated value. So we will reject H_0 and accept H_a . In that case there is a significant relationship between IT investment and CRM performance in public shareholding companies in Jordan.

- **Hypothesis Ha 4 (see Table 6):** There is a significant relationship between mass customization and CRM performance in public shareholding companies in Jordan.

Simple regression was used to test our hypothesis and it was found that (calculated $T=6.996$) is greater than tabulated T . According to our decision rule: accept H_0 if calculated value is less than tabulated value and reject H_0 if calculated value is greater than tabulated value. So we will reject H_0 and accept H_a . In that case there is a significant relationship between mass customization and CRM performance in public shareholding companies in Jordan. Internal reliability is shown in Table 7.

Cronbach's Alpha have been used to determine the variable reliability, Table 2 shows a clear statistical acceptance because (α) the values are greater than the accepted percent 0, 06. In which Cronbach's Alpha for all the 16 research questions was .845.

Table 3. Hypothesis 1

F Calculated	F Tabulated	F Sig	Result of Ho	R
27.685	2.40	.000	Reject	.745

Table 4. Hypothesis Ha 2

T Calculated	T Tabulated	T Sig	Result of Ho	R
6.42	1.7858	.000	Reject	.556

Table 5. Hypothesis Ha 3

T Calculated	T Tabulated	T Sig	Result of Ho	R
8.237	1.7852	.000	Reject	.651

Table 6. Hypothesis Ha 4

T Calculated	T Tabulated	T Sig	Result of Ho	R
6.996	1.9852	.000	Reject	.589

Table 7. Internal reliability

Cronbach's Alpha	N of Items
.845	16

CONCLUSION

This study was conducted because of the lack of studies about the influence of ICT on CRM performance regarding three CRM factors: market orientation, IT investment, and mass customization in the Jordanian environment [especially in the country's (PSCs)]. The study demonstrates the significant relationship between the three factors of this research and CRM performance based on an investigation in Jordanian public shareholding companies. Further, the study confirms the relevance of ICT on CRM performance, thus, companies need to rethink their CRM strategies and consider more effective ICT applications to establish deeper relationships with their customers.

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