

# Customer Relationship Management and Innovation Capabilities of Kuwait Airways

**Sulieman Ibraheem Shelash Al-Hawary**

Professor of Business Management, Department of Business Administration, Faculty of Finance and Business Administration, Al al-Bayt University, Mafraq, Jordan  
E-mail: dr\_slیمان73@aabu.edu.jo, dr\_slیمان@yahoo.com

**Faraj Mazyed Faraj Aldaihani**

Researcher, Economics and Management Faculty, University Putra Malaysia, Malaysia  
Email: f.airforce@hotmail.com

DOI: 10.6007/IJAREMS/v5-i4/2463 URL: <http://dx.doi.org/10.6007/IJAREMS/v5-i4/2463>

## Abstract

This study aims at examining the impact of customer relationship management (CRM) on innovation capabilities of Kuwait Airways. Five dimensions of CRM were included in the study: information sharing, customers' involvement, long-term relationships with customers, joint problem-solving, as well as technology-based CRM. On the other hand, innovation capabilities were measured by four dimensions: aesthetical innovation, marketing innovation, technological innovation, and innovation in administrative affairs. A purposive sample was selected from all employees of Kuwait Airways. A survey-based questionnaire was used to collect data.

Research findings indicated a high level of CRM adoption, with a first rank for technology-based CRM. Additionally, there is a high level of innovation capabilities, with a first rank for innovation in administrative affairs. The results also indicated that there is a significant statistical impact of CRM dimensions (information sharing, customers' involvement, long-term relationships with customers, joint problem-solving and technology-based CRM) on innovation capabilities in Kuwait Airways. The researcher recommends paying attention to enhancing employees' capabilities by training, investment in technological applications, and interaction with customers through technical and social media in order to generate new ideas that improve capabilities of Kuwait Airways in aesthetical innovation and marketing innovation.

**Keywords:** Customer Relationship Management, Innovation Capabilities, Kuwait.

## 1. Introduction

In light of the intense competition, companies seek to improve their interactions with customers by investing in relations with them by getting access to customer data, analysis of customer value and improve the profitability of the business; so companies seek to remove barriers and obstacles to reach to the customer loyalty (Rigby and Ledingham, 2004).

However the importance of technology nowadays, customer relationship management remains the main pillar in the establishment of relations with the customer. Organizations can better plan by directing customer relationship management strategy (Pombriant, 2007; Valos et al., 2007). The profitable relationship is the right relationship which is based on choosing the relationship not building it (Verhoef and Donkers, 2001). This view does not focus on how to develop and maintain the relationship, but more than that on how to build a relationship that can have a positive impact on the profitability of the organization (Zablah et al., 2004). The use of customer relationship management with high efficiency leads to increase profitability.

Moreover, achieving a balance between retaining the customer and allocating resources enhances the profitability of the organization, lead it to the optimal rate of profit and maintain it (Reinartz et al., 2005). Maintaining the optimal rate is very crucial for the profitability of the organization, and spending on the acquisition of the customer show a decreasing possibility of the acquisition and customer profitability (Reinartz et al. 2005). So, the organization's resources must be customized to keep the customer and develop the relationship with it on an ongoing basis (Guru, 2003; Kracklauer, et al., 2001). On the other hand, the organization fosters the time value of the customer "life", and sees that it is the estimated profits made through their relationship with the customer, as the organization considers the customer a shareholder in the fixed costs (Blattberg and Deighton, 1996).

Many scientists revealed that the human invent and create since the inception of Creation to now; most human civilizations have been throughout ages concerned about their children and worked to develop and increase their mental abilities in all areas. Innovation is important in the modern era because it is the real bridge that reflects the theoretical ideas of nations and individuals to the righteousness of the creative works; in addition, innovation is the effective and practical criterion to measure excellence because it is easy to see the work of creators and evaluate them accurately. We live today in a world characterized by complexity and the problems that erupt every day to make innovation and innovation the only solution that makes the individual and society able to cope with the demands of this era (Mafraji, 2003).

Recently, many challenges that face the aviation industry have appeared due to the technical developments nowadays, which require careful preparation for these challenges in terms of information and human being. The aviation industry, especially at the regional level, is experiencing multiple challenges and obstacles will have a direct negative impact on the performance of airlines in general and Arab airlines in particular. Therefore, it is necessary to harness all possibilities and data in order to fortify the Arab markets and support them with all available means of information technology and strengthen communication networks and information transmission lines with the travel and tourism offices, especially that there are multiple distribution systems were able to prove their presence in Arab markets, which is a big challenge to them. Furthermore, the rapid progress of the Internet, makes penetrating Arab markets with the acquisition of travel bookings easy, which led to a decline in revenue resulting from the reservation; so we must harness portals for automated booking which enables customers to provide the best price and service for travelers through those gates, as well as provide those offices with the latest ticketing technology.

The study represents a modest contribution to raise the scientific knowledge to be addressed to one of the vital and key topics for institutions at the present time, as it sheds light on the concept of customer relationship management and innovation capabilities, where the importance of this study appears in the variables that are focused on to identify the impact of customer relationship management on the innovation capabilities, that after the rapid development of information and global convergence with the issue of administrative development technology and consider it a continuous process does not stop at a certain point; as well as an attempt to learn about the concept of innovation and its importance to contribute in the promotion of managerial development. The importance of the study lies in the importance of the sector addressed by the study, which is the Kuwait Airways because of its active role in supplying the Kuwaiti economy, at which a lot of government concerns focus on this sector. In addition, the importance of the study is derived from the importance of the subject as it is the first study by the two researchers that dealt with customer relationship management and innovation capabilities in one study in an Arabic environment.

## **2. Theoretical framework**

### **2.1 Customer Relationship Management**

The concept of customer relationship management is not a new one; the organization previously was building a relationship with the customer on a traditional basis (person-to-person). But after the growth and spread of geographical organizations, many points of communication became available with customers, so that led to a need to develop information systems contribute to the knowledge and the speed of response and give a comprehensive about of the customer (Jutla et al., 2001). Therefore, the importance of customer relationship management lies in how to retain the customer and to meet his needs on an ongoing basis.

The concept of customer relationship management helps in building rapport between the organization and the customer by providing a specific service for each customer, for example by designing a Web page shows price and product and take into account the location and condition. So we can use CRM to create a personal experience with the customer, which reflects sense of interest to the customer (Peppers et al., 1999). Customer relationship management is considered the most common technological innovation nowadays, as the practice of the organization to (CRM) enhances customer satisfaction and increases revenue and profitability of the organization (Badgett et al., 2004; Kale, 2004; Petersen, 2004). The concept of customer relationship management is derived by Drucker (1954) that the organization should consider its customers as the basis of its existence. CRM has begun to coincide with the advent of information technology, and it became one of the key marketing strategies of the organization in the past decade.

The importance of CRM began to appear in most of the concepts and fields. The concept of CRM is closely associated with the quality, service and marketing management and the customer loyalty, especially that the customer has an important role in the process of providing high-quality service, as customers' visions have a direct impact on the results of the service. Therefore, the use of CRM can contribute in bridging the gap between the perception and

expectations of customers, and this contributes to the provision of high quality services (Deng & Pei, 2009; Wu, 2010).

## **2.2 The Concept of Customer Relationship Management CRM**

The term CRM first appeared in the mid-nineties as a concept linked to the practices of information technology and business (Pombriant, 2007). The most modern definitions see the CRM as a practical process or a strategic plan or rather than a computer system. The concept of CRM is the opposite of the general model for marketing, which is based on the marketing of products (Battista and Verhun, 2000). Wright et al. (2002) mentioned that some organizations consider CRM as e-mail messages or marketing database, while others see it as analytical processing through the use of the Internet and the customer interaction centers.

Goodhue et al. (2002) defined customer relationship management as an application that helps the organization to reach the optimal deal with the customer and the supplier or communicate with the customer in different ways in order to gain, survive and promote additional commodities linked with key products. Wright et. al. (2002) believes that CRM is a system that combines computer software and management practices for customer service from the beginning of the service request or purchase to delivery and after-sales service.

Dyche (2002) points out that the CRM is as infrastructure which enhances the value and loyalty of the customer in order to achieve the repeated purchase by him. Srivastava et al. (1999) defined CRM as a group of operations seeking to build a mutual, beneficial and profitable relationship with the customer, which includes many sub-processes, such as identifying, finding and creating communication with the customer. Many others also participate in this view such as Plakoyiannaki and Tzokas (2002). Day and Van (2002) defined CRM as a process only concerned with the interaction management between the organization and the customer, in order to maintain these interactions for a longer period, develop and maintain profitable customer relationships. Adenbajo (2003), Croteau and Li (2003) & Deck (2003) defined CRM as a strategy; (1) (Gefen and Ridings, 2002) as a technological tool; (2). (Plakoyiannaki & Tzokas 2002; Reinartz et. al., 2005) as a process; (3) (Dyche, 2002) as ability; (4) and (Hasan, 2003) as philosophy.

## **2.3 Customer Relationship Management Dimensions (CRM)**

Researchers classified CRM dimensions as (internal and external); the internal dimensions focus on organizational and cultural structures and knowledge management; while the external dimensions include interactions with customers (e.g, involving customers and sharing information). Lin et al. (2010) sees that the CRM dimensions represent (information sharing, customers' involvement, long-term relationships with customers, joint problem-solving, as well as technology-based CRM). This study focuses on five dimensions of CRM cited by Lin et al. (2010), namely, (information sharing, customers' involvement, long-term relationships with customers, joint problem-solving, as well as technology-based CRM).

### **Information Sharing**

It refers to the exchange or sharing of basic and exclusive information through interactive activities between the organization and customer (McEvily and Marcus, 2005), the common information usually includes the needs of the market, customer preferences, sales promotion, and the announcement of a new product (Mentzer et al., 2000).

Studies also indicated that sharing information affecting the value and efficiency of the process of developing the new products. Thus, the exchange of information contributes to gather important data and ideas about the product, market, and competition. The exchange of information between the customer and the organization helps to explore the best opportunities and the unique capacity to find the values of the product (Fang et al., 2007). Therefore, the exchange of information between the organization and the customer must work to increase the value of the new product.

However, the organization is seeking in the present day to invest in customer relationship management software, and trying to design new forms of relationship with the customer, such as technologies that are used by the customer and connected to the Internet to interact with suppliers. The creation of technology-based approach to participate has become of great importance for innovation and the growth of strategies in the organization. Methods and research of traditional market are seen as outdated because of the emergence of modern technology, which provides more comfort in the customer's participation. Therefore, the demand requires studying the customer partnership process in the context of creating a common value, rather than innovation mainly based on the company or organization (Roberts et al., 2005).

### **Customers' involvement**

It refers to the process of customer involvement in new product development activities, technical meetings, meetings of market valuation, and annual meetings of own supply chain. The customer usually contributes in the delivery and provision of information concerning technical support for the operations and demands of the market, which should lead to a better understanding of the requirements of the expected customer (Sin et al., 2005).

The customer relationship management process is a comprehensive approach based on the interaction between the organization and its customers. Therefore, the effectiveness of CRM is not only production practices, but the Organization must communicate with the customer with respect to the products and services they need, and take them into account. When the customer informs the organization about his "needs or desires", doing so, the organization and the customer are cooperating in the field of product sales (Peppers and Rogers, 2004); customers usually provide information about market demands and technical support in this process, which should lead to a better understanding of future requirements (Sin et al., 2005).

Therefore, the organization recognizes its need to communicate with the customer, as well as to identify the level of loyalty, satisfaction or to listen to complaints. Doing so, it shows its concern about customer participation, listen to him to get on their feedback and ideas for

better performance, as well as the development of products and services in a competitive market environment (Singh, 2002).

It is supposed that the customer participate in the development of new services that will achieve a level of customer satisfaction (Lagrosen, 2005). The highest level of customer value is to work to ensure customer satisfaction and loyalty over the long term. It further enhances the brand, the company, and help to compete in the local and global markets (Gungor, 2008). In this context, the customer works to help the organization to adapt itself to the changes that are constantly occur in the competitive environment, as well as help to focus its key ability to respond to market demands and customer service they provide (Gungor, 2008).

### **Long-term relationships with customers**

The long-term partnership is considered a business relationship contain trust and commitment between two parties. Where the two parties share in the same goals and their mutual benefits to be on a reliable basis and can be relied upon (Mohr and Spekman, 1994). Studies have shown that long-term partnership involves a high degree of commitment and mutual trust, thus both parties are willing to provide resources in a fair and reliable way, in order to reach the goals of both parties (Handfield and Bechtel, 2002)). If the business seeks to maximize long-term performance in terms of customer satisfaction, we must build and strengthen the objectives of mutual beneficial long-term relationships with customers (Sin et al., 2005).

Furthermore, the basis of mutual understanding and trust between the organization and the customer helps the organization to maintain a close partnership with the customer and the ability to determine the exact requirements, also contributes to the promotion activities, strategies for retail and marketing, and to provide an acceptable scheme for the prices to the customer (Lin and Germain, 2004).

### **Joint Problem-Solving**

The term "joint problem-solving" refers to the cooperation between the organization and the customer in solving problems together and sharing responsibilities when facing difficult or unexpected situations (McEvily and Marcus, 2005). The practice of solving a joint problem has a positive impact on the success and development of products in the market. So, Ritter and Walter (2003) believe that it is easy for the organization to improve the quality of their products, their practical and technical capabilities as well. So In practice, this means the customer's participation in solving the problems of designing the product or the technical problems. The process of participation in solving the problem provides continuous improvements affects on existing products, processes, or services (Huang and Chang, 2008). Specifically, this involves all existing designs and processes in the markets. According to both Lin and Germain (2004), the organizations equipped with sound mechanisms for the participation of solving problems with the customer are in a better condition to provide after-sales services, meet customer needs, provide security and maintenance services.

Through the involvement of the customer in the solving process, it enables the organization to enhance the customer value when buying and using goods or services. It also

enables the organization to understand the customer's needs deeply and with more value, reduce the risks in innovation as well (Maklan et al., 2008). Participatory approach in joint solutions increase the customer value and returns are much greater than it is in the traditional methods based on the search for the customer's needs and respond consecutively with new products (Lilien et al., 2002).

### **Technology -based CRM**

The customer relationship management process based on technology uses techniques to facilitate various CRM activities and provide assistance to the customer through technology effectively, including saving data, finding data , systems and customer relationship management software (Sin et al., 2005).

Technology enhances the efficiency and smartness of customer relationship management to a large extent. Accurate data for the customer is essential to the success of customer relationship management performance (Abbott et al., 2001). So the organization is working to increase its capacity through the collection, storage, analysis and exchange of information with the customer, and seeks to promote this capability and responsiveness to the needs of the customer and thus attract the customer and keep him (Butler, 2000). The techniques and technologies of managing customer relationships help the organization understand the customer in a comprehensive way, organize internal data to reduce service costs, and help salespeople to end transactions more efficiently as well as improve marketing programs.

Through technology, the organization interacts directly with the customer through social media to gather and evaluate ideas and offers. Using the outcome of the information collected, the organization will be able to provide a rapid response to customer requests and create new product. On the other hand, the customer can use the Internet-related technology to manage its relationship with the supplier; it is likely that they will also participate in product innovation process (Sin et al., 2005).

### **2.4 Innovation Capabilities**

Innovation has become essential in recent times to achieve the success of business organizations (Cobbenhagen, 2000), where organizations are heavily exposed to competitive pressures. Customers also impose strict conditions on attention, customization, and speed of delivery, quality, environmental performance, and so on. In order to ensure its competitiveness, or even its ability to continue, so that organizations must be able to meet these challenges by providing a continuous flow of products, processes, new and improved services. The need for innovation is a global demand, regardless of size or sector or technological development, and the environment in which the technologies and competitive situations and customer requirements change overnight where the life cycle of products and services reduced, the ability to innovate managing successfully becomes important to keep the competitive strength of the organization.

Innovation is also an essential function for the business and allows the organization to continue to grow and thrive in a competitive environment. It is a major theme in the

administrative and strategic research, the lifeblood of the organization (Kelley, 2005), the way of competitive advantage as well (Grant, 1996) and a strong motivation for economy (Grossman & Helpman, 2001). Innovation can take the form of products or services or the routine, or processes or industries (Rogers, 1995).

Schumpeter (1947; 1942: 83) sees that innovation is a full blow of what was previously unknown and create something new, and this type of innovation makes economic revolutions happen constantly. And that such economic change revolves around the business. In spite of that business contributed to the increase of creations, large organizations began to imitate the leading behaviors to increased innovation capabilities. Innovation ideas are important and necessary for successful innovation; the constant influx of innovation ideas will help in all stages of the innovation process (Sheremata, 2000), and achieve a competitive advantage of the organization (Hunt and Morgan, 1995). In fact, innovation atmosphere makes innovation important in the process of developing new products as well as the risk in the developmental process of the products (Cooper and Kleinschmidt, 1995).

Innovation has become a subject of interest to scientists and researchers in some of the first studies on the economy and organizations, which resulted in the broad definitions of innovation, that have contributed in the knowledge of how to create new ideas by the organization. A lot of different definitions in various fields of science, literature, economics, management, sociology and communications have been found (Baregheh et al., 2009). Studies also showed different types of innovation activity; many definitions of the product, the process and innovation have been developed in order to highlight the role of the owner of the need (West & Anderson, 1996), technology (Nord & Tucker, 1987) knowledge (Plessis, 2007), and management (Birkinshaw et al., 2008). While many scientists have adopted innovation as a state of art (Abrahamson, 1996) and others are aware that it is a new idea for the organization.

Penrose (1959) defined innovation as the use of the same resources for different purposes or in different ways in combination with various types of other resources. Thompson (1965) defined innovation as generating, accepting and implementing ideas, processes and new products or services. Innovation was also defined as the development and implementation of new ideas by the people who engage with the passage of time in their dealings with others within the institutional system (Van de Ven, 1986). He focuses on four key factors namely (new ideas, people, transactions, and Organizational context). Roberts (1988) considered innovation as the generation of an idea or invention, and then turn that invention into business or to any other useful application. Therefore, we find the public administration of technical innovation, include organizing and directing human resources and the capital effectively through (the creation of new knowledge - and generate technical ideas geared to new and improved products for manufacturing processes, and services - develop those ideas into business models - and finally transfer them into manufacturing, distribution and use).

## **2.5 Innovation Capabilities Components**

The study focused on four dimensions of innovation abilities represented by (administrative innovation - marketing innovation - technological innovation - and aesthetic innovation).



### **Administrative Innovation**

Yonghong et al. (2005) defined Administrative innovation as the adoption of new technologies that are integrated into the products or processes. Previous research has indicated that the success of the administrative innovation provides the organization with a competitive long-term success in a competitive market (Grover et al., 2007; Moors and Vergragt, 2002). Administrative innovation is associated with the implementation of techniques to create new markets or to provide new features, functions and tasks, not only to solve technical problems (Green et al., 1995).

Administrative innovation improves the work of the organization, internal control and organizational structure, as well as contributes in finding creative solutions to problems which enables the organization to continue its administrative processes efficiently and effectively, helping the organization to adapt to environmental changes occurring around them and create proposals and ideas for the development of regulations, procedures and methods of new business systems; this works to improve its productivity and raise the level of the performance of employees that leading to the lifting of the overall performance.

### **Technological Innovation**

Burgelman et al. (2004) defined technological innovation as a range includes the characteristics of the organization which facilitates and supports technological innovation strategy. He also considers technological innovation a kind of special assets or resources that include technology, products and assets, or knowledge, experience, and organization (Guan and Ma, 2003). Sorescu et al. (2003) defined technological innovation as the organization's ability to develop new technologies that can be used to develop new products. As the technological innovation is too expensive, it is one of the important things for the organization to improve investment in appropriate technology. In turn, this increases the importance of monitoring the competitors and their attitudes, through the identification, analysis, and respond to the movements of competitors. While Evangelista et al. (1997) pointed out that the research and development activities are one of the key components of technological innovation in the organization and that the agreement on the innovation is of great importance. The success of technological innovation is not based on technological capabilities only, but requires other innovation capacity in the industry such as marketing, strategic planning, education, and other resources (Yam et al., 2004).

The ability of technological innovation including Adler and Shenbar (1990) consists of four types, namely, (the ability to meet the demands of the market through the development of new products - the ability to manufacture these products using appropriate processes technology - the ability to meet future needs through the development and introduction of new products and technological processes - the ability to respond to any technological activities resulting from competitors in unforeseen circumstances).

### **Aesthetic innovation**

The aesthetic innovation is represented in the organization's ability to develop non-technological elements; to change the outside appearance of the product; especially since

there is a difference between the aesthetic orientation and the ability of aesthetic innovation, so because of esthetic orientation is what the organization wants to do, while the aesthetic innovation ability is in what the organization can do.

Aesthetic innovation also requires close contact with the customer to determine the types and advantages of aesthetic design in order to evaluate and speed of implementation of the new products. So, communication provides a close relationship with the customer, as it will enable the organization to monitor customer trends and respond to them while the opportunities are available. This contributes significantly to the ability of aesthetic innovation.

The aesthetic features of the product lies in the outer appearance, and not in its performance. For this, in comparison between the technological advantages and aesthetics features, we find that the aesthetic is less need for customers because it is not linked to the performance of the product. The customer who wishes to buy a computer at which his priorities are performance, safe features storage space and speed, the outer shape is usually a secondary need, especially after the clear low income levels.

### **Marketing Innovation**

Marketing innovation had a broad concepts formed in all aspects of marketing, which extends from the factory to the final consumer. Marketing innovation also focuses on customer satisfaction and dexterity to identify and meet their needs better than competitors, figuring out what the customer needs in the future as well. There is no doubt that the organizations which can predict and detect latent needs of the customer, can guarantee access to a leading advanced position also gives it competitive advantage through creative marketing.

Marketing Innovation includes market research as adjust the price, the retail market, promote advertising, retail channels, and marketing information systems (Vorhies and Harker, 2000; Weerawardena, 2003). Dhomor (2003) described some elements of marketing innovation as (fluency) by the size of the marketing activity in a given period, (flexibility) by the degree of transition from marketing transition to another, (originality) by the ability to generate new marketing ideas.

### **2.5 Customer Relationship Management and Innovation Capabilities**

Lin's study (2010), which aimed to identify the effects of different dimensions of customer relationship management on the innovation capacity, where five dimensions have been identified, (sharing of information, customer involvement, long term partnership, problem-solving sharing, and technology based on customer relationship management), In addition to the five aspects of the innovation abilities (product innovation, process innovation, marketing innovation, and service innovation). A relationship has been the established between each of the customer relationship management dimensions and aspects of the innovation capacity; at which each one of them was verified, data were collected from 107 Taiwanese companies that manufacturing computers, multiple regression analysis has been used to determine the impact of CRM on the innovation capabilities.

The results found that Taiwanese computers' manufacturers implement different levels of customer relationship management, and therefore show different levels of impact on each

one of the five innovation capabilities and; in general, the companies are able to increase the innovation capabilities through customer relationship management, and the relationship between the innovation of the process, the involvement of the customer, administrative innovation, marketing innovation and long term partnership were not of great importance but the technology based on customer relationship management has a positive impact on all five types of innovation.

Ada et al.'s study (2010), which aimed to find out how to Hotels achieve practices of CRM, conducted semi-depth interviews with 45 managers working in 17 hotels; interviews have been recorded and written, and then analyzed using content analysis. The study found that all hotels possess a level of practices in customer relationship management, where the most present purpose to the customer relationship management is to maintain the customer; the results also showed that the assessment and monitoring were the most important activities not to create value for customers, but to monitor the performance path in communication with customers departments and evaluate the customer to their experiences with the hotel / restaurant.

Bianka's study (2013), which aimed to investigate quantitatively how they affect the quality of the perceived relationship between the three components of associated relations chain on the innovation capabilities in conventional food chains; the data were obtained through a survey dealt with 90 three-company (i.e all 3 companies are gathered by a related chain), as the research was conducted in three European countries and six categories of conventional food products; heterogeneity of these chains has been testing by using cluster analysis. Binary logistic regression was used to identify the impact of the quality of the relationship on the innovation capacity in the studied chains. Three distinct groups have been identified, as they reflect the three groups of innovation capabilities, namely: the high level, medium and low. The quality of relations was determined through certain characteristics, such as trust, social satisfaction, non-coercive power, and reputation. The results showed that the characteristics of quality of the chain relationship can be important in improving the innovation abilities in chains factors.

Stanley's study (2013), which aimed to discuss the role of management involvement in innovation and its relationship with the regulatory, technical and marketing creations. Regulatory Innovation is characterized as being an administrative innovation and human capital, and is considered intermediate structure to test its indirect effects on management involvement in the technical and marketing innovation. The data were collected from 196 responders through a questionnaire sent via the Internet to the 2,500 participants, were randomly selected from electronics manufacturing companies in China. Structural equation model AMOS 18 has been used in order to analyze the data. The results showed that management involvement had a positive impact on all dimensions of innovation. The results also showed that organizational innovation had an average impact on the relationship between the participation of management and technical innovation, despite the absence of such relationship in the relationship between management involvement and marketing innovation.

Shu-Mei's study (2014), aimed to identify the impact of the extent of knowledge of the customer involvement and customer relationship management on the quality of service. The

study pointed out that organizations are aware that the customer is the most important asset; and to achieve the highest level of customer satisfaction, quality of services provided to them should be improved. Thus, the issue is that the organization involves the customer so that the institution can find a relationship with the customer and maintain it, as well as improve the quality of service provided to him, all of which have become issues of major importance. This study deals with the discussion of these issues. Questionnaire was used as a tool to the study, and statistical analysis techniques were used in order to identify the impact of the extent of knowledge of the customer involvement and CRM on the quality of service. The results showed a positive impact of the quality of service on CRM attributable to the partial variable between the customer knowledge and the quality of service, at which the customer knowledge enhances CRM while it in turn increases the quality of services and provide competitive advantages.

Nastaran et al.'s study (2014), aimed to identify the impact of customers' knowledge on continuous innovation and the enterprise performance in 35 private bank in Golan (Iran); the study suggests that customer relationship management is an important and effective system for the capabilities of innovation, and in any case, the role of CRM and the performance is not understood fully. Data were collected through a questionnaire distributed to private banks' managers in Golan, 265 questionnaires out of 350 were returned back; hypotheses were tested using structural equation model. The results of this study showed that the customer's knowledge has impact on the speed of innovation and quality, in addition to the operational and financial performance. The results also indicate that there is a different impact of the customer's knowledge on customers in different trends rather than the innovation and performance of the institution.

Alirezaet's study (2014), aimed to identify the relationship between the customer relationship management in the branches of the Bank of Gawamyn in the Iranian capital of Tehran. Data has been collecting based on the review; a questionnaire was designed after verifying the validity and reliability, and then data has been collecting from the study population, who are selected people from the bank branches in the capital Tehran; then the data were analyzed using the statistical package for the Humanities program. The results indicated that the four customer relationship management system factors namely, quality of service, the characteristics of the service, the level of access to the service, and dealing with complaints, had a positive impact on the customer satisfaction in the involved branches.

### **3. Research hypotheses**

Based on the above literature reviewed, the research hypothesis is:

#### **H1. Customer Relationship Management directly influences Innovation Capabilities of Kuwait Airways**

More specifically:

H1a. information sharing directly influences Innovation Capabilities of Kuwait Airways

H1b. customers' involvement directly influences Innovation Capabilities of Kuwait Airways

H1c. long-term relationships with customers directly influences Innovation Capabilities of Kuwait Airways

H1d. joint problem-solving directly influences Innovation Capabilities of Kuwait Airways

H1e. technology-based CRM directly influences Innovation Capabilities of Kuwait Airways

#### 4. Research Framework

Based on study hypothesis, the following theoretical framework, shown in Figure 1, was proposed in order to show the relationships among Customer Relationship Management and Innovation Capabilities.

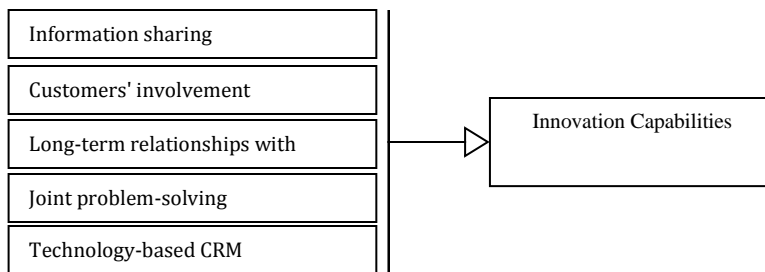


Fig.1. Theoretical Model

#### 5. Methodology

In this section, we discuss measures, sample and data collection as well as the statistical tests used to evaluate the hypothesis.

##### 5.1 Measures

The constructs in this study were developed by using measurement scales adopted from prior studies. Modifications were made to the scale to fit the purpose of the study. All constructs were measured using five-point Likert scales with anchors strongly disagree (= 1) and strongly agree (= 5). All items were positively worded. Customer Relationship Management consist of Information sharing, Customers' involvement, Long-term relationships with customers, Joint problem-solving, Technology-based CRM were adapted from previous studies (Lin et al., 2010; Shu-Mei, 2014). Innovation Capabilities construct consist of aesthetical innovation, marketing innovation, technological innovation, and Managerial innovation were adapted from previous studies (Minna et al., 2014; Bianka et al., 2013).

##### 5.2 Sample

A sample of 550 was randomly taken from the population of employees of Kuwaiti airways. The unit of analysis of this study was employees of Kuwaiti airways . The questionnaires, with instructions of how to complete them, were distributed to respondents by an interviewer. Subjects were asked to assess their perceptions of various items of different constructs. Assessments were based on A Five-point Likert scale ranging from “strongly disagree (1) to “strongly agree (5) was used to measure the 48 items. In order to minimize possible response bias, instructions emphasized that the study focused only on their personal opinions. There were no right or wrong answers. After completion, the questionnaires were checked and collected by the interviewer. However, due to some invalid questionnaires which were removed from the sample. The total sample size was 484, Table I shows the characteristics of the sample.

*Table I. Sample characteristics*

<b>Variable</b>		<b>Frequency</b>	<b>%</b>
Age group	less than 30	115	23.8
	30- less than 40	221	45.7
	40- less than 50	42	8.7
	50 years and more	106	21.9
Gender	Male	353	72.9
	Female	131	27.1
Educational level	Diploma	148	30.6
	Bachelor	278	57.4
	Master	51	10.5
	PhD	7	1.5

Females make (27.1percent) of the customers on the other hand Males respondents represented (72.9 percent) of the survey population. The largest group of respondents (30.2 percent) were aged 40- less than 50. The next largest group (45.7 percent) were aged 30- less than 40. Smaller groups of respondents were aged 40- less than 50 (8.7 percent). With regard to educational level, respondents with Bachelor degrees were the largest group of respondents make (57.4 percent), respondents with Diploma degrees make (30.6 percent). Finally, holders of PhD degrees make (1.5percent) of the employees. The sample characteristics of the respondents represented in Table I.

### **5.3. Data Gathering**

The research data was collected through the questionnaire. The questionnaire began with an introductory statement that asked respondents to administer their own responses, assured them of confidentiality, and so forth. This was followed by a request for demographic information and the measures. Data were collected through random questionnaires users. The sampling frames consist of randomly selected 484 employees. The study was based on the development and administration of a self-administered survey and conducted in Kuwait.

### **5.4 Reliability and validity of the survey instrument**

The survey instrument with 48 items was developed based on two variables customer relationship management as independent variables with five dimensions: Information sharing (IS1-IS5), Customers' involvement (CI6-CI10), Long-term relationships with customers (LRC11-LRC16), Joint problem-solving (JPS17-JPS19), Technology-based CRM (TBC20- TBC 24), and Innovation Capabilities as dependent variables with four dimensions: Aesthetical innovation (AI25- AI29), Marketing innovation (MI30-MI36), Technological innovation (TI37-TI41), and Managerial innovation (MIN42-MIN48). The instrument was evaluated for reliability and validity. Reliability refers to the instrument's ability to provide consistent results in repeated

uses (Gatewood & Field, 1990). Validity refers to the degree to which the instrument measures the concept the researcher wants to measure (Bagozzi & Phillips, 1982).

Table II. Factor analysis of Customer Relationship Management

Construct and item	Loadings	Communalities	Eigenvalue	Variance	Reliability
<b>Information sharing (IS)</b>			<b>2.291</b>	<b>58.994</b>	<b>.8214</b>
IS1	.537	.733			
IS2	.523	.651			
IS3	.617	.785			
IS4	.722	.850			
IS5	.651	.807			
<b>Customers' involvement (CI)</b>			<b>3.566</b>	<b>64.599</b>	<b>.8614</b>
CI1	.612	.782			
CI2	.770	.877			
CI3	.806	.898			
CI4	.645	.803			
CI5	.598	.631			
<b>Long-term relationships with customers (LRC)</b>			<b>2.531</b>	<b>61.149</b>	<b>.8718</b>
LRC1	.656	.810			
LRC2	.571	.756			
LRC3	.536	.732			
LRC4	.572	.756			
LRC5	.623	.789			
LRC6	.711	.843			
<b>Joint problem-solving (JPS)</b>			<b>2.896</b>	<b>74.885</b>	<b>.8281</b>
JPS1	.739	.860			
JPS2	.707	.841			
JPS3	.801	.895			
<b>Technology-based CRM (TBC)</b>			<b>2.942</b>	<b>67.577</b>	<b>.8786</b>
TBC1	.695	.834			
TBC2	.735	.857			
TBC3	.649	.805			
TBC4	.608	.780			
TBC5	.692	.832			

Table III. Factor analysis of Innovation capabilities

Construct and item	Loadings	Communalities	Eigenvalue	Variance	Reliability
<b>Aesthetical innovation (AI)</b>			<b>2.541</b>	<b>68.334</b>	<b>.8901</b>
AI1	.552	.648			

AI2	.627	.778			
AI3	.513	.642			
AI4	.594	.746			
AI5	.613	.707			
<b>Marketing innovation (MI)</b>			<b>2.349</b>	<b>48.509</b>	<b>.8792</b>
MI1	.543	.697			
MI2	.664	.821			
MI3	.746	.849			
MI4	.641	.779			
MI5	.543	.744			
MI6	.577	.684			
<b>Technological innovation (TI)</b>			<b>3.116</b>	<b>37.561</b>	<b>.8607</b>
TI1	.622	.799			
TI2	.501	.697			
TI3	.513	.702			
TI4	.619	.728			
TI5	.684	.862			
<b>Managerial innovation(MIN)</b>			<b>3.442</b>	<b>45.387</b>	<b>.8758</b>
MIN1	.622	.817			
MIN2	.745	.894			
MIN3	.591	.757			
MIN4	.607	.746			
MIN5	.547	.628			
MIN6	.647	.870			
MIN7	.519	.628			

Factor analysis and reliability analysis were used in order to determine the data reliability for the Customer Relationship Management dimensions, and innovation capabilities measures. A within factor, factor analysis was performed to assess convergent validity. The results of the factor analysis and reliability tests are presented in Table (II) and Table (III). All individual loadings were above the minimum of 0.5 recommended by Hair et al. (1998). For exploratory research, a Chronbach  $\alpha$  greater than 0.70 is generally considerate reliable (Nunnally, 1978). Chronbach  $\alpha$  statistics for the study contracts are shown in table II. Thus it can be concluded that the measures used in this study are valid and reliable. On the basis of Cattell (1966) and Hair et al. (1998) criterion, factors with eigenvalues greater than 1.0 and factor loadings that are equal to or greater than 0.50 were retained. 48 items, loading under five factors of Customer Relationship Management dimensions and four factors of innovation capabilities.



*Psychometric properties and dimensions of the revised Customer Relationship Management and innovation capabilities*

Kaiser-Meyer-Olkin and Bartlett’s Test of Sphericity has been used as Pre-analysis testing for the suitability of the entire sample for factor analysis as recommended by Comrey (1978), the value of The Kaiser-Meyer-Olkin measure was used to assess the suitability of the sample for each unifactorial determination. The KMO values found (see Table IV) are generally considered acceptable (Kim and Mueller, 1978). All factors in each unifactorial test accounted for more than 52 per cent of the variance of the respective variable sets. This suggests that only a small amount of the total variance for each group of variables is associated with causes other than the factor itself, and the Bartlett tests of sphericity was significant at  $p < 0.01$ , thus, indicating that the sample was suitable for factor analytic procedures (see Table IV).

*Table IV. Kaiser-Meyer-Olkin and the Bartlett’s Test of Sphericity*

Variables	Kaiser-Meyer-Olkin Values	Bartlett’s Test of Sphericity	
		Approx. Chi-Square	Sig.
Information sharing	0.829	241.153	.000
Customers' involvement	0.727	362.115	.000
Long-term relationships with customers	0.849	425.117	.000
Joint problem-solving	0.708	524.774	.000
Technology-based CRM	0.808	257.326	.000
Aesthetical innovation	0.754	598.145	.000
Marketing innovation	0.769	624.335	.000
Technological innovation	0.812	417.334	.000
Managerial innovation	0.791	287.164	.000

**Descriptive statistics analysis**

Table (V) indicates that employees of Kuwaiti airways perceived Technology-based CRM (with the highest mean scores, i.e.  $M = 4.01$ ) to be the most dominant Customer Relationship Management dimension within their company and evident to a considerable extent, followed by Long-term relationships with customers ( $M = 3.84$ ), Customers' involvement ( $M = 3.59$ ), Information sharing ( $M = 3.56$ ), and Joint problem-solving (with the lowest mean scores  $M = 3.45$ ). With regard to Innovation capabilities employees of Kuwaiti airways perceived Managerial innovation (with the highest mean scores, i.e.  $M = 3.88$ ) to be the most dominant Innovation capabilities dimension within their company and evident to a considerable extent, followed by Marketing innovation ( $M = 3.82$ ), Technological innovation ( $M = 3.51$ ), and Aesthetical innovation (with the lowest mean scores  $M = 3.46$ ).

Table V. descriptive analysis of Customer Relationship Management and Innovation capabilities

Dimension	Mean	Standard deviation
<b>Customer Relationship Management</b>	<b>3.72</b>	
Information sharing	3.56	.850
Customers' involvement	3.59	.859
Long-term relationships with customers	3.84	.742
Joint problem-solving	3.45	.962
Technology-based CRM	4.01	.712
<b>innovation capabilities</b>	<b>3.67</b>	
Aesthetical innovation	3.46	.915
Marketing innovation	3.82	.731
Technological innovation	3.51	.881
Managerial innovation	3.88	.724

## 6. The results

### Test of hypothesis

Multiple regression analysis was employed to test the hypotheses. It is a useful technique that can be used to analyze the relationship between a single dependent variable and several independent variables (Hair et al., 1998). In this model, Innovation capabilities acts as the dependent variable and Customer Relationship Management, as the independent variables. From the result as shown in Table VI, The regression model was statistically significant ( $F = 2326.438$ ;  $R^2 = 0.980$ ;  $P = .000$ ). The  $R^2$  is 0.980, which means that 98.0 per cent of the variation in Innovation capabilities can be explained by Information sharing, Customers' involvement, Long-term relationships with customers, Joint problem-solving, Technology-based CRM. The proposed model was adequate as the F-statistic = 2326.438 was significant at the 5% level ( $p < 0.05$ ). This indicates that the overall model was reasonable fit and there was a statistically significant association between Customer Relationship Management and Innovation capabilities .

Table VI also shows that Information sharing ( $p < 0.05$ ;  $\beta = 0.293$ ), Customers' involvement ( $\beta = 0.130$ ,  $p < 0.05$ ), Long-term relationships with customers ( $\beta = 0.198$ ,  $p < 0.05$ ), Joint problem-solving ( $\beta = 0.280$ ,  $p < 0.05$ ), , and Technology-based CRM ( $\beta = 0.170$ ,  $p < 0.05$ ), had a significant and positive effect on Innovation capabilities . This provides evidence to support H1, H2, H3, H4, and H5. Based on the  $\beta$  values Information sharing has the highest impact on Innovation capabilities followed by Joint problem-solving, Long-term relationships with customers, Technology-based CRM and subsequently Customers' involvement.

*Table VI. Regression results between Customer Relationship Management and Innovation capabilities*

<b>Independent variables</b>	<b>Standardized beta</b>	<b>t</b>	<b>Sig.</b>	<b>Tolerance</b>	<b>VIF</b>
<b>Information sharing</b>	.293	13.384	.000	7.370	.136
<b>Customers' involvement</b>	.130	6.181	.000	5.338	.187
<b>Long-term relationships with customers</b>	.198	8.022	.000	10.072	.099
<b>Joint problem-solving</b>	.280	11.884	.000	5.316	.188
<b>Technology-based CRM</b>	.170	6.883	.000	5.409	.185
<b>Notes:</b> R 2 = 0.980; Adj. R 2 = 0.960; Sig. F = 0.000; F-value = 2326.438; dependent variable, Marketing capabilities ; p < 0.05					

## 7. Discussion

The value of (Adjusted R2) shows that customer relationship management dimensions interpreted the change in the innovation capabilities in the amount of 96%, and this shows how the diverse customer relationship management activities are responsible about the difference in the innovation capabilities dimensions, The value of (Adjusted R2) shows that customer relationship management dimensions interpreted the change in the innovation capabilities in the amount of 96%, and this shows how the diverse customer relationship management activities are responsible about the difference in the innovation capabilities dimensions, and that the concepts of innovation capabilities and CRM are multi-dimensional concepts and CRM activities contribute to the innovation capacity, as they are considered effective mechanisms to promote all kinds of innovation capacity. The results of the study also show that Kuwait Airways use technological techniques effectively in its relation management with customers as a way for the emergence of creative potentials that attract customers.

The test results proved having a statistical effect for the dimensions of customer relationship management; this result is consistent with the findings of both studies for (Gungor, 2008; Sin et al., 2005); this is an indication that what Kuwait Airways have from creative, aesthetic, technological, administrative and marketing capabilities is a real result for the adoption of this company to dimensions stimulate the involvement of customers in designing the service provided by Kuwait Airways, which makes them distinctive and described in beauty and high-tech characteristic.

A significant statistical effect of Information sharing on the innovation capabilities of the Kuwait Airways Corporation; this result can be interpreted that the share of information affecting the value and efficiency of the process of new products development. Thus, the process of sharing information contributes in gathering important data and ideas about the product, market, and competition. Moreover, sharing information between the customer and the organization helps to explore the best opportunities and the unique capacity to find the

values of the product; this finding agrees with a study by (Fang et al, 2007). Therefore, sharing information between the organization and the customer must work to increase the value of the new product.

Furthermore, investing in customer relationship management programs contribute in the design of new forms of relationship with the customer, such as technologies used by the company connected to the Internet to interact with customers. The creation of technology-based approach to participate has become of great importance for innovation and the growth of strategies in the organization. Traditional market methods and research are now seen as outdated because of the emergence of modern technology, which provides more comfort in the customer's participation.

A significant statistical effect of Customers' involvement on the innovation capabilities of the Kuwait Airways Corporation. This result can be explained that the customer relationship management process is a comprehensive approach based on the interaction between the organization and its customers. Therefore, the effectiveness of CRM is not only production practices, but the Organization must communicate with the customer with respect to the products and services they need, and take them into account. So when the customer tells the organization about his "needs or desires", the organization and the customer are cooperating in the field of product sales, which leads to a better understanding of future requirements; so the customer's participation in the development of new services that will lead to achieve a level of customer satisfaction and loyalty over the long term. It further enhances the brand, the image of the company, and help to compete in the local and global market; this result agrees with the study of (Gungor, 2008).

A significant statistical effect of Long-term relationships with customers on the innovation capabilities of the Kuwait Airways Corporation. This result can be explained that a long-term partnership involves a high degree of commitment and mutual trust, and thus both parties are ready to provide resources, in a fair and reliable way, in order to reach their goals which creates common capabilities based on a long-term expertise, which is reflected on the company's innovation capabilities; this finding is consistent with the study by (Sin et al., 2005).

Joint problem-solving has a positive impact on the success and development of products in the market. Therefore, it is believed that it is easy for the organization to improve the quality of their products, practical and technical capabilities. In practice, this means the customer volunteer to assist in solving product design problems. The process of involvement in solving problem provides continuous improvements and affects on existing products, processes, or specifically services; this involves all existing designs and processes in the markets. Through involving the customer in the process of finding a solution, the organization enhances the customer value when buying or using goods or services. The organization is also able to understand and respond to the customer's needs in deeper and more valuable way, as well as reduce the risks in innovation; This finding is consistent with the study by (Maklan et al., 2008; Huang and Chang, 2008).

A significant statistical effect of the technology based on CRM in the innovation capabilities of the Kuwait Airways Corporation. This result can be explained that the information systems and analysis of data on the Internet, data collection, customer information

systems, and service centers support product innovation process. Accurate data is essential for the customer to the success of CRM performance, at which the techniques and technologies of CRM enable the organization to understand customers perfectly, as well as organize internal data to reduce service costs, help salespeople to end transactions more efficiently and improve marketing programs.

Through technology, the organization interacts directly with the customer through social media, to gather and evaluate ideas and offers. Using the outcome of the information collected, the organization will be able to provide a rapid response to customer requests and create a new product. On the other hand, the customer can use the Internet-related technology to manage his relationship with the supplier, it is likely that they will also participate in the innovation process of products. This finding is consistent with the study by (Abbott et al. 2001.)

### **8. Recommendations:**

Based on these findings, the researchers recommend the following:

1. The company's administration should enhance the sharing of information with the customer through the adoption of a range of interactive activities for the purpose of identifying market needs, and preferences of the customer in order to collect ideas and data about the products preferred by the customer; interactive activities can be through the use of technology related to the Internet to interact with the customer and supplier in order to achieve innovation.
2. Involving the customer in product development activities through regular meetings, suggestions and complaints in order to obtain information that lead to bigger and better understanding for the customer's requirements.
3. Enhancing the technological capabilities of the company's employees through training programs and investment in the emerging systems and software that are able to serve customer relationship management.
4. Focusing on delivering the highest value to the customer through the best ways of communication, faster delivery, providing products and services designed with standards suit the customer's requirements.
5. Promoting interaction with the customer through the use of best technical and social media networking in order to get new ideas and modern methods enable the company to achieve the best innovation capabilities in the marketing and aesthetic fields.
6. The company must focus on the factors and tactical strategies that include interaction through a range of activities to achieve better interaction and enables the company to gather information about the customer.
7. Communicate through the management of the interaction points between the customer and the organization.

### **References**

Abbott, Julie, Merlin Stone and Francis Buttle (2001). Customer Relationship Management In Practice - A Qualitative Study. *Journal of Database Marketing*, 9(1), 24-34.

- Ada, S., Lawrence, Lo, Stalcup, D. & Lee, Amy (2010). Customer relationship management for hotels in Hong Kong. *International Journal of Contemporary Hospitality Management*, 22(2), 139–159.
- Adenbajo, D. (2003). Classifying and selecting e-CRM applications: An analysis-based proposal. *Management Decision*, 41(6), 570- 577.
- Adler, P.S. and Shenbar, A. (1990). Adapting your technological base: the organizational challenge. *Sloan Management Review*, 25, 25-37.
- Alireza, Rezghi Rostami Changiz Valmohammadi Jahan Yousefpoor (2014). The relationship between customer satisfaction and customer relationship management system; a case study of Ghavamin Bank. *Industrial and Commercial Training*, 4694, 220–227.
- Badgett, Melody, Ballou, Steve and LaVall, Steve (2004). Doing CRM Right: What it Takes to be Successful with CRM-Executive Summary View. *CRM Global Study*, IBM Consulting Services.
- Bagozzi, Richard P. and Phillips, Lynn W. (1982). Representing and Testing Organizational Theories: A Holistic Construal. *Administrative Science Quarterly*, 27(3), 459-89.
- Baregheh, A., Rowley, J. & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. *Management Decision*, 47, 1323-1339.
- Battista, P. and Verhun, D. (2000). Customer relationship management: The promise and the reality. *CMA Management*, 74(4), 34-37.
- Bianka, Kühne, Gellynck, Xavier & Weaver, Robert D. (2013). The influence of relationship quality on the innovation capacity in traditional food chains. *Supply Chain Management: An International Journal*, 18(1), 52–65.
- Blattberg, R.C. and J. Deighton (1996). Manage Marketing by the Customer Equity Test. *Harvard Business Review*, (July-August), 136-144.
- Burgelman, R., Maidique, M.A. and Wheelwright, S.C. (2004). *Strategic Management of Technology and Innovation*. New York, NY: McGraw-Hill.
- Butler, S. (2000). Changing the game: CRM in the e-world. *The Journal of Business Strategy*, Boston, 21(2), 13-14.
- Cattel, R.B. (1966) 'The Scree Test for the number of factors. *Multivariate Behavioural Research*', Vol. 1 No.1, pp. 140-161.
- Cobbenhagen, J. (2000). *Successful innovation: Towards a new theory for the management of small and medium-sized enterprises*. Northampton, MA: Edward Elgar.
- Comrey, A. L. (1978). Common methodological problems in factor analytic studies. *Journal of Consulting and Clinical Psychology*, 46, 648-659.
- Cooper and Kleinschmidt, Elko J. (1995). Determinants of Timeliness in Product Crossan, M. & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: a systematic review of the literature. *Journal of Management Studies*, 47, 1154-1191.
- Croteau, A. M. and P. Li (2003). Critical success factors of CRM technological Initiatives. *Canadian Journal of the Administrative Sciences*, 20(1), 21-34.
- Day, G. & Van den Bullet, C. (2002). Superiority in customer relationship management: Consequences for competitive advantage and performance. *MSI Working Paper*, 02-123.

- Deck, S. (2003). *What is CRM?*, <http://www.cio.com/research/crm/edit/crmabc.html>.
- Deng, W. & Pei, L. (2009). Development of the hospitality quality consciousness scale: A pilot study. *The Business Review*, Cambridge, 12(1), 73-79. Retrieved from: <http://proquest.umi.com>
- Drucker, P. F. (1954). *The practice of management*. New York, NY: Harper & Row.
- Dyche, Jill (2002). *The CRM Handbook; A business guide to customer relationship management*. Boston: Addison-Wesley.
- Evangelista, R., Perani, G., Rapiti, F. and Archibugi, D. (1997). Nature and impact of innovation in manufacturing: some evidence from the Italian innovation survey. *Research Policy*, 26, 521-36.
- Fang, Eric & Palmatier, Robert W. & Evans., Kenneth R. (2007). Influence of customer participation on creating and sharing of new product value. *Academy of Marketing Science*.
- Gatewood, R. D. & Field, H. S. (1990). *Human Resource Selection*. Chicago, IL: The Dryden Press.
- Gefen, D. and Ridings, C.M. (2002). Implementation team responsiveness and user evaluation of customer relationship management: A quasi experimental design study of social exchange theory. *Journal of Management Information Systems*, 19(1), 47-69.
- Goodhue, Dale L, Wixom, Barbara H. and Watson, Hugh J. (2002). Realizing Business Benefits through CRM: Hitting the right target in the right way. *MIS Quarterly Executive*, 1(2), 79-94.
- Green, S G., Gavin, M. B. & Aiman-Smith, L. (1995). Assessing a multidimensional measure of radical technological innovation. *IEEE Transactions on Engineering Management*, 42(3), 203-214.
- Grossman, G. & Helpman, E. (2001). *Innovation and growth in the global economy*. Cambridge, MA: Massachusetts Institute of Technology Publishing.
- Grover, V., Purvis, R. L. & Segars, A. H. (2007). Exploring Ambidextrous Innovation Tendencies in the Adoption of Telecommunications Technologies. *IEEE Transactions on Engineering Management*, 54(2), 268-285.
- Guan, J. and Ma, N. (2003). Innovative capability and export performance of Chinese firms. *Technovation*, 23(9), 737-747.
- Gungor, M. Ozgur (2008). Customer's Advisory, Organizational Openness and Capability: the Locus of Value F. Zeynep BILGIN *Industrial Marketing Management*, 37, 421-431
- Guru (2003). *What is CRM?*. <http://www.crmguru.com/content/answers/whatiscrm.html>
- Hair, J.F. Jr, Anderson, R.E., Tatham, R.L. and Black, W.C. (1998). *Multivariate Data Analysis*. (5<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice-Hall International.
- Hasan, M. (2003). Ensure success of CRM with a change in mindset. *Marketing Management*, 37(8), 16.
- Huang, H.C. and Chang, C.W. (2008). Embedded ties and the acquisition of competitive advantage. *Journal of Intellectual Capital*, 9(1), 105-21.
- Jutla, D., Craig, J., and Bodorik, P. (2001). Enabling and Measuring Electronic Customer Relationship Management Readiness. *Proceedings of the 34th Hawaii International Conferences on System Sciences*.

- Kale, Sudhir H. (2004). CRM Failure and the Seven Deadly Sins. *Marketing Management*, (September/October), 42-46.
- Kracklauer, A., Passenheim, O. and Seifert, D. (2001). Mutual Customer Approach: How Industry and Trade are Executing Collaborative Customer Relationship Management. *International Journal of Retail and Distribution Management*, 29(12), 515-519.
- Lagrosen, S. (2005). Customer involvement in new product development: a relationship marketing perspective. *European Journal of Innovation Management*, 8(4), 424-36.
- Lilien, Pamela, Morrison, D., Searls, Kate Sonnack, Mary and von Hippel, Eric (2002). Performance Assessment of the Lead User Idea Generation Process for New Product Development. *Management Science*, 48 (August).
- Lin, Ru-Jen, Rong-Huei Chen, Kevin Kuan-Shun Chiu (2010). Customer relationship management and innovation capability: an empirical study. *Industrial Management & Data Systems*, 110(1), 111-133.
- Lin, X. and Germain, R. (2004). Antecedents to customer involvement in product development. *European Management Journal*, 22(2), 244-55.
- Mafraji, Khalifa Ali (2003). Obstacles to creative thinking. *Unpublished MA Thesis*, Oman, Muscat, Sultan Qaboos University.
- Maklan, S., Knox, S. & Ryals, L. (2008). New trends in innovation and customer relationship management: A challenge for market researchers. *International Journal of Market Research*, 50(2), 1-22.
- McEvily, B. and Marcus, A. (2005). Embedded ties and the acquisition of competitive capabilities. *Strategic Management Journal*, 26(11), 1033-55.
- Mohr, J. and Spekman, R. (1994). Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution techniques. *Strategic Management Journal*, 15(2), 135-52.
- Moors, E. H. M., Vergragt, P. J. (2002). Technology choices for sustainable industrial production: Transitions in Metal Making. *International Journal of Innovation Management*, 6(3), 277-299.
- Nastaran, Taherparvar, Esmaeilpour, Reza & Dostar, Mohammad (2014). Customer knowledge management, innovation capability and business performance: a case study of the banking industry. *Journal of Knowledge Management*, 18(3), 591-610.
- Nord, W. & Tucker, S. (1987). *Implementing Routine and Radical Innovations*. Lexington, MA: Lexington Books.
- Penrose, E.T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley & Sons.
- Petersen, Glen S. (2004). *CRM Success and Best Practices: A Wake up Call*. [www.technology-evaluation.com/ResearchHighlights/crm](http://www.technology-evaluation.com/ResearchHighlights/crm), (October 21st, 22nd).
- Plakoyiannaki, E. and Tzokas, N. (2002). Customer relationship management: A capabilities portfolio perspective. *Journal of Database Marketing*, 9(3), 228-237.
- Pombriant, D. (2007, September). Back to the drawing board. *Customer Relationship Management*, 12. Retrieved from <http://www.nxtbook.com/nxtbooks/crmmedia/crm0907/index.php?startid=S1>



- Reinartz, Jacquelyn, Thomas, S. and Kumar, V. (2005). Balancing Acquisition and Retention Resources to Maximize Customer Profitability. *Journal of Marketing*, 69 (January), 63-79.
- Rigby, D.K. and Ledingham, D. (2004). CRM done right. *Harvard Business Review*, 82(11), 118-129.
- Ritter, T. and Walter, A. (2003). Relationship-specific antecedents of customer involvement in new product development. *International Journal of Technology Management*, 26(5/6), 482-501.
- Roberts, E.B. (1988). What We've Learned Managing Invention and Innovation. *Research Technology Management*, 31(1), 11-29.
- Schumpeter, J. A. (1942). *Capitalism, socialism, and democracy*. New York: Harper and Brothers.
- Schumpeter, J. A. (1947). The creative response in economic history. *The Journal of Economic History*, 7(2), 149-159.
- Sheremata, Willow A. (2000). Centrifugal and Centripetal Forces in Radical New Product Development under Time Pressure. *Academy of Management Review*, 25 (April), 389-408.
- Shu-Mei Tseng Pin-Hong Wu (2014). The impact of customer knowledge and customer relationship management on service quality. *International Journal of Quality and Service Sciences*, 6(1), 77-96.
- Sin, L.Y.M., Tse, A.C.B. and Yim, F.H.K. (2005). CRM: conceptualization and scale development. *European Journal of Marketing*, 39(11/12), 1264-90.
- Sorescu, Alina, Chandy, Rajesh K. and Prabhu, Jaideep C. (2003). Sources and Financial Consequences of Radical Innovation: Insights from Pharmaceuticals. *Journal of Marketing*, 82 (October), 82-102.
- Srivastava, R. K., T.A. Shervani, and L. Fahey (1999). Marketing, business processes, and shareholder value: An organizationally embedded view of marketing activities and the discipline of marketing. *Journal of Marketing*, (Special Issue), 63, 168- 179.
- Stanley, Kam Sing Wong (2013). The role of management involvement in innovation. *Management Decision*, 51(4), 709-729.
- Valos, M. J., Bednall, D. & Callaghan, C. (2007). The impact of Porter's strategy types on the role of market research and customer relationship management. *Marketing Intelligence & Planning*, 25(2), 147.
- Verhoef, P. C. and B. Donkers (2001). Predicting customer potential value: An application in the insurance industry. *Decision Support Systems*, 32(2), 189-199.
- Vorhies, D.W. and Harker, M. (2000). The capabilities and performance advantages of market-driven firms: an empirical investigation. *Australian Journal of Management*, 25(2), 145-71.
- Weerawardena, J. (2003). Exploring the role of market learning capability in competitive strategy. *European Journal of Marketing*, 37 (3/4), 407-30.
- West, M. & Anderson, N. (1996). Innovation in top management teams. *Journal of Applied Psychology*, 81, 680-693.
- Wright, Len Tiu, Stone, Merlin and Abbott, Julie (2002). The CRM imperative -Practice Vs theory in the telecommunications industry. *Journal of Database Marketing*, 9(4), 339-49.
- Wu, Y. (2010). Applying the strategic approach to assess customer relationship management. *International Journal of Organizational Innovation*, 2(3), 186-205.

- Yam, R., Guan, J., Pun, K. and Tang, E. (2004). An audit of technological innovation capabilities in Chinese firms: some empirical findings in Beijing, China. *Research Policy*, 33, 1123-40.
- Yonghong, Z., Zigang, Z. & Kaijin, L. (2005). Impact of technological innovation on Growth trajectory of enterprise's technological Capability: A Theoretical Analysis. *Singapore Management Review*, 27(02), 81-104.
- Zablah, Alex R., Bellenger, Danny N. and Johnston, Wesley J. (2004). An Evaluation of Divergent Perspectives on Customer Relationship Management: Towards a Common Understanding of an Emerging Phenomenon. *Industrial Marketing Management*, 33, 475-489.