*International Journal of Engineering & Technology*, 7 (4.36) (2018) 986-990

International Journal of Engineering & Technology

*Website: www.sciencepubco.com/index.php/IJET*

***Research paper***



# Investigating the Effect of Knowledge Management on the Success of using Customer Relationship Management based on the Mediating Role of Organizational Factors (Case Study: Municipality of Tehran, Region 22)

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**Abstract**

The present research studies the effect of knowledge management on the success of customer relationship management by considering the effects of organizational factors as a mediating factor. The type of research is applied and the method is descriptive survey. The statistical population of the study is the managers and experts of the municipality of Tehran 22nd district, that 207 of them were studied in the form of a statistical sample. Data analysis was performed using single-variable linear regression and confirmatory factor analysis. The results showed that the variables of customer relationship management technology, customer orientation and knowledge management capabilities were significantly influenced by the success of customer relationship management. Also, the variables of customer relationship management experience and organizational factors have a significant effect on the success of customer relationship management.

***Keywords***: *KM capabilities, customer relationship management, organizational factors*.

## 1. Introduction

In the new era of marketing, the goal is to establish long-term and reciprocal relationships with interest groups and, most importantly, the customer in such a way as to preserve more customers, thus benefiting in the long run, thereby increasing the market share and profitability (Asli Beigi Et al., 2017). Today's organizations offer goods and services that are defined by individual customers. A customer relationship management system is beyond the traditional operational automation of sales, marketing, supply chain, or technology-driven services as well as a customer relationship management system beyond the quality of service or customer service. Customer relationship management systems are systems for the transformation of the entire organization and the way the organization views its customers (Seddiqi Zardanjani, 2016). In recent years, companies have coordinated customer relationship management activities with knowledge management (Eskandari and Aghazadeh, 2016). Knowledge management of new century, known as the Age of Knowledge, is aimed at preserving, directing and increasing the targeted knowledge of organizations, and this implies that investing in science will bring the best and most profit (Jafarinejad, 2015). When customer relationship management is implemented, the KM can extend the flow of customer relationships (Retna and Tee NG Pak, 2011). The municipality is one of the civil society institutions that is part of the country's development and participation structure in the constitution in the framework of governance in the social, local and urban areas. The municipality is one of the imperatives of the social system, which is necessarily evident with a structure that is possible only through the intervention of the people (Naseri Isfahani et al., 2014, 82). The association of the municipality with the citizens as the main owners of the city is of great importance. Many of the concepts involved in managing citizen communication come from the concepts of customer relationship management, with the distinction being that in managing citizen communication, emphasis is placed on service and service, but in customer relationship management, sales, and profitability. In fact, customer relationship management addresses a group of management practices and customer relationship management technology solutions, relying on their publicity. The truth of managing citizen communication is based on the principle that the provision of various services and services does not merely serve to achieve citizens' satisfaction, but it is important to recognize the need of citizens and respond to them based on customer relationship management. Given the ever-growing need of citizens and their expectations and the rapid change in lifestyle, only by managing customer relationships can the quality and quantity of services be met in the least possible time by providing urban services. Perhaps the perception is that the result of applying customer relationship management has a positive impact on more and more sales. However, it should be noted that the mere provision of these services does not result in citizens' satisfaction, but it should be noted that using the management of communication with customers (citizens), it is possible to understand the needs of citizens who have already been neglected by authorities. (Mohsenien Brothers and et al., 2014, 2). The municipality can satisfy them by responding to these needs by inventing new methods. . On the other hand, customer relationship

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management can be used as an information gathering center and using the bank to innovate in distinct services (Zargar and Safai, 2014, 82). Therefore, the present study aims to answer the main question whether knowledge management affects the success of customer relationship management due to the intermediary effect of organizational factors?

# 2- Theoretical foundations and research background

## 2.1 Customer Relationship Management

The customer is referred to the organization or individual who receives the product or service and is willing to pay the price (Cutler & Armstrong, 2014) and customer relationship management is a two-way process for achieving the best balance between the company's capital and satisfying customer needs that maximize profitability (Dous et al., 2005). Galbreath and Rogers define customer relationship management as "activities that a business identifies, describes, finds, develops, and maintains loyal and profitable customers by delivering goods and services to the right customer through the appropriate canal runs at the right time and at the right cost (Hajikhani, 2016). Customer relationship management in this research depends on the variables and through the dimensions of strategy, structure and planning, stakeholder interaction, and the interaction of information technology with the help of a questionnaire (Moreno and Melendez, 2011).

## 2.2 Knowledge management

Knowledge in organizations is embodied not only in evidence and knowledge resources, but also in work practices, organizational processes, and norms. Transforming data into information and then knowledge is the core of knowledge management (Massingham, 2014). Knowledge management includes all the ways in which an organization manages its own knowledge assets, including how to collect, store, transfer, use, update, and create knowledge (Jafarnejad, 2015). Knowledge management in this research is independent and through customer-oriented indicators, knowledge dissemination and customer relationship management technology and through the operational questionnaire (Moreno and Melendez, 2011).

### 2.2.1 Knowledge Management Dimensions

1- Customer orientation
Customer-centric is the collection, sharing and use of information about customers at the organization level and coordinated actions based on this information. Customer orientation as the next and part of market orientation emphasizes the importance of determining and addressing the needs and preferences of buyers and customers (without regard to other dimensions of market orientation) (Rap et al., 2010). Customer orientation refers to the willingness of employees to meet the needs of their customers in their job tasks (Lee et al., 2013).
2-Release of Knowledge Management
An integrated approach to evaluating, acquiring and transferring all of the organization's knowledge resources is to help the organization achieve its organizational goals. The publication of knowledge management in this research is an independent variable and one of the dimensions of knowledge management (Hansotia, 2002).

## 2.3 Organizational factors

These factors are various organizational aspects that include organizational structure, staffing, and leadership. Organizational factors in this research are intermediary variables and through organizational culture, transparency of documents, training and human resources through the questionnaire (Moreno and Melendez, 2011).

## 2.4 Relationship between research variables

### 2.4.1 Knowledge management capabilities and customer relationship management success

The ability to manage knowledge is about the ability of the organization to capture, manage information and provide credible and timely customer service and products to improve customer responsiveness and make quick organizational decisions based on real information. As a result, customer relationship management and knowledge management both have a common goal, continuous improvement of the process of delivering goods and services and information to customers. In addition, knowledge creation and transfer are considered as one of the most important fundamental and strategic processes that determine the ability to learn and innovate the organization (Salmador and Bueno, 2007). So the first hypothesis is that:
H1: The Company's knowledge management capabilities have a positive impact on the success of customer relationship management.

### 2.4.2 Organizational factors and success of customer relationship management

Implementing customer relationship management requires changes in organizing organization and business processes. In fact, organizations need to redesign the organization and supply chain management for the successful implementation of client-side systems and customer relationship management programs. Therefore, in order to implement customer relationship management, factors such as strategy, organizational structure and business processes need to be transformed, because the success in implementing customer relationship management requires a proper synergy between the technological system, processes and individuals in the organization (Xu and Walton, 2005). Because even with the best business processes and the most advanced technologies, the relationship between people plays a key role in implementing any business strategy. The human factor among these organizational factors is the most important factor. For this reason, important factors such as training staff and motivating them, and designing and implementing appropriate reward systems are among the most important factors in engaging employees in implementing these strategies. In addition to these factors, leadership also plays a key role in KM, and has a direct impact on the success of implementing these types of actions (Racherla and Hu, 2006). So the second hypothesis is that:
H2: Organizational factors have a positive impact on the success of customer relationship management.

### 2.4.3 Technology and success of customer relationship management

Customer relationship management technology systems must be seen as a key factor and prerequisite for implementing these types of strategies. The technology of customer relationship management technology provides customers with an appropriate customer vision and manages customer relationships in a coherent way, has a lot of benefits to the organization, and helps organizations improve the efficiency and effectiveness of processes involved in customer relationships. Organizations need to consider technology as one of the prerequisites for a customer relationship management system. Hence, technology can be considered as one of the necessary but not sufficient conditions for the success of customer relationship management systems (Hart et al., 2004). So the third hypothesis is that:

H3: Customer relationship management technology has a positive impact on customer relationship management.

### 2.4.4 Customer Relationship and Customer Relationship Management

According to Narver and et al. (1990), customer orientation requires consumers to be more aware of the value added they have to offer. Also, customer orientation requires the customer to be central to all activities of the organization in order to build long-term relationships with the client. That is why this is one of the fundamental components of the organizational climate needed for the success of customer relationship management. Finally, it can be said that a customer-oriented orbital is a prerequisite for the successful implementation of customer relationship management (Bang, 2005). Therefore, the fourth hypothesis is that:
H4: Corporate customer relationship has a positive impact on customer relationship management.

### 2.4.5 Experiences in Customer Relationship Management and its success

Hart and et al. (2004) concluded that the use of experiences in customer relationship management improves the organization's ability to achieve effective results and also increases the productivity and benefits of customer relationship management. (Hart and et al., 2004). Thus, the fifth hypothesis is that:
H5: Experience in customer relationship management has a positive impact on the success of customer relationship management.
As stated, the conceptual model is described in Fig. 1.

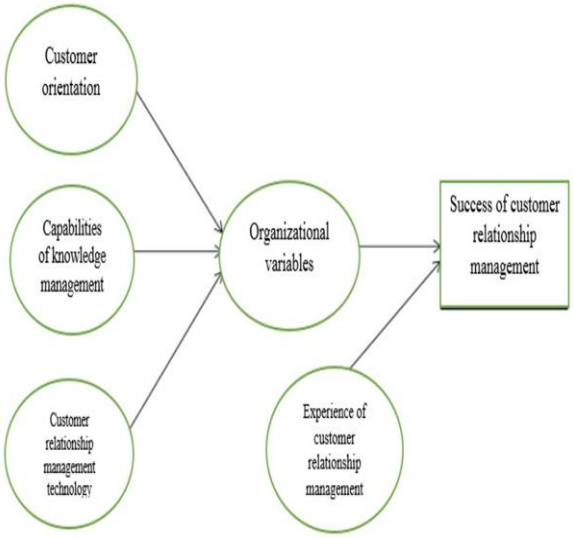



**Fig.1:** The Conceptual Model of Research (Source: Moreno & Melendez, 2011).

## 3. Research method

The present research an applied research. Also, based on the research design and as a method of data collection, is a descriptive (non-experimental) research and a questionnaire has been used for data collection, so it can be included as field research.
4-1 Statistical population and sampling method
The statistical population of this study included all the experts and managers of the 22nd district of Tehran, which have been questioned during the period from the beginning to the end of October 1395. The Cochran formula indicate the number of samples 192 managers and to address the negative impacts of respondents on the results of the research, about 10% of the estimated volume (20), an additional questionnaire was distributed among respondents. Finally, out of 212 distributed questionnaires, 207 correct questionnaires were selected for data analysis.
4.2 Measurement tools and statistical techniques
Data was collected through the Moreno and Melendez questionnaire (2011). The first part of the questionnaire consists of 4 questions that assesses the individual characteristics of employees and managers, and the second part consists of 26 closed-answer questions that measure the research hypotheses.

## 4. Research findings

In this research, descriptive statistics (SPSS software) in frequency distribution and calculation of concentration and dispersion indices was used in the first step. Then, in order to analyze the data, in order to test the hypotheses, structural equation modeling and confirmatory factor analysis (LISREL software) were used.
In order to investigate hypotheses 1, 3 and 4, a single-variable regression test has been used, the results are described in the table.

**Table 1:** the results of a single-variable regression test

| Hypothesis | Observed F | Significance level (P-value) | Beta coefficient (Beta) | Specified variance (R2) | Result |
|---|---|---|---|---|---|
| The company's knowledge management capabilities on the success of customer relationship management | 195.163 | 0.000 | 0.698 | 0.48 | Confirmed |
| Customer Relationship Management technology on the success of customer relationship management | 944.021 | 0.000 | 0.906 | 0.82 | Confirmed |
| Company's customer-oriented behaviors on the success of customer relationship management | 483.575 | 0.000 | 0.838 | 0.70 | Confirmed |

To test hypotheses 2 and 5, a confirmatory factor analysis has been used which results are described in the table.

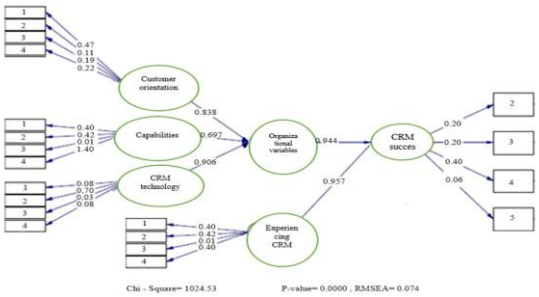



**Fig. 2:** Factor load calculations and error factors

Table 2 shows the most important fitting indices for measuring models, as can be seen, all of the indices of the present research model are fit for fit.

**Table 2:** Fitness indices for measurement models

| Fit indices | Recommended value | Research Factor Model | Result |
|---|---|---|---|
| χ2/df | 1-5 | 2.67 | Confirmation |
| NFI | ≥85/0 | 97/0 | Confirmation |
| GFI | ≥90/0 | 94/0 | Confirmation |
| NNFI | ≥90/0 | 95/0 | Confirmation |
| RMSEA | 1/0≥x | 074/0 | Confirmation |

According to the information obtained since RMSEA = 0.074, so the fitness of a good model is evaluated.

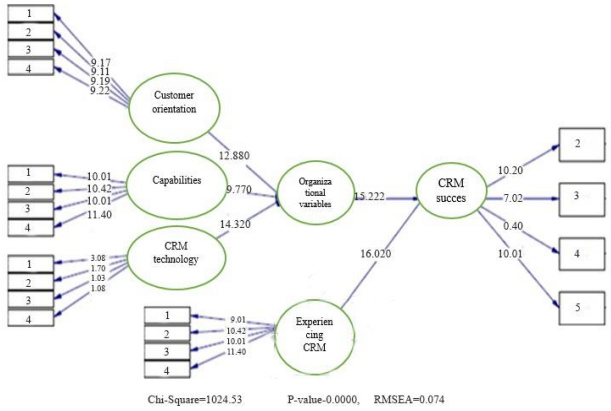



**Fig. 3:** Statistical calculations t

As you can see, all values of the t statistic are greater than 1.96, which indicates that all values of path coefficients are at least 95% significant at the confidence level

**Table 3:** Confirmatory Factor Analysis

| Hypothesis | Standardized value | T-value | Explained variance (R2) | Result |
|---|---|---|---|---|
| Organizational variables have a significant effect on the success of customer relationship management | 0.944 | 15.323 | 0.88 | Confirm |
| The existing customer relationship management experience has a significant impact on the success of customer relationship management. | 0.957 | 16.020 | 0.90 | Confirm |

In the following, the summary of the research findings is based on the severity of the impact.

**Table 4:** Summary of research findings based on the intensity of impact

| Row | Hypothesis | Intensity of impact | Comparison with other studies |
|---|---|---|---|
| 1 | CRM experience on the success of CRM | 95% | Compatible with the study of Eskandari and Aghazadeh (2016) |
| 2 | Organizational variables on the success of CRM implementation | 94% | Compatible with Teseng Study (2016) |
| 3 | CRM technology on the success of CRM implementation | 90% | Compatible with Alkordy Study (2014) |
| 4 | A customer-oriented approach to the success of CRM | 83% | Compatible with Alkordy Study (2014) |
| 5 | Knowledge management capabilities on the success of CRM implementation | 69% | Compatible with studies by Rezaei Malek and Radfar (1392), Ghaffari et al. (2011), Kahrokami and Chan (2014) and Teseng (2016) |

## 5. Conclusions and suggestions

As the results of the study show that the research model is represented by the structural equation model (SEM), the overall effect of customer relationship management technology on organizational variables (with a path coefficient of 0.906) is more than other variables and the effectiveness of the existing experience of managing the relationship with The customer has been more successful than other variables (path coefficient 0.957). Also, the fitting indices of the obtained model indicate a suitable fit for the research model (root mean square error estimation is 0.074). Also, according to the results of the regression test, it can be said that among the variables affecting the success of customer relationship management, the impact of existing experience and customer relationship management technology is more than other variables. . This means that by focusing on previous experiences and gaining knowledge management and enjoying world-class technology, higher levels of customer relationship management in the organization are achieved. Shafagh (2010) also found similar results and said that the factor of implementation of technology and technology used to improve performance and attract customers has been effective. Sin et al. Also state that customer relationship management software systems (technology used) enable companies to provide higher quality, but less costly, dedicated services, so many customer-centric activities without the right technology will be impossible

## References

[1] Asli Beigi, Mohsen Dodangeh, Sara Afshar, Parvin (2017), Effect of Competitor orientatin and Customer Orientation on Market Innovation and Performance in the Bank Industry (Word Study: Bank of Commerce), Management and Accounting Studies, No. 3, 94-77.persian.

[2] Baradaran Mohsenian, Seyyed Mojtabi, Kharakian, Alireza and Maharati, Yaghoub(2014), Effect of Customer Relationship Management on Satisfaction of Citizens of Municipality Municipality of Mashhad through the Role of the Interface of Management Innovation in the Pattern of the Iranian-Islamic City, 6th National Conference on Urban Planning and Management , 30-1. Persian

[3] Bang, J. (2005). Understanding customer relationship management from manager's and customer's perspective: Exploring the implications of CRM fit, market orientation, and market knowledge competence, Doctoral Thesis, University of Rhode Island.

[4] Dous, M. Kolbe, L. Salomann, H. Brenner, W. (2005). KM capabilities in CRM: Making knowledge for, from and about customers work. In Proceedings of the eleventh Americas conference on information systems Omaha, NE, USA, 167 178.

[5] Eskandari, Karim and Aghazadeh, Haniyeh (2016), the success of customer relationship management and the role of knowledge management in it (Case study: Municipal Organization of the city of Osco), Value chain management, Volume 1, Issue 3, pp. 14-1.persian.

[6] Hart, S. Hogg, G. & Banerjee, M. (2004). Does the level of experience have an effect on CRM programs? Exploratory research findings, Industrial Marketing Management, 33, pp 549–560.

[7] Hajikhani. S, Tabibi. S. J, Riahi. L (2016), The Relationship Between the Customer Relationship Management and Patients' Loyalty to Hospitals, Global Journal of Health Science, 8(3): 65–71.

[8] Hansotia, B. (2002). Gearing up for CRM: Antecedents to successful implementation. Journal of Database Marketing & Customer Strategy Management, 10(2), 121-132.
[9] Jafarnejad, Mohammad Bagher (2015), The Relationship between Organizational Culture and Knowledge Management (Case Study: Tehran Municipality), Journal of Management and Accounting Research, No. 21, 101-87. Persian.
[10] kottler, Philip and Lynn Clare, Kevin (2014), Marketing Manager, Translation by Mehdi Amir Jafari. Tehran. persian
[11] Lee, C.K. and Song, H.J. and Lee, H.M. and Lee, S. and Bernhard, B.J. (2013). The impact of CSR on casino employees' organizational trust, job satisfaction, and customer orientation: An empirical examination of responsible gambling strategies. International Journal of Hospitality Management, Vol. 33, pp. 406-415.
[12] Massingham. P.R, Massingham.R K (2014), Does knowledge management produce practical outcomes?, Journal of Knowledge Management, Vol. 18 Iss 2 pp. 221 – 254.
[13] Moreno, G A. Padilla Melendez, A.(2011).Analyzing the impact of knowledge management on CRM success: The mediating effects of organizational factors. International Journal of Information Management, 31, 437 444.
[14] Naseri Isfahani, Shahid, Saffaiipour, Hoda and Tarokh, Mohammad Jafar (2014), Application of business intelligence and customer relationship management in the electronics municipality (Case study of Isfahan Municipality Information and Communication Technology Organization, data of the complications and renovation section), Engineering Industries and Management, Volume 1 30, No. 1.2, 88-81. Persian.
[15] Racherla, P. & Hu, C. (2006), KM for an effective CRM system, In Paper presented at the Ph.D. research workshop for the 13th international conference (ENTER 2006 – information and communication technologies in tourism 2006) on information technology and travel & tourism Lausanne, Switzerland, January 17.
[16] Rapp, A. and Trainor, K.J. and Agnihotri, R. (2010). Performance implications of customer-linking capabilities: Examining the complementary role of customer orientation and CRM technology. Journal of Business Research, Vol. 63, pp. 1229-1236.
[17] Retna, K. S., & Tee Ng, P. (2011). Communities of practice: dynamics and success factors. Leadership & Organization Development Journal, 32(1), 41-59.
[18] Salmador, M.P. Bueno, E. (2007). Knowledge creation in strategy making: Implications for theory and practice. European Journal of Innovation Management, 10(3), pp 1060–1460.
[19] Siddiqi Zardanjani, Elham (2016), The Role of Information Technology (IT) in Customer Relationship Management (CRM) (Case Study: Tehran Municipality), Thesis for Master Degree, Business Management, Information Resource Management Trend, Azad University Islamic Center of Tehran Central Branch, Faculty of Management, Department of Information Technology. persian
[20] Xu, M. Walton, J. (2005), Gaining customer knowledge through analytical CRM, Industrial Management + Data Systems, 105(7), pp 955–972.
[21] Zargar, Tayyebeh, Safaei, Razieh (2014), Investigating the relationship between customer satisfaction of sports complexes in Tehran municipality and improving the quality of services of sports complexes, Journal of Urban Management Studies, 2005, No. 17, 86-81. persian