

Investigation of Relationship between Knowledge Management Maturity Level and Customer Relationship Management in Karafarin Bank in Tehran City

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ABSTRACT

The present research aims to investigate relationship between knowledge management maturity level and customer relationship management in Karafarin Bank in Tehran City, Iran. The relationship between knowledge management maturity level (organizational culture, strategy, IT and organizational structure) and customer relationship management in Karafarin Bank was investigated carefully. The present research is a descriptive analytical study. Data collection method was correlation survey. The statistical population of the research included all employees in Karafarin Bank in Tehran City (415 people). Using Cochran's formula and Morgan's Table, 200 people were selected as sample members. Sample members were selected by means of stratified sampling and finally simple random sampling method. SPSS and LISREL were used for data processing. Considering the results of Komogrov-Smearnov test, all variables had normal distribution because significance level of the research was greater than 0.05. Furthermore, Pearson correlation coefficient test showed that relationships between all levels of maturity of km (organizational culture, strategy, IT and organizational structure) and CRM in Karafarin Bank in Tehran City were significant.

KEYWORDS: km, maturity level of km, CRM

INTRODUCTION

Knowledge is considered as an important competition factor in global economy. However, customer is another important element for successful presence in markets. Customers' km enables organizations to identify and seize opportunities and improve their competitive advantages. Customers' km refers to acquisition, sharing and distribution of customers' knowledge and is aimed at benefiting both customers and organization. Therefore, competitive advantage is found in facilitation of information trends for doing works rather than accessing resources and special markets (Abtahi and Salavati, 2006). Knowledge and intellectual property is the base of achieving core competencies for better performance. In order to achieve stable competitive advantage, it is necessary to pay attention to present knowledge, its effective application and creation of a structure for using new knowledge and information (Afrazeh, 2010).

For decades, the value of a company was measured by its properties, tangible assets, factories and equipment. However, it is now believed that the real value of a company lies somewhere beyond, i.e. in potential customers' minds (Heidarzadeh et al, 2011). The present era is the age of unpredictable changes and companies are confronted with unprecedented harsh competitive conditions due to unclear borders between markets, segmentation of markets, short product life cycles, and rapid changes in customers' purchase models and awareness of customers (Rahnama et al, 2012). CRM is also a concept which makes organizations think about strategies for establishment of relationship with customers. However, we can dare say that establishment of effective relationship with customers is impossible without km. therefore; organizations should manage their knowledge about customers in order to increase effectiveness and efficiency and provide appropriate products for customers. Therefore, km is the inseparable element of CRM (Akhavan, 2007). Considering the above discussion, the present research tries to investigate relationship between level of maturity of km and CRM in Karafarin Bank in Tehran City. We try to answer this question: is there any relationship between maturity level of km and CRM in Karafarin Bank in Tehran City?

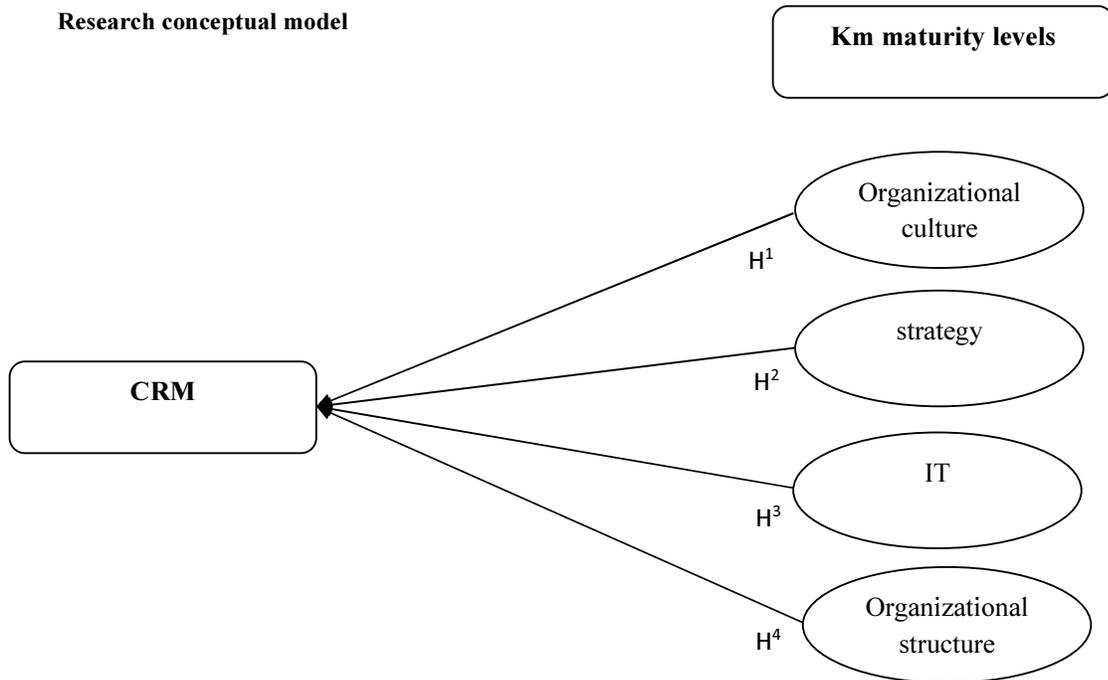
Theoretical framework

Within the past few years, relationship between customers' needs and levels of service quality has received a lot of attention. High levels of service quality are considered as an instrument for acquiring competitive

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advantage. As customers' knowledge about service quality increases, banks and other financial institutes are becoming more and more sensitive to service quality. Banks should know how to provide high quality services in order to maintain long-term relationships with customers (Tavanazadeh, Vaezi and Vazifehdoost, 2014). The most important factor for maintenance of an organization is customer and long-term growth and survival of an organization will not be guaranteed if customers' satisfaction and loyalty are not fulfilled (Vazifehdoost, Rahnama and Mousavian, 2014). In customers' strategy, customer's loyalty is of strategic importance for organization. Increasing customers' loyalty is a subject of study which has received a lot of attention by managers and advosirs (Haghighi et al, 2012). Km maturity level is a working strategy and influences all organizational borders and it is also an instrument for general progress of the strategic plan of the organization. Km maturity levels makes organizations powerful and helps remove external challenges and this will be reached via exploiting knowledge resources in employees, information resources, information technology and its applications and also their relationships withcustomers and suppliers. Evaluation of km maturity status enables the organization to learn how to implement its km skill. There are some indices for measurement of km maturity in an organization. These indices should reveal the value and effectiveness of km. indices like organizational culture, strategy, IT and organizational structure are important in this case. Therefore, it can be said that km maturity level has a strong relationship with knowledge, expertise and employees' commitment as key inputs in CRM process. Managers should have special skills, abilities and characteristics and they should also have long experiences and appropriate social and communicational skills in order to be able to manage their organizations effectively. Furthermore, in order to have effective management, we must start from targets and managers should rely on their resources and especially human resources (Tavanazdeh and Aligholi, 2014). Considering the above discussion, the research conceptual model is as follows:

Research conceptual model



Research hypotheses

1. There is a significant relationship between organizational culture (as one of the levels of km maturity) and CRM.
2. There is a significant relationship between strategy (as one of the levels of km maturity) and CRM.
3. There is a significant relationship between IT (as one of the levels of km maturity) and CRM.
4. There is a significant relationship between organizational structure (as one of the levels of km maturity) and CRM.

RESEARCH METHODOLOGY

The present research is a non-empirical study in terms of its nature and it is an applied study in terms of goal and it is a descriptive-analytical study in terms of research type. It is also a correlation study in which data were collected via a survey. Statistical population of the research included all employees of Karafarin Bank in Tehran City (415 people). Morgan Table was used to pick 200 people as sample members. Sample members were selected by means of stratified random sampling and finally by simple random sampling. Each of the

branches and departments of Karafarin Bank in Tehran were assumed as stratum and several employees were selected from each stratum randomly. Data were analyzed by means of descriptive and inferential statistics. In descriptive analysis, frequency distribution, central indices, scattering, distribution form and graphs were used. In inferential analysis, correlation test was used. Confirmatory factor analysis and Friedman test were used for measuring the significance, type and intensity of correlation between variables. SPSS and Lisrel software were used for analysis.

RESULTS

Table 1. Descriptive indices for research model variables

Scattering coefficient	Determination coefficient	SD	mean	Number	Statistical indices	indices
28.48	0.64	1.41	4.95	200	Organizational culture	Km maturity level
26.73	0.88	1.27	4.75	200	strategy	
28.81	0.88	1.34	4.65	200	IT	
27.11	0.62	1.25	4.61	200	Organizational structure	
22.08	0.90	1.04	4.71	200	Cognition and reliability	CRM
24.36	0.90	1.16	4.76	200	Customers' guidance	
25.66	0.67	1.16	4.52	200	Valuation of customers	
24.83	0.86	1.16	4.67	200	Service provision estimation	

As it can be seen in table 1, it can be observed that organizational culture, strategy, IT and organizational structure have the greatest mean values respectively and valuation of customers has the smallest mean value. According to table 4-5, cognition and reliability variable has the smallest scattering coefficient which indicates a high level of unanimity regarding the level of km maturity and IT has the greatest scattering coefficient (28.81) and has the lowest unanimity. From CRM dimensions, reliability has the smallest scattering coefficient (22.08) and the greatest unanimity and valuation of customers has the greatest scattering (25.66) and the smallest unanimity.

Normality test

In this stage, we should investigate the normality of data distribution. Kolmogrov-Smearnov test was used for investigation of normality of data distribution. Results of this test are represented in table 2. Because the calculated sig (significance level) is greater than 0.05 for all variables, it can be concluded that distribution of data for all variables is normal.

Table 2. significance level of normality test

dimensions	Significance levelSig	Statistic value	Test result
Organizational culture	0.096	1.23	supported
strategy	0.178	1.09	supported
IT	0.487	0.83	supported
Organizational culture	0.053	1.33	supported
Cognition and reliability	0.362	0.92	supported
Customers' guidance	0.369	0.91	supported
Valuation of customers	0.112	1.20	supported
Service provision estimation	0.311	0.96	supported

Hypotheses test: Pearson correlation coefficient test

First hypothesis test:

There is a significant relationship between organizational culture (as one of the levels of km maturity) and CRM.

H₀: There is not a significant relationship between organizational culture (as one of the levels of km maturity) and CRM.

H₁: There is a significant relationship between organizational culture (as one of the levels of km maturity) and CRM.

Table 3.first hypothesis test results

Variable under study	Sample members	Correlation coefficient	Two-tailed sig	Test result
Organizational culture and CRM	200	0.816	0.000	Verification of H_1

As it can be seen in table 3, sig value is equal to 0.000 which is smaller than 0.05. Therefore, H_0 which regards absence of relationship between organizational culture and CRM is rejected. Therefore, there is a significant relationship between organizational culture and CRM and the first hypothesis is supported. Moreover, because correlation coefficient is equal to 0.816 and it is in (0.75-1) period, the two variables have a very strong direct correlation with each other.

Second hypothesis test:

There is a significant relationship between strategy (as one of the levels of km maturity) and CRM.

H_0 : There is not a significant relationship between strategy (as one of the levels of km maturity) and CRM.

H_1 : There is a significant relationship between strategy (as one of the levels of km maturity) and CRM.

Table 4: second hypothesis test results

Variable under study	Sample members	Correlation coefficient	Two-tailed sig	Test result
Strategy and CRM	200	0.721	0.000	Verification of H_1

As it can be seen in table 4, sig value is equal to 0.000 which is smaller than 0.05. therefore, H_0 which regards absence of relationship between strategy and CRM is rejected. Therefore, there is a significant relationship between strategy and CRM and the second hypothesis is supported. Moreover, because correlation coefficient is equal to 0.721 and it is in (0.5-0.75) period, the two variables have a strong direct correlation with each other.

Third hypothesis test:

There is a significant relationship between IT (as one of the levels of km maturity) and CRM.

H_0 : There is not a significant relationship between IT (as one of the levels of km maturity) and CRM.

H_1 : There is a significant relationship between IT (as one of the levels of km maturity) and CRM.

Table 5.second hypothesis test results

Variable under study	Sample members	Correlation coefficient	Two-tailed sig	Test result
IT and CRM	200	0.731	0.000	Verification of H_1

As it can be seen in table 5, sig value is equal to 0.000 which is smaller than 0.05. therefore, H_0 which regards absence of relationship between IT and CRM is rejected. Therefore, there is a significant relationship between IT and CRM and the third hypothesis is supported. Moreover, because correlation coefficient is equal to 0.731 and it is in (0.5-0.75) period, the two variables have a strong direct correlation with each other.

Fourth hypothesis test:

There is a significant relationship between organizational structure (as one of the levels of km maturity) and CRM.

H_0 : There is not a significant relationship between organizational structure (as one of the levels of km maturity) and CRM.

H_1 : There is a significant relationship between organizational structure (as one of the levels of km maturity) and CRM.

Table 6.fourth hypothesis test

Variable under study	Sample members	Correlation coefficient	Two-tailed sig	Test result
Organizational structure and CRM	200	0.761	0.000	Verification of H_1

As it can be seen in table 6, sig value is equal to 0.000 which is smaller than 0.05. therefore, H_0 which regards absence of relationship between organizational structure and CRM is rejected. Therefore, there is a significant relationship between organizational structure and CRM and the fourth hypothesis is supported. Moreover, because correlation coefficient is equal to 0.761 and it is in (0.75-1) period, the two variables have a very strong direct correlation with each other.

Friedman non-parametric test

Friedman non-parametric test is a statistical test for ranking of multi-level variables with ordinal scale. We used Friedman non-parametric test for comparison of factors which affect CRM and levels of km and also ranking of mean values of the factors. Hypothesis test showed that there is a significant difference between factors

affecting CRM and maturity level of km with 99% of certainty and error level smaller than 0.01. table 7 verifies this result.

Table 7: results of Friedman test

factors	Rank mean
Cognition and reliability	14.6
Customers' guidance	12.7
Valuation of customers	10.2
Service provision estimation	8.1

$X^2=513.111$, $df=3$, $p<0.01$

Therefore, a comparison of mean value of ranks of factors affecting CRM from respondents' viewpoints shows that variables cognition and reliability (14.6) and guidance (12.7) have the greatest mean values in terms of effectiveness on CRM and variables like valuation of customers (10.2) and service provision estimation (8.1) have the smallest values.

Table 8. Results of Friedman test

factors	Mean rank
Organizational culture	13.2
strategy	11.1
IT	9.2
Organizational structure	7.1

$X^2=513.111$, $df=3$, $p<0.01$

Therefore, a comparison of mean value of the ranks of factors affecting km maturity level from respondents' viewpoints showed that organizational culture (14.6) and strategy (12.7) have the greatest mean values in terms of effectiveness on km maturity level and in contrast, the lowest mean values belong to IT (10.2) and organizational structure (8.1).

Recommendations and solutions

The following recommendations are proposed considering the results of the research:

1. Considering the results of the first hypothesis test regarding the presence of relationship between organizational culture and CRM in Karafarin Bank in Tehran, it can be said that organizational culture increases km maturity level and helps share and distribute knowledge which is also accompanied by important organizational changes. Further, attention to km maturity level will help km and CRM.

2. Considering the results of the second hypothesis regarding the presence of relationship between strategy and CRM in Karafarin Bank in Tehran City, each of the factors which concern strategy in different levels of maturity of km must be considered in stepwise form and considering the recommended levels. The maturity model developed in this research specified necessary factors for measurement of each step for entering the next step. This helps evaluate the present status of levels of maturity of km in the organization. Managers will be able to remove organizational weak points and contribute to higher levels of maturity.

3. considering the results of the third hypothesis regarding the presence of relationship between organizational structure and CRM in Karafarin Bank in Tehran, the model presented in this research can show the way of achieving the next level of maturity of km in organizations which have used developed forms of km. therefore, we propose Iranian organizations to copy knowledge-based organizations in developed countries in the field of CRM.

4. Considering the results of the fourth hypothesis regarding the presence of relationship between IT and CRM in Karafarin bank in Tehran, it can be said that involvement of employees in creation, dissemination, application and evaluation of knowledge processes via appropriate mechanisms is very helpful. Development of knowledgeable human resource as a key element in CRM is important.

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