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The Relationship between E- Service Quality and Ease of Use On Customer Relationship Management (CRM) Performance: An Empirical Investigation In Jordan Mobile Phone Services

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Abstract

Electronic Customer relationship management performance CRM is a comprehensive business and marketing strategy that integrates people, process, technology and all business activities for attracting and retaining customers over the internet and mobile phone to reduce costs and increase profitability by consolidation the principles of customer loyalty. Therefore, the results of CRM performance are repeat purchase, word of mouth, retention, cross buying, brand loyalty and customer satisfaction. The keen competitive in the communication and mobile phone service market place and the increasing numbers of mobile phone users all over the world has influence the researchers to investigate ease of use and e- service quality as antecedents of electronic customer relationship management performance in mobile phone services industry. 488 questionnaires have returned and analyzed. Four factors been tested to investigate the relationship with CRM performance. The analysis shown that e- service quality, and ease of use was positively significant towards CRM performance. This paper makes a theoretical and methodological contribution and suggestion for the managers in improving their CRM performance in mobile phone service industry.

Key words: Customer relationship management performance, Mobile Phone Services, e- service quality, ease of use.

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INTRODUCTION

The development of wireless communication systems started in the 1930s with the use of 'Walkie-talkies' during the Second World War to enable foot soldiers to stay in contact with the headquarters (Elliott and Philips, 2004). In the US, AT&T Bell introduced the first commercial radiotelephone service in 1946, to connect between mobile users in cars and the public fixed network. The Improved Mobile Telephone Service (IMTS) launched by Bell Systems in the 1960s, which laid the basis for commercial-sector mobile communications. Developments in microprocessor technologies in the late 1970s and early 1980s enabled the introduction of the reliable wireless communications system, the so-called first generation. Furthermore, Mobile telephony developed out of radiotelephony in the early part of the twentieth century, but it was primarily used by naval, military, police and fire services (Gascoigne, 1974).

Mobile phones first appeared in United Kingdom during the early 1980s, but were expensive and large. However, modern mobile phones are small, compact, easy to use and have become an essential part of life for many people. Mobile phones enable users to maintain contact with family, friends and business associates. . By the end of the

1980s, less than 1% of the UK population had a mobile phone. By April 2000, there were approximately 25 million mobile phone subscribers (40% of the potential market) and this is grow to 45 million (75% of the potential market) by 2005 (Report of the Royal Society for the Prevention of Accidents, (2004). Furthermore, United Nations report indicated that by the end of 2008, the number of cellular telephones subscribers reach four billion people out of 7.6 billion the whole world's population (United Nations report, Al-Rai Magazine , 2008).

Recently, mobile phone service industry plays a significant role in all sectors. Therefore, this role cannot be ignored. Therefore, no economy can achieve an appreciable level of development without effective telecom sector. Moreover, Global telecom spending put at US \$1.5 trillion for the year 2004 and reached US \$2.0 trillion dollars by 2007 (Telecommunications Industry Association: Industry Playbook 2004). Furthermore, the role of the information and communication technology ICT sector in enhancing sustainable development in Jordan has expanding considerably in the last few years, substantial steps have been taken in the legal and regulatory environment that will facilitate the realization of the growth ICT sector in Jordan. Dynamic changes in the development of the telecoms sector occurred recently.

There has been little work on determining and defining exactly what CRM is in the regular business channels and even less in the e-business channel. Many elements are still unclear and causing disagreements among scholars. Technology plays a role in the successful implementation of CRM. Nevertheless, only few studies have discovered the factors that influence CRM technology (Avlonitis and Panagopoulos, 2005). Additional research is needed to understand whether and how capabilities of CRM technology provide a factor for CRM success (Greve and Albers, 2006).

CRM was born from relationship marketing and is simply the practical application of long standing relationship marketing principles which have existed since the dawn of business itself (Gummesson, 2004). However, a number of authors propose that an emphasis on the 4Ps marketing mix is no longer the dominant marketing logic and that RM may be a more appropriate "new" paradigm for marketing thought theory and practice (Dwyer et al., 1987). With increasing focus upon RM, the CRM linkage becomes clear: CRM provides management with the opportunity to implement relationship marketing on a company wide basis effectively. Although the basis of CRM has been around since 1956, it is only within the last 6 to 10 years that CRM has created a significant impact in the business world (Nairn, 2002).

CRM is a combination of hardware, software, process, applications and management commitment to improve customer service, retain customer, and provide analytical capabilities (Romano and Fjermested, 2002). CRM is a more complex and sophisticated application that mines customer data that has been pulled from all customer touch points, creating a single and comprehensive view of a customer while uncovering profiles of key customers and predicting their purchasing patterns. Technology that tracks and analyzes customer behavior allows companies to easily identify the best customers and focus marketing effort and reward on those who are likely to buy often. Acquiring a better understanding of existing customers allows companies to interact, respond, and communicate more effectively to improve retention rates significantly.

According to Lee- Kelley, Gilbert and Mannicom, (2003) there is lack of literature on CRM and more research work is needed in this area. This paper will discuss the e-service quality, ease of use, enjoyment and usability as antecedents of CRM performance in Jordan Mobile Phone Services by reviewing the conceptual article and research findings.

LITERATURE REVIEW

Customer Relationship Management CRM

CRM is a new phenomena that come out from the Internet and web technology to facilitate the implementation of CRM. It focuses on internet- or web-based interaction between customer and service provider (Chang, Liao and Hsiao, 2005). There are two approaches for CRM, business approach and technology approach. CRM within businesses has increased dramatically over the last few years, and will continue to do so in the future. The market of CRM products in all economic sectors increased rapidly to \$125 billion by 2004, up from \$34 billion in 2002 (Iconocast, 2003).

Many authors agree that there is no unified definition of CRM. The term has been defined in different ways, with no clear agreement, but there are two approaches to define CRM, management approach, and information technology approach. However, when we emphasis on management approach, some authors defined CRM stand for Customer Relationship Management which is an integrated approach to identifying, acquiring and retaining customer (Ellatif, 2008).

Since the differences between CRM and e-CRM as mentions by many authors are minor and obvious, the definition for CRM and e-CRM is almost the same except e-CRM uses the internet as a tool or medium. However, the definition of CRM is still not clear but most of the researchers and practitioners agree that CRM is a business strategy that applies the technology power to tie together all aspects of a company's business to build long-term customer relationship and customer loyalty.

The "E" in CRM not only stands for "electronic" but can also have many other meaning and indications. Suresh, (2002) indicate that "the core of CRM remains to be cross channel integration and organization; also the six 'E's of CRM are briefly explained as follows "Electronic channels, enterprise, empowerment, economics and evaluation.

The concept of CRM systems refers to the ability to support customers and dealing with them without human treatment, or interference in the narrowest limits. However, it depends on the use channels in order to deal directly with customers through e-mail and website and mobile phone. In addition to some of the techniques, wireless, chatting and web, wireless application protocol and technical ATM are other possible techniques (Yazbek, 2001).

CRM develops the traditional CRM approach of technology tools, such as Internet, website, and wireless, into the e-commerce applications of the overall organization. Some advantages exist when the organization considers using an CRM approach to its service interaction marketing, such as quick service/response time, two-way interactive

service relationships, and the ability to supply service for customers from anywhere at any time (Pan & Lee, 2003).

It is clear that the relation between the customer and the service providers is become an important issue recently. CRM is the main factor to business success. Therefore, it is only natural that companies and service providers to give a greater focus to CRM performance. The focus is more on customers instead of products or services; focusing customer's needs and wants to achieve customer's satisfaction and loyalty. CRM is all about increasing profitability and enabled businesses to keep customers under control and making the customer feel they are actually a part of the business progress (Shoniregun, et al., 2004).

Measuring the performance of CRM in the organization is very important to assist the companies to increase the revenue and enhance customer loyalty. CRM technology should be more advanced and sophisticated to meet the requirement for developing and knowledgeable customers. Greve and Albers, (2006) stated that the usage of CRM technology consistently has a strong impact on CRM performance. They propose that the more comprehensive CRM technology, and higher CRM Technology usage, better CRM performance across the phases of the customer lifecycle. However, CRM technology shows important impacts on the performance of the customer relationship.

CRM performance has become a growing concern in marketing and information technology research and practice. Yet despite a number of research reports by both practitioners and academic institutions there remains little evidence of any robust relationship between e- service quality, ease of use, enjoyment and usability with CRM performance. Moreover, little is known regarding the underlying factors that influence the CRM performance (Chen and Ching, 2004; Wang et al., 2004). This study investigates e- service quality, ease of use, enjoyment and usability as antecedents of CRM performance.

Ease of use

Ease of use is defined as the degree to which a person believes that using an information system would be free of effort. It is one of the "classical" concepts in information systems research (Davis 1989; Sanders and Manrodt, 2003; Venkatesh, 2000). A significant body of research in information systems has accumulated evidence for the existence of an effect of ease of use on initial user acceptance and sustained usage of systems (Venkatesh, 2000).

Some previous researchers have noted perceived ease of use as the extent the person accepts using services with no additional cost (Davis et al., 1989; Al-Gahtani, 2001). Davis, (1989); Davis et al., 1989) posits perceived ease of use as the extent to which a person believes that using a particular system will be free of effort. .

Gefen and Straub, (2000) propose that the significance of perceived ease of use will vary with the type of task being addressed. They hypothesize that ease of use will not have a important influence on usage for something that is task oriented, such as making a purchase online, but will be significant in a task that is more essential, such as gathering information.

The two constructs, perceived ease of use and perceived usefulness proposed in TAM, have been analyzed exclusively and used to link with other external variables such as system attributes and social norms, and are proved as effectively predict the individual's actual behavior from his/her behavioral intention (Davis, 1989, 1993).

Furthermore, a study by Ramayah and Lo, (2007) found that systems or technologies, which appeared to be easy to use and easy to understand, would be more useful from the user's perspective. Bruggen and Wierenga,(2005) hypothesize that ease of use will be positively related to the individual impact of CRM systems. The success of the system used depends on the level of ease of use of the system. In conclusion, it can be concluded that easy of use is one of the technology factor that plays significant role in CRM performance. Therefore, this study proposes easy of use as one of the antecedents that influence CRM performance.

E-service quality

During the 1980s, service quality received a great deal of attention as a key strategic factor for product differentiation to increase market share and boost profits (Phillips, Chang and Buzzell 1983; Buzzell and Gale, 1987). E service quality is another factor influence CRM performance, this research focused on the process in which consumers evaluate service quality.

E-service quality is a new concept started on 2002. Ziethaml et al., (2002) introduced the concept of electronic service quality (e-SQ), which is defined as "the extent to which a website facilitates efficient and effective shopping, purchasing and delivery of products and services". Furthermore, service quality can be defined also as "the difference between customer expectation for service performance prior to the service encounter and their perceptions of the service received" (Asubonteng, Mccleary and Swan 1996).

Many different understandings of commonly used terms SQ, was presented in the literature such as online service quality or website service quality, this problem due to the lack of formal service quality definition (Ziethaml et al., 2002). On the other hand, Zeithaml et al., (2002) introduced the concept electronic service quality (e-SQ) and their role in service quality delivery to customers. They provided the first formal definition of e-SQ. They define service quality as "the extent to which a website facilitates efficient and effective shopping, purchasing and delivery of products and services"

The informational website is a simplest website, which provides information about a company and its products or services and generally offers contact information with different contact channels. Nowadays, many commercial websites are on a transactional level which offer payment functions and online reservation, and help customers choosing product and paying directly on the website. Transactional websites have also been found to be more efficient in attracting potential customers (Nysveen and Lexhagen, 2001a, b; Iliachenko, 2006).

Quality is related to customer satisfaction, retention and loyalty. Therefore, it is expected to be a determinant of success not only in a traditional environment, but also in an online market space (Wolfenbarger and Gilly, 2003). Service quality is important especially in the telecommunication industry. Wal, Pampallis and Bond (2002) conduct a research to

investigate service quality in a cellular telecommunications company in South African in order to improve delivery of customer service. They stressed that the current state of the telecommunications industry in South Africa can be assessed using porters five forces model; namely, these are tangibles, reliability, responsiveness, assurance and empathy (Wal et al., 2002). These are widely used and proven model that potential competitive force.

With the internet and technology development, the web site has replaced the physical business unit. Perceived web site usability and new electronic environment is a very significant part of the corporate image and can affect shopping behavior. Today, web site design has been considered as a key factor when the organization provides services for its consumers use the Internet as a communication channel (Cristobal et al., 2007).

Perceived service quality is an overall judgment of a service that contributes to customer satisfaction, purchase intentions, and firm performance (Cronin and Taylor, 1992; Zeithaml et al., 1996). Many studies have been conducted to investigate the influence of service quality on customer satisfaction. Anderson, Fornell and Lehmann (1994) indicate that service quality has a positive effect on customer satisfaction and company's profitability. It is clear that increasing customer satisfaction have direct effect on customer intention. Rust and Zahorik, (1993) assumes that the development of service quality leads to an increase in perceived quality and consequently increases consumer satisfaction and loyalty. The significance of service quality as an antecedent of customer satisfaction and eventually customer loyalty has been approved (Zeithaml et al., 1996; Rust, Zahorik and Keiningham 1995). Wang et al., (2004) iterated that customer satisfaction contributes to more on CRM performance. Therefore, any variable that have possible impact toward customer satisfaction will also give a strong impact on CRM performance. Customer satisfaction is one of the major dimensions in CRM performance.

METHODOLOGY

Samples for the study

University students are selected as the respondents for this research. A stratified sampling was used to select approximately equal numbers of customers from each university. Questionnaires distributed to five universities in the northern, southern and central states of Jordan. 488 questionnaires returned and analysis. This brings the response rate of around 57 percent. All items were adopted from previous researches. Each of the items was accompanied by five -point response format, ranging from 5 =strongly agree to 1 = strongly disagree. Before the actual research, a pilot study was conducted to investigate the reliability and validity of the items, which are mostly adopted from the previous research. early responses are compared to late responses (Armstrong and Overton, 1977). According to a t-test analysis, these two groups of respondents had no significant differences across all of the variables. Accordingly, it seems that non-response bias did not appear to be a significant problem.

Measurement

The entire dimension used in this research is adapted from the previous research. For the purpose of the current study, the wording of the scale was modified slightly to match the domain of mobile phone users. The details are explained below in Table 1.

Table 1: Sources of the Items to Represent the Variables

Variables	Questionnaire design	Previous alpha value	Sources
Customer relationship management performance	Likert scale 1-5	0.84- 0.92	Wang et al. (2004)
ease of use	Likert scale 1-5	0.92	Bruggen and Wierenga, 2005) Davis (1989)
E- service quality	Likert scale 1-5	0.61-0.87	Yang Z ,2001

FINDINGS

Correlation Analysis

Person correlation was used to describe the strength and direction of the relationship between two variables (Pallant, 2001). The values of the correlation coefficients (r) given in the table2 indicate the strength of the relationship between variables. The computation of the person correlation coefficient was performed to obtain an understanding of the relationship between all variables in the study. The value of the correlation coefficients (r) indicates the strength of the relationship between the variables.

Majority of the antecedents are significantly correlated with ECRM performance within medium to large r scores that above 0.35. According to Tabachnick and Fidell, (1996) and Pallant, (2001) the correlation between predictor and dependent variables must be below 0.7. If the score is more than 0.7, the variables must be deleted from the study. On the other hand, majority of the antecedents are statistically correlated with CRM performance with correlation values ranging from .27(**) to.63 (**) as shown in table 2.

Table 2 Person correlations of study variables

	CRM	EOUS	ESQ
CRM	1		
EOUS	.27(**)	1	
ESQ	.63(**)	.23(**)	1

** Correlation is significant at the 0.01 level (2-tailed).

Correlation is significant at the 0.05 level (2-tailed).

Electronic customer relationship management performance = ECRM, Ease of use = EOUS, electronic service quality = ESQ.

Regression analysis

To determine the effect of E- service quality, ease of use, usability and enjoyment on CRM performance?" regression analysis was undertaken on the antecedent factors and CRM performance. The major assumptions take in our consideration are sample size, Multicollinearity and singularity, Outliers, Normality, linearity, homoscedasticity. All these assumptions have been tested to make this data suitable for regression analysis.

Table 3 below provides evidence on the influence of the antecedent factors on CRM performance. With the F-statistic of 66.327 and Sig 0.000(a) provides evidence that the relationship between the independents and dependent variables is significant (R2 =.555; Sig =.000(a)). The R2 obtained indicates that the antecedent factors account for 55.5 percent of the variation in CRM performance. Of all the variables included in the regression equation, three variables emerged as significant predictors of CRM performance. These are E- service quality and ease of use.

Table 3: multiple regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.360	.236		-1.526	.128		
Ease of use	.083	.030	.091	2.777	.006	.746	1.340
Electronic service quality	.254	.049	.211	5.211	.000	.490	2.043

Note; D V: ECRM R =.745(a); R Square=.555; F=66.327; Sig=000

CONCLUSIONS

This study proved that there are three antecedent variables that have a significant relationship with CRM performance; these factors are e-service quality and ease of use. Students use the mobile phone for many purposes as making and receiving calls, SMS service and discussing studying issues. Furthermore, most of the students use old types of mobile phone and this mobile phone have no facilities for internet serving.

However, since there are so many other factors that might influence CRM performance besides the chosen factors, it would be useful and practical if they modeled and tested in an integrated framework and expanding the framework across industries and integrating more important factor that may influence CRM performance.

The results of this study give several implications for mobile service providers and

marketing managers with regard to how to plan and market services that will be considered valuable by customers and used in the future. Furthermore, the present study considered as important grounds for formulating and implementing CRM performance in assessing service providers to assign proportionate amount of resources to achieve sustainable customer loyalty. In addition, results of this research will also go a long way in minimizing the observed inconsistency between; the service provider strategy and customers perspective, which enable service providers to compare their customer perception of their offering strategy in relation to other providers and their customers to adjust their offering strategy.

Concerning the factors that influencing CRM performance. The present research suggests several factors as important determinants of CRM performance. Mobile phone service providers should strive to improve CRM performance in their efforts to attain higher level of customer loyalty. In summary, we believe that the current study provides beneficial implications for both academic research and practitioners based on an insightful review of the existing work on some of the antecedents of CRM performance.

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