

THE ROLE OF CRM SYSTEMS IN CONSOLIDATING THE STRATEGIC POSITION OF THE ORGANIZATION

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Abstract: As the market competition becomes keen, constructing a customer relationship management system (CRM systems) is coming to the front for winning over new customers, developing service and products to enhance the strategic position of the organization.

This paper tried to answer two main questions: do these CRM systems apply in several companies business environment and to which extent can these systems strengthen the strategic position of the organization.

Quantitative method is adopted for answering the research questions. A Questionnaire is used for data gathering, after contacting several companies in Oman; 188 valid samples were collected, in addition confirmatory factor model and structural equation model were developed and tested and the overall results of the empirical investigation supported the general framework by using confirmatory factor analysis techniques. Statistical applications are used for data analysis; and different statistical tools were employed such as SPSS 21 and EQS 6.1.

The results show that a CRM system is sustain the strategic position of the organization. The research focused on medium and small firms. Although the study's concepts are potentially applicable in large firms too, further research is needed to determine if the model is applicable in the same context. Until such research is conducted, caution must be exercised in generalizing results to large firms as other factors are there to be considered.

Keywords: Organization, Technology, CRM, Strategic Position, Agility.

1. INTRODUCTION

During the late 1980s through the early 1990s, executives believed that reducing costs was the answer to increased global competition. Businesses downsized, de-layered, Re-engineered and restructured their organizations, While this was probably necessary to improve the organizations profit, but it was not a formula for long-term success (Adamides & Karacapilidis, 2006).

Information technology become as a necessity for large and small businesses and today's managers are focusing on delivering more value and improves the relationship with the customer to gain his loyalty; therefore, the company which

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doesn't understand the power of technology and CRM is unlikely to succeed in today's competitive market (Becker Greve & Albers 2009).

Building and consolidating the strategic position of the organization involves building and sustaining a relationship with a customer, which leads to the repeated purchase of products or services over a given period.

The better a business can manage the relationships it has with its customers the more successful it will become. Therefore, CRM systems help supporting and dealing with customers on a day-to-day basis are growing in popularity, as it is not just the application of technology, but it is a strategy to learn more about customers' needs and behaviors in order to develop stronger relationships with them. As such, it is more of a business philosophy than a technical solution to assist in dealing with customers effectively and efficiently. Nevertheless, successful CRM relies on the use of technology (Katler, 2000).

2. LITERATURE REVIEW

The strategic position of the organization is not a new research question and prior research has studied an array of factors leading to studying service and product quality, customer trust and increasing the market share, there are several internal and external factors that affect the strategic position of the organization like technological dimension, management dimension and the organizational teamwork capabilities.

2.1. CRM System

Technology plays a great role in performance of any organization to achieve the goals and objectives and the strategic position of the organization can be sustained by employing and maintaining the present and future value of technology assets (Adamides & Karacapilidis, 2006), great scientific advances have prompted the development of technologic which drive company strategies, the integration of technology used in any organization is one of the most important issues for the organizational performance and one of it is the good employment of CRM systems in achieving the business goals (King, & Burgess, 2008) and (Ko, Kim, Kim & Woo, 2008).

2.1.1. Infrastructure

IT infrastructure provides platform that system is built on (Laudon & Laudon, 2010), so there are many reasons firms look at its infrastructure readiness like running their businesses more efficiently and increase their competitive advantage, and it refers to sets of physical IT assets and intangible skills including computer hardware, communication networks, database, business applications, and IT human resource.

IT infrastructure can be a source of competitive advantage (Hammami & Alkhaldi, 2012), so the IT infrastructure investment is an important decision to get benefits later from growth and flexibility, moreover, the demands of new business initiatives are immediate but building a tailored strategy-enabling infrastructure often takes considerable time and expertise. Identifying these needs is not easy (Wu & Chorng, 2008).

Claimed that to achieve more business profits and keep gaining the competitive advantage in any organization continual change is necessary to provide new products and services, so any business firm requires information and services to be visible, accessible, understandable and trusted across entire firm. Information is an enterprise asset, decoupled from associated applications, and ready and accessible to meet previously unanticipated needs arising from new business environment (Ryals & Knox, 2001) and (Weill & Broadbent 1998).

2.1.2. Development

It is vital to organizations to make right justification to infrastructure investments which should be accurate in defining the tangible and intangible benefits of this IT portfolio and how much this infrastructure serves the organization goals locally or on the international side (Avison & Fitzgerald 2006), so organization should realize that these goals should determine the infrastructure investments (McNurlin & Sprague, 2006), depending on the perspective of how the managerial level see the infrastructure as utility or dependent to support business programs, or as an enablement tool to meet the strategic goals, and achieving the service-oriented architecture (Haag & Cummings, 2008) which means a high level of integration, in addition; information system architecture should be aligned by the business plans and strategy, and vice versa the information technology opportunities can impact the business plans and strategy of the organization and infrastructure should be to build in a way to be a strong supporter to business services and products (Bowman, Davis & Wetherbe 1983), and view IT infrastructure in business terms since technology is a need, enabler and service (Luftman, Bullen, Liao, Nash, & Neumann, 2004).

2.1.3. Availability

Investments shows that companies will invest more and more in technology to make available 24 days a week, so CRM strategies take full advantage of technology innovations and its important relevant features like its good infrastructure, scalability, availability which is the ability to be accessed and able to respond with timely and effective customized communications, and deliver product and service value to individual customers (Weill & Broadbent 1998), this is at the heart of CRM Strategy (Das, Zahra & Warkentin, 1991) (Lee, 2001).

2.2. Strategic Position

The strategic position is the final outcome for all internal and external processes carried out by the organization, and it is which is the mirror of the organization (Katler, 2000) claimed that it is a concept for the performance of organizational through the launching of its properties and provided business organizations with superior performance to enhance its effectiveness which is the standard that reflects the degree of success of the organization in achieving its goals, which is seeking to achieve (Yusuf & Hasnelly, 2012) (Bellinger 1997), and the ability to adapt to the external environment (Baets, 1992) (Verona & Prandelli 2002).

2.2.1. Quality of Products and Services

Discussion quality has resulted in the realization of the intangible, heterogeneous, and inseparable nature of the concept (Parasuraman, 1988), thus it is hard to measure it with the same measurement for product quality. Quite a few conceptualizations and measurements of service quality may be found in the literature. For example, it has been defined as consisting of two aspects: technical quality and functional quality (Liu, Guob, & Lee, 2011). Service quality is also defined as the difference between customer expectation and the perception of service quality; it is measured by five constructs: reliability, responsiveness, assurance, empathy, and tangibility (Coltman, 2007).

2.2.2. Market Share

Market share has been studied extensively in literature. it has been defined expanding in the market by attracting more customers through meeting their needs (Liu, Guob, & Lee, 2011), and it can be applied in different contexts to lead the market, and this is achieved when a customer trusts an organization and build the confidence in its products and services to make more than likely to be loyal to the company (Garbarino & Johnson, 1999), (Deng, Lu, Wei, & Zhang, 2010) and (Hasnelly, 2012).

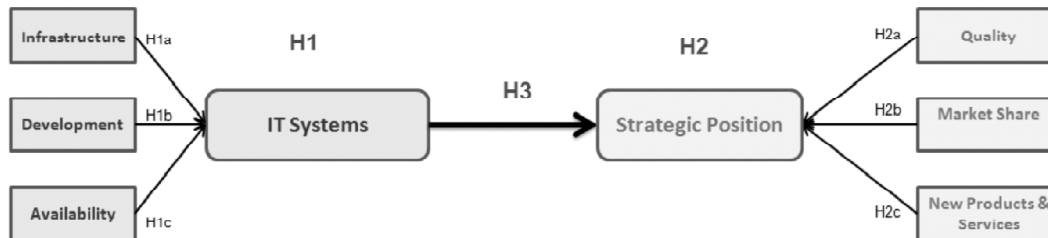
2.2.3. New Products and Services

By offering new products and services to customers the business will grow, those products and services should meet their needs (Lin & Wang, 2006), the product or service can be defined as new if it is different from existing ones, by specifying the its features and defining the suitable marketing strategy needed to commercialize it.

This development is describing the ability of the organization to understand and meet the customer needs in the working environment and the factors for the success of this new product or service and applying the proper to achieve that goal (Baltzan & Phillips 2008).

3. THE MODEL

Based on the above literature review the proposed model is as follows:



4. PROPOSED HYPOTHESES

Hypothesis 1:

There is a significant relationship between IT System and its components (IT Infrastructure, System Development and System Availability).

H1a: Well designed and implemented on CRM System in the company is positively associated with CRM System application rate.
 H1b: Well Designed IT Infrastructure is positively associated with CRM System application rate.
 H1c: Greater existence of well planning and development CRM System is positively associated with CRM System application.

Hypothesis 2:

There is a significant relationship between Strategic Position's dimension and its components (Quality, Market Share, New products and services)

H4a: Focusing on Quality of Service and products offered to customers is positively associated with the organizational strategic position.
 H4b: Increasing market share of the organization is positively associated with sustaining its strategic position.
 H4c: Offering new products and services to customers is positively associated with the organizational strategic position.

Hypothesis 3: ITCRM System applied in the organization will sustain the organizational strategic position.

5. METHODOLOGY AND ANALYSIS

This section is to describe the data collection method used, the various techniques used to test the research hypotheses as presented before, and it discusses reliability statistics of the sample, the descriptive statistics and the results of the confirmatory model analysis.

5.1. Sample

The sample used in this study consists of 188 respondents representing various organizations in both private and public sector in Oman. The sample was

randomly selected from many organizations that have a working customer management information system to test the research model of this study.

The primary data in this study were generated from the empirical investigation through a survey method designed to test the validity of the model and research hypotheses, in addition; the secondary data were obtained from the literature written about the constructs of the proposed model, statistics and cases, and tracking and analyzing the existing organizations.

5.2. Measures

Dependent construct in this study are CRM System, Organizational Management and teamwork capabilities, and all of these constructs representing a latent factor, which has a number of attributes. On the other hand, CRM System, Organizational Management and Teamwork Capabilities are considered independent constructs. Descriptive, relational, associational statistics were used to satisfy the research objectives and phases: the first phase was the descriptive analysis using SPSS 21 software, and the test conducted were factor analysis which were used to validate and measure the internal consistency of a constructs. Different methods used to measure the degree to which the distributions of the sample data to be in line with the normal distribution theory; such as standard deviation, Skewness and Kurtosis. The second phase was examining the hypotheses by applying the partial least squares method using (EQS 6.1) to analyze the collected data. In this method the interaction between each set of indicators and their underlying construct were found and analyzed. Accordingly the results all hypothesizes testing were accepted.

5.3. Normality

The main purpose of normality is to measure the degree to which the distributions of the sample data match up the normal distribution, which looks similar to a bell shape. Normal distribution is the most popular method used to explain symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle, with smaller frequencies towards the extreme. In addition, Standard deviation can be used to measure the normality of the variable's data, when standard deviation is less than one it indicates normality. Moreover, skewness and kurtosis values are very important indicators for normality. Skewness is a measure to indicate the symmetry. Kurtosis is a measure to test if the data are peaked or flat in accordance to a normal distribution. From the results illustrated in the table below, it can conclude that the sample meets the normality conditions.

5.4. Structural Equation Modeling

Structural Equation Modeling (SEM) is the second generation of data analysis methods that is used for testing the statistical conclusion validity i.e. "testing the

Table 1
Normality Test

<i>Variable</i>	<i>N</i> <i>Statistic</i>	<i>Std. Deviation</i> <i>Statistic</i>	<i>Skewness</i> <i>Statistic</i>	<i>Kurtosis</i> <i>Statistic</i>
Infrastructure	188	.803	-.546	.381
Development	188	.903	-.295	-.702
Availability	188	.918	-.736	-.263
Quality	188	.747	-.313	-.678
MarketShare	188	.661	-.078	-.366
NewServices	188	.806	-.528	.331
Valid N (listwise)	188			

degree to which researches meet recognized standards for high quality statistical analysis” (Gefen *et al.*, 2000). SEM is more preferable over the first generation statistical methods such as regression, another thing SEM facilitates analyzing the measurement errors of the observed variables as part of the model, and combining the factor analysis with the hypotheses testing in the same analysis. The outcome is a more accurate analysis of the proposed research model and, most of the time, makes a better methodological assessment means. SEM methods offer better information about the degree to which the data support the research model than in regression methods (Gefen *et al.*, 2000).

5.5. FIT Statistics

Goodness-of-fit measures the degree to which the actual or observed input matrix is predicted by the proposed model. Goodness-of-fit measures can be classified into three types as follows:

- A. Absolute fit measures (AFM): assess the overall model fit; these measures include; Chi-square (χ^2) Goodness-of-fit index (GFI): and Root Mean Squared Error of Approximation (RMSEA), which estimates of discrepancy per degree of freedom in the model.
- B. Incremental fit measures (IFM): allow the comparison between the proposed model and the competing models and it used to assess the incremental fit of the model compared to the null model; The IFM measures include; Tucker-Lewis Index (TLI), Comparative Fit Index (CFI) and Incremental Fit Index (IFI).
- C. Parsimonious Fit Measure (PFM): “adjust” the measures of fit to compare between models with different numbers of estimated coefficients so that the amount of fit achieved by each estimated coefficient can be determined”.

This measure includes the normed fit index X^2/df (the adjusted Chi-square by the degree of freedom)

The proposed model was analyzed using SEM. The confirmatory modeling approach was carried out to examine the significant of the research model using EQS 6.1 Software. The results were as shown below Table 2.

Table 2
Benchmarks and values of the model fit indicators

<i>Index</i>	<i>Abbreviation</i>	<i>Model Calculated Values</i>
CHI Square	X^2	12.304
Degree of freedom	df	5
X^2/df	X^2/df	2.46
Probability	P	.031
Bentler-Bonett Normed Fit Index	NFI	.979
Bentler-Bonett Non-Normed Fit Index	NNFI	.962
Comparative Fit Index	CFI	.987
Bollen's Fit Index	IFI	.988
Goodness of fit index	GFI	.979
Adjusted Goodness of fit index	AGFI	.910
Root Mean-Square Residual	RMR	.021
Root Mean-Square Error of Approximation	RMSEA	.088

Cronbach's Alpha equals 0.793 and table 2 shows the values derived from the research model, chi-square value is 12.304 significant at 0.05 significance level, and $P = .031$, and all other fit measures point to that the revised model is accepted as $GFI = .979$, $RMSEA = .088$, $IFI = .988$, $CFI = .987$, and $X^2/df = 2.46$. Therefore, the model was fairly accepted and adopted for testing the hypothesis of this study.

5.6. Structural Model Testing

Several techniques were used to assess the hypotheses of the model. The first method is the overall coefficient of determination (R square value) which is a measure of the entire structural equation; second the standardized estimation coefficients (beta). This beta can closely approximate the magnitude of the effect, when the value of beta closes to zero, it means that the relationship is weak, but when the value of beta increased, this means the relationship is strong.

Table 3 shows the results of the evaluation test for the data used in building research model.

Table 3
Test statistics

<i>Regression path</i>		<i>Standardized Beta (β)</i>	<i>Significance @ .10</i>
Infrastructure	IT Systems	.863	✓
Development	IT Systems	.450	✓
Availability	IT Systems	.490	✓
Quality	Strategic Position	.733	✓
Market Share	Strategic Position	.520	✓
New Services	Strategic Position	.857	✓

5.7. Measurement Analysis

To test direct significant relationships between the pillars, Standardized Beta was used as indicator for this relationship. Referring to table 3, it is obvious that a positive significant relationship does exist. The value of t-test is examined in order to test hypotheses and analyzing the systems structural model. It is noticed from table 3 that t-values are significant at .10, so this indicate that all of them are part of each pillar.

5.8. Analysis of Structural Model

First segment: which stand for the question of the research that discusses the significant relation between IT System and the strategic position of the organization. To test direct significant relationships between the two constructs, Standardized Beta was used as indicator for this relationship. Referring to table 4, it is obvious that a significant relationship between CRM System and the strategic position of the organization does exist.

Table 4
Structure Statistics

Test statistics - Structure Model				
<i>Hypo. No.</i>	<i>Path</i>		<i>Standardized Beta (β)</i>	<i>Significance @ .10</i>
H3	IT_System	Strategic_Position	.770	✓

$$\text{Strategic_Position} = 0.770 * \text{IT_System}$$

From the previous equation, it is discovered that IT can support strongly the strategic position of the organization, which is reflected by the high investments that the organizations spend on building IT systems in the organization, so the results of Hypothesis Testing will be as follows:

Table 5
Results of Hypothesis Testing

<i>Hypo. No.</i>	<i>Hypothesis</i>	<i>Result</i>
H1	ITSystem	Accepted
H1a	Infrastructure	Accepted
H1b	Development	Accepted
H1c	Availability	Accepted
H2	Strategic_Position	Accepted
H2a	Quality	Accepted
H2b	MarketShare	Accepted
H2c	NewServices	Accepted
H6	IT System - Strategic Position	Accepted

6. DISCUSSION AND CONCLUSION

The outcomes of the statistical analyses are used in order to situate a practical suggestion that companies can carry out to enhance the strategic position of the organization. Each hypothesis was tested, analyzed and the overall results of the empirical investigation have supported the general framework that was presented in the research model. Based on the findings of this research, number of recommendations and results are presented that aim at developing the awareness about the importance of CRM systems within the organization.

In summary, a model was introduced to help understanding the areas where the sampled organizations need to focus on and try to enhance the mechanism of their work in order to achieve the goals of this research and urge these organizations to apply correctly the discipline of the research, this model shows clearly the importance of CRM systems to enhance the strategic position of the organization, the pillars of the system are strongly support the hypotheses introduced by its characteristics infrastructure, plans of developments and availability of the systems.

7. RESEARCH LIMITATIONS

This study focused on medium and small firms. Although the study's concepts are potentially applicable in large firms too, further research is needed to determine if the results hold in the context of smaller firms. Until such research is conducted, caution must be exercised in generalizing the results to large firms.

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