Full Length Research Paper

Customer relationship management in small-medium enterprises: The case of science and technology parks of Iran

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CRM (customer relationship management) has been increasingly recognized as a business strategy to effectively understand, manage, and sustain customer relationship with advanced information and communication technologies. Rapid development of customer relationship management applications have seen the trend that more and more SMEs (small and medium-sized enterprises) are seeking to implement CRM in order to survive and compete in the world. In this study, the factors influencing the implementation of customer relationship management at small and medium-sized science and technology park of Iran were analyzed. The findings of the research indicate that communication-distribution infrastructure, business dynamics, customer relations and innovation-quality factors affect CRM. Business dynamics plays an especially critical role in customer relations. It was also determined that the most important barriers to small and medium-sized enterprises (SMEs) in science and technology parks are poor communication, inadequate supporting budgets and inefficiencies in business process.

Key words: Customer relationship management (CRM), implication of customer relationship management programs, barriers to implicate customer relationship management, small-medium enterprises (SMEs), science and technology park.

INTRODUCTION

Globalization, increasing competition, and advances in information and communication technology, has forced companies to focus on managing customer relationships in order to efficiently maximize revenues. Customer relationship management (CRM) is the key competitive strategy businesses need to stay focused on the needs of the customers and to integrate a customer facing approach throughout the organization. By using information and communication technology, businesses are trying to get closer to the customer so that they can create long-term relationships. Thus, deploying CRM initiatives has become very common.

To survive in the global markets, focusing on the customer is becoming a key factor for SMEs. It is known that it takes up to five times more money to acquire a new customer than to get an existing customer to make a new purchase. Hence, customer retention is in particular important to SMEs because of their limited resources (Baumeister, 2002). Moreover, a dissatisfied customer causes market damage because they are more likely to defect to competition and more likely to persuade others to defect. It is therefore no surprise that CRM is an important topic of conversation in business world (Feinberg et al., 2002).

In Iran, SMEs are very important as the country suffers from high unemployment. SMEs are therefore, expected to be an important vehicle to address the challenges of job creation, sustainable economic growth, equitable distribution of income and the overall stimulation of economic development. SMEs are also an important source of innovation in the development of new products,

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services and technologies. The contribution of SMEs to private sector employment (56.5%) and to gross domestic product (24.8%), implies a very high labor absorption capacity and highlights the job creating potentials of this sector and its importance to the reduction of unemployment in Iran.

This study aims to define the main factors influencing the implementation of CRM and identifying factors which prevent CRM from being implemented by using data collected from small and medium-sized science and technology park in East Azerbaijan (Iran). Initially, a theoretical outline of CRM will be discussed. Then, based on empirical research results, various aspects of CRM implementation in SMEs in the science and technology parks will be analyzed.

Research objectives

This study has two main objectives: 1) to determine important factors in implementing customer relationship management programs in SMEs of East Azerbaijan in Iran; 2) to identify barriers in implementing customer relationship management in SMEs and prioritizing them.

LITERATURE REVIEW

Customer relationship management has been around for the last 30 years, but it became very important when companies changed their attitude towards marketing function. Nowadays, the cross-functional approach to marketing requires an organizational culture and climate that encourages collaboration and cooperation between departments (Alam and khalifa, 2009). People within the business must understand their role in serving customers, internal or external one. CRM builds on the principles of relationship marketing and recognizes that customers are a business asset and not simply a comercial audience, implies the structuring of the company from functions to processes and information are used proactively rather than reactively and develops the one-to-one marketing approaches (Payne, 2003).

When defining CRM, we must first explain the difference between customer acquisition and customer retention. The two concepts have different drivers. Attracting customers has become very difficult these days, when people are harder to please. They are smarter, price conscious and sensitive, more demanding, less forgiving, and they are approached by many more competitors with equally good or better offers (Kotler, 2003).

Increasing competition and decreasing customer loyalty have led to the emergence of concepts that focus on the nurturing of relationships to customers. Therefore, there is a major change in the way companies organize themselves, as businesses switch from product based to customer-based structures. A key driver of this change is the advent of CRM which is underpinned by information and communication technologies (Ryals and Knox, 2001). Day and Van Den Bulte (2002) define CRM as a cross-functional process for achieving a continuing dialogue with customers, across all their contact and access points, with personalized treatment of the most valuable customers, to increase customer retention and the effectiveness of marketing initiatives. CRM refers to all business activities directed towards initiating, establishing, maintaining, and developing successful long-term relational exchanges. CRM is the set of methodologies and tools that help an enterprise manage customer relationships in an organized way (Lawson-Body and Limayem, 2004). In other words, CRM can be defined as an interactive process achieving the optimum balance between corporate investments and the satisfaction of customer needs to generate the maximum profit (Gebert et al., 2002). It involves; measuring both inputs across all functions including marketing, sales and service costs and outputs in terms of customer revenue, profit and value; acquiring and continuously updating knowledge about customer needs, motivation, and behavior over the lifetime of the relationship; applying customer knowledge to continuously improve performance through a process of learning from successes and failures; integrating the activities of marketing, sales, and service to achieve a common goal; implementing appropriate systems to support customer knowledge acquisition, sharing, and measuring CRM effectiveness; constantly flexing the balance between marketing, sales and service inputs against changing customer needs to maximize profit.

CRM is an active, participatory, and interactive relationship between business and customer. The objective is to achieve a comprehensive view of customers, and be able to consistently anticipate and react to their needs with targeted and effective activities at every customer touch point (Piccoli et al., 2003). CRM is essentially a two-stage process. The task of the first stage is to master the basics of building customer focus. This means moving from a product orientation to a customer orientation and defining market strategy from outside-in and not from inside out. The focus should be on customer needs rather than product features. Businesses in the second stage are moving beyond the basics; they do not rest on their laurels but push their development of customer orientation by integrating CRM across the entire customer experience chain, by leveraging technology to achieve real-time customer management, and by constantly innovating their value proposition to customers (Rygielski et al., 2002).

Moreover, CRM has experienced problems with reference to its conceptualization: CRM means different things to different people (Kale, 2004). This multi-dimensional characteristic of CRM has created ambiguities in how it is defined; there is no universally accepted definition of CRM (Ngai, 2005). Nonetheless, attempts to

Table 1. Transactional marketing versus CRM approach.

Transactional marketing	CRM approach
Transactional focus	Customer focus
Short term focus	Lifetime focus
One transaction	Multiple transaction
Broadcast approach	Sniper approach
One way, one time communication	Two way, continuous catalogue
Segments of many	Segment of one

Source: Piccoli et al. (2003).

precisely define it have revealed three key approaches: the functional level, the customer-facing level and the company-wide level (Kumar and Reinartz, 2006; Valsecchi et al., 2007: Zablah et al., 2004). The functional level views CRM purely as a technological solution that joins sales and marketing functions (Chen and Popovich, 2003). The customer-facing level sees CRM as a tool that deals solely with customer relationships, while the company-wide perspective sees CRM as a strategy that seeks to create mutual value for both the customer and the firm (Boulding et al., 2005).

Customer focus and attention to customer service is not a new concept. It is certainly a business dynamic that has been recognized for a long time by more people than the management gurus such as Peter F. Drucker. CRM is more evolution than revolution. Thus, achieving the full potential of each customer relationship should be the major goal of every business (Boxwell, 2000). Particularly, customer relationships play a major role in the competence development of SMEs (Skaates and Seppanen, 2002). SMEs are embracing CRM as a major element of business strategy, because technological applications permit a precise segmentation, profiling and targeting of customers and competitive pressures require a customer-centric culture (Gurau et al., 2003).

CRM is the strategic application of people, processes and technology to improve and sustain profitable relationships with customers and partners. CRM transforms organizations into customer-centric enterprises that maximize the value of every customer (Skaates and Seppanen, 2002). CRM is based on the ability to facilitate communication and decision-making to provide consistent, high-quality, and cost-effective services to all stakeholders (Andrade, 2003). CRM can help businesses enhance their customer relationships by attracting more profitable customers and establishing stronger and more durable customer relationships (Falk, 2004). CRM gives sales force more time to sell, improves customer response times and quality of customer service, and allows marketing to better understand customer issues and trends. At businesses, CRM philosophy leverages best practices that value customer information as a corporate asset. It is committed to helping businesses implement strategies and solutions improving the way they sell, communicate service, and analyze customers (Skaates and Seppanen, 2002).

CRM is currently one of the hottest topics in the fields of business strategy, marketing management, and information technology. CRM differs from traditional marketing initiatives (Table 1). CRM is also a cross functional philosophy that calls for substantial business integration. Thus, to implement CRM successfully, a very different mindset is needed (Piccoli et al., 2003).

Substantial investments in CRM are not right for everyone. In a small business, for example, it is relatively easy to keep in touch with customers' preferences. But, because of the significant increase in the amount of information that must be managed as the firm's scale and scope increase, successful CRM requires significant investments in technology, process redesign, and people. As customers and businesses interact more frequently, businesses will have to leverage CRM and related technologies to capture and analyze massive amounts of customer information, because information and communication technology allows customer data to be collected, consolidated, manipulated, and analyzed on an unprecedented scale. However, CRM demands more than information and communication technology. The customer must become the focal point of the organization. All members of the organization must understand and support the shared values required for CRM (Rygielski et al., 2002; Piccoli et al., 2003).

In addition to the three approaches, Zablah et al. (2004) show that the CRM definitions can be grouped into five distinct concepts: process, strategy, philosophy, technology and capability. According to Zablah et al. (2004), the process perspective of CRM is one that extends over the entire firm, with the purpose of creating and leveraging relationships with external stakeholders. The strategic view of CRM stresses the decision to devote resources to building and maintaining relationships with individual customers should be based on customers'lifetime value (CLV) to the firm (Kracklauer et al., 2001). The philosophy viewpoint stresses that firms must organize around and be responsive to their customers and their changing needs (Kohli and Jaworski, 1990; Narver and Slater, 1990). Peppers and Rogers (2004) affirm that the technological perspective views CRM as a

database software solution that archives information acquired from customers, whose purpose is to contribute to better customer service. Finally, the capa-bility perspective on CRM states that organizations have to invest in developing and attaining a set of diverse resources that facilitate behavior change towards individual customers when necessary (Zablah et al., 2004).

CRM focus on managing the relationship between a business and its current and prospective customer base, as a key to success (Gebert et al., 2002; Falk, 2004). To be effective, a CRM strategy must encompass and integrate all customer-facing activities. It should ensure that no matter where, when, or how a customer interacts with the company, the contact is personalized, consistent, and demonstrates that the company knows and values that customer. Business benefits include (Ozgener, 2001; Andrade, 2003):

i. Gathering and integrating information on customers.
ii. Nurturing and maintaining company's customer base.
iii. Developing a closer relationship with customers.
iv. Increasing customer satisfaction.
v. Declining customer acquisition costs.
vi. Ensuring sustainable competitive advantage.
vii. Maximizing profitability due to increased sales.
viii. Increasing customer loyalty as a result of more personal and efficient service.
ix. Enabling micro-segmentation of markets according to customers' needs and wants.
x. Collaborating with customers for joint value-creation.
xi. Acquiring well-accepted outcomes of data-mining activities.
xii. Supporting effective sales efforts through better management of the sales process.

Consequently, rapid changes on the competitive environment have forced enterprises to fundamentally rethink the way they do business. Therefore, CRM, which is of largely strategically character, is considered an effective option (Feinberg et al., 2002). But, because of globalization and developments in information technologies, CRM applications are becoming more multifunction (Karimi et al., 2001). Many major businesses use softwares to support CRM implementations. But many types of software designed for CRM largely neglect SMEs.

The extant literature on CRM has developed largely from the practitioner perspective, as organizations have strived to find effective ways of managing and sustaining their customer base. Additionally, a large body of literature has evolved from the software vendors purporting the use of technology for managing customer relationships. As a result, it is difficult to find a single robust definition of CRM in this body of literature, and, in particular, the academic insight on the core concepts of CRM has been confined to a small literature base. The thrust on CRM has been viewed as a business necessity within organizations, which has been catered for in the consulting and software vendor literature. However, a growing academic interest in the subject is visible in discussions and paper presentations at conferences and peer-reviewed journal publications. Academic researchers, such as Srivastava et al. (1999), propose that CRM is a business process that "addresses all aspects of identifying customers, creating customer knowledge, building customer relationships and shaping their perceptions of the organization and its products." To implement the CRM process, academics and practitioners have put forth conceptual frameworks that encompass the micro processes such as, customer segmentation, data integration and analytics and performance evaluation measures that together delineate the CRM program. The key issues emerging out of this body of literature relating to firms' deployment of CRM include: the reasons why firms might implement CRM (Objectives); the tasks that are enabled via CRM; evaluation of the effectiveness of such tasks; factors influencing the success of the CRM project (Andersen Consulting, 2000).

Mainly, CRM allows the company to understand who their customer is, isolate the best customer (those with whom you desire to have long-standing relationships), create relationships stretching over time and involving multi-interactions, manage the relationship to mutual advantage and seek to acquire more of those "best" customers. Inputs like marketing strategy, customer base, products and regulation, competitors and staff skills are synthesized in a CRM program which creates outputs as customer service, customer retention, higher share of wallet, customer referral, more predictable revenues streams, improved profitability, lower costs and better compliance (Russell-Jones, 2003).

Having an appropriate strategy does not guarantee organizational success with CRM; effective implementation is also necessary (Bohling et al., 2006). Positive CRM implementation depends on an integrative approach towards people, processes, and technology (Chen and Popovich, 2003; Kumar and Reinartz, 2006; Thakur et al., 2006; Shum et al., 2008). Such efforts lower operational costs, increase customer satisfaction, enhance decision-making, and instill employee confidence (Reid and Catterall, 2005). Employees are necessary in order to recoup investments made in processes and systems (Boulding et al., 2005), as they are the building blocks of customer relationships (Chen and Popovich, 2003). In a CRM context, processes are the collection of activities involving customer interaction (Mendoza et al., 2006). Thakur et al. (2006) state that the marketing, sales, and customer services are the areas from where CRM processes derive. The overarching objective of CRM processes is the generation of customer knowledge from data gained during interactions, so that the principles of CRM can be achieved (Bueren et al., 2005). Various CRM technology tools contribute to its implementation in three ways: (1) enhancing the reliability of relationship building; (2) helping them monitor and

respond to the changing needs of customers (Zineldin, 2006); and (3) enabling and mechanizing necessary CRM processes (Ngai, 2005).

Eriksson and Lofmarck (2000) conducted empirical studies on customer retention in professional services, while Karimi et al. (2001) focused on the impact of electronic commerce CRM on corporate success. Ozgener (2001) executed a survey on CRM at SMEs. Feinberg et al. (2002) analyzed the state of electronic customer relationship management in retailing, and Campbell (2003) studied internal processes involved in creating customer knowledge competence, which allow financial firms to strategically manage their CRM programs. Madeja and Schoder (2003) investigated the impact of electronic commerce CRM on corporate success. Another study of CRM in SMEs was conducted by Lau (2003). Piccoli et al. (2003) addressed CRM in the lodging industry. Karakostas et al. (2005) studied the state of CRM adoption by the financial services sector and Sigala (2005) discussed the integration of CRM in hotel operations.

Previous research has also suggested that effective management of a relationship can affect client/customer perceptions of quality of service (Ravald and Gronroos, 1996; Parasuraman et al., 1988).

The satisfaction of the SME consumer will be dependent, at least in part, on the way the supplier interacts with the customer and manages the relationship (Ennew and Binks, 1999; Ravald and Gronroos, 1996). Obviously, the status of CRM implementation in Iran is not well known and analyzed, which if done, would be significant contribution to the efforts for improving CRM in the future.

Since SMEs have limitations on their low capital and liquidity, they require a low cost CRM application which can be customized to their business model and infrastructure. The alternative - changing their business model and IT structure to fit the CRM application, is not popular. In addition, preferences are expressed in introducing new software to be done in little steps, not to interrupt the current business process. This is in accordance with the suggestion that the business processes be gradually adapted to the changing environment in the future, as well as the software be easily adaptable to these future changes (Baumiester, 2002).

METHODOLOGY

In this study, factors affecting CRM implementations based on data collected from small and medium-sized science and technology parks of East Azerbaijan (Iran) were analyzed. Moreover, this study included information about CRM applications and about the factors which prevented the implementation of CRM in these enterprises.

Sample

The sampling is from small- and medium-sized enterprises that are located in science and technology park of East Azerbaijan province in Iran. East Azerbaijan is an industrialized province in Iran and

there are many SMEs in this province. It is located north west of Iran.

Multi-item scales were adopted from previous studies for the measurement of the constructs. It consisted of 14 items, scored on a 5-point Likert scale with an agree/disagree continuum (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). By using the parallel-translation method, items were first translated into Persian by one person and then retranslated into English by a second person. The two translators then jointly reconciled all differences.

The suitability of the Persian version of the questionnaires was then pre-tested by eight part-time graduate students working in industry. After refining the questionnaire, based on interviews with the pre-test subjects, the questionnaires were distributed and collected by one of the authors, applying a "personally administrated questionnaire" method. The unit of analysis is the firm, with the managing director as the key informant. Firms with less than 100 employees were selected as SMEs, as defined by the Ministry of Industries and Mines of Iran. The initial sample consisted of 80 firms in the science and technology park of East Azerbaijan in Iran.

Data were gathered from 40 firms (a 50% response rate). Several industries were represented, including software (39%), service (24%), chemical (16%), electronics (12%) and materials (9%). 73% of the firms had less than 50 employees and 27% of the firms had between 50 and 250 employees.

Pretest

The measures were pretested with key informants (that is, upper management/ executive levels) from a science and technology parks officials and top management of firms. Pretest subjects were asked to simply complete the questionnaire. Following this task, each subject was interviewed to determine their ability to understand and answer the questions. After interviewing respondents, the Peppard (2000) measure required revision in the wording across several of its items.

Data collection

A mail survey following Dillman's (1978) total design method (TDM) was used to collect data from key informants. The mailing was administered to the sample in three waves. A questionnaire was mailed directly to each named informant. The cover letter was designed to appeal to respondents desire to understand strategy and industry practice. Each respondent was promised a copy of the study's results. A follow up postcard was sent two weeks following the original mailing. A replacement survey was sent to non respondents four weeks after the original mailing. Furthermore, in some cases, interviews were applied to complete questionnaires.

Data analysis

Linear regression can be applied for many objectives that differ in purpose to; (1) summarize a large mass of data by constructing interpolative equations; (2) corroborate or to refute on a prior theory by a process of hypothesis testing; and (3) aid decision making. In this research, multiple linear regression analysis is used to examine the relationship between variables for specifying variables that affect implication of customer relationship in small-medium enterprises. In second stage, Friedman test is applied for prioritizing factors that are obstacles in implication of CRM in SMEs. Friedman test is also used for prioritizing factors according to special conditions.

Furthermore, a questionnaire was structured to gather information about the managerial areas of CRM. The 14 items CRM

Table 2. Important factors in implementing customer relationship management.

Factor 1: Communication-distribution infrastructure	Distribution channels` effectiveness
	Database, data mining
	Sales force automation
	Designing CRM oriented web sites
Factor 2: Business dynamics	Business image
	Business activity quality
	Intent of gaining competitive advantage
Factor 3: Customer relations	Staff training and behaviors
	Long-term customer relations
	Acquainting customers with utilizing products and services
	Idea of customer retention
Factor 4: Innovation and quality	Globalization and recent advances in information technology
	Idea of gaining new customers
	Product and service quality

instrument had reliability (Cronbach's alpha) of 0.711. In addition, multiple choice questions were designed, related to the objectives of CRM. Besides, for second stage of research, 9 item was designed that specified barriers to implement CRM in SMEs.

RESULTS

Characteristics of sample

We nearly gathered most of the questionnaires, due to following them by phone. All respondents were managers of SMEs. Most enterprises are clustered in two special sites that facilitate our data gathering. In terms of education level, 12% of respondents had graduated from high school, 54.4% held Bachelor of Science degrees, 23.4% had master degree and 10.1% had Ph.D.

The life time of enterprises was different. 29.3% of enterprises had between 1 and 3 years in terms of life time, 40.2% had between 3 and 5 years and 30.5% had more than 5 years.

Implementation of CRM

Four factors were therefore identified as the main dimensions underlying CRM in the SMEs that are located in science and technology park of East Azerbaijan in Iran. Reliability was evaluated by assessing the internal consistency of the items that are 0.711. The factors are:

Factor 1: Communication-distribution infrastructure.
Factor 2: Business dynamics.
Factor 3: Customer relations.
Factor 4: Innovation and quality (Table 2).

Descriptive statistics related to variables and the correlations between the four factors are shown in Table 3. The analysis of the correlation results showed that there was a significant relation between customer relations and other two variables (communication-distribution infrastructure and business dynamics) at the 0.05 level. There was also a significant relation between customer relations and, innovation and quality ($p < 0.01$). Finally, a significant relation was observed between innovation and quality, and other three variables (communication-distribution infrastructure, business dynamics and customer relations) at the 0.05 level.

A regression analysis was used to examine the relationship between the other three factors (communication-distribution infrastructure, business dynamics, innovation and quality) and customer relations. When considering communication-distribution infrastructure, business dynamics, innovation and quality in its entirety as independent variables, the results show that business dynamics and communication-distribution infrastructure have a significant positive relationship with customer relations in SMEs ($R^2=0.964$). The results from regression analyses in Table 4 suggest that the overall model was significant ($R^2=0.964$). (Among three independent variables, business dynamics is the most important in explaining the variance in customer relations as the highest beta (β) value was 0.937. Business dynamics were found to significantly predict customer relations ($t = 27.864$; $p = 0.00$). This result supports our prior assertion that business dynamics can be a critical factor for customer relations in small- and medium-sized science and technology parks. The second-ranked variable was communication-distribution infrastructure, with a beta (β) of

Table 3. Means, standard deviations and correlations of scales.

Variable	Mean	Std. deviation	Communication – distribution infrastructure	Business dynamics	Customer relations	Innovation and quality
Communication–distribution infrastructure	4.2500	0.35806	1.000			
Business dynamics	4.4000	0.252620	0.212	1.000		
Customer relations	4.5500	0.490940	0.205	0.973**	1.000	
Innovation and quality	4.5333	0.457920	0.632**	0.250	0.324*	1.000

**: Correlation is significant at the 0.01 level (2-tailed);*: Correlation is significant at the 0.05 level (2-tailed).

Table 4. The results of regression analysis for customer relations.

Variable	Standardized regression coefficients(Beta)	Std. error	t-values	Sig.	Tolerance value
Communication- distribution infrastructure	0.292	0.052	7.700	0.000	0.706
Business dynamics	0.937	0.065	27.864	0.000	0.896
Innovation and quality	0.114	0.042	1.187	0.045	0.652
Adjusted R	0.960				
R Square	0.964				
F	317.00				
Std. error of the estimate	0.09759				
Significance level	0.000				
Durbin–Watson	2.466				
Constant	-5.164				

Dependent variable: Customer relations. The Durbin-Watson index is at 2.466, which is within the acceptable range 1.5 to 2.5 (Coakes and Steed, 2003). It shows no auto-correlation problems detected in the model. Furthermore, see Green (2003) p. 210 which also supports Coakes and Steed (2003).

0.292. In order to detect the presence of multi co linearity, the tolerance value is calculated (Table 4). Tolerance is the variability of selected independent variables not explained by the other independent variables. Thus, very small values denote high co linearity. A common cutoff threshold is a tolerance value of 0.10. Since all significant variables in Table 3 have much higher tolerance values than 0.10, there is no significant co linearity.

The barriers to CRM

In order to rank factors that are barriers to implement CRM in SMEs, we applied Friedman test. Friedman test is for ranking factors according to our second part of the questionnaire. In Table 5, we test whether it is applied for Friedman test or not. According to Table 4 sig = 0.00 and it is less than 0.05. It shows that our variables are not in same rank and we can prioritize them. When analyzing Table 6, it is seen that the most important barriers to CRM for SMEs in the science and technology parks were poor communication, inadequate supporting budgets and inefficiencies in business process. Furthermore, there

Table 5. Friedman test statistic.

N	40
Chi-square	107.879
df	8
Asymp. Sig.	0.000

were other important barriers including lack of cultural readiness, a lack of standardization, lack ofsenior management commitment to CRM, lack of end-user input at the product/design stage, inter-departmental conflicts and an absence of complementary customer manage-ment skills.

DISCUSSION

SMEs usually have limited resources, thus implementing special marketing strategies contribute to these firms understand customer` needs. One of these strategies is CRM which SMEs can implement it with appropriate

Table 6. The barriers to CRM.

The Barriers to CRM	Mean rank
Inadequate supporting budgets	3.98
Lack of senior management commitment to CRM	5.03
Inter-departmental conflicts	6.75
An absence of complementary customer management skills	7.48
Inefficiencies in business process	4.30
Lack of end-user input at SME sector	5.35
A lack of standardization	4.95
Poor communication	2.78
Lack of cultural readiness	4.40

expenditures and create lasting relationship with custo-mers. There are several effective factors to implement CRM which SMEs would apply, in order to decrease failure rate of CRM implementation. Creating positive corporate image is one of the factors that are essential for lasting relationship and boosting business activity quality. Existence of appropriate distribution channels and designing firm` website according to CRM system can boost CRM implementation capability in SMEs. Furthermore, there are factors which are obstacle to implement CRM in effective way. Controlling these barriers minimize the failure of CRM systems. Improving relationship with customer by special tools and providing supporting budgets can contribute SMEs to increase success rate of CRM implementation.

Conclusion

Small- and medium-sized enterprises generally have limited sources and channels for reaching customers; consequently, they are concerned about keeping customers. Besides, it is a fact that for these enterprises, human behaviors have a very important role in customer relations. The major factors influencing CRM in those enterprises were communication-distribution infrastruc-ture, business dynamics, customer relations and innovation quality.

The analysis of the correlation results showed that there was a significant relation between customer relations and other three variables (communication-distribution infrastructure, business dynamics and, innovation and quality).

From analyzing the regression results, it was seen that business dynamics and communication-distribution infrastructure had an important impact on customer relations in the science and technology parks. Business dynamics was a crucial factor for customer relations in small- and medium-sized science and technology parks.

According to the findings of study, the most important barriers to CRM faced by SMEs in science and technology parks are poor communication, inadequate

supporting budgets. As a result, information and commu-nication technologies, customer participation, internal business dynamics, ease of use, innovation and quality, security and flexibility, need to be taken into consideration to improve CRM for SMEs.

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