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### Article information:

To cite this document:

Chin Wei Chong Ghazaleh Hasanian Geok Chew Gan , (2015), "APPLICATION OF KNOWLEDGE MANAGEMENT FACTORS ON CUSTOMER RELATIONSHIP MANAGEMENT PROCESS", Library Review, Vol. 64 Iss 8/9 pp. -

Permanent link to this document:

<http://dx.doi.org/10.1108/LR-10-2014-0111>

Downloaded on: 24 September 2015, At: 10:39 (PT)

References: this document contains references to 0 other documents.

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# APPLICATION OF KNOWLEDGE MANAGEMENT FACTORS ON CUSTOMER RELATIONSHIP MANAGEMENT PROCESS

## Structured Abstract

**Purpose:** This paper is to study the application of knowledge management factors on the customer relationship management process in Malaysian Multimedia Super Corridor (MSC) status organisations.

**Methodology:** A questionnaire survey was conducted on knowledge management workers (customer service) in Malaysian MSC status organisations. Based on the extensive review of the current literature, eight knowledge management factors were investigated to examine the application towards the customer relationship management process.

**Findings:** The data was collected from 96 knowledge workers and suggests that the knowledge management process, organisational infrastructure, and technology are three important predictors for an effective customer relationship management process.

**Practical implication:** This study could be useful for business managers who want to enhance organisational customer relationship management through implementing knowledge management practices to support their organisation's knowledge management efforts.

**Originality / value:** This study is among the first papers to study the application of knowledge management factors on customer relationship management process.

**Keywords:** Knowledge management factors, customer relationship management process, knowledge management process, technology, organisational infrastructure, MSC status, Malaysia.

**Paper type:** Research paper

## 1. Introduction

Knowledge management is about information which is applied to manage organisational knowledge, with the support of the organisational processes of knowledge acquisition, storing, transferring, and application (Alavi and Leidner, 2001; Thomas, 2006). Knowledge management is a category of management that targets achieving ideal business performance over the collaboration of persons, processes, and technology in building and distributing applicable knowledge. It is explained as the process of acquiring cooperative knowledge and intelligence in an organisation and using them to support improvement over constant organisational learning (Nonaka, 1994; Stefanou and Sarmniotis, 2003).

Existing competitive challenges brought about by globalisation and developments in information technology have made organisations concentrate on managing customer relationships, and specifically customer satisfaction, with the purpose of maximising revenues (Stefanou and Sarmniotis, 2003). Over recent years, organisations have recognised the benefits of CRM, which allows them to manage their customers, create loyal consumers, assess customer satisfaction levels leading to consumer loyalty, customer retention, and business profitability (Lei and Tang, 2005). Customer relationship management has been broadly considered as an organisational activity connected to increasing and retaining customers over improved satisfaction and loyalty (Xu and Walton, 2005).

The concepts of customer relationship management and knowledge management have been getting high attention recently (Lei and Tang 2005), especially in the relationship with KM approaches and technologies (Chen, 2011). Both methods concentrate on assigning resources to business activities to gain competitive advantages (Gebert *et al.*, 2002). Organisations attempt to develop their relationship with beneficial consumers through the help of knowledge management by maintaining their loyal customers. Thus, organisations employ knowledge management as a process of obtaining the cooperative knowledge and facts within an organisation for the purpose of innovation over continuous organisational learning. The implementation of knowledge management factors on CRM processes support the organisation to fulfill customer's needs, and thus develop organisational performance (Lei and Tang, 2005). Hence, organisations must discover and improve CRM and knowledge management methods in order to acquire value-added knowledge and to understand customer buying forms, behaviours and preferences in order to gain competitive advantage. Therefore, organisations' knowledge management factors are significant success features for CRM process (Nejatian *et al.*, 2011). In addition, Gibbert *et al.*, (2002) reported that by managing

the knowledge of their customers, corporations are more likely to sense emerging market opportunities before their competitors, to constructively challenge the established wisdom of 'doing things around here', and to more rapidly create economic value for the corporation and its customers.

In recent years, many Malaysian Multimedia Super Corridor (MSC) status organisations have implemented knowledge management on the customer relationship management process. However, the problem encountered is that they do not appreciate the concept of knowledge management in the CRM process. As knowledge management is about creating, storing, sharing, and applying knowledge, it is important to have the implementation of knowledge management on the customer relationship management process in order to improve the competence and usefulness of CRM and therefore organisational strategy. Therefore, the objective of this study is to examine how organisations utilise knowledge management factors to achieve superior performance in CRM process. The paper is based on an empirical study.

## **2. Literature review and hypotheses development**

### *2.1 Customer Relationship Management (CRM) Process*

According to Payne (2001), CRM process consists of five main components: strategy development, value creation, multi-channel integration, information management, and performance assessment.

#### *Strategy Development*

CRM Strategy and strategy development are about supporting specific customers with altered suggestions on the basis of the customer segmentation and customer group (Azari, 2008; Payne, 2001). With the purpose of adapting income potential with service offerings, it is essential to have customer segmentation. Those with greater revenue capability would gain a better allocation of resources and facility. Otherwise, valuable customers will be presented with superior service and a better allocation of costs by other competitors (Parvatiyar and Sheth, 2001). In addition, customer productivity is another essential base for behavioural segmentation due to the principal significance of earnings. A number of segments can be made by utilising customer profitability (Hwang *et al.*, 2006). For example, the most cost-effective segment containing of the highest-value customers must be kept via loyalty and retention plans.

### *Value Creation*

Payne (2001) explained value creation process as delivering value to customers and exploiting the lifetime value of each consumer. A definite value creation process offers noticeable value to different customers besides taking advantage of relationship profitability. Providing higher value to customers improves the organisation's competitive advantage, which is hard to duplicate by competitors (Azari, 2008). The theory of customer lifetime value has been described as the amount of profit achieved from an organisation's customers through the lifetime of contacts, after the conclusion of the overall cost (such as appealing, marketing, and caring for customers), taking into account the time value of money. Successful organisations achieve a higher competitive advantage and provide higher customer value by using the organisation's resources such as brand image, marketing capabilities, and organisational improvement when utilised for business processes (Fan and Ku, 2009). Customers could be displeased and discover superior value somewhere else, or restyle their lifecycle in a mode that grounds them to give up the wish for the product. As a result, organisations look for influencing consumers through their lifecycles over suitable acquirement and improvement strategies and apply retention strategies to improve the overall lifetime of the customer basis. Efficiently, marketers must expect the upcoming buying behaviour of customers to reach their customer lifetime value (Fan and Ku, 2009; Ryals, 2005).

### *Multi-channel Integration*

All CRM distribution processes need cooperation and communication among organisations and customers, which naturally occurs through multiple channels and broadcasting (Brenner *et al.*, 2005). Customer interaction states the way an organisation communicates with customers and satisfies them (Azari, 2008). In a multi-channel integration process, the channel points to a customer contact aspect, or a medium within which the organisation and the customer cooperate (Payne, 2001). The channels consist of physical stores, web sites, catalogues, kiosks, mobile devices, and call centres (Goersch, 2002). A channel is not essentially devoted to the product or service sale, but can also help to distribute advertising and information (Chevrin *et al.*, 2005).

### *Information Management*

Payne (2001) defined the information management process as organising information on customers and replicating their needs. Organisations are able to gather an extraordinary amount and complexity of data on their clients and change them into information by using

information technologies. The main concerns are: to find what sort of information is required; about whom information should be gathered; and how to manage this information. From the viewpoint of information management, the vital foundation aspect for CRM is customer identification. If clients do not expose their identity to the organisation, they are out of focus, and therefore uncontrollable. An organisation could form its customer-base more reliable by gathering, processing, and utilising customer profile and activity data to build a comprehensive understanding of customer desires and offer proper value to clients. So this sort of information is useful for progressing new products and services or for developing important business processes (Kim and Park, 2003).

### *Performance Assessment*

Payne (2001) defined performance assessment as: measuring results; set standards; improve performance; and increase profits and shareholder value of organisations. Performance evaluation aids in taking helpful act in relationship authority or in adapting relationship marketing objects and programme structures. Without appropriate performance evaluation to assess CRM acts, it could be difficult to make decisions about maintenance, alteration, or termination of CRM plans. The relationship satisfaction dimension is the organisational international measure to observe customer relationship performance. Since the customer and the organisation must accomplish the outcomes in a collaborative relationship, both groups' relationship satisfaction must be evaluated. In evaluating relationship satisfaction, one can evaluate the tendency of either party to continue or to cut off the relationship. This can also be measured by assessing customer loyalty. Once relationship satisfaction or loyalty evaluation measures are planned, built on the antecedents, they are able to make available valuable information on their factors and thus help organisations find those managerial activities that are expected to develop relationship satisfaction and loyalty (Parvatiyar and Sheth, 2001).

## *2.2 Knowledge management factors and CRM process*

### *Knowledge Management Strategy*

Having a planned strategy is critical for implementation in the CRM process. An appropriate strategy must be fitted properly to the condition and situation of the organisation as well as providing the direction into knowledge-based objectives (Valmohammadi, 2010). Organisation goals should include building inventive customer experiences, or increasing new business models by exchanging knowledge with customers. Hence, it is important to generate knowledge outline to support, develop and facilitate any particular procedures. The

knowledge management strategy must bond with the CRM process as well as the business purposes, and must cover vision and benefits. As such, a knowledge management strategy classifies significant needs and concerns for customers and affords a structure for an organisation (Plesis, 2007). This reasoning leads to the following hypothesis:

H1: KM strategy has a significant effect on CRM process.

### *Management Leadership*

In implementation of knowledge management, management leadership presents an important role (Holsapple and Joshi, 2000). Leaders, for instance, should display a willingness to distribute and suggest their knowledge generously to others in the organisation, to constantly acquire and to look for new knowledge and beliefs. It is important that they set examples with their behaviours and actions. Leadership is the main method in order to set direction, persuade, and encourage employees to do the planned programmes. Management leadership is a comprehensive group of positions and duties associated with new knowledge businesses organised to implement knowledge management as well as CRM processes in organisations (Ribiere and Sitar, 2003). Management leadership help and encouragement is vital for successful knowledge management. As such, it is critical in the CRM process. Hence, managers must continually be informed on knowledge management and support knowledge management to achieve the knowledge management vision (Plesis, 2007). Therefore, the following hypothesis is proposed:

H2: Management leadership has a significant effect on CRM process.

### *Knowledge Management (KM) Process*

The KM process is the heart of knowledge management (Lee and Choi, 2003). In general, KM process means gaining tacit knowledge and turning it to explicit for persons in the organisation. Many researchers have recommended activities and processes related to knowledge management, such as creation, storage, and transfer. Knowledge creation refers to the improvement of new organisational know-how and ability (Nonaka, 1994; Nonaka and Nishiguchi, 2001). Knowledge storage refers to the storage of knowledge in the form of database systems and documented organisational actions (Alavi and Leidner, 2001). Knowledge transfer drives communication processes and information flows (Gupta and Govindarajan, 2000) in the organisation. Hence, the implementation of KM process are based on building an effective knowledge-based initiative. Therefore, it is essential that organisations have an effective knowledge management process in order to facilitate an

effective CRM process (Valmohammadi, 2010; Wong, 2005). This reasoning leads to the following hypothesis:

H3: KM process has a significant effect on CRM process

#### *Information Technology (IT)*

Information technologies such as data mining tools and the utilisation of the Internet ease knowledge management implementation (Valmohammadi, 2010). IT is an important element for knowledge management enactment. IT empowers quick search, access, and acquisition of information, and helps cooperation and communication in the organisation. Basically, IT plays key roles in helping the KM processes of an organisation (Alavi and Leidner, 2001). Wide groups of IT such as knowledge base, customer relationship management, collaboration, and data mining help to employ knowledge management and combine it into a technological structure of the organisation. In the progress of a knowledge management system, some key elements are considered, such as ease of use of technology, user-friendliness, appropriateness to users' needs, and knowledge content suitability (Wong, 2005). IT makes certain the rapid and effective ease of use and convenience of knowledge. It assists in knowledge management development and hence is critical in the CRM process (Plesis, 2007). Hence, the hypothesis below is proposed:

H4: Technology has a significant effect on the CRM process.

#### *Organisational Infrastructure*

Organisational infrastructure is the key organisational feature that supports the implementation of knowledge management. This covers the organisational structure, group formation and also the flow of information. According to Valmohammadi (2010), the flat structure and the creation of roles and jobs for trained staff are important to constantly control knowledge management implementation. The formation of a group of people and teams to implement knowledge-dependent projects is also important to ensure the success of knowledge management implementation (Davenport, 1998). Even though some current utilities in an organisation, such as human resource management and information technology, operate with knowledge concerns, forming a group of people with definite and official tasks for knowledge management is essential. As such, CRM technology is critical for CRM process (Chang *et al.*, 2010). With this, the following hypothesis is proposed:

H5: Organisational infrastructure has a significant effect on the CRM process.

### *Organisational Culture*

Organisational culture plays an essential role in knowledge management activities (McDermott and O'Dell, 2001). It expresses the basic mindsets, values, standards and social norms that rule the way that people perform in an organisation. Culture leads the working relationships and controls organisational communication (Ribiere and Sitar, 2003). Generally, a culture that notably prizes knowledge and inspires its creation, sharing and use is a knowledge management supportive culture. The most highlighted factors in this culture are management support, rewards, and trust, which have an influence on employees' knowledge sharing behaviour (Al-Busaidi *et al.*, 2010). Goh (2002) declared that a significant requirement for knowledge sharing to occur between people and groups is a teamwork culture. Without considerable cooperative trust, people will probably reserve their knowledge. This is especially critical for the development of a customer-centric organisational culture which encourages employees to consider customer relationships as a valuable asset and to utilise tools to facilitate good relationships with customers (Chang *et al.*, 2010). Hence, the successful execution of CRM implementation means that it needs to generate a helpful, cooperative culture and remove traditional conflicts (Plesis, 2007). Without KM enabling organisational culture, CRM will not be truly implemented. Hence, we propose:

H6: Organisational culture has a significant effect on the CRM process.

### *Training and Education*

Training and education is another significant concern for knowledge management implementation. Personnel in the organisation must know about the necessities to manage and recognise knowledge for the sustainability of the organisation. Training helps to set up a public language and awareness of how they describe and consider knowledge. In addition, personnel can be trained and educated to use the knowledge management system and supplementary technological tools in order to manage knowledge. This helps to ensure that employees are able to use the full ability and capacities presented by these tools. Furthermore, to realise the new roles for performing knowledge-oriented responsibilities, training for individuals is needed. It is important to train employees with the ability to raise creativity and knowledge distribution (Wong, 2005). Personnel must have a complete understanding of the way a programme works, to empower effective contribution to the program (Valmohammadi, 2010). According to Wong (2005), to have effective knowledge management, it is essential to have the skills of communication, team building, cooperation, innovation, and problem solving. As such, CRM process needs training and education. Hence, we propose:

H7: Training and education has a significant effect on the CRM process.

### *Performance Measurement*

One of the essential factors of knowledge management is assessment. The performance of the whole enterprise and the management of knowledge must be measured (Valmohammadi, 2010). Measurement is a data collection process that provides valuable information about a specific condition or action. If knowledge management is not measured, it will be under threat of turning into just another management passing style. With the purpose of ensuring that the objectives are being reached, its measurement is essential (Arora, 2002). Measurement qualifies organisations to follow the evolution of knowledge management and to define its profits and efficiencies, and this is critical in a successful CRM process. Basically, it makes a foundation for organisations to assess, equate, control and develop the enactment of knowledge management (Mathi, 2004; O'Dell and Grayson, 1998; Plesis, 2007). With this, the hypothesis below is proposed:

H8: Performance measurement has a significant effect on the CRM process

### **3. Research Methodology**

Figure 1 shows the hypothesised model. The research hypotheses were tested using a sample of 96 personnel in Malaysian MSC organisations that are implementing knowledge management in their CRM process. Since the population is large, convenience sampling, a non-probability sampling technique, was employed in this study. This method is very useful in getting general ideas about the phenomenon of interest. It is one of the acceptable methods to test the hypotheses given in section 2 of this paper, as it allows the researchers to approach the respondents in a relatively fast and inexpensive way that would not have been possible by applying a random sampling method, which requires formal access to a list of populations in the targeted MSC status organisations in Malaysia. In this study, 250 questionnaires were distributed to employees working in the CRM process in the area of Cyberjaya in Selangor, Malaysia, of which 96 questionnaires were completed. Thus, data was collected at the 38.4% response rate.

The survey questionnaire consists of 3 sections: Section A is related to demographic data, Section B consists of knowledge management factors and Section C is related to the CRM process. All the measured variables were measured by 5 point Likert scale.

## Figure 1: Framework

### 4. Data Analysis and Research Findings

#### *Profile of respondents*

The research participants were 56.3% female and 43.8% male. The majority of them were 25 to 35 years old (65.6%), followed by 36-45 (21.9%). 78.1% of them have a bachelor's degree and 13.5% have a master's degree. The majority of them were senior level (52.1%), with 31.3% from junior level.

#### *Validity*

A pilot study was conducted on 25 personnel in the selected MSC organisations. Two questions were taken out and the total reliability is 0.951 in this study (Table 1). The values of reliability coefficients ranged from 0.753 to 0.93, indicating that all values have met the cut-off point of 0.6 recommended by Hair *et al.* (2010). As a result, the items measuring the constructs were reliable. A normality test was also calculated by using skewness and kurtosis of dependent and independent variables. The ratio of all the variables' results were not greater than +2.58 and -2.58. Therefore, the results clearly show that the variables were normally distributed and the data was qualified to be used in regression and correlation analysis.

**Table 1: Reliability of Research**

#### *Scale Validation*

The results of factor analysis are summarised in Table 2. As shown in Table 2, the values of Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy for each factor are greater than the desirable threshold of 0.60 recommended by Hair *et al.* (2010). Table 2 also shows that all the constructs attain the recommended eigenvalues greater than 1 (Hair *et al.*, 2010). As a result, the eight constructs (i.e. KM strategies, leadership, KM process, training and education, performance measurement, technology, KM infrastructure and culture) are significant to be studied in this research.

**Table 2: Results of Exploratory Factor Analysis**

#### *Descriptive analysis*

Descriptive analysis was performed to compare the means and standard deviation of all the knowledge management factors. Table 3 shows that technology is the most important component among the knowledge management factors. Technology had the highest mean with 3.8984, followed by management leadership (3.7743), training and education (3.7240), KM process (3.7187), organisational culture (3.7109). Performance measurement scored the lowest (3.3646).

**Table 3**

### *Hypothesis Testing*

The research hypotheses were tested using multiple regression analysis. Cohen's rules for effect sizes were used to measure the magnitude of effects in this study. According to Cohen (1977, p. 83), conventional effect size is classified as follows: (1)  $r$ -value = 0.10 is deemed as small; (2)  $r$ -value = 0.30 is regarded as medium; and (3)  $r$ -value = 0.50 is viewed as large.

Table 4 shows that the effect size of the present study is considered as large because the coefficient of determination ( $R^2$ ) is 0.684. This  $R^2$  value indicates that 68.4% of the CRM process can be explained by the three knowledge management factors. As shown in Table 4, the overall model yields a good fit to data because  $F$ -statistic = 23.519 ( $p$ -value = 0.000) is significant at the 5% level.

The results of multiple regression analysis shows that KM process (beta coefficient = 0.437,  $p$ -value < 0.001), organisational infrastructure (beta coefficient = 0.235,  $p$ -value < 0.05) and technology (beta coefficient = 0.165,  $p$ -value < 0.1) are positively associated with CRM practices. On the other hand, the rest of the constructs such as KM strategies, leadership, training and education, performance measurement, and culture have no significant relationship with knowledge sharing practices. Therefore, Hypotheses 3, 4 and 5 are statistically supported.

**Table 4**

## **5. Conclusions**

### *Findings*

The findings in this study indicate that that 68.4% of the CRM process can be explained by the three knowledge management factors. Hence, knowledge management implementation

can help to develop the efficiency and productivity of the customer relationship management process (Nejatian *et al.*, 2011).

The descriptive findings for this study show that all of the proposed knowledge management factors have scored the mean above 3.5, with the exception of performance measurement. One possible explanation is that most of the organisations are facing a measurement problem in knowledge management due to its intangibility and there is no standard measurement procedure for it.

In multiple regression analysis, the most powerful predictor is knowledge management process. Knowledge management process implementations are based on building an effective knowledge-based CRM. Several activities and processes are related to knowledge management, such as creating, storing, transferring and application. Customer knowledge creation, distribution and application are improved and become essential parts of CRM processes and actions (Lei and Tang, 2005). According to Al-Hawari and Alryalat (2008) the knowledge management process has an influence on consumer acquisition, retention, and growth to develop client satisfaction. The key highlights are about customer knowledge, which consists of knowledge for customer, knowledge from customer, and knowledge about customer. This result is consistent with a study by Al Hawari and Alryalat (2008). They examined the development of the knowledge management process to improve CRM process in Jordan and reported that the knowledge management process had a significant positive influence on CRM processes (Al-Hawari and Alryalat, 2008).

The next high predictor is organisational infrastructure. Organisational Infrastructure is one of the essential features of CRM success. To provide customers with valued offers requires collecting, organising, and evaluating correct data. This demands an excessive amount of teamwork within the company (Azari, 2008). The result is consistent with a study by Azari (2008) in Iran, in which organisational infrastructure and CRM process had a positive correlation.

The next predictor is technology, with significant value  $P < 0.1$ . Cooperative IT systems are assigned to channels to generate knowledge and share it inside an association, and between business and client (Lei and Tang, 2005). It is necessary for CRM to gather data and information. Once organisations have an abundance of client data, they are able to accomplish

client relationships more successfully and proficiently, via information technologies such as data mining and warehousing, hence customers can gain more value. Moreover, IT assists the altered client processes. It is essential to apply more strength to adding attained knowledge to the main processes; to maintain these processes an efficient IT infrastructure is needed to link efficiently to the entire company. IT helps and manages business procedures. It is vital to support the customer-centred developments (Azari, 2008). Based on the Valmohammadi (2010) and Azari (2008) study, the result had shown the positive relationship between technology and CRM processes. Hence, their exploration validates with findings of this study.

On the other hand, there is no significant relationship between performance measurement and the CRM process. This contradicts the research done by Mathi (2004) in Germany, in which performance measurement and CRM process had positive associations with each other. This result could be due to the ineffectiveness of the implementation of current measurement systems among the organisations. Most of the organisations are still not familiar with measurement, as it involves intangible features and there is no standardised method to measure it.

The culture of the organisation helps structural education and consumer coordination (Lei and Tang, 2005). Culture expresses the basic mindsets, values, standards and social norms that rule the way that people perform and act in an organisation. Generally, it is a culture where employees' cooperation develops a customer-centred culture with creation, sharing, and applying customer knowledge in order to meet and respond to customer needs (Wong, 2005). However, there is no significant relationship between culture and the CRM process.

This is also true of leadership and training. Leaders are important in order to distribute and suggest their knowledge generously to others in the organisation, to constantly acquire and to look for new knowledge and beliefs. It is important that through their deeds, they set examples of their behaviours and actions (Wong, 2005). In addition, communication skills, team building, cooperation, innovation, and problem solving are essential for training and education. Based on KPMG (2000) and Wong (2005), training and education are positively related to each other. However, the findings of this paper contradict with the previous findings. This could be due to these organisations failing to see the contribution of the knowledge sharing culture to participative leadership and development programme to enhance the CRM process. Further research needs to be done here.

KM strategy refers to organisation goals that include building inventive customer experiences, or increasing new business models over the exchange of knowledge with customers. In the organisation, it is important to generate a knowledge outline to support, develop and facilitate particular procedures. The establishment of value is the performance of knowledge. The knowledge management strategy must bond to business purposes and cover vision and benefits (Plesis, 2007). The findings of the study support Plesis (2007): that there is a positive weak correlation between KM strategy and CRM process.

### *Implications*

From an academic perspective, our research findings highlight the importance of knowledge management factors in the CRM process. There has been limited research done in linking the knowledge management to the CRM process, especially in the Malaysian context. This paper has bridged that gap in the literature of knowledge management and CRM.

In the competitive world of today, organisations are gradually realising the significance of knowledge management. Knowledge is an important element for gaining competitive advantage. There has been a lot of research on knowledge management; however, far less is known about the role of knowledge management factors on CRM processes. For this reason, the present study would be valuable to industrial practitioners; the proposed model can serve as a practical assessment for measuring the knowledge management factors and relating these measurements to the CRM process. Based on this assessment, management can then identify which KM factors constitute a barrier, and direct their resources and effort at improving the CRM process.

### *Limitations*

However, this study has some research limitations that should be acknowledged. First, cross-sectional data are used to test the model. It would be worthwhile for future studies to conduct experimental or longitudinal research in which the temporal priority of one factor over another can be tested more clearly. Second, this study does not incorporate moderating variables in examining the relationship between knowledge management factors and the CRM process.

### *Suggestions for future research*

Future research should attempt to include potential moderators such as individual or situational factors, in order to account adequately for the relationships between knowledge management factors and the CRM process. Third, this study is based on a sample of 96 personnel in Malaysian MSC Status organisations. It is recommended that future studies test the proposed model in other industries or other countries.

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Figure 1 Framework

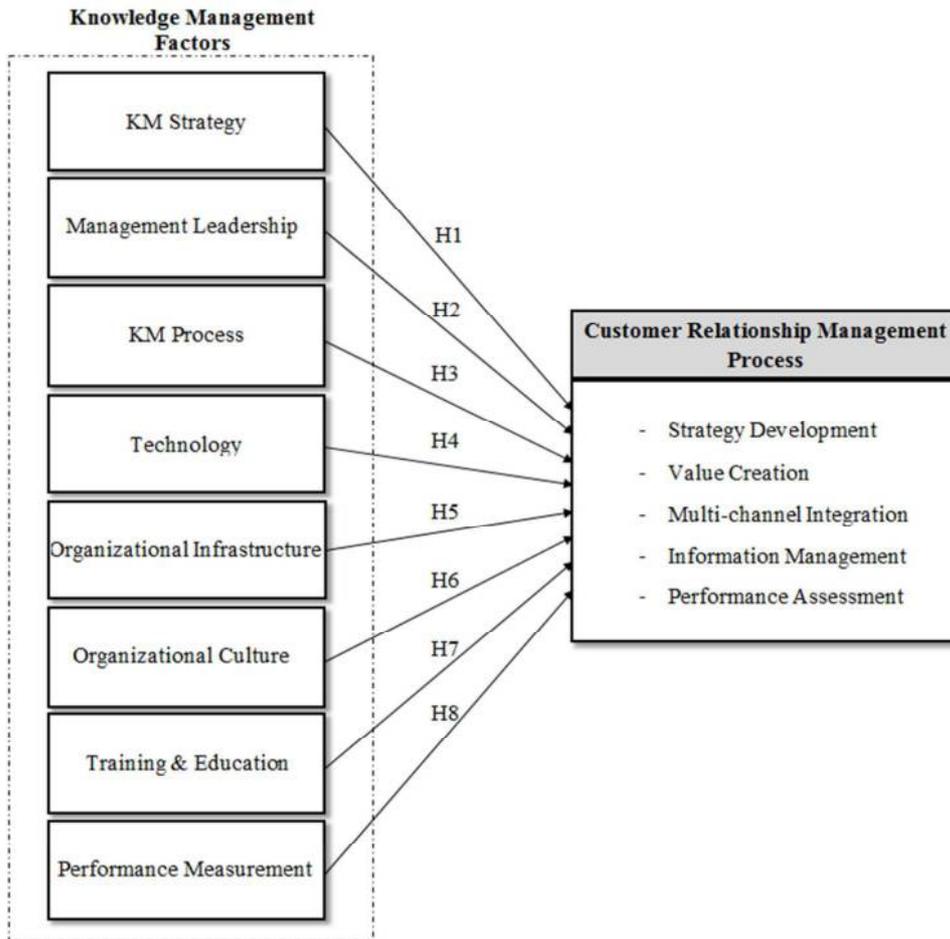


Table 1 Reliability of Research

<b>KM Factors</b>	<b>Cronbach's Alpha Value</b>	<b>No. of Items</b>
KM Strategies	0.93	4
Management leadership	0.891	4
KM Process	0.895	4
Technology	0.861	4
Organization infrastructure	0.753	2
Organizational culture	0.893	4
Training and Education	0.903	4
Performance measurement	0.812	4
CRM process	0.878	20
<b>Total</b>	<b>0.951</b>	<b>49</b>

Table 2 Results of Exploratory Factor Analysis

<b>Constructs</b>	<b>Kaiser-Meyer-Olkin (KMO)</b>	<b>Bartlett's Test of Sphericity</b>	<b>Eigen-values</b>
KM Strategies	0.667	61.023*	1.464
Leadership	0.628	50.198*	1.330
KM Process	0.751	98.798*	1.873
Training & Education	0.722	114.881*	1.957
Performance Measurement	0.632	36.387*	1.145
Technology	0.774	108.927*	1.982
KM Infrastructure	0.640	40.821*	1.215
Culture	0.807	172.756*	2.348

Note. \*  $p < 0.05$

Table 3

<b>KM Factors</b>	<b>Mean</b>	<b>Standard Deviation</b>
KM Strategy	3.6589	.4661
Management Leadership	3.7743	.4258
KM Process	3.7187	.5003
Technology	3.8984	.4362
Organizational Infrastructure	3.5990	.4680
Organizational Culture	3.7109	.5096
Training and Education	3.7240	.4680
Performance Measurement	3.3646	.4934

Table 4

	Unstandardized Coefficients		Standardized	<i>t</i>	Sig.
	$\beta$	Std. Error	$\beta$		
1 (Constant)	1.349	0.206		6.545	.000
KM Strategies	-.025	.045	.040	.560	.577
Leadership	.023	.062	.033	.367	.715
KM Process	.258	.058	.437	4.467	.000**
Training & Education	.044	.051	.070	.862	.391
Performance					
Measurement	.073	.049	.122	1.505	.136
Technology	.112	.061	.165	1.835	.070*
Infrastructure	.148	.052	.235	2.842	.006**
Culture	.008	.060	.013	.129	.898
<i>R</i> <sup>2</sup>	0.684				
Adj. <i>R</i> <sup>2</sup>	0.655				
Sig. <i>F</i>	0.000				
<i>F</i> -value	23.519				

Dependent Variable: CRM Process

Note: \*\*  $p < 0.05$ , \* $p < 0.1$