

## Detecting success factors of electronic customer relationship management (e\_CRM) system to establish an appropriate model in police call centre of Iran

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### ABSTRACT

The present research aims to describe and explain factors affecting the success of eCRM system in police telephone-contact centers as a part of their interactive and relationship-oriented programs. In this study, one of the most famous models implemented in several industries such as insurance industry has been evaluated; the results then have been modified for application. The results, in fact, corroborate the main hypothesis, which points to the existence of a relationship between an establishment and its institutional success. In other words, having established an eCRM system, institutions will witness an increase in efficiency, staff satisfaction, and eventually customer satisfaction. The results may also explain the failure of some huge investments in implementing modern technology to disseminate information and establish communication by indicating that large investments in technology do not necessarily bring about required improvement in efficiency. It has also been demonstrated that expanding types of services to include ones such as providing counseling via telephone and placing accurate and relevant information on the website needs to be considered as part of an eCRM system agenda.

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## 1. Introduction

In the last few decades, the world has witnessed a series of changes, which mark the beginning of a new era. A noticeable one is the development of "a new communication society" following technological advancements. The repercussions of such a development have proven to be so huge that adopting new methods and precautions seems to be in order. Marketing has been influenced by such changes more than any other field. In the past two decades, the new view of marketing both in business and in state service institutions has shown innovative directions and by designing the 4Ps, place or distribution, promotion, price, and product, it now aims to develop relationships, interactions and communicative networks (Day, 1994). Along with the ever-increasing expansion and evolution of marketing concepts, some new techniques and areas have been developed as well. One such area is

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the customer relationship management (CRM) and recently electronic customer relationship management (eCRM), which has become an important and hot topic amongst marketing theorists and market researchers. CRM allows for direct connection between buyers and sellers, full information exchange between them, time and space economization, interactivity with customers, real-time collection and integration of disparate sources of customer and competitor information (Sophonthummapharn, 2009; Greenberg, 2004; Guleri, 2000; Racherla & HU, 2008). The necessity of developing and maintaining a strong and lasting relationship with customers, the relative low costs of keeping the current customers as compared with finding new ones, and finally the importance of focusing on key customers as the most efficient source of profit, have forced these institutions to make huge investments in customer relationship systems (Wu & Hung, 2009).

At present, the main issue for institutions is the need to maintain a high level of enduring and satisfactory relationship with customers and clients as well as timely response to their needs and demands. The first section of the present paper reviews the relevant theoretical foundations and practices. In the second section, the research hypotheses will be presented and analyzed; finally, some suggestions will be made.

### *1.1 Customer Relationship management*

CRM is a business strategy based on relationship-oriented marketing, which serves marketing as a tool. CRM can be assumed to be a coherent collection of efforts in order to define, maintain, and develop a customer relationship network with the aim of guaranteeing mutual interests and benefits of all parties concerned through interactive and personalized communication with an ever-increasing value during a long period of time. Customer relationship is seen to be a key factor in determining the success or failure of business (Sophonthummapharn, 2009). Leverin and Liljander (2006) emphasized improving customer relationship satisfaction and loyalty (Leverin & Liljander, 2006). Customer value is what leads to increased loyalty, sales, and retention rates (Karakostas et al., 2005; Kennedy & King, 2004; Buckinx & Van den Poel, 2005).

**Table 1**  
Different viewpoints concerning CRM

Perspective	References
A tool for optimizing sell, income, and benefit	Racherla & HU, 2008; king & Burgess, 2007; Hallowell, 1996; Ranjan & Bhatnagar, 2009; Sophonthummapharn, 2009; Fluss, 2008
A process for collecting, saving, and analysis of information to attract and retain customers	Racherla & HU, 2008; Guleri, 2000; Rigby et al., 2002; kim et al., 2003; Ranjan & Bhatnagar, 2009; Greenberg, 2004; Sophonthummapharn, 2009; Butler, 2000
A process of access and retaining of selecting customers and long-term participation and relationship with them	Racherla & HU, 2008; Hallowell, 1996; Garrido-Moreno & Padilla-Meléndez, 2011; Zandi & Tavana, 2011; Mendoza, 2007; Sivadas & Baker-Prewitt, 2000; Sophonthummapharn, 2009; Wu & Hung, 2009; Day, 1994; Roh et al., 2005; king & Burgess, 2007; Galimi, 2000
Applying information technologies in activities integrations	Hallowell, 1996; Nguyen et al., 2007; Ranjan & Bhatnagar, 2009; Kirby, 2001; Mendoza, 2007; Sophonthummapharn, 2009; Roh et al., 2005; Irani, 2002
Manage knowledge of customers	Racherla & HU, 2008; Hallowell, 1996; Ranjan & Bhatnagar, 2009; Beijerse, 1999; Garrido-Moreno & Padilla-Meléndez, 2011; Kim & Hawamdeh 2008; Nguyen et al., 2007
A process to develop and improve products and services	Romano et al., 2009; Hallowell, 1996; Roh et al., 2005; king & Burgess, 2007; Su et al., 2006
Business strategy	Racherla & HU, 2008; Hallowell, 1996; Ranjan & Bhatnagar, 2009; Sophonthummapharn, 2009; Garrido-Moreno & Padilla-Meléndez, 2011; Mendoza, 2007; Wu & Hung, 2009; kim et al., 2003; king & Burgess, 2007
A process to identify customer demands	Hallowell, 1996; Sophonthummapharn, 2009; Wu & Hung, 2009

Greenberg (2004) defined analytical CRM as capture, storage, extraction, processing, interpretation, and reporting of customer data to a user (Greenberg, 2004). CRM as defined by Nguyen et al. (2007) can be interpreted as a process of digitizing a staff's knowledge about his or her customers (Nguyen

et al., 2007). As stated by Su et al. (2006), “the knowledge obtained via a CRM system is a valuable intellectual asset for a company to develop or improve products and services in order to meet or even exceed customers’ expectations”. The underlying determinants of CRM are basically from the discipline of relationship marketing (Morris, 1998; Greun, 1995). Relationship marketing is a common term with different definitions. Stone et al. (1996) defined it as the use of a wide range of approaches, including marketing, sales, communication, service, and customer care, to identify a company’s named individual customers, to create a relationship between the company and its customers which stretches over many transactions, and to manage the relationship in order to benefit the company and its customers. In Table 1, the main ideas expressed by different experts about different aspects of CRM is presented. Table 2 also shows attributions of CRM.

### 1.2 electronic Customer Relationship Management (eCRM)

With the advent and predominance of electronic communication, many opportunities have been created for establishing a more suitable and friendly relationship with customers (Guleri, 2000) and a new method of customer relationship has been formed, namely eCRM. eCRM is a combination of software, hardware, processes, applications, and managerial tools in order to establish a constructive relationship with customers. Information technology (IT) plays a remarkable role in various businesses (Sophonthummapharn, 2009). To be successful at e-commerce, companies have to rethink their business focus and the business models must emerge from production-centric to customer-centric (Wu & Hung, 2009). Kim and Hawamdeh (2008) emphasized expanding customer knowledge and its use in e commerce web sites (Kim & Hawamdeh, 2008).

**Table 2**  
Attributions of CRM

Attributions of CRM	Reference
Income increase	Wu & Hung, 2009; Goldenberg, 2008; Racherla & HU, 2008; king & Burgess, 2007; Hallowell, 1996; Ranjan & Bhatnagar, 2009; Sophonthummapharn, 2009; Fluss, 2008; Foss & stone, 2002
Performance improve	Racherla & HU, 2008; Hallowell, 1996; Ranjan & Bhatnagar, 2009; Sophonthummapharn, 2009; Wu & Hung, 2009; Goldenberg, 2008; Foss & stone, 2002; Kim et al., 2003; Roh et al., 2005; King & Burgess, 2007; Mendoza, 2007; Kimiloglu & Zarali, 2009
Competitive advantage	Racherla & HU, 2008; Hallowell, 1996; Ranjan & Bhatnagar, 2009; Sophonthummapharn, 2009; Wu & Hung, 2009; Goldenberg, 2008; Foss & stone, 2002; Kimiloglu & Zarali, 2009
Loyalty enhance	Racherla & HU, 2008; Ranjan & Bhatnagar, 2009; Sophonthummapharn, 2009; Wu & Hung, 2009; Goldenberg, 2008; Foss & stone, 2002; Kim et al., 2003; Kimiloglu & Zarali, 2009
Processes improve	Racherla & HU, 2008; Hallowell, 1996; Goldenberg, 2008; Foss & stone, 2002; kim et al., 2003; Roh et al., 2005; king & Burgess, 2007; Mendoza, 2007; Kimiloglu & Zarali, 2009
Customer retain	Wu & Hung, 2009; Sophonthummapharn, 2009; Goldenberg, 2008; Foss & stone, 2002; Kim et al., 2003; Mendoza, 2007
Customer satisfaction enhance	Mendoza, 2007; King & Burgess, 2007; Roh et al., 2005; Wu & Hung, 2009; Goldenberg, 2008; Foss & stone, 2002; Racherla & HU, 2008; Kim et al., 2003; Sophonthummapharn, 2009; Garrido-Moreno & Padilla-Meléndez, 2011; Zandi & Tavana, 2011; Kimiloglu & Zarali, 2009
Needs understanding	Mendoza, 2007; Kim et al., 2003; Racherla & HU, 2008; Goldenberg, 2008; Foss & stone, 2002; Hallowell, 1996; Sophonthummapharn, 2009; Wu & Hung, 2009
Time saving	Racherla & HU, 2008; Hallowell, 1996; Goldenberg, 2008; Foss & stone, 2002; Kim et al., 2003; King & Burgess, 2007; Mendoza, 2007; Kimiloglu & Zarali, 2009; Wu & Hung, 2009)
Cost reduction	Kimiloglu & Zarali, 2009; Sophonthummapharn, 2009

The overall objective of an eCRM is to improve the planning, acquiring and controlling of information exchanged with customers across different channels (Mendoza, 2007). Fundamentally,

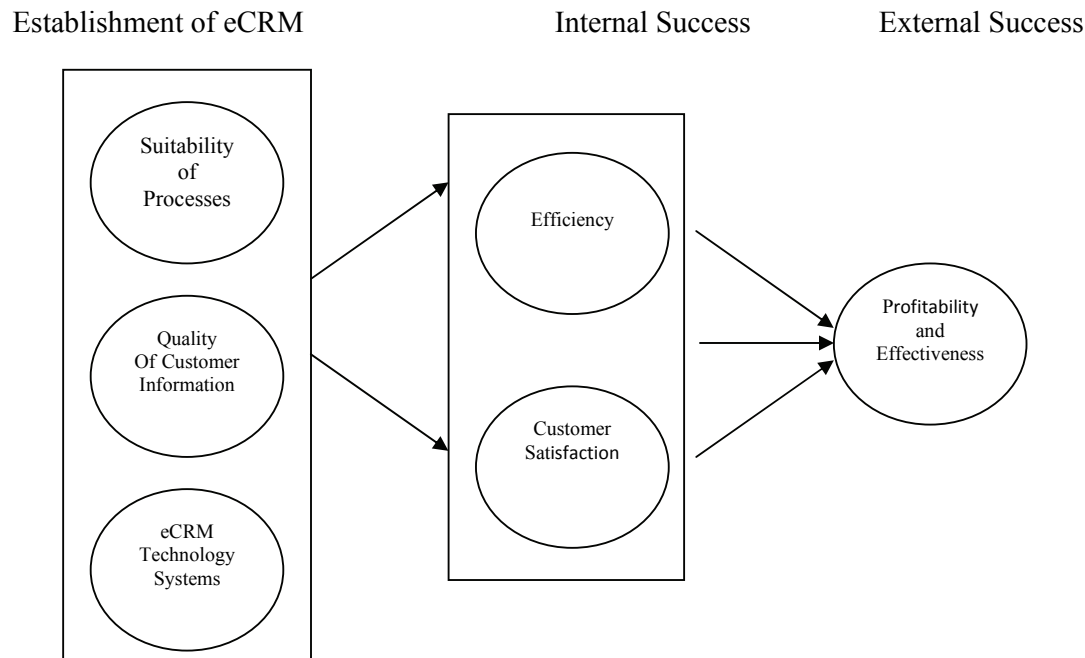
eCRM from the customer's perspective concerns attracting and keeping "Economically Valuable" customers and repelling and eliminating "Economically Invaluable" ones (Romano et al., 2009). The issue of eCRM has increasingly identified the success of CRM implementation (Turban et al., 2004; Bull, 2003). The eCRM is seen as a part of a comprehensive CRM strategy and implementation (Sophonthummapharn, 2009). The eCRM is defined by Lee-Kelley et al. (2003) as the marketing activities, tools, and techniques, delivered over the internet using technologies such as web sites and e-mail, data-capture, warehousing, and mining with a specific aim to locate, build and improve long-term customer relationships to enhance their individual potential. More recently, researchers have also explained that eCRM usage can improve firm revenues, internal processes, learning and overall performance (Wu & Hung, 2009; Coltman, 2007; Richard et al., 2007) as well as salespeople's productivity and call center agents' job performance (McNally, 2007; Ahearne et al., 2007; Jelinek et al., 2006).

In general, there are two main types of eCRM application, which are operational and analytical eCRM applications (Dyche, 2001) but from point of view of some scholars, there are three kinds of non-exclusive eCRM (Teo et al., 2006; Karimi et al., 2001; Adebajo, 2003; Dyche, 2001). Operational eCRM is generally concerned with the customer contact points, both from customers to firm and from firm to customers (Sophonthummapharn, 2009) and support transactions and processes linked to customer relationships such as marketing and sales (Hadaya & Cassivi, 2009). Examples of operational eCRM include site customization, cross-sell/up-sell capability, loyalty program, automatic email response system, and automatic service system. Analytical eCRM is associated with the use of technology or software to process customers' data. This data provides reliable information that the company can use to analyze its customers' behavior. It is known as a "back office" system.

Examples of analytical eCRM include analytical report system, sales recording system, sales trend and forecast report system, and customer profile/segmentation system (Sophonthummapharn, 2009) and exploit the data obtained from previous CRM types and also from other sources (usually through data warehousing) to carry out customer data analysis (Hadaya & Cassivi, 2009). Finally, collaborative eCRMs are implemented to synchronize communications through different channels such as e-mail, telephone and/or other web tools (Hadaya & Cassivi, 2009). There are different components for eCRM application but initially viewing eCRM in technological terms is a mistake. A good way to look at eCRM is to see it as a strategic process, which would help a firm understand customers' needs and the ways to meet the needs, which eventually enhances and maintains good relationships with the customers. The strategy depends on bringing diverse information about customers and market trends such that a firm could sell and market products/services, more effectively. eCRM is about adjusting business processes with customer strategies to build customer loyalty and increase profits in long term. These processes are supported by technology and software (Rigby et al, 2002). eCRM offers some main advantages: an increase in customer loyalty, more effective marketing, service improvement, systematic support, and improvement in the efficiency and reduction of costs (Yi, 1990).

### *1.3 An eCRM Success Model*

The success of internal standard (IS) model is considered as a major issue of MIS research. The Davis's technology acceptance model (TAM) (Davis, 1986), an adaptation of the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975) and DeLone and McLean's IS success model (DeLone & McLean, 1992) provide the basic idea of user acceptance of IS and IS success measures. Roh, et al. (2005) studied the effect of the establishment of an eCRM system on an institution's internal and external success in the form of a model, which are based to present hypothesis and to exam eCRM system successful. Different dimensions of this model and its components will be examined in Fig. 1 adopted from Roh et al. (2005) and Table 3.



**Fig. 1.** Factors affecting the success of an eCRM system

### 1.3.1 Establishment of an eCRM System

Although the internet provides a good infrastructure for CRM implementations, any success in e-CRM is achieved only through a well-designed program, which fits the nature of this environment (Kımlıoğlu & Zaralı, 2009) and there is not a commonly agreed framework to use for CRM practices (Sigala, 2005).

Payne and Frow (2005) proposed a conceptual framework to cover five generic processes including strategy development, value creation, multichannel integration, and information management and performance assessment. Iriana and Buttle (2006) presented a 13-item survey instrument to evaluate an organization's CRM orientation in terms of strategic, operation, and analytical perspectives. Buttle (2004) proposed a CRM value chain for the development and implementation strategies. The value chain has two main parts with five stages and the supporting conditions. Both are essential components for creating value for customers and profitability for the company.

The importance of effective CRM implementation is intensified in the e-business environment since customer loyalty is much more difficult to establish in this domain (Kımlıoğlu & Zaralı, 2009). To implement the business strategy in a targeted way, companies need a customer strategy. The customer strategy outlines the kinds of customers that the organizations want to target, together with their key characteristics (Foss & Stone, 2002). Many financial services companies are aiming to implement more complex, more comprehensive CRM strategies. This carries with it a high risk of failure (Foss & Stone, 2002).

Delone and McLean (DeLone & McLean, 1992) identified the factors affecting the establishment of an eCRM system on the works on system establishment. These two researchers believe there are three dimensions to the proper establishment of a system: suitability of the processes, quality of customer information, and the system technology. In this study, these three dimensions and their components are evaluated as factors affecting the establishment of an eCRM system (Table 3).

**Table 3****Standard items of success factors and standards of institution success**

Construct	Factor	Item
Establishment of eCRM	Suitability of Processes	Mode of interaction with customers and clients in the system, Capability of establishing communication between different geographical locations, Personalizing services, Persistence in solving problems
	Quality of Customer Information	Development of a Database Master Standard (DBMS), information Usefulness, Proper categorization of information, Prediction of customer's and clients' needs
	Technology System	Creating the groundwork for customer relationship management, Helping the execution of a proper customer relationship system, Capability of creating a nation-wide communication network
Internal Success Factors	Efficiency	Ease of communication, Reduction in costs, Reduction in response time
	Staff Satisfaction	Expectation referring to staff on the service of quality to get
External Success Factors	Customer Satisfaction	Friendly interaction with customers, Positive image of the institution, Reduction in clients' complaints

*1.3.2 Internal Success of eCRM*

Efficiency of eCRM Processes: At the present time, many managers while evaluating efficiency pay special attention to a more extensive strategy, that is, creating a proper sub-structure which is also IT accountable (Irani, 2002). In this study, the Internal Standard of Success (IS) is different from traditional standards and includes the comprehensive internal access to the company's eCRM processes and is assessed based on the ease of communication, lowering the costs, and reducing response time.

Efficiency IS implementation success is frequently defined in terms of the achievement of some predetermined goals, which normally include multiple efficiency parameters such as time, cost, and function (Hong & Kim, 2002; Markus & Tanis, 2000). Efficiency is an important and useful measure of performance, which is closely related to, but different from, productivity (Shao & Lin, 2002). Many managers are now appreciating the wider strategic implications of developing a robust and responsive IT infrastructure (Irani, 2002). Efficiency, in this study, is different from the traditional IS success measure in that it is comprehensive internal achievement of a firm's CRM process. We measured internal efficiency as one of the intrinsic measures of CRM implementation success in terms of perceived improvements such as easiness of CRM, cost reduction, time saving. We use efficiency to indicate internal success of a CRM system, determined by the process fit, customer information quality, and system support.

Customer satisfaction: CRM is a customer-driven concept, which allows customers to be in control of the system (Roh et al., 2005). As customer satisfaction is commonly acknowledged as one of the most useful measurements of system success (Chen et al., 2000; Peppard, 2000). Customer satisfaction is the collective outcome of the customer's perception, evaluation, and psychological reaction to the consumption experience with product or service (Fornell, 1992; Yi, 1990). A customer's relationship with a company is strengthened when that customer makes a favorable assessment about the company's service quality and weakened when a customer makes negative assessments about the company's service quality (Zeithaml et al., 1996). There is a strong theoretical underpinning for an empirical exploration of the linkages among customer satisfaction, customer loyalty, and profitability (Hallowell, 1996). We measure customer satisfaction as an intrinsic CRM success by perceived level of the shift after CRM system implementation: friendly interaction with customer, brand value, customer complains, and overall customer satisfaction (Roh et al., 2005).

*1.3.3 External Success of eCRM*

Profitability: Profitability is considered as one of the primary measures of CRM success since the expenditures on IT equipment and service activities have risen (Roh et al., 2005). There are several

reasons on why management needs to scrutinize IT spending (Remenyi & Twite, 1991). First, the amounts of financial resources invested in IT are important and they are thus very likely to supplant other capital spending. Second, IT investments are seldom tied to the revenue-generating or profit-making aspects of the business and as a result, management may not readily agree to IT's value, contribution, or performance. Finally, IT investments have frequently been perceived as high risk, compared with other traditional capital budgets (Roh et al., 2005). However, CRM success has implicit areas of implementations, which cannot be measured solely by profitability alone. We use profitability as an alternative to net benefit. The operationalized scales of profitability are increase of new customers, reselling or upselling, decrease of customers' churn, and increase of overall profitability (Roh et al., 2005).

## **2. Research Methodology**

### *2.1 Hypotheses*

#### **Main Hypothesis**

There is a positive relationship between the establishment of eCRM and success of an institution.

#### **Secondary Hypotheses**

- 1- There is a positive relationship between the suitability of eCRM system processes and the efficiency of an institution's operations.
- 2- There is a positive relationship between the quality of customer information and the efficiency of an institution's operations.
- 3- There is a positive relationship between the system technology and the efficiency of an institution's operations.
- 4- There is a positive relationship between the efficiency of an institution's operations and staff satisfaction.
- 5- There is a positive relationship between staff satisfaction and customer satisfaction.

### *2.2 Research Setting (Time, Place, Topic)*

Time, place and topic of the research are as follows:

**Time:** This research was conducted between July 2006 and May 2007. The Secondary data were collected during a four-year period starting from 2002 to 2006.

**Place:** Due to the geographical spread of the police—known as law enforcement forces in Iran—activities and at the same time the centrality of decision-making and strategic significance of the law enforcement forces in Greater Tehran, the research has conducted in Tehran.

**Topic:** The effect of the variables such as quality of customer information, the organization of an eCRM system, efficiency, customer satisfaction, and profitability are evaluated against the presented hypotheses.

### *2.3 Research Method*

This research is descriptive in nature. It aims to describe the given conditions for the establishment of CRM and only examines the present position and condition of the eCRM system in the law enforcement forces. It can also be considered to be a library and field research, for on the one hand, available resources related to the research topic have been used to develop the theoretical foundations, and on the other hand, questionnaires serve as one of the most important data collection

tools in this research. In this study, the questionnaires, which consist of 25 questions each, focus on the single main and six secondary hypotheses.

In order to determine the reliability of the data collection tools, Cronbach's alpha method was applied. SPSS software calculated the alpha of the questionnaire to be 0.843 and since this value is greater than 0.7 (the critical value), the questionnaire enjoys reliability. The population under study included staff from the communication and information technology department, NAJA's<sup>1</sup> office of general supervision (Call No.: 197), Police Emergency Center (Call No.: 110), senior commanders of the law enforcement forces, and people who contact NAJA's call centers. For the purpose of finding the required subjects, random selection and categorization was applied. First, different sectors of our population including the law enforcement forces, staff and callers were assigned to homogeneous categories, and then samples were taken from each category. Due to the importance of client satisfaction and those who contact NAJA's call centers, 1/3 of the entire sample was selected from this category. The sample in this study consisted of 120 subjects (n=120).

### **3. Data analysis and hypothesis testing**

In this investigation, seven hypotheses are presented where all indicate the existence of a relationship between the parameters of customer relationship systems and a statistical population level. After obtaining data from the collected questionnaires, two methods were used in their analysis:

**Descriptive Method:** In this method, an overall description of the mode of distribution of qualitative characteristics based on age, gender, and education is presented.

**Analytical and Inferential method:** After assigning scores to the questionnaires and calculating the descriptive indices for the purpose of testing the hypotheses and generalizing the results to the population, t-tests, Pearson Correlation coefficients, and regression analysis were used.

#### *3.1. Data analysis*

##### *3.1.1. Population data*

**Gender:** Most of the respondents (approximately 71%) were males. The same applies to the police emergency telephone centers, and the department of general supervision. It can be said that in general, females have more positive view towards the transitions, which have taken place in the law enforcement forces and towards the relationship between the variables under study.

**Age:** Respondents under the age of 20 formed the smallest group, and almost all of them were among clients and people who contacted the telephone centers. The majority of the respondents were between 20 and 30 years of age.

**Education:** Based on the data obtained from the questionnaires, subjects who did not have high school diploma formed the smallest group of respondents. The biggest group consisted of people holding a bachelor degree. This is to a great extent due to the law enforcement forces policy in hiring engineers and experts for their communication and information units.

#### *3.2. Hypothesis Testing*

To examine the significance of (relationship between) the variables, a t-test has been used. Pearson Correlation Coefficient has been applied in order to examine the correlations between the independent and dependent variables of each one of the hypotheses.

##### *3.2.1. t-tests*

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<sup>1</sup> Law enforcement forces of the Islamic Republic of Iran



In order to assess the significance of the variables under investigation, an introductory test was used. This test examined  $H_0$  and  $H_1$  in the following way:

1)  $H_0: \mu \leq 3$

2)  $H_1: \mu > 3$

The summary of results obtained from the tests, have been presented in Table 4. As can be seen, all variables are significant at the error level of 5 percent ( $p < 0.05$ ) and the given degree of freedom, and are between high and low levels. The differences in degrees of freedom are due to the fact that some of the subjects have not provided answers to some of the items.

**Table 4**

Statistical measures of t-test for examining the significance of variables under study

Variables	t-observed	df	Error two tailed	Significant difference	Confidence Interval	
					Low Limit	High Limit
Suitability of Processes	29.180	119	0.000	1.1667	1.0875	1.2458
Quality of Customer Information	25.036	119	0.000	1.0550	0.9716	1.1384
Technology System eCRM	26.820	117	0.000	1.1907	1.1028	1.2786
Efficiency of eCRM Processes	27.608	117	0.000	1.808	1.0961	1.2655
Customer Satisfaction	29.635	117	0.000	1.1610	1.0834	1.2386
Profitability	25.407	117	0.000	1.1356	1.0471	1.2241

### 3.2.2. Correlation coefficient test for examining the research hypotheses

After conducting a t-test, the relationships between variables were examined by calculating the correlation coefficients among them.

**Table 5**

The results of Pearson Correlation Coefficients, Means, and Standard Deviations

Hypothesis	Variables	Mean	Standard Deviation	Pearson Correlation Coefficient	p-value
Main Hypothesis	Establishment of eCRM	4.14	0.33	0.517**	0.000
	Institution success	4.13	0.33		
First Secondary Hypothesis	Quality of information	4.05	0.46	0.36**	0.000
	Profitability	4.13	0.48		
Second Secondary Hypothesis	Efficiency	4.18	0.46	0.25**	0.007
	Profitability	4.13	0.48		
Third Secondary Hypothesis	Quality of information	4.05	0.46	0.198*	0.032
	Efficiency	4.18	0.46		
Forth Secondary Hypothesis	Technology system	4.19	0.48	0.153	0.093
	Efficiency	4.18	0.46		
Fifth Secondary Hypothesis	Quality of information	4.05	0.46	0.26**	0.004
	Customer satisfaction	4.16	0.42		
Sixth Secondary Hypothesis	Technology system	4.19	0.48	0.29**	0.002
	Customer satisfaction	4.16	0.42		

The main and secondary hypotheses have been presented as statistical hypotheses of  $H_0$  and  $H_1$  and then, using SPSS software Pearson Correlation Coefficients were calculated. A summary of the research findings obtained from Pearson Correlation Coefficient test along with Means and Standard Deviations of the variables have been illustrated individually in Table 5. The findings indicate that only the forth secondary hypothesis, which examines the relationship between technology systems and efficiency is not confirmed and its variables do not have the required correlation. Moreover, with the exception of the main hypothesis, all the hypotheses show approximately similar standard deviation.

With regard to the main hypothesis, it can be said that in addition to the existence of a relationship between the establishment of eCRM and the overall success of the institution, there is also a relationship between the establishment of eCRM and each one of the internal and external types of an institution's success.

#### 4. Concluding remarks

The aim of this research was to provide an explanation for the model of factors affecting the success of an eCRM system in the Iranian police telephone contact centers as a part of their interactive and relationship-oriented programs. Since the customer relationship management is a fairly new concept in the area of marketing knowledge, different theories have been introduced. In this study, one of the most famous models implemented in several industries such as insurance industry, has been evaluated against the presented hypotheses. Based on the results of the present analysis, the existence of a relationship between the establishment of an eCRM system and an institution's success has been confirmed. In other words, by establishing an eCRM system, institutions will witness an increase in efficiency, staff satisfaction, and eventually customer satisfaction. An interesting point in this study was the rejection of a relationship, which exists between an eCRM technology system and efficiency (the 5<sup>th</sup> hypothesis in the set of Secondary Hypotheses). This may explain the failure of some huge investments in implementing modern technology to disseminate information and establish communication by indicating that large investments in technology do not necessarily bring about required improvement in efficiency. Many of the respondents believed that after five years of the establishment of such police contact centers and their increasing and expanded reception by people, the number of telephone lines and operators have not increased, properly. Thus, it can be suggested that in establishment of the eCRM system, along with the increase in the number of contacts the rate of provided services should also increase.

Personalizing the provided services to the needs of each individual caller was the main concern of respondents. Many believed that for each group of users there should be an especial program provided. For example, many children and teenagers are not aware of the duties and functions of the police call centers and do not call them even if they need to. It has also been demonstrated that expanding types of services to include ones such as providing counseling via telephone and placing accurate and relevant information on the website needs to be considered as part of an eCRM system agenda. Such services can prove to be an efficient tool for developing required relationships between regular users and senior managers of an institution.

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