

## Understanding Critical Variables for Customer Relationship Management in Higher Education Institution from Employees Perspective

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### ABSTRACT

The aim of this paper is to evaluate the critical success factors and investigate the benefits that might be gained once implementing Electronic Customer Relationship Management at HEI from employee perspective. The study conducted at Al Quds Open University in Palestine and data collected from (300) employee through a questionnaire which consist of four variables.

A number of statistical tools were intended for hypotheses testing and data analysis, including Spearman correlation coefficient for Validity, reliability correlation using Cronbach's alpha, and Frequency and Descriptive analysis.

The overall findings of the current study show that all the features were important for staff and it was critical success factors, at the same time, websites were providing all the features discussed by the theory whereas staff showed their willingness to use those features if provided. It is also discovered that implementing Electronic Customer Relationship Management can cause staff retention, were provided efficiently and needed to be improved.

Research limitations: The survey findings were based on QOU employee in Palestine, UAE and KSA branches not included in the study.

**Keywords:** *Electronic Customer Relationship Management, Staff retention, HEI.*

## 1. INTRODUCTION

Customer relationship management (CRM) has come to be an element part of business strategy and is not well-thought-out as a marketing tool only. The strategy enhances management decision making while using the current information in the organization and, more essentially, the use of information technology for the promoting programs of the organization.

To be able to accomplish superior results, higher Education Institutions (HEI) are embracing CRM strategy. Like a senior manager in industries of other business areas, HEI's managers, by embracing CRM initiatives, are going to surge performance, endorse better management practices, and advance the HEI's relationship with existing and prospective students. The goal of this study is to get a better understanding of Electronic Customer Relationship Management and its remunerations to employees in Al-Quds Open University in Electronic Customer Relationship Management implementation in Al-Quds Open University.

**In view of the literature review, the study raises the question of:**

**Q1.** What are the critical success factors for implementing Electronic Customer Relationship Management in Al-Quds Open University from employee perspective?

**Q2.** How do those variables affect the stuff in the HEIs?

The importance of this research emerged from the revolution of electronic system that injected in all fields including educational scheme. This study strives to measure at which level Al-Quds Open University is in line with the updated technology. Highlighting these factors is

expected to support the decision makers in our universities to be able to survive and maintain its competitive advantage.

Moreover, this research is expected to highlight the positive features resulting from electronic customer relationships management application that is expected to improve the long-term relationship between the students and the universities.

## 2. LITERATURE REVIEW

### 2.1 Customer relationship management:

Customer relationship management is a complete process and strategy that allows an organization to retain, acquire, identify, and nurture profitable customers by constructing and sustaining long-term relationships with them" (Adikram, 2016, Oluseye et al., 2014, Wahab et al., 2011). The Customer relationship management definition follows from relationship marketing and is produced as the values and strategies of relationship marketing with specific prominence on customer relationships turned into a concrete application.

Rigo et al. (2016), Adikram (2016) & Wali et al. (2015) define customer relationship management in HEIs as contentment customer attitude to a service provider, or an emotive reaction to the difference among what customers antedate and what they accept, regarding the contentment of some desires, aims or needs.

Customer Relationship Management strategy attaches three fundamental dimensions of organizations, philosophy, technology, and strategy. Furthermore, the

success of Customer Relationship Management strategy contingent on the correct stability between three significant organizational resources: processes, technology, and people. Only by working effectively with these three resources will organizations be able to use Customer Relationship Management to attain great levels of customer retention, loyalty, and satisfaction (Rigo et al., 2016, Manzuma-Ndaaba, et al., 2016).

Azila & Noor (2011) assured that customer relationship management is a fresh idea in businesses that has amplified its significance melodramatically over the last a few years, and will endure to do so in the future. Customer Relationship Management is there to substitute the traditional 'four Ps' of marketing (price, product, promotion, and place).

### **2.2 Electronic customer relationship management:**

Electronics customer relationship management is an approach used by organizations to enable them identifies and draw customers that are potentially profitable. Organizations are now seeking supplementary and effective relationship activities in order to increase the value of their customer relationships by improving relationship quality or delivering better relationship benefits (Safari et al., 2016; Usman et al., 2012).

Organizations benefit from electronic customer relationship management through increased customer satisfaction and loyalty, online shopping, and website support. A successful electronic customer relationship management requires attraction and retention of economically valuable customers such that it could preserve highly precious and economically valuable customers as well. According to previous studies, electronic customer relationship management is the strengthening of traditional customer relationship management through implementing its methods in e-business markets (Navimipour & Sultani, 2016, Sistar & Sadeghi, 2016, Safari et al., 2015).

To be able to satisfy and even exceed customers' expectation requires 360 degrees view of the customer. This calls for electronic customer relationship management implementation model that integrate the key dimensions of people, Business process, and technology within the context of an enterprise-wide customer-driven, technology-integrated, cross-functional organization. Each component presents significant challenges, but it is the ability to integrate all three that makes or Breaks a customer relationship management system (Safari et al., 2016, Rigo et al., 2016, Azila & Noor, 2011)

According to Mendoza et al. (2007), customer relationship management must be conceived as a strategy, due to its human, technological, and processes implications, at the time an organization decides to implement it.

### **2.3 Electronic Customer Relationship Management vs. Customer Relationship Management**

The differences between Electronic Customer Relationship Management and customer relationship management as indicated by numerous authors are obvious and minor; the definition for Customer Relationship Management and Electronic Customer Relationship Management is virtually the same but Electronic Customer Relationship Management uses internet as a medium or tool. A good number of practitioners and researchers approve that Electronic Customer Relationship Management is a business strategy that smears the technology power to bond together all features of a company's business to shape long-term customer relationship and customer loyalty (Rigo et al., 2016, Safari et al., 2016, Wahab et al., 2011). Largely, Customer Relationship Management is a vital and crucial function of a customer concerned with marketing. Its function contains collecting and accruing customer – related information in order to offer efficient services. Electronic customer relationship management concerns with all arrangements of managing relationships with customers making usage of Information Technology. The objective of Electronic Customer Relationship Management system is to enhance customer service, maintain valuable customers, and develop a relationship (Darajeh and Tahajod, 2010). According to Faed et al. (2010) electronic customer relationship management launches and enhances the traditional customer relationship management techniques by assimilating technologies of fresh online channels, such as voice, wireless, and Web technologies, and assimilates them with online business applications into the whole customer relationship management strategy.

### **2.4 Electronic Customer Relationship Management in Higher Education**

Today marketing emphasis is not on attaining "buyers" as on customer's contentment, giving them what they need and humanizing a relationship with them that is not just rigorously unilateral, commercial, and impersonal. Thus, the embracing of customer relationship management by educational organizations carries with it the use of suitable tools to obtain better knowledge of the requirements of students in terms of preparation, to aid organizing services personalized to their requirements and characteristics, to enhance the process of education and gain better results that decrease the number of dropouts (Rigo et al., 2016; Adikram, 2016; Wali et al., 2015, Abubakae & Mukhtar, 2015; Wahab et al., 2011).

Higher Education Institutions embracing electronic customer relationship management to upsurge performance, encourage better management practices, and enhance the HEI's relationship with the existing and potential students, particularly in executive education.

An educational electronic customer relationship management system aids HEIs to have a full understanding of students' requirements as it collects customer knowledge in all phases of student interaction phases: admission, fee payment, registration, course conclusion, etc. (Abubakar & Mukhtar, 2015).

Though, the idea of consumerist in HEI must be in relationship marketing instead of transactional marketing. However, students are liken to customers but the nature of education services mainly the extent of consumption propose building a relationship in place of "buy and pay" approach (Manzuma-Ndaaba, et al., 2016).

### 2.5 People, process and technology

Customer Relationship Management strategy attaches three fundamental dimensions of organizations, technology, strategy, and philosophy. Additionally, the success of CRM strategy rest on the precise balance between three significant organizational resources: people, processes and technology. Only by working efficiently with these three resources will organizations be able to use CRM to attain great levels of customer loyalty, retention and satisfaction (Rigo et al., 2016; Navimipour & Sultani, 2016; Khan & Kamal, 2015).

### 2.6 People

The first fundamental resource in CRM strategy is people. Organizations must make their employees dedicated to a customer-centered strategy (Rigo et al., 2016, Khan & Kamal, 2015).

Employees should to be trained as well as inspired to encounter customer expectations and desires. Employees have an important character in the relationship between organizations and their consumers (Mendoza et al., 2007), particularly those who work in frontline positions for example vendors, call centers, and customer services attendants.

### 2.7 Technology infrastructure

The second essential resource in CRM strategy is technology since Information Technology typically brings important contributions to enrich business and organizational processes. Actually, one of the focal results of implementing CRM strategy is changing and generating processes. As Beldi, et al. (2010) affirms that CRM strategy is transversal and touches the entire organization. CRM effects request the appraisal of all processes involved indirectly or directly with customer relationship, so they grow into more customer-oriented and more effective (Khan & Kamal, 2015).

### 2.8 Process

The third essential resource of CRM strategy is process. CRM is certainly a means for organizations to get a competitive advantage, subsequently, as they invest in CRM strategy; they improve customer value, thus refining

their performance (Safari et al., 2016; Navimipour & Sultani, 2016). Mendoza et al. (2007) stated that the main business processes that should be addressed in CRM implementation are: sales, marketing, and services. It is significant to highlight that these process (sales, marketing, and service) are not the merely processes in which the client is elaborated; nonetheless, these processes are the most general, and happen more frequently in a CRM strategy, irrespective of the economic area in which the organization functions.

## 3. STUDY HYPOTHESIS

Customer relationship management implementation model that integrates the three key dimensions of process, people, and technology within the context of an enterprise-wide customer-driven, technology-integrated, cross-functional organization is proposed in Figure 1.1. Managing a successful customer relationship management implementation needs an integrated and balances approach to process, technology, and people (chen and popovich, 2003).

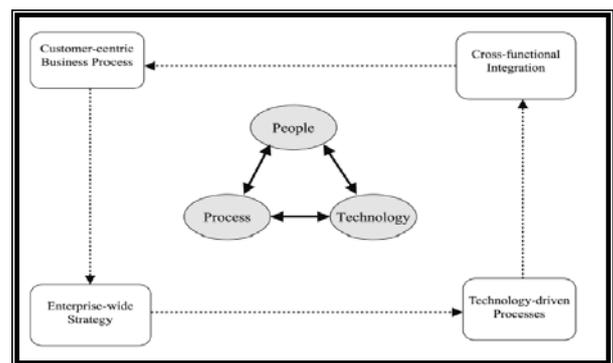


Figure 1.1: The conceptual framework

Source: (Chen & Popovich, 2003)

Based on the prevailing theoretical framework and the preceding literature review, the followings are the research hypotheses:

**H1.** There is a significant positive relationship at 5% level between the critical success factors and success of Electronic Customer Relationship Management implementation from employee perspectives.

**The following sub hypotheses stem from the first hypothesis:**

**H1.1** There is a significant positive relationship at 5% level between the people capability and success of Electronic Customer Relationship Management implementation from employee perspectives.

**H1.2** There is a significant positive relationship at 5% level between the process effectiveness and success of Electronic Customer Relationship Management implementation from employee perspectives.

**H1.3** There is a significant positive relationship at 5% level between the technological infrastructure readiness and success of Electronic Customer Relationship Management implementation from employee perspectives.

## 4. RESEARCH DESIGN

### 4.1 Study population and sampling

This study conducted at Al-Quds Open University in Palestine. QOU is a leader university in Palestine and Arabic region. It was the first one adopting Open Learning in 1991. The university was established in the Gaza and West Bank in 1991. Now, it controls twenty four study centers in main cities. To understand its objective of extending its services to the Arab World, furthermore, two study centers in the United Arab Emirates (UAE) were established in 1994, and another two study centers in Saudi Arabia were established in 2002. The population of the study was (1384) employees, a stratified random sample was adopted in this research to examine the employee and it was (310). The usable sample was (300), which makes the response rate of (96.77%).

### 4.2 Research instrument

The dimension of the instrument which measure main success factors of electronic student relationship's management was developed by the current authors with the help of other research literature (Abubakar & Mukhtar, 2015, Yazdanpanah, 2011, Mendoza et al., 2007, Popovich, 2003).

Also Trustees validity has been conducted by a group of expert in marketing, administration, education, IT and management field. Those statements were further revised and modified by the experts in a subsequent stage before drafting the final version of the questionnaire.

A five-point Likert scale of agreement was adopted for measurement, starting from "Strongly -Agree to Strongly-Disagree, with a Neutral category for scale midpoint.

**Table 1:** Research instrument

Dimension of e-CRM	No. of statements
Benefits of using electronic portal in managing students relationships	8
People capability to implement e-CRM	15
Appropriateness of process efficacy to implement e-CRM	12
Technological infrastructure readiness to implement e-CRM	12
<b>Total</b>	<b>47</b>

## 5. STATISTICAL PROCEDURES

Numerous statistical tools were used for data analysis and hypotheses testing, including Spearman correlation coefficient for Validity, reliability Correlation using Cronbach's alpha, Kolmogorov-Smirnov test, and nonparametric Tests (Sign test).

### 5.1 Test of Normality for each field

This test is used to check the normality of the data distribution and accordingly certain tests can be used.

**Table 2:** Kolmogorov-Smirnov test

Field	Statistic	P-value	P-value
The benefits of using the electronic portal in managing students' relationships.	0.793	0.000*	0.000*
People capability to implement electronic student relationship management	0.796	0.000*	0.000*
Appropriateness of process efficacy to implement electronic student relationship management	0.803	0.000*	0.004*
Technological infrastructure readiness to implement electronic student relationship management.	0.834	0.000*	0.001*
<b>All paragraphs of the questionnaire</b>	0.729	0.000*	0.009*

\* The distribution is not normally distributed at 0.05 level

According to the results of Kolmogorov-Smirnov test shown in Table 2, the data does not follow normal distribution as the critical P value (0.05) was higher than the values obtained which indicate that distributions for these variables are not normally distributed. Consequently, Non-Parametric tests will be used to perform the statistical data analysis.

## 6. VALIDITY AND RELIABILITY ASSESSMENT

### 6.1 Reliability assessment

The study adopted Cronbach's  $\alpha$  to measure the internal consistence reliability of the questionnaire. The results showed that Cronbach's  $\alpha$  value for all dimensions were  $> (0.5)$ . It indicated that the design of the questionnaire had a high internal consistency as shown in Table 3.

**Table 3:** Reliability

Dimension	Reliability (Cronbach Alpha)	Validity	No. of Statements
Sub-d1	0.903	0.950	8
Sub-d2	0.932	0.965	15

Sub-d3	0.898	0.947	12
Sub-d4	0.938	0.968	12
<b>Total</b>	<b>0.977</b>	<b>0.988</b>	<b>47</b>

## 6.2 Structure Validity

It measures the correlation coefficient between one field and all the fields of the questionnaire that have the same level of Likert scale.

**Table 4:** Correlation coefficient of each field and the whole of questionnaire

No.	Field	Spearman Correlation Coefficient	P-Value (Sig.)
1	The benefits of using the electronic portal in managing student's relationships.	.534	0.000*
2	People capability to implement electronic student relationship management	.865	0.000*
3	Appropriateness of process efficacy to implement electronic student relationship management	.888	0.000*
4	Technological infrastructure readiness to implement electronic student relationship management.	.794	0.000*

\* Correlation is significant at the 0.05 level

Table 4 clarifies the correlation coefficient for each field and the whole questionnaire. The p-values (Sig.) are less than 0.05, so the correlation coefficients of all the fields are significant at  $\alpha = 0.05$ , so it can be said that the fields are valid to be measured what it was set for to achieve the main aim of the study.

## 7. DATA ANALYSIS AND DISCUSSION OF RESULTS

T test used to examine the main dimension and hypotheses. The results of the analysis are shown in Table 5.

**Table 5:** T test for dimensions

Index	Dimension	MA	MAR	T	sig
1	Sub-d1	4.08	81.58	15.71	0.000*
2	Sub-d2	3.86	77.21	14.90	0.000*
3	Sub-d3	3.98	79.56	15.92	0.000*
4	Sub-d4	3.95	78.90	14.35	0.000*

The first sub-d1 was 81.58%, and this proved that electronic student relationship management enhanced the time of procedures implementation, realized the university competitive advantage, lead to more work flexibility, and reduced the managerial financial costs.

The second sub-d2 77.21% and this proved that the top management prepared the policy and supportive procedures to carry out electronic student relationship management.

The third sub-d3 was 79.56% and this indicate that the university website enabled the new student to join it, reserve a seat and enroll itself, it enrolled students with full services through its website (registration, withdrawing, adding, postponement...etc.)

The last sub-d4 was 78.90% and this proved that the university provided a central data base to keep students data and it continually updates and integrates it among the various departments, it provided new programs and software appropriate to the implementation of electronic student relationship management also provided an IT specialized team able to implement the electronic student relationship management.

## 7.1 Hypothesis test

Table 6 shows that the correlation coefficients equal (0.509, 0.372, 0.437) and p-value (Sig.) is less than 0.05. According to that we accept H 1.1, H1.2, H 1.3. This led us to the importance of the factors that were studied in the research to the success of electronic customer relationship management.

**Table 6:** Hypotheses Test

Hypothesis	Spearman Correlation Coefficient	P-Value (Sig.)
H 1.1	.509	0.000*
H 1.2	.372	0.000*
H 1.3	.437	0.000*

\* Correlation is statistically significant at 0.05 level

## 8. CONCLUSION

The issue of e-CRM has increasingly become the identification of the success of the CRM implementation it allows organizations to obtain the maximum value from their e-business investment.

Adopting e-CRM initiatives to increase performance, promote better management practices, and improve the HEI's relationship with current and potential students is an essential effort.

The importance of people capability to implement electronic customer relationship management in HEIs plays a critical role of Electronic customer Relationship Management success.

Customer relationship management is currently seen as technology implementation through all the process in the organization. The results of the study show a good implementation for technology in QOU, which caused by a high developed infrastructure. This as a reflect leads to high process effectiveness.

Findings support the main hypothesis and it is sub-hypotheses. The important factors effecting e-CRM studied in the research are the most important in HEIs. Those factors lead to more work flexibility, reduce the managerial financial costs, high quality services.

Despite that, some authors debate that KM (Knowledge management) and CK (customer knowledge) must be included in CRM studies (Abu Naser et. al., 2016; Navimipour & Sultani, 2016; Naser et. al. 2016; Rigo et al., 2016; Adikram, 2016).

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