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Customer relationship management maturity model (CRM3): A model for stepwise implementation

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Abstract

Being multifaceted process, implementing customer relationship management (CRM) project has a high risk and uncertainty that must be reduced using planning to get the desirable benefits. As a matter of fact, existing and optimal position must be determined to reduce the gap between them via suitable investment. To identify this gap as well as the way to higher and optimal condition, maturity model can be used. Relying on extended literature, the present paper reviews the existing models and then develops a model for measuring CRM maturity based on CRM critical success factors, CMMI levels and RADAR logic.

Keywords: Customer relationship management (CRM), risk reduction, Critical success factors (CSFs), maturity model.

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1. Introduction

Interest in customer relationship management (CRM) began to grow in 1990s (Ling and Yen, 2001; Xu et al., 2002). This is a process mediated by a set of information technologies that focuses on creating two-way exchanges with customers so that firms have an intimate knowledge of their needs, wants, and buying patterns. In order to create and manage more effective relationship with their customers, businesses still prefer to adopt CRM, no matter what is the size of an organization. An enhanced relationship with customers ultimately leads to greater loyalty, retention as well as profits. Further, the rapid growth of the internet and its associated technologies has greatly increased the opportunities for marketing and has transformed the way relationships between companies and their customers are managed (Bauer et al., 2002).

With the passage of time, marketing model is changing from the product-centered to the customer-centered stage. Customers are demanding a different relationship with suppliers than the relational sales model. The new database technologies enable people get the knowledge of who the customers are, what they bought and when they bought, and that even provide predictions based on their historical behavior. Now more than ever, the ability to understand and manage a close relationship with the customer is central to delivering these business goals. This has proved to be the ultimate challenge for marketing in any business hence; CRM helps companies understand, as well as anticipate, the needs of current and potential customers. In the years to come, successful companies will use customer-related information to build relationship with them, to the extent that the customer would work towards developing a long-term relationship through retaining customers by delivering delight customers (Xu et al., 2002). Although, CRM has a lot of benefits for organizations but its implementation has a high risk and uncertainty that must be reduced using planning to get the desirable results.

In this paper, we propose a maturity model to determine the current and optimal states in CRM. To achieve such goal, the present paper is organized as follows. First section discusses CRM model in length by incorporating several points of view. Second section deals with maturity models and related works in this area. This is followed by the presentation of methodology and empirical results. The last section refers to the conclusion giving general remarks, limitations and constraints to the study as well as suggestions for future research.

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2. Customer Relationship Management

In 1950s and 1960s, the challenge encountering businesses could largely be seen as putting in place the means of production to satisfy growing demand, and using marketing techniques to capture customers entering the market (e.g., Brookes & Palmer, 2004; Gummesson, 1999; Parvatiyar & Sheth, 2000). Manufacturers of goods today, however, are competing in a very different environment, and transaction marketing (product, price, place, and promotion, the 4 Ps) alone is believed to be insufficient (Denison & McDonald, 1995; Tapscott & Caston, 1993). Instead, relationship marketing is proposed for building unique relationships with customers and for adding more value to goods and services than what is possible through transaction marketing (Gro¨nroos, 2000; Lindgreen & Wynstra, 2005). Relationship marketing, then, is not only about the 4 Ps but also long-term relationships, reflecting a transaction- relationship continuum (Webster, 1992).

Relationship marketing is often cited as the philosophical basis of CRM (e.g., Christopher et al., 2002; Ryals & Knox, 2001). Not surprisingly, then, both phenomena are thought to share what one calls ‘‘striking similarities’’ (Light, 2003). In fact, some perceive them to be so similar as not to warrant a distinction in the literature (i.e., employ the terms interchangeably; e.g., Jain & Singh, 2002). Hence, to effectively demarcate CRM’s domain, it is critical to establish how it relates to relationship marketing.

In the late 1960s, Levitt suggested that the goal of businesses was to “create and maintain customers” (Fox and Stead, 2000). After more than two generations, it can be appreciated how the concept of CRM, and the need to maintain a long-term relationship with customers, is becoming an important issue. The main reason for the return of customer’s weight within the company today, is the change in the way of doing business (Goldenberg, 2000). CRM uses information and communications technology (ICT) to gather data, which can then be analyzed to provide required information to create a more personal interaction with the customers (Swift, 2001; Brohman et al., 2003; Pan and Lee, 2003). In other words, CRM follows coordinating strategy connecting different layers within an organization.

There are various definitions of CRM in the literature. Scot defines it as “a set of business processes and overall policies designed to capture, retain and provide service to customers’’ (Scott, 2001), who defines CRM as ‘‘, whereas, for Chen and Popovich, CRM is ‘‘a coherent and complete set of processes and technologies for managing relationships with current and

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potential customers and associates of the company, using the marketing, sales and service departments, regardless of the channel of communication''(Chen and Popovich, 2003).

Going through some of the more common definitions of CRM make it clear that these multiple definitions have actually slowed the progress in measuring CRM investments. In short, current definitions are classified into one of the two categories: strategic or operational. This bifurcation of definitions is similar to that of Leigh and Tanner (2004) who suggest that CRM is either analytical or operational. In the current research, we make a distinction between strategic and operational definitions.

CRM is a broad term for managing a business' interactions with customers and therefore, effective CRM is about acquiring, analyzing and sharing knowledge about customers. Total CRM covers one's direct business contacts with customers, channels partners' indirect contacts with customers, and customer's contact management in the supply chain. More importantly, it allows a business to focus on the customer. CRM is a highly fragmented environment and has come to mean different things to different people (McKie, 2000). Also, Winer (2001, p.91) builds on this notion that CRM is ill-defined. He states, CRM means different things to different people. While for some, CRM means direct e-mails, for others, it is mass customization or developing products that fit individual customer's needs. For IT consultants, CRM translates into complicated technical jargon related to terms such as OLAP (on-line analytical processing) and CICs (customer interaction centers).

One view of CRM is the utilization of customer-related information or knowledge to deliver relevant products or services (Levine, 2000). While such definitions are widespread, they tend to offer a narrow insight into the goals or basic characteristics. As CRM evolves, it tends to richer definitions, with an emphasis on the goals, logistics and complex character of CRM. Light (2001), therefore, believes that CRM evolves from business processes such as relationship marketing and then increases emphasis on improved customer retention through the effective management.

However, the enthusiasm generated around CRM as well as the selected concentration of ''relationship winners'' is in stark contrast to the most firms ''that have not yet realized the benefits of acquiring these expensive systems'' (Kumar and Reinartz, 2006, p. 21). For example, Gartner Group, a research and advisory firm says that about 50% of all CRM projects fail to meet expectations. Additionally, an Info World (2001) survey of chief technology

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officers found that some 30% of respondents believed that CRM was one of the most ‘‘over hyped’’ technologies they had seen so far. A follow-up survey of IT executives from large companies found that 43% who have deployed CRM still believe it deserves the bad press (Coltman, 2007).

Although there are many promises have been put forward as how CRM can improve the performance of a business, the practical guidelines on how to design and implement CRM successfully are few, and practitioners have thus been struggling because of that. The role of the present research is to gain a greater understanding of CRM practices, through an in-depth examination within an industry where customer relationships are a notable part of developing a competitive advantage (Price and Arnould, 1998; Yin, 1994). Single-industry studies are also useful for identifying universal organizational patterns and processes (Baum et al., 2001). This paper presents a model, which can help managers recognize their maturity states in CRM and on this basis define projects to improve CRM maturity and go beyond it.

3. CRM Maturity: Literature Review

As mentioned earlier, implementing CRM project has a high risk factor and uncertainty, hence; this risk must be reduced using planning to get promised benefits. In fact, changing market environments, competitive pressures and increased customer demands are driving top management to find appropriate answers to the following questions:

1 What CRM quality needs to be provided to fulfill the increased customer demands?

2 In addition to existing CRM programs, which other specific CRM topics need to be implemented? Does an evolutionary path exist?

3 Where we are now - what is our current level of CRM maturity? (Gamm et al., 2005)

Although companies realize the need for CRM but simply don’t know where to begin with. Actually, one’s starting point should be an honest assessment of company’s station (Imhoff, 2002). In general, maturity models can be defined in order to judge the development status of processes within an organization and to identify key practices required to increase the maturity. A maturity model here comprises several degrees of maturity that an organization can reach, usually over the course of years in a step-by-step evolutionary process (Gamm et al., 2005). Many maturity models have been developed in the field of CRM where each of them consider

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some important aspects of implementation, but this field suffer from lack of comprehensive model that integrate all aspects in place. Major maturity models were found while going through the review of CRM literature.

Based on the model of Markus et al. (2000), Ward et al. (2005) proposed that ES implementation comprised of four phases: chartering, project, shakedown, and "onwards and upwards", with each phase involving distinct activities and having different measures of success. According to this model, the chartering stage involves establishing clear business objectives for the ES investment. The project stage is to deliver the ES software package and changes to operational processes to agreed time, scope and budget. The shakedown phase is mainly concerned with restoring business performance, which often drops following ES implementation. It often involves diagnosing business problems, managing negative reactions to the new system and maintaining support for its continuing operation. The differences between each phase suggest that the organizational issues vary across the implementation process. Lipka (2006) describes a 12-step process for rolling out CRM where each phase builds up on previous phases and each step brings more value, a process that is intended to help deploy CRM without "eating an elephant". In fact, this model covers advice for companies already big enough to have systems support in place but it also pays attention to those who need a recipe for getting into CRM easily. As a whole, there are three phases in this model- foundation, basic, and advanced. In first phase, the model assumes align attitude, defines products and services, product/service and price ownership, customer ownership. The second phase includes knowing and studying customer, managing channels, defining process, integrating channels. And finally in advanced phase, it considers value proposition, measures results from the customer's perspective, think investment, refine and improve. Providing CRM maturity scale, Imhoff (2002) suggests that starting point of CRM implementation should be an honest assessment of company's situation. When performing such assessments, customer awareness; customer focus; customer satisfaction; customer worth and customer allegiance used to gauge CRM maturity. Finally, Imhoff offers intelligent solutions required to move to the next stage of CRM Maturity.

The Meta Group developed the so-called CRM Capabilities Assessment (CRM-CA), which examines Readiness (grade of preparation to execute CRM programs) and Maturity (grade of consistency to execute CRM program and processes). The focus of this approach is more on internal processes and predictability and their results, and less on the content and impacts of

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CRM activities and capabilities in marketing, sales and customer service. In this respect, the Meta Group CRM Capabilities Assessment is still too close to the SW-CMM and more transformations have to be made to make the model suitable for CRM. The low degree of transfer to the other domain is mirrored in the naming of the maturity levels. Thus, the CRM-MA uses a philosophy deriving from the Software Engineering Institute's Capability Maturity Model (Gamm et al., 2005).

Also, Detecon Company provided a CRM Maturity model composed of 5 levels that reflects the different maturity stages of CRM for each topic. It also provides fixed-line and mobile carriers with a holistic framework to judge the current CRM status in each of the areas. The classification of each level of maturity takes into consideration a topic oriented evolution approach. Rather than focusing on the efficiency or effectiveness (output-oriented approach) of CRM and its related business processes, Detecon's model examines the complexity, integrity and degree of completeness of CRM programs. In keeping with Detecon's holistic CRM approach, they examine topics in the six main CRM arenas including CRM strategy; marketing; sales; service; channels/customer touch points POS, call center, web, mobile and etc; analytical CRM & customer insight. Detecon Company has defined five distinct levels of CRM maturity. The split into five levels is approved and well established in terms of quality evolution and maturity frameworks and has therefore been adopted here. Detecon's maturity model shows that each CRM category is composed of five topic-specific definitions and characteristics (Gamm et al., 2005).

Gartner provided eight building blocks required to be a winner in CRM. These are CRM vision; CRM strategy; Consistent valued-customer experience; Organizational collaboration; CRM Processes; CRM information; CRM technology; CRM metrics. Gartner developed a maturity model based on eight building blocks that contains six levels and suggests a correlation between CRM maturity and profitability. Based on its CRM maturity, this Model has been rated a sample of companies (Gartner, 2001).

Ekstam et al. (2001) at Stockholm University proposed KTH's maturity model. The framework of the model is based on the idea of CMM, the ladder of levels, with the underlying assumption that not the whole CRM should be introduced or changed at once, but stepwise. The model is so far only a proposition, without any empirical validation. It has been constructed from empirical observations, literature reviews and discussions with experts in the domain. Based on

developer's point of view, the model is generic and can easily be used in different organizations. According to its underlying assumption of model, an organization should introduce control to the CRM processes by first learning its state-of-the art by adequate data collection, next actively acting towards well-defined goals, and finally by presenting a common approach to interaction between the organization's departments towards the CRM goals and customer segments. This model comprises 4 levels of reacting; vision and information; acting; and interacting (Ekstam et al., 2001).

4. Methodology

This section includes three parts: First deals with CRM measures, the second part is about sample and descriptive statistics of respondents' data; and third part incorporates questionnaires, type of scaling and data analysis.

- CRM Measures

Based on literature reviews on maturity, readiness and success factors in the proposed area of study, we have listed measures influencing CRM maturity. Some of the critical success factors have been extracted from various papers dealing with CRM in general and CRM success factors, CRM readiness and CRM maturity, in particular. Hence, this study provides a comprehensive view on CRM, for firms embarking to this project.

- Sample

There are two basic respondent strategies: sampling and census. However, we decided not to apply any sampling approach or collect data from the whole population, due to required levels of respondent expertise and limited amount of CRM experts in Iran as a developing country. The population includes CRM experts from academic environment in Iran as well as those working in software companies and has already participated in several CRM projects. The questionnaires were distributed among 117 experts and as such, a total of 86 surveys were completed at the rate of 74%. The average age and experiences of the respondents was 43 years (SD=9.3 years) and 4.2 years (SD=1.4 years), respectively.

- Instrument and Data analysis

As mentioned earlier, critical success factors affecting CRM maturity were extracted from literature reviews and questionnaire based surveys. The responses about the agreement or disagreement were analyzed using a five-point Likert scale. Further, their reliability or internal consistency was assessed by Cronbach's alpha. It was observed that consistency was above 0.9 (0.93), higher than the 0.7 threshold normally considered as minimum (Nunnally, 1978).

To validate the measurement of the multi-item constructs, we used exploratory factor analysis (EFA), a procedure that allowed us to drop some invalid items from the scale and include valid items to the relevant groups. Three variables (product/service quality, win back, technology infrastructure) were deleted in this approach, while 41 variables including 9 factors remained there.

After identifying effective variables and their grouping, the second questionnaire was designed to assign each group of level one of the maturity model. For this questionnaire, Cronbach's alpha was applied to assess the reliability or internal consistency. Observed alpha was 0.76, higher than the 0.7 threshold. Thereafter, a third questionnaire was employed for maturity assessment of an IT firm working in Iran. This questionnaire was designed based on above-mentioned factors and consisted a series of statements according to RADAR questionnaire. Respondents (or end users) from several functional units may either agree or disagree with varying degrees (using a 0-100 scale). This questionnaire is a reliable and valid instrument used in several settings.

5. The Proposed CRM Maturity Model (CRM3)

As seen, in all above models, some and not all aspects of maturity were considered. So, there is a need for a model that considers all factors effecting on CRM. We have adapted CMMI (SEI, 2002) and SPI Maturity model perspectives and developed a maturity model for CRM implementation in order to guide organizations to assess and improve their CRM implementation processes. The structure of our maturity model is based on SPI Maturity Model structure (Niazi et al., 2006) and built upon the following three dimensions:

- CSFs dimension,

- Maturity stage dimension,

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- Assessment dimension.

The categorization of CSFs has led us to design different maturity levels for the implementation of CRM. These levels contain different CSFs identified through literature. The maturity model in Figure 1 shows that organizations should address each factor in order to achieve a certain maturity level. Under each factor, different practices have been designed that guide how to assess and implement each factor.

- Critical Success Factors (CSFs) Dimension

The CMMI consists of 22 process areas (PAs) categorized across the five maturity levels. We believe that successful CRM implementation process should be viewed in terms of CSFs rather than PAs. This approach have already used in some models such as SPI model. Keeping in view this fact, we have identified different CSFs from the literature. It was found that critical success factors (CSFs) can be used to provide a comprehensive view of this system. While reviewing literature, effective factors were extracted and then we asked CRM experts about those, and thus final factors were extracted using factor analysis.

The critical assumptions underlying factor analysis were tested using the Bartlett test of Sphericity and the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO=0.89). The independent variables were subjected to exploratory factor analysis using Principal Components Analysis as the extraction method and Varimax rotation with Kaiser Normalization. All factors, with the value greater than 0.5, were extracted. This iterative process has been recommended as an effective way of deriving a stable factor structure. After five iteration processes, all 41 variables were loaded satisfactorily onto the nine latent factors. The factor analysis was also examined to ensure acceptable levels of variable communality and multi-collinearity. The factors are associated with culture, information infrastructure of the organization, vision of change, management support and structure which explain almost 76 % of the variance of CRM maturity. Table 1 shows exploratory factor analysis results.

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Table 1- Results of Exploratory Factor Analysis (EFA)

Items	Factors								
	Strategy	Technology	Process	People	Culture	Change Management	Structure	KM	Measurement
Vision	0.84								
Customer strategy	0.78								
Value creation strategy	0.77								
Brand strategy	0.73								
Relation strategy	0.78								
Technology integration		0.84							
Operational CRM		0.85							
Collaborative CRM		0.77							
Analytical CRM		0.82							
Information management		0.92							
Ongoing management			0.94						
Managing dissatisfaction			0.90						
Targeting			0.93						
Process integration			0.89						
Welcoming			0.72						
Get to knowing			0.90						
Training				0.86					
Employment				0.87					
Reward system				0.79					
Employee satisfaction				0.89					
Customer oriented culture					0.88				
Change-focused culture					0.92				
Cooperation culture					0.79				
Learning culture					0.88				
Leadership						0.75			
Management commitment						0.64			
Employee participation						0.86			
Planning and project control						0.80			
Risk management						0.63			
Team work							0.87		
Flexible structure							0.84		
Procedure and standard							0.86		
Decentralization							0.72		
Knowledge application								0.81	
Knowledge creation								0.91	
Knowledge sharing								0.91	
Knowledge review and revise								0.91	
Measurement of market share and competitive position									0.90
Measurement of profitability									0.87
Measurement of customer loyalty									0.81
Measurement of customer satisfaction									0.84
Cumulative % of variance explained	12.2	21.3	29.7	37.9	45.8	53.6	61.5	69	76.5

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- Maturity Stage Dimension

Based on chi-square analysis (Table 2), factors were assigned to levels. Like CMMI, our model is structured into five maturity levels ranging from level 1 to 5 (Figure 2):

1 We adopted level 0 (initial level) directly from CMMI. This is the level where the CRM implementation process is chaotic and few processes are defined.

2 Awareness factor emerged in our study as an important factor for CRM implementation. So level 1 (aware level) considers this and includes strategy and culture factors.

3 Level 2 (Managed Level) adopted from CMMI and consider change management factor from CSFs.

4 In the proposed model, level 3(defined level) is the level where CRM implementation processes are documented, standardized, and integrated into a standard implementation process for the organization. This level contains people, process and structure factors.

5 In ‘‘Quantitatively Managed’’ maturity level of CMMI, the focus is on establishing quantitative measures of software process. In level 4 (quantitatively managed level) CRM process and activities are controlled and managed based on quantitative models and tools. Hence measurement factor placed in this level.

6 Level 5 (optimizing level) is the level where organizations establish structures for continuous improvement and contains Information Technology (IT) and Knowledge Management (KM) factors.

Table 2- chi square results

Factors	Observed Frequency in Levels					Assigned Level
	1	2	3	4	5	
Strategy	29	16	6	0	0	Aware level
Culture	26	7	9	5	4	Aware level
Change Management	0	28	11	9	3	Managed level
Process	6	8	24	7	6	Defined level
People	4	15	23	6	3	Defined level
Measurement	0	4	7	27	13	Quantitatively -Managed Level
Technology	2	11	2	10	22	Optimal level
KM	3	6	7	12	23	Optimal level

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- Assessment Dimension

In this dimension, each of the CSFs is measured in order to assess how well the factor has been implemented, practically. In order to measure the maturity of CRM implementation process, we have adapted an assessment instrument from EFQM (European Foundation of Quality Management), which is based on RADAR logic and assesses each of indicators of factors via 4 following dimensions:

1 Results: criteria here are the breadth and consistency of positive results over time and across project areas.

2 Approach: criteria here are the organization commitment and management support for the practice as well as the organization's ability to implement it.

3 Deployment: the breadth and consistency of practice implementation across project areas are the key criteria here.

4 Assessment and Review: the consistent control of implementation is key criteria and continued improvement is considered here.

In this stage, all of the indicators measured were based on four above-mentioned dimensions. One score between 0 and 100 was assigned to each dimension, and then an average of these scores was considered as score of indicator. At higher level, scores of indicators were averaged and assigned to factors related to those indicators. At each level, if all of factors score was higher than 70, the level was passed, at the end, level of CRM maturity level of given organization that obtained score less than 70.

Table 3 shows the findings on the CRM maturity of a firm based on responses, which includes RADAR and average scores of each measure and the average scores of the firm in given categories. The evaluations were conducted by managerial staffs (e.g. senior project manager, project director, senior systems manager, etc.) and bottom-line staffs in the relevant departments. Average scores obtained in each category are plotted on a radar diagram as illustrated in Figure 3. The same figure also highlights specific categories that need attention to achieve maturity.

As seen in Table 3, the firm's state of strategy and culture is excellent. All measures of these factors except relation strategy are greater than 70, indicating that the firm has adequate capability and maturity. In this way, the firm can pass the first level but needs to improve its

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state in relation strategy. The firm can empower or devote the organizational resources on to the other factors. All items in the change management are the least matured with the lowest scores compared to the other categories. So, given firm gets level 2 in maturity model and should improve its state in this factor to go beyond.

All items in technology and structure are less than the threshold and need urgent attention for improving CRM. Although, other factors are less than the threshold and thus called no-mature but some of its items are greater than 70. It leads to the related levels of these items be it pass more easily and quickly.

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Table 3- Maturity scores of the firm

Factors	Measures	R	A	D	A&R	Average	Factor Score	Maturity State
Strategy	Vision	75	80	75	65	73.75	71.25	Mature
	Customer strategy	80	80	85	70	78.75		
	Relation strategy	50	55	45	30	45		
	Brand strategy	85	75	80	70	77.5		
	Value creation strategy	85	75	90	75	81.25		
Technology	Technology integration	20	40	20	10	22.5	30.75	No-Mature
	Operational CRM	30	60	75	30	48.75		
	Collaborative CRM	10	20	10	0	10		
	Analytical CRM	60	50	85	20	53.75		
	Information management	10	15	40	10	18.75		
Process	Process integration	15	50	10	20	23.75	41.46	No-Mature
	Targeting	15	5	5	10	8.75		
	Welcoming	70	65	75	70	70		
	Get to knowing	60	75	60	50	61.25		
	Ongoing management	50	30	60	20	40		
	Managing dissatisfaction	70	35	65	10	45		
People	Reward system	45	55	50	45	48.75	57.81	No-Mature
	Employment	80	70	75	60	71.25		
	Employee satisfaction	85	75	70	60	72.5		
	Training	70	40	20	25	38.75		
Culture	Customer oriented culture	80	80	70	50	70.0	70.94	Mature
	Change-focused culture	65	75	85	40	66.25		
	Cooperation culture	80	75	80	65	75.0		
	Learning culture	75	75	70	70	72.5		
Change Management	Leadership	10	10	20	0	13.33	12.42	No-Mature
	Management commitment	75	30	55	25	46.25		
	Employee participation	0	0	0	0	0		
	Risk management	10	0	0	0	2.5		
	Planning and project control	0	0	0	0	0		
Structure	Team work	50	60	50	30	47.5	46.88	No-Mature
	Flexible structure	40	40	45	25	37.5		
	Procedure and standard	65	70	60	15	52.5		
	Decentralization	70	40	65	25	50		
Knowledge Management	Knowledge creation	40	50	60	20	42.5	55.31	No-Mature
	Knowledge sharing	45	60	40	35	45		
	Knowledge application	65	55	70	60	62.5		
	Knowledge review and revise	55	75	90	65	71.25		
Measurement	Measurement of market share and competitive position	50	45	55	30	45	57.38	No-Mature
	Measurement of profitability	75	75	80	40	67.5		
	Measurement of customer loyalty	50	45	60	20	43.75		
	Measurement of customer satisfaction	80	70	80	65	73.25		

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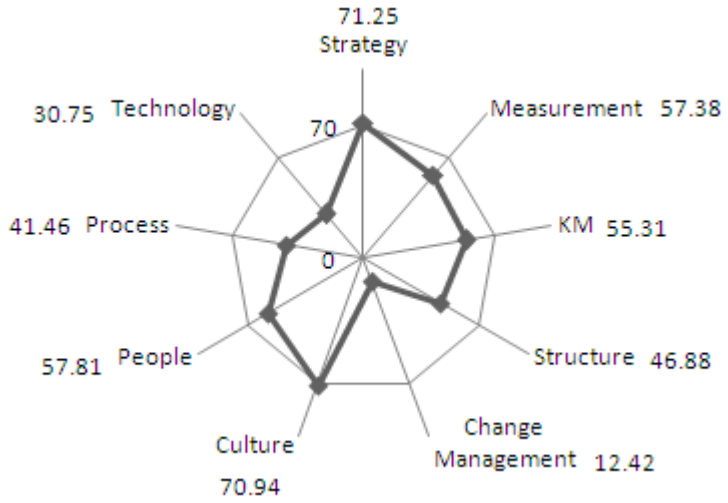

This firm tried to design CRM software and implement it in 2003 but it failed in its first attempt to do so because of its emphasis merely on technological aspect. Project failure caused managers to define this research project to assess organizational dimensions, needed for embarking on the CRM project. After identifying factors influencing maturity as well as weak areas in the firm, all the people involving in the first attempt seems to agree on discovered weakness and given maturity level by this assessment tool. Hence, managers defined projects to improve current state of the firm to the extent to which all organizational functions and dimensions will be fully matured in this risky area.

6. Conclusion and Future Researches

As mentioned, using this model enables organizations to reduce risks of CRM implementation that is highly uncertainty. In this paper, a CRM implementation maturity model has been presented that has the potential to help companies assess and improve their CRM implementation processes. After an extended review of literature, we concluded that all of maturity models in this area suffer from a narrow view to CRM and consider just some aspects of this system. So we adopted our model based on CSF to view CRM comprehensively. Also using CSF led to consider CRM as more practical. Our model is extracted from CMMI structure that is considered as the most famous maturity model. We applied RADAR logic that assesses indicators from four realistic dimensions. Since, this is one of the first systematic studies to determine the CRM maturity in firms, especially in the SME sector, assessment survey profile

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offers a valuable source of information to firms, which are still at initial stage and likely to go beyond in CRM practices.

Present research has identified nine organizational dimensions to affect CRM within the context. We have tried to identify unique challenges managers encounter during the course of implementing CRM processes to the aforementioned dimensions. By investigating, managers acknowledged that they have considerable scope to improve current attitudes and practices within these constraints. They can now use the developed instrument as a framework in assessing their current state in factors influencing on the success of CRM project. The instrument in a way provides pointers to what needs to be addressed. The acquired results would help managers to facilitate its adoption and to prioritize its practices. At the same time, academics can use the outcomes to build models that would further expand the CRM domain. Although technological infrastructure and CRM software are vital for successful implementation, firms should give more emphasis on soft components of organization such as people and culture because most failure is encountered from narrow view to such a project and a mere emphasis on technology. It causes to ensure the successful implementation of CRM as well as to attain full advantages from CRM in organization.

7. Limitations and Suggestions for Future Research

There are some limitations/constraints to this study, including its focus on one enterprise. In addition, self-selection bias not only limits to conclude the results of the study rather it might lead our choice of industry or firm narrow. Although, the instrument can be applied to IT firms, it must be handle prudently while applying in other industries. As a matter of fact, additional researches must be carried out to validate conclusions and to add to our understanding about CRM maturity in other commercial or governmental enterprises. It is believed that the number of CRM experts and their responses was small since it is a new and emerging discipline, and not many SMEs have formally implemented it, especially in a developing country like Iran. Furthermore, we think that there are other influencing factors on maturity that were probably left out, especially environmental ones that was excluded because of difficulty in developing universally applicable questionnaire, suitable to organizations. Finally, assessment instrument applied in the firm was attitude-based that in reality may be biased.

However, this instrument needs further improvement and evaluation. The instrument should be less attitude-based and more rely on current documents and statements of firms. Also, researchers are advised to implement those instruments in different areas of industries, in order to determine and enhance their applicability. To that end, there is a growing commitment by scholars towards empirical and conceptual research especially in customer relationship management.

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