

## Outlining Role of Knowledge Management in Customer Relationship Management (CRM) West Mazandaran based Carpet Stores

PEDRAM BABANATAJ KASGARI<sup>1</sup>

Master in Management, Mazandaran, Iran

HASSAN RAZAGHI SHANI

Ph.D. Candidate of Philosophy in Commerce Management

Lincoln University of Malaysia

### Abstract:

*Emphasizing knowledge as a key competitive resource in today's world, Organizations should also consider another key element of customer knowledge. The success of customer relationship management in a business environment is only possible when integrated with knowledge management systems and knowledge management processes for customer relationship management. The purpose of this study was to explain the role of knowledge management on customer relationship management in western carpet stores of Mazandaran province. The research method is descriptive-survey and based on the purpose of the applied research type. The statistical population of the research was employees and managers of carpet stores in west of Mazandaran province. The sample size was 380. The sample size was 113 according to Morgan table. Of these, 108 have cooperated with the researcher and delivered a fault-free questionnaire. The results of the Structural Equation Test by Lisrel software show that knowledge management has a significant effect on customer relationship management in western carpet stores of Mazandaran province. Therefore, managers should use creative, effective and efficient types of knowledge to attract and retain customers.*

---

<sup>1</sup> Corresponding author: Pedram Babanataj Kasgari

**Key words:** Knowledge Management - Customer Relationship, Management - Carpet stores – Mazandaran Province

## **INTRODUCTION**

In recent years, knowledge management has been focused on as one of the prevalent terms in organizations. This system stresses acquiring knowledge from the employees about customer, competitors and the products of the organization (Gilbert et al., 2002). In other words, knowledge management refers to encouraging the employees to knowledge sharing, and the ideas for increasing the products' added value. Thus, the perspective of knowledge management is intraorganizational and its merit is the customer's being satisfied with better services and products. However, when the organization starts developing its competencies in intraorganizational knowledge management and gets assistance from it for achieving its objectives, it slightly broadens its insight and concentrates on the new resources not necessarily placed within organizational boundaries (Paquette, 2006). Emphasizing knowledge as a key competitive resource in modern world, the organizations have to pay attention to another key element, i.e., the customer's knowledge (Gilbert et al., 2002). In addition, the process of customer's knowledge is placed in the customer relationships management business process whose goal is to retain the customers. CRM is a technological method to collect data about customer so that to be able to influence the customer's behavior through recognizing them. In recent years, the organizations have integrated customer relationships with knowledge management since they've concluded that knowledge management plays the key role in CRM process. While CRM emphasizes knowledge about customer, for customer interactions' management, knowledge management systems can create, organize and operationalize that knowledge and

create value through it and improve corporate performance (Boos and Sagoumaran maran, 2003). As Boos and Sagoumaran maran (2003) suggest that CRM's success in a business environment is only feasible when integrated with knowledge management systems and knowledge based CRM processes are created.

## **Problem Statement**

Knowledge management as a strategy, is seeking to capture and organize knowledge using individuals, processes and technology, so that to promote the corporate capacities for competition and value creation. The term known as knowledge management encompasses diverse subjects in the world of management, the reason for creating this attitude is the economic and production systems' transfer and movement toward knowledge oriented societies. In this attitude, knowledge is presented as an asset along with the resources such as land, employment and capital. Knowledge management is considered as an integrated management plan concentrated on strategic goals and moves on the basis of business processes and information technology and gets assistance from information technology. Gumus (2007) defines knowledge management as including the processes supporting knowledge creation, saving, sharing and utilization. McGurk, J. and Baron, A. (2012) consider time conditions in which knowledge has to be updated by the organization and thus knowledge networks are required to assure the employees that they're equipped with the opportunities for knowledge sharing. Knowledge management techniques have been implemented since the emergence of business organizations. Thus globalization accompanied with rapid changes in business environment has accentuated the importance of knowledge management. Knowledge as a significant factor for success has

to be utilized. In practice, knowledge management is the individuals' title in the organizations to easily access through devices and acquire knowledge and use it that otherwise it will be physically and financially impossible. By entering the Age of Knowledge, knowledge has been set forth as the most important capital of the organization and the organizations' success has depended on their capability to create, acquire, utilize and transfer knowledge. Thus in order to be able to use the created opportunities in their present dynamic environment and acquire competitive gain, the organizations have to effectively manage knowledge resources.

The organizations that view knowledge management as risk will lose its utilization induced benefits. Knowledge based attitudes mention that mental (intellectual) resources as key assets of organizations lead to sustainable competitive advantage (Alavi & Leidner, 2006). Customer Relationship Management (CRM) is of the discussions which has stimulated the organizations for rethinking about the strategies for communicating with the wide range of the customers and conquering this extensive knowledge. But it can be safely stated that without utilizing knowledge management, it is impossible to effectively communicate with the customers. To increase the efficiency and efficacy of businesses and being assured of optimally providing the customers with goods and service and meeting their satisfaction, we are required to manage our knowledge about the customers. Regarding the aforementioned discussions and the importance of knowledge in better communicating with the customer in order to acquire competitive gain and better performance in today's organizations, especially carpet related businesses, the main study question is as the following: What is the role of CRM in West Mazandaran carpet stores? Then the major goal of this study is to outline the role of knowledge management in CRM in West Mazandaran located Carpet Stores.

## **Methodology**

The objective of the present study is of applied type. Also the staff and managers of West Mazandaran based Carpet Stores have been the study statistical community as 380 individuals. Concerning Korjesi and Morgan Table, 113 subjects have been selected among whom the questionnaire has been distributed randomly. Out of this number, 108 ones have cooperated with the researcher and handed the questionnaire without any flaws. Moreover, in order to determine the tool's validity, the questionnaire has been confirmed by the guide. In this manner that first off, the questionnaire items have been collected and screened in two stages. Then it has been screened in two stages by the guide and in the last stage, the final questionnaire has been compiled. And regarding that Alpha-Cronbach over 0.7 has been obtained, thus the study tool possesses appropriate reliability.

## **Study Findings**

According to the propositions obtained from the previous studies, the following fitness index have been selected for this analysis. Four of these indicators are absolutely the fitness indices that evaluate the total fitness of the model to the data with each other for the structural and measuring models. Goodness of Fit test of Chi-square(2X), Chi-square ratio to degree of freedom ( $X^2/df$ ), the root mean square error approximation(RMSEA), Goodness of Fit Index (GFI), are in fact two residual indicators of gradual fitness indicators and it means that they compare the target and question model with the fit of a zero-line or source line pattern, typically with a model in which all observed variables assumed for being uncorrelated are compared: the CFI of the comparisons, and the Non- Normal Fitness Index(NNFI) . The table below presents

an overview of these indicators, the proposed range and the study induced amounts.

**Table 1: Structural Model's GFI**

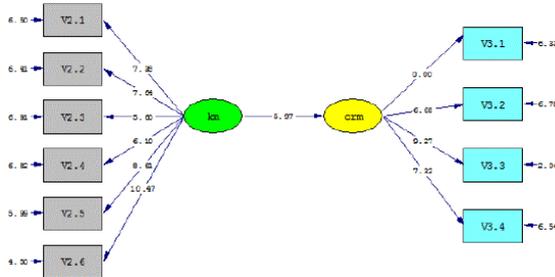
Indicators	Full Name	Reliable Amount	Amount	Utility
Chi 2( $\chi^2$ )	ChiSquare Divided	-	42/89	Approval of model
$\chi^2/df$	ChiSquare Divided to Degrees of Freedom	$\chi^2/df < 3$	1/26	Approval of model
RMSEA	Root Mean Square Error of Approximation	RMSEA $\leq$ 0.10	0/049	Approval of model
NNFI	Non-Normed Fit Index	NNFI $>$ 0.9	0/99	Approval of model
NFI	Normed Fit Index	NFI $>$ 0.9	0/95	Approval of model
GFI	Goodness of Fit Index	GFI $>$ 0.9	0/93	Approval of model
CFI	Comparative Fit Index	CFI $>$ 0.9	0/99	Approval of model
IFI	Incremental Fit Index	IFI $>$ 0.9	0/99	Approval of model

The values obtained in the above figure show that the conceptual model of the research has good fitness and the hypothesis related to the causal relationship or knowledge management influencing the customer relationship management (CRM) in the Carpet Stores in the West of Mazandaran Province has been confirmed. Regarding the mean square of the model errors (0.049) as less than 0.10 and also Chi-2 to degree of freedom (1.26) also smaller than 3; as a result, the model has high fitness, indicating that the adjusted relationships of the variables have been based on the theoretical framework of the logical research.

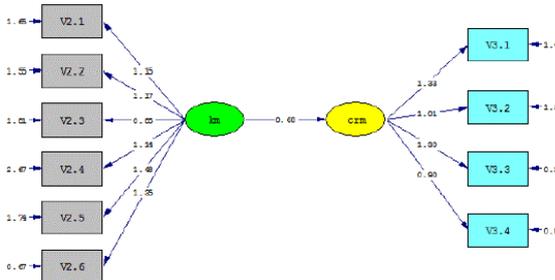
### Study Structural Model

After getting assured from the accuracy of the measurement models (Confirmatory factor analysis of the concepts), the research hypotheses were tested and in the following section of

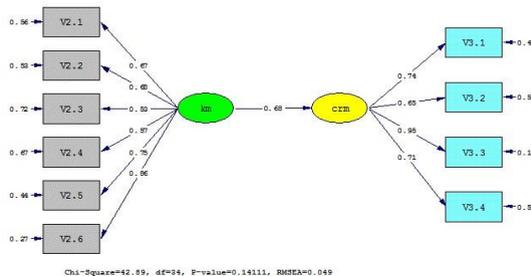
the research model in the estimation coefficients mode, the standard estimation (standard coefficients) and significant coefficients (significance number) have been discussed.



**Diagram 1: Structural Equation Modeling of Relationships between Research Variables**



**Diagram 2: Structural Equation Modeling of Relationships between Research Variables (Estimated Coefficients)**



**Diagram 3: Structural Equation Modeling of Relationships between Research Variables (standard estimation)**

## **Statistical Analysis Derived Result**

In the present study, using LISREL software, the correlation of the variables has been tested. To investigate the causal relationship between the independent and dependent variables and to confirm the whole model, path analysis method has been used. Path analysis in this study has been performed using LISREL8.5 software. LISREL outputs derived results imply that the Chi-square to the degree of freedom ratio is less than 3, and other fitness indices confirm the fitness of the model.

### **Main Hypothesis:**

Customer relationship management exerts a significant effect on knowledge management in West Mazandaran based Carpet Stores. The statistical analysis indicates that the significance number between these two variables, i.e., knowledge management and CRM is (5.97) and since this value is more than 1.96, thus this relationship is verified. On the one hand, because this significance number is positive, this effect is direct. Knowledge management's dimensions (knowledge identification, knowledge acquisition, knowledge development, knowledge sharing and distribution, knowledge utilization and knowledge retention) have meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, customer's attraction and interaction) in West Mazandaran based Carpet Stores. Besides, the significance numbers of the variables of knowledge management and customer relationship management are all more than 1.96, then Knowledge management's dimensions (knowledge identification, knowledge acquisition, knowledge development, knowledge sharing and distribution, knowledge utilization and knowledge retention) have meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, customer's attraction and

interaction) in West Mazandaran based Carpet Stores and since these numbers are positive, their effects are direct, too.

### **Sub-hypotheses:**

-Knowledge identification has meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores. Considering that the significance number of the variable as knowledge identification has been obtained 7.38 and is higher than 1.96, thus the 1<sup>st</sup> sub-hypothesis has been confirmed.

-Knowledge acquisition has meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores. Regarding that the significance number of the variable as knowledge acquisition has been gained 7.64 and is higher than 1.96, then the 1<sup>st</sup> sub-hypothesis has been verified.

-Knowledge development has significant effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores. Given that the significance number of the variable as knowledge development has been obtained 5.60 and is more than 1.96, then the 1<sup>st</sup> sub-hypothesis has been supported.

-Knowledge sharing and distribution has significant effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores. Given that the significance number of the variable as Knowledge sharing and distribution has been gained 6.10 and is more than 1.96, then the 1<sup>st</sup> sub-hypothesis has been proved.

-Knowledge utilization has meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores.

- Knowledge retention has meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and

interaction) in West Mazandaran based Carpet Stores. Regarding that the significance number of the variable, i.e., knowledge retention has been achieved as 10.47 and it is higher than 1.96; therefore, the 1<sup>st</sup> sub-hypothesis has been supported.

As mentioned, concerning the obtained remarkable coefficients and values in the above table, it can be perceived that the existing relationship between the observer variables and the latent variable has been significant with high standard coefficients, that is, all observer variables have effect on the latent variable and explain it.

## **STUDY HYPOTHESES ANALYSIS**

### **Study Hypotheses**

Knowledge identification has meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores. In terms of identification and customer relationship management dimension, it is consistent with the study by Yaghoubi et al., (2016), Taghavifard et al., (2015) and Salavati et al., (2010).

Knowledge acquisition has significant effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in west Mazandaran carpet stores. In this regard, this hypothesis is in line with the research by Yaghoubi et al., (2016), Taghavifard et al., (2015) and Salavati et al., (2010).

Knowledge development has significant effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores. In this respect, this hypothesis matches with the research by Yaghoubi et al., (2016), Taghavifard et al., (2015), Salavati et al., (2010), and Zanjirchi and Habibi Razi Abad (2015).

Knowledge sharing and distribution has significant effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet

Stores. Regarding this dimension, this hypothesis is congruent with the study by Yaghoubi et al., (2016), Taghavifard et al., (2015, Salavati et al., (2010), and Zanjirchi and Habibi Razi Abad (2015).

Knowledge utilization has meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores. In this matter, this hypothesis is in agreement with the study by Yaghoubi et al., (2016), Taghavifard et al., (2015, Salavati et al., (2010), and Zanjirchi and Habibi Razi Abad (2015).

Knowledge retention has meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, attraction and interaction) in West Mazandaran based Carpet Stores. In this regard, the hypothesis is in accord with the study by Yaghoubi et al., (2016), Pashae and Abdovi (2016), Taghavifard et al., (2015), Zanjirchi and Habibi Razi Abad (2015), and Salavati et al., (2010).

Yet, there are the studies that only have dealt with knowledge management and or customer relationship and or their relationship with other variables like the studies by Chen (2014), Padmawati et al., (2012), Morno et al (2011), Soch and Sandhu (2008), Lindgreen (2006) and Reinartz et al., (2004).

## **CONCLUSION**

Statistical analysis suggests that the significance number between the two variables, namely, knowledge management and CRM has been (5.97) and since this number is higher than 1.96, thus this relationship has been supported. On the one hand, because the obtained significance number is positive, this effect is direct. Also the significance numbers of the variables as knowledge management and CRM are all more than 1.96, then Knowledge management's dimensions (knowledge identification, knowledge acquisition, knowledge development,

knowledge sharing and distribution, knowledge utilization and knowledge retention) have meaningful effect on CRM's dimensions (customer's satisfaction, loyalty, customer's attraction and interaction) in West Mazandaran based Carpet Stores. And since these numbers are positive, their effects are direct, too.

Today, customer relationship management and knowledge management are viewed as the key strategic factor for all organizations in the present time competitive environment. On the other hand, knowledge management is the key and critical factor for successfully implementing CRM systems. The potential of knowledge management depends on the capabilities of the organization to capture and manage information and timely present reliable goods and service to the customers to improve providing a pass to the customers and make quick corporate decisions based on authentic information. In the present research, the effect of knowledge management on CRM in West Mazandaran based Carpet Stores has been investigated. Since regarding the previous studies, knowledge management has effect on CRM (Taghavifard et al., 2015), Salavati et al., (2010) and (Yaghoubi et al., 2016), and this issue hasn't been analyzed yet in West Mazandaran based Carpet Stores, and moreover, regarding the importance of creating an effective and long-term communication ground with the customers, efforts have been made to discuss and analyze knowledge management's dimensions 'effect on CRM's dimensions. Besides, the study derived findings concerning the study main hypothesis have been compatible with those found by Izadi Khsosro Shahi and Murderess Khiabani (2017), Yaghoubi et al., (2016), Khamr et al., (2016), Pashae and Abdovi (2016), Matouri and Fakhrizade (2016) and Ahmadi and Entezari (2016).

### **General CRM Relevant Suggestions**

It is years that carpet trade domain is suffering from the deficiency of employing the principles of International marketing and export sales. This valuable product has its unique features compared with other global goods. This feature refers to art, industry and trade, rarely found in every product as integrated. This is the only product that has all the competitive advantages fully within itself. And it is imperative to implement marketing principles and techniques comprehensively in it. (Customer attraction) knowledge and having the required information about the product's features and providing the customers with the necessary descriptions. Appropriate and influencing advertising.

(Customer's satisfaction) being honest about the product, possessing excellent service for the customer, keeping in touch with the customer and ensuring their satisfaction. (Customer interaction) using correct and positive vocabulary when talking with the customer, utilizing suitable facilities and tools and using the up-to-date technology when interacting with the customer, employing the sales manager and well-dressed and good-looking salespeople. Customer's loyalty employing experts in the store, providing more services to loyal customers, and customizing the product.

### **REFERENCES**

1. Ahmadi.A& Entezari.M.A. (2016).The Effect of Knowledge Management (KM) on Customer Relationship Management (CRM) at Yazd Technical and Professional University, The First National Conference on Humanities with Management Approach and Resistance Economics, Sari, Scientific Company, Research and Comprehensive Future Builder

2. Alavi, M. and Leidner, D.E. (2006), Review: knowledge management and knowledge management systems: conceptual foundations and research issues, *MIS Quarterly*, Vol. 25 No. 1, pp. 107-63
3. Bose, R., Sugumaran, V. (2003) "Application of knowledge management technology in customer relationship management" *knowledge & process management*, 10(1), pp. 3-17.
4. Chen, (2014), Knowledge Management Driven Firm Performance: The Roles of Business Process Capabilities and Organization Learning, *Journal of Knowledge Management*, Vol. 18 Iss 6 pp: 1141-1164.
5. Gibbert, M., Leibold, M., Probst, G. (2002) "Five styles of customer knowledge management, and how smart companies use them to create value" *European Management Journal*. 20(5), pp. 459-469.
6. Gumus, M. (2007). "The effect of communication on knowledge sharing in organizations", *Journal of Knowledge Management Practice*, Vol. 8 No. 2, available at: [www-128.ibm.com/developerworks/library/ws-wsrp/](http://www-128.ibm.com/developerworks/library/ws-wsrp/).
7. Izadi Khsosro. Shahi, & Murderess Khiabani.F. (2017)The Effect of KM on the Success of Customer Relationship Management in the Area of Urban Management (Case Study: Tabriz Municipality). *Journal of Marketing Research* 2004; 41(3): 293 -.503
8. Khamr.F,Kajeh.A,Yazarlo.s. (2016)The Effect of Knowledge Management and Quality of Services on the Establishment of Customer Relationship Management in the Annanker Branches of the City of Gorgan, *Third International Management Conference in the 21st Century, Italy-Rome*, Managing Director of the Idea Capital, Vieira Capital
9. Lindgreen A., Palmer R., Vanhamme J., Wouters J, (2006), A relationship management assessment tool: Questioning, identifying, and prioritizing critical aspects of customer

- relationships. *Industrial Marketing Management* 35(1), pp. 57-71.
10. Matouri.M & Fakhrizade.A (2016) Investigating the Effect of KM on CRM Customer Relationship Management: An Intermediate Bond of Organizational Factors in National and Export Banking Branches in Omidieh, Aghajari and Mian Kuh, The First National Conference on Management and Global Economy, Tehran, University of Science and Culture
  11. McGurk, J. and Baron, A. (2012). “Knowledge management – time to focus on purpose and motivation”, *Strategic HR Review*, Vol. 11 No. 6, pp. 316-321.
  12. Moreno, Aurora Garrido & Meléndez, Antonio Padilla (2011), “Analyzing the impact of knowledge management on CRM success: The mediating effects of organizational factors”, *International Journal of Information Management*, vol31, pp437-444.
  13. Padmavathy, C., Balaji, M.S., Sivakumar, V.J, (2012), Measuring effectiveness of customer relationship management in Indian retail banks, *International Journal of Bank Marketing*, 30(4), pp. 246 – 266.
  14. Paquette, S. (2006) “Customer knowledge management” available at <http://www.fis.utoronto.ca/phd/paquette/Documents/paquette%20customer%20knowledge%20management.pdf>.
  15. Pashae.S, & Abdovi.F. (2016), The role of mediation of factors of organizational factors and the moderating role of knowledge management in the success of sport customer relationship management in six metropolitan hotels in Iran, 7th International Conference on Economics and Management, Sweden-Dalarna, ICOAC University of Communication, Dalarna State University

16. Reinartz W., Krafft M.; Hoyer W. D. (2004), the customer relationship management process: Its measurement and impact on performance.
17. Salavati.A,Kaficheh.P (2010 )Investigating the Effects of Knowledge Management on Customer Relationship Management in Bank of Welfare Case Study: Kurdistan Province, Efficiency Management Journal, Management Beyond: Spring 2011, Volume 4, Issue 16; From page 59 to page 77.
18. Soch H., Sandhu H.S. (2008), Does Customer relationship management activity affect firm performance? Global Business Review 2008; 9(2): 189–206.
19. Taghavifard.M.T,Vagef.M,Salehi.S.(2015) .The Effect of Knowledge Management on the Effectiveness of Customer Relationship Management by Considering the Intermediary Effects of Organizational Factors, Journal of Information Technology Management Studies, Vol. 3, No. 21, Summer 2013, pp. 77 to 49.
20. Yaghoubi.M.Amiri.S.H(2016) The Relationship between Customer Knowledge Management and Customer Relationship Management Tasks in a Military Hospital, Journal of Military Medicine, Vol. 18, No. 4, Winter 2009, Pages 308-315.
21. Zanjirchi.S.M, & Habibi Razi Abad.M. (2015).The Effect of KM Knowledge Management on the success of CRM Customer Relationship Management at Yazd University, The First International Management and Accounting Conference with Value Attraction, Tehran, Islamic Azad University, Science and Research Branch of Fars.