



# A Conceptual Framework for Electronic Customer Relationship Management (e-CRM): A Strategic Approach

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## ABSTRACT

Electronic customer relationship management is one of the most challenging approaches. This is because of there is no accepted and general definition for it, and also most firms have only a technologic view of it. The purpose of this paper is giving a definition for e-CRM and by giving a conceptual framework which is based on Porter value chain, e-CRM would be divided into smaller and manageable activities so then competitive position would be achieved. In addition, firms and customers can have a more effective and efficient relationship to gain maximum value, which leads to gaining competitive advantage for the firms.

## INTRODUCTION

The emergence of electronic business has changed many aspects of current business and has created new firms with new business models. Organizations, now, start to re-evaluate their fundamental relations: Relation between firms and their suppliers, customers, government and also their competitors.

In the digital world, many firms are facing with growing and complex demands of customers that need immediate and high-level services through multiple channels. To face these challenges, many firms, choose electronic customer relationship management. This emerging concept, gives organizations the ability to gain, integrate and disseminate data and information through their corporate websites [1]. In this paper, we explain the conceptual framework of e-CRM, in which the flow of gaining competitive advantage will be discussed. This framework is similar to porter value chain in shape and in having value adding activities.

## WHY ORGANIZATIONS MOVE TOWARD E-CRM?

In digital world, customers have so many different types of needs that couldn't be satisfied with traditional solutions. In several years ago, companies found interest in CRM, but in current years, firms who are seeking for the ways to present the bests to their customers, would consider e-CRM. There are many definitions for term e-CRM, but here we present ours. E-CRM uses information technologies in order to support strategically the execution of CRM. E-CRM is a combination of hardware, software, processes, applications and management commitment designed to support an enterprise-wide CRM business strategy that will optimize customer satisfaction, customer loyalty, financial performance (i.e. profitability, revenue) and finally competitive advantage. The goal of e-CRM is to develop and maintain long-term dependencies and relationships between firms and their customers. Indeed it seeks for creating loyalty among profitable customers of a firm [2].

In fact, CRM is a customer-oriented strategy that handles the most valuable assets of an organization, called customers. CRM works with any transaction that is related to customers and create value for both

firms and customers. So, CRM causes a very fascinating revolution: transferring from product-oriented strategy toward a customer-oriented strategy [3]. Considering the fact that Internet is used as one of the most appropriate platform for many business transactions, traditional solutions are not responsive anymore to basic principles of CRM.

Now, organizations have many channels to communicate mutually to their customers [4]. These channels seldom interact with each other, so, transferring information among channels and meaningful communications between channels and customers, are prevented. So, e-CRM should have some kind of applications to integrate customers' relations through multiple channels, simultaneously and in real-time [5].

E-CRM strategies have a strong emphasis on creating and maintaining an analytical database, because e-CRM strategies force firms to allocate their capitals to customers who provide maximum value and have the most potential value for the firm. E-CRM should consider optimizing of customers' relation in 3 aspects: attraction, expansion and maintenance [6, 7]. Attraction and expansion are not the difficult tasks of e-CRM but maintenance or creating customers' loyalty in e-CRM is more difficult than in CRM. In the next section, we will depict and explain the components of our proposed conceptual framework for e-CRM.

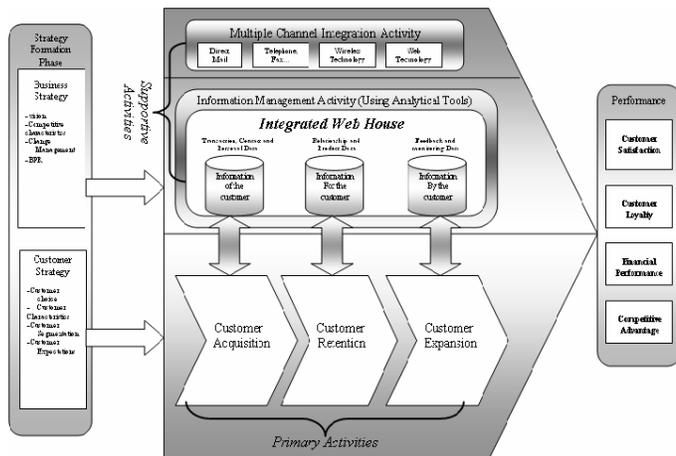
## A CONCEPTUAL FRAMEWORK FOR E-CRM

Today, although CRM is on top of firms priorities, there are many unclear points about its definition and role. In order to fully understand these ambiguities, we should view CRM from a strategic and systematic approach, and recognize the components of customer value. A conceptual framework with a strategic approach for e-CRM covers definitions and functions of every part and also includes adaptation of the model to different firms which helps to use e-CRM as a managerial strategic approach.

This framework is similar to porter value chain in shape and in having value adding activities. In porter value chain two types of activities: Primary Activities (including inbound logistics, Operations, Outbound logistics, Marketing and sales, and after sales service) and Supportive or Secondary Activities (including firm infrastructures, human resource management, R&D, and procurement) run through a value chain that at last result in firm goal achievements and gaining of competitive advantage [8]. Customizing the framework for a customer centric approach we mention that the only thing that determines final profitability of a firm is customer and its satisfaction and loyalty to the firm. So, all activities which help to this would be value adding and vital to the firm success and position in the market. However, these CRM related activities could not be effective without some supportive activities helping primary ones running parallel to them.

In this framework, similar to porter value chain, we have two types of activities: Primary and Supportive ones with the difference of being customer centric and CRM related. As the company runs its primary activities of Customer Acquisition, Retention and Expansion, it needs

Figure 1. Conceptual framework of E-CRM



some supportive activities such as channel integration and information management. Information management activities deal with customer database including 3 types of information: information of the customer, information for the customer and information by the customer. An important point in the framework is the initial phase which is Strategy Formation that should be considered before any CRM implementation. Components of this framework are shown in figure 1. Through the rest of paper, each activity will be discussed in depth.

### 1. Strategy formation

Before speaking about CRM technological issues, managers should consider CRM in the context of their overall business strategies. This task needs a two dimensional emphasis: 1) on business strategy and 2) on customer strategy of the firm. The more these two dimensions are interrelated with each other, the more successful CRM strategy would be. Through developing and reviewing business strategies, organizations identify their key capabilities and the way they could transfer them as value to their customers [9].

One important thing, while moving toward e-CRM, is existence of some deficient CRM processes. If these processes become electronic and automated, firm won't be successful in its CRM strategy. So before implementing technology and having e-CRM, top managers should decide whether they should have BPR in their organization or not [10].

In customer strategies, customer types and their categories would be identified. In this categorization, customers may be classified contradictory to their expectations and preferences, and be put to a category which is not correct from their point of view. E-CRM provides the ability to have one-to-one relationship between firms and customers, satisfy their expectations and solve this problem.

### 2. Multiple channel integration activity

One of key and strategic components for moving toward e-CRM, is to develop a consolidated and relationship-based strategy for existing channels (old ones) and web-based technologies (new and modern ones), that is designed to enhance the relationships with customers (not only reducing costs). So, it can be mentioned that e-CRM is multiple channels which are get consolidated. If the goal of channels strategy is only cost reduction, undesirable effects will appear [11].

It should be considered that a scattered channel strategy leads to customers' dissatisfaction, which eventually abolishes the whole business. So channel strategy should:

- provide integration for all channels
- get integrated to use one customer-base
- Answer this question: what kind of interaction, customers prefers to have with the firm.

- Consider which channel is appropriate for what kind of customers and for what type of transactions.

Generally, channel integration in e-CRM is in order to create a single view of customers. In traditional CRM, one customer with two interaction channels is viewed as two different customers and so firms have a weaker interaction with that customer. So, it could be concluded that the most important goal of channel strategy is to create a single view of customers even if they use different channels to interact with the firm.

### 3. Information management activity

This process includes customer data collection from all touch points and omission of redundancies and using them to create an up-to-date and complete profile of customers in order to enhance quality of interaction between firms and customers.

In this process some tools are very useful and should be used appropriately and in coordination with each other. These are listed as below:

#### I. customers' database

Customers' information would be saved and maintained in an integrated and consolidated Web House (which is a web based Data Warehouse) that could be accessed from all parts of a firm. Before entering the web house, transformation process would be done on information to save the integration of WH and to prevent the entrance of redundant information.

#### II. Analytical tools

In order to use web house efficiently, several types of analytical applications like data mining, Web Mining and OLAP would be implemented on these WHs. So, meaningful patterns and relations could be extracted from customers' interactions and behaviors.

### 4. Customer Acquisition

From a strategic point of view, all the primary activities for attracting customers like advertising strategies and marketing efforts are for new customer acquisition and creating an image of firm brand name. Now, if these activities are run through web, firms should do different sort of tasks to recognize customer interests. Site visitor tracking and click stream data bases are some of activities which help to recognize customer interests and then to offer better products or services to them.

During customer acquisition, companies try to convert Web site visitors and browsers into (hopefully repeat) buyers. Visualization tools can play a key role in product evaluation and selection at this stage [12].

It's very straightforward to say that companies must acquire customers to make business. Even firms with high retention rates lose customers and thus must continuously acquire new customers to stay in business. Because customer acquisition is a very expensive affair and because the relationship developed during the acquisition phase strongly influences retention and add-on selling, it must be carefully managed and evaluated [13].

### 5. Customer Retention

Even by ignoring the fact that the cost of a new customer acquisition is 5 times of retention of an old one, yet retention and expansion is more important due to lack of sufficient information about new customers.

The goal of customer retention is to leverage customer acquisition investments. Because customer acquisition is normally more expensive than retention, it makes sense to find ways and mechanisms to extend the duration of the relationship between firm and customer. Of course the focus must be set mainly on the most profitable customers.

## 6. Customer Expansion

In CRM, businesses invest their money on those customers which will bring the most value for the firm. Customer expansion with focus on retention of the most value adding customers needs precise strategies to do.

In the expansion phase, core customers (the most valuable ones for the firms) actively participate in the two-way interactions with the CRM and expand the CRM's customer base by word-of-mouth marketing. Feedback or suggestion from these core customers (by-the-customer information) may prove to be crucial for the CRM to introduce new products, improve business processes, and satisfy customer needs.

## 7. Performance measurement and evaluation activity

In order to evaluate the performance, some criteria would be determined through e-CRM system design stage. These criteria depend on different goals of serving customers and should be aligned with overall operational business criteria. Here the focus is on two elements of performance: customer satisfaction and operational performance. In traditional models, customers' satisfaction is examined through survey and complaint system. Today, web technologies enable e-CRM to get feedback from customers, immediately after interaction and in minimum time; even feedback could be a part of interaction process. It is hoped that, customer satisfaction lead to customer loyalty which is another criterion for measurement of performance.

In financial performance evaluation, the most important criterion is cost reduction, but it should not bother customers' value. Increasing revenues and value of stock are other criteria for financial performance. At last, all these achievements besides increased market share and possession of windows of opportunities, cause firms to have a competitive position in the market and gain competitive advantage. [14, 15]

## CONCLUSION

Although many CRM projects fail from all over the world, implementing these systems, strategies and generally CRM-oriented thinking increased. The growing trend of digital economy usage, encourage active researches on CRM field to have a new perspective to CRM and apply web and other digital economy facilities for better interaction with customers. In result, e-CRM has presented as an approach which could help solving many organizational problems.

Presented framework will be tested in order to measure its efficiency. Apparently the results will be published in next papers by the authors.

Finally, successful implementation of e-CRM needs top management support and all labor and people commitment. It is considerable that heavy investments in IT, can't be replaced instead of human resource investments, because e-CRM needs interaction and cooperation and most of all, integration (information integration, different IS integration, channel integration, resource integration and function and process integration; to be sure of their productiveness, customer – orientation and performance competitiveness).

## REFERENCES

- [1]. Pan. Sh And Land Lee. J. N, *Using e-CRM For A Unified View Of The Customer*, Communications Of The ACM, Vol. 46, No. 4, April 2003.
- [2]. Fayerman. Michael, *Customer Relationship Management, New Directions For Institutional Research*, Wiley Periodicals. Inc, no. 113, Spring 2002.
- [3]. Boltone.K And Steffens. J, *Analytical CRM: A Marketing Driven Organizational Transformation*, Loyalty Optimizing Customer Interactions, Spring 2004.
- [4]. Ryals. L And Knox. S, *Cross-Functional Issues in the Implementation of Relationship Marketing Through Customer Relationship Management*, European Management Journal Vol. 19, No. 5, pp. 534-542, 2001
- [5]. Dussart. Ch, *Transformative Power of e-Business Over Consumer Brands*, European Management Journal Vol. 19, No. 6, pp. 629-637, 2001
- [6]. Ball. C, *Investigating How Strategic Business Objectives And Standard Software Support The Concept Of CRM*, Department of Information Systems, School of Computing and Mathematics, University of Huddersfield, Queensgate, Huddersfield, United Kingdom 2004
- [7]. Park. Ch.H And Kim.Y. G, *A framework of dynamic CRM: linking marketing with information strategy*, Business Process Management Journal, Vol. 9 No. 5, pp. 652-671, 2003
- [8]. Porter, M. E.: *Competitive Advantage*, Free Press, New York, 1985
- [9]. Payne. A, *A Strategic Framework for Customer Relationship Management*, BT White Paper – Short Version, 2001
- [10]. Pritchard. A And Cantor. P, *e-channel management: Electronic Customer Relationship Management*, Customer Relationship Management: A Strategic Imperative in the World of e-Business, pp. 159-187, John Wiley Ltd, 2000.
- [11]. Payne. A, Frow. P, *The role of multi channel integration in customer relationship management*, Journal of Industrial Marketing Management 33, 527- 538 - 2004
- [12]. Shobha Ganapathy, C. Ranganathan, and Balaji Sankaranarayanan, *Enhancing Customer Relationship Management Communications Of The ach*. Vol. 47, No. 11, November 2004
- [13]. Osterwalder. A., Pigneur. Y, *Modelling Customer Relationships in e-Business*, 16th Bled Electronic Commerce Conference e Transformation, 2003
- [14]. J. L. Solleiro, R. Castano'n, *Competitiveness and innovation systems: the challenges for Mexico's insertion in the global context*, Journal of Technovation 25, 1059-1070 - 2005
- [15]. Marilyn E. Booth, George Philip, Technology, *Competencies, and Competitiveness: The Case for Reconfigurable and Flexible Strategies*, Journal of Business Research 41, 29-40 -1998

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