



## Understanding the Role of Customer Relationship Management and Supply Chain Management: in Enhancing Innovation Competence of People, Process & Technology

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### Abstract

*Today's global market and fierce competition among enterprise, force them to adapt and implement new strategies and solutions for the revealed and continuous challenges. CRM and SCM centralize all the information within an organization to give one coherent, full view of each customer. This enables all employees of the organization, whether that is customer support, manufacturing, sales, marketing or any other, to make quick and knowledgeable decisions on anything and everything from targeting to cross selling, but most importantly, to your customers who has complete knowledge and history of their interactions with you. This paper aims to provide how the integration of CRM, SCM with people, process and technology act as a competitive weapon for increasing organizations overall performance.*

**Keywords:** *Customer Relationship Management (CRM), Supply Chain Management (SCM), Information Technology (IT), Market.*

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### Introduction

In the today's competitive commercialized era of conducting business, customers are crucial elements and place at the central of all marketing actions. Consumer needs and expectations have change with greatest speed. In order to focus on heterogeneity of customers and also their needs, organizations want to apply differentiation and customer-oriented marketing strategies for achieving competitive advantage. This paper proves how IT sector act as a backbone for enhancing the importance of CRM & SCM, and also analyses how the combination of them is used to create and manage relationships between organizations and customers more effectively. If organizations try to improve relationships with their consumers it can leads to have more loyal customers and also increase profitability.

In today's electronic commerce environment, data flows often cross enterprise boundaries. Enterprises must share information with partners, customers, and suppliers in order to maintain the competitive edge. Information isolated island has become one of the crucial issues of the enterprise development, playing the most important role in the whole process of electronic commerce and restricting its development. There are four basic data streams: information flow, cash flow, the commodities flow and logistics in the enterprise electronic commerce activity. To eliminate information isolated island needs to integrate the four flows. Information technology is quickly altering the way people do business all over the world. In the business-to-consumer segment, sales through the web have been increasing radically over the last few years. Customers, not only from developed countries but also from developing countries are adopting new shopping channel. IT has significant roles to play not only in businesses but also in daily activities of individuals. Internet based services keeps on growing in 'business-to-consumer' and



'business-to-business' environment. Every year the number of organizations that use internet for marketing purposes increases. The need for supply chain management (SCM), customer relationship management (CRM), and information systems (IS) for companies in order to enhance their performance many times. However, they are slightly considered together.

The inputs to the implementation of this strategy focused on the customer are the transformation of data into information management; such a process was facilitated by the development of Information Technologies. Under this perspective, CRM is a process that searches for customer data and transforms them into relevant and up-to-date information to support relationships, generating knowledge. Understanding the consumer behavior is the basic for marketing strategy formulation. Consumers' reaction to this strategy determines an organization's success or failure. In this competitive environment, an Organization can survive only by offering more customer value - difference between all the benefits derived from a total product and all the costs of acquiring those benefits - than competitors.

The opening of borders and the process of globalization have more effectively happened since 1990, when the fierce competition and the constant changes meant that organizations had to adopt new forms of management. The changes that have contributed to the organizational development emphasized the importance of the human element in the organization: it is the passage from the second to the third wave, cited by Toffler (1980), i.e. from the industrial wave to a wave of information and knowledge. In the second wave, the competitive advantage was obtained by means of the location and access to cheap labor, natural resources and the financial capital, and in the third one, the management of information and knowledge, the use of Information Technology and the relationship with the customer are considered important factors in organizational performance and they result in obtaining a competitive advantage.

After the consumer has recognized the need for something or an existing problem, he moves on to the next stage; searching for information. An "aroused" consumer then needs to decide how much information, if any, is required. If the need or the problem is so pressing and there is a product or service close at hand that meets the need or solves the problem, then a purchase decision is made immediately. If not, the process of searching for information begins. There are several sources from where consumers could obtain information. For example: Personal sources like family, friends and neighbours; Commercial sources like advertising, salespeople, retailers, dealers, packaging and point-of sale displays, Public sources like newspapers, radio, television and consumer organizations, and Experiential sources like handling, examining and using the product. The usefulness and influence of these sources of information will vary by product and by consumer.

#### Review of Literature

Schniederjans, Cao and Gu (2012) considered the issue from operations management perspective and analysed the adoption of customer-relations management (CRM) software. They examined the influences of operations management (OM) customer focus policies and practices, as well as software vendor capabilities in supporting OM, on ERP reasons for adoption customer relations management (CRM) systems by employing structural equation modeling (SEM). They identified that collaboration of OM and marketing managers in using CRM software enhances business performance by supporting the previous research about the closer integration of these two functional areas. They furthermore found a possible moderating effect of OM reasons for adoption of CRM on business performance.

Cook, Heiser and Sengupta (2011) investigated the relationships between specific supply chain practices and organizational performance and whether this relationship is moderated by the company role in the supply chain. The survey data is collected from non-academic respondents within North American membership of the Institute of Supply Management. They found the moderating influence of supply chain role of company in terms of the specific supply chain



practices that lead to better performance. They expect that their results can be helpful as a practical guideline for managers by considering the role-specific context of company in the supply chain before deciding on appropriate practices.

Fuxiang and Yuhui (2011) investigated CRM by considering Supply Chain Integration. They stated that CRM is approached from still classical perspective and needs to be considered through supply chains. They approach the customer relations management concept from integrated supply chain perspective and explore the ways of establishing perfect enterprise supply chain integration, customer relations management system and the operational mechanism.

Daghfous and Barkhi (2009) searched about the strategic management of information technology including TQM, SCM, and CRM implementations in UAE hotels by employing a survey based study. They searched the readiness of UAE hotels for knowledge-based competition, organizational innovations, and best practices; the particular steps that hotels in our sample must follow before competing on knowledge; sufficiency of ICT infrastructure to support the implementation of best practices and qualifications of using knowledge-based CRM, SCM, and TQM; etc. They suggested more systematic planning and learning from other industries such as manufacturing and retail industries.

Lostakova (2007), believed an organization can Develop time of product modification for a customer compared to competition and increase a number of newly introduced products compared to the competition. She also expressed CRM cause increase sales volume of individual customers and also sales revenue with individual customers. Customer satisfaction and loyalty is as consequences of CRM process too. Kim, Suh & Wang (2003) also suggested a model that emphasizes CRM process can improve customer satisfaction, increase customer loyalty, reduce customer cost and increase customer revenue and profit for organizations.

Bullington and Bullington (2005), the literature of supply chain management suggests the marriage with customer-supplier relationships. They aim to apply results of research on successful families to supply chain management in order to improve the critical business relationships. Their research, based on surveys and interviews of more than 6,000 successful families over 20 years, summarized six characteristics of successful families in order to construct the basis of a model of a successful supply chain relationship. They compared the proposed model for successful supply chain relationships with the existing literature and identified support in the literature. The model is identified to be weak explicitly in emphasizing supplier performance. The authors suggested SCR model that it provides three potential contributions to the literature on supply chain relationships including (1) detailed conceptual framework (a successful family) for customer-supplier relationships, (2) the additional element of a principles-centered relationship and (3) emphasize on appreciation or positive feedback more than previous research.

Peppers and Rogers (2000, 2001), companies can use, depending on their needs, one or more types of CRM. Operational CRM is the application of Information Technology to improve the efficiency of company-customer relationship, and it should include the integration of back office with mobile or virtual office. Collaborative CRM covers the main forms of contact with the customer of all areas of the company. The forms of contact must be prepared to ensure the adequate flow of data across the organization. Analytical CRM is the source of all the process' intelligence, being used to adjust the strategies of differentiation of customers, as well as for the monitoring of their habits. It uses analysis tools, data mining, and analytic reports that have as data source the data warehouse. The concept of data warehouse arose from the need to integrate business data spread across different platforms and operating system environments to make them accessible to all decision-making levels users (FELISONI, 2004, p. 97)

Research Problem

Information is the fuel that operates new consumers. Due to development of information technology and the Internet, information is now cheaper and more easily reached than ever to consumers. The enduring need of the new consumer to be informed is justified by the fact that information opens various ways to opt, permits him to make more alert judgments about future purchases, thus providing greater control over expenditure. In recent decades, new information and communication technologies in the world have gone through remarkable changes, which gradually changed reality into a virtual world. High-speed growth of equipment and technologies, economic globalization and a lot of other external conditions stimulate the changes in consumer behavior.

Understanding the consumer behavior is the basic for marketing strategy formulation. Consumers' reaction to this strategy determines an organization's success or failure. In this competitive environment, an Organization can survive only by offering more customer value - difference between all the benefits derived from a total product and all the costs of acquiring those benefits - than competitors.

### Research Model

The proposed model of this study conceptualizes the relationship between CRM processes, SCM and Information Technology elements i.e. People, Procedure & Technology. The relationship is based on the views that suggest the performance of an organization with integration of IT is greatly influenced by CRM & SCM processes.

This model involves four dimensions of CRM & SCM processes which include relationship initiation, learning and growth, customer and relationship maintenance and five perspectives of IT which are DBMS, Customer, people, procedure and Technology.

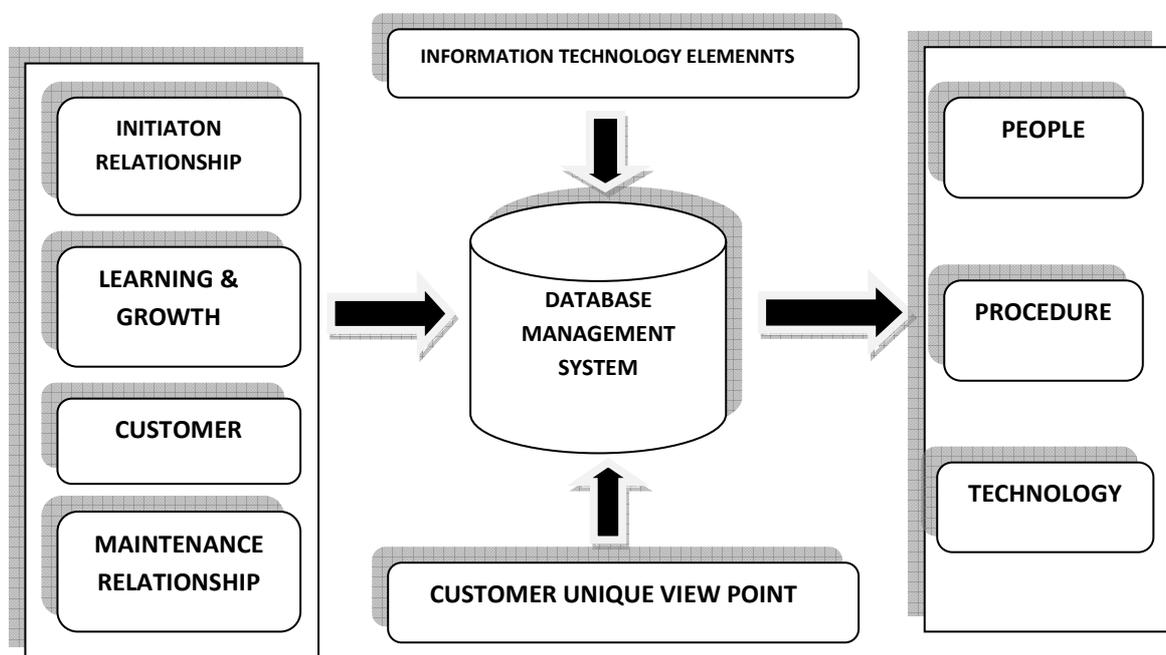


Figure.1. Relationship between SCM, CRM integration with IT

At this point, the notion of virtually seamless information links within and between organizations is an essential element of integrated Supply Chain Management & Customer Relationship Management. Despite this however, remember: Privacy and security of customer information and intellectual capital remain a major concern and should be built into the system.

Consumer behavior involves the psychological processes that consumers go through, in recognizing needs, finding ways to solve their needs, making purchase decisions, interpret



information, make plans, and implement these plans. It blends elements from psychology, sociology, social anthropology and economics. It attempts to understand the decision-making processes of buyers, both individually and in groups. It studies characteristics of individual consumers such as demographics and behavioral variables in an attempt to understand people's wants. It also tries to assess influences on the consumer from groups such as family, friends, reference groups, and society in general. The basic belief of marketing-oriented company is that the customer is the hub around which the business revolves. Market itself means – consumer, around whom all marketing strategies are formulated and implemented. In order to meet competition at the market place, the marketing managers are using various methods to add value to the final product which will reach the hands of the consumers. It means in an ever changing marketing environment, there is a growing concern or awareness among marketers to go for a careful study of the consumer behavior around customers which all marketing activities are made.

The study of CRM & SCM is ones of the most important in business education, because the purpose of a business is to create and keep. Consumers are created and maintained through marketing strategies. The quality of marketing strategies depends on knowing, serving, and influencing consumers. This suggests that the knowledge and information about consumers is critical for developing successful marketing strategies because it challenges the marketers to think about and analyze the relationship between the consumers and marketers, and the consumer behavior and the marketing strategy.

All the arguments presented so far have the goal to demonstrate the dynamics of the transformation of supplied or made available data by the technological CRM and SCM tool in information and knowledge that could be used by organizations. This will become a benefit as a whole only when the technological tools are used to the fullest and when knowledge is transformed from tacit into explicit and vice versa, disseminated, transferred, shared and applied to organizational activities.

CRM & SCM -information technologies to support customer management

Contemporary management models have been benefited from the development of Information Technology. Among the many changes offered by the technological progress is the development and improvement of databases on customers. Improvement because you can search, in the recent past, management practices carried out manually, through notebooks, binders, and request blocks. Fortunately there are a variety of technologies and software to manage the relationship with customers and Zenone (2010) highlights that CRM is not exclusively a technology, or "just a software application", noting that the technology is important to enable the deployment of CRM but it does not guarantee success or failure of implementation.

In the same sense, Richers (2000) considers that CRM extends beyond a technology. To the author, CRM is a business strategy designed to increase the profitability and the company's revenue through the increased level of satisfaction of those who use the goods and services marketed by it. "

Gummesson (2009) states that "CRM are the values and strategies of MR-with special emphasis on the relationship between the customer and supplier-transformed into practical application and dependent on human action and Information Technology."

CRM & SCM is not a product or service, i.e. it does not bring profits directly; it serves as a business strategy to manage the relationship with the customer in the search for the maintenance and retention of the relationship, generating long-term and indirect results. The inputs to the implementation of this strategy focused on the customer are the transformation of data into information management; such a process was facilitated by the development of Information Technologies. Under this perspective, CRM is a process that searches for customer



data and transforms them into relevant and up-to-date information to support relationships, generating knowledge.

### Conclusion

The study has been motivated by the need of research combining supply chain, customer relationship and the technological infrastructure of the companies. Moreover, since the influence of social media has been growing, as a part of technological infrastructure, it is also searched by this study. The challenge for the marketing team is to identify the source of information that are most influential in their target markets. The usefulness and influence of these sources of information will vary by product and by consumer. Present investigation reveals that consumers have overall positive image towards use of IT while making purchase. Consumers view IT as multi utility, customer satisfaction, save cost, effective buying decision, reasonable price, easy to use, timely delivery, maintaining records and no intermediaries which open the way of direct marketing. Thus, the value of IT as a prospective source of competitive advantage is clearly realized.

### Limitations

Though we have taken all possible steps to provide the findings in a holistic way but as a natural phenomenon of any research present study is also not free from some limitations. One limitation of this research is that it is based on conceptual framework of CRM, SCM with integration of IT resources. It did not allow the researchers to apply their findings to the entire population. Due to time constraint it does not catered comparison of various sectors of organizations.

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