

# A New Model for e-CRM in e-Commerce using Live-Operator

Samin Jirehbandei and Alireza Nemaney Pour

**Abstract**—By the development of the Internet, e-commerce has got very popular between organizations. E-commerce means buying and selling products and services over the Internet. One of the challenging issues in e-commerce is how to attract the customers and how to satisfy them. Therefore, it is important to keep good relationship with the customers. This paper proposes a new model to increase the customer satisfaction by introducing live-operator. Live-operator is a system which is involved both with the customers and the organization. In this system the customers feel that they receive the service directly from the organization. This model decreases the response time and the customer loss. Moreover, it increases customer trust and the ability of organizations.

**Keywords**—Customer, Customer Satisfaction, e-Commerce, e-CRM, Live-Operator, Organization

## I. INTRODUCTION

BY the development of the Internet, e-commerce has got very popular between organizations. E-commerce means buying and selling products and services over the Internet. It is generally divided into three main categories; business-to-business (B2B), business-to-consumer (B2C), and consumer-to-business (C2B). Later, this kind of business was developed into other services. Table 1 shows the whole services provided by e-commerce.

TABLE I  
E-COMMERCE SERVICES

Service Name	Service Name
Consumer-to-Consumer (C2C)	Government-to-Business (G2B)
Business-to-Manager (B2M)	Government-to-Citizen (G2C)
Business-to-Consumer (B2C)	Government-to-Employee (G2E)
Consumer-to-Business (C2B)	Government-to-Government (G2G)
Business-to-Government (B2G)	Manager-to-Consumer (M2C)
Citizen-to-Government (C2G)	Business-to-Business (B2B)

Similar to traditional business model, there are many advantages for e-commerce. Generally, e-commerce improves customer involvement, customer service, and relationship with the suppliers, and increases flexibility, ease of shopping, and service customization. On the other side, the disadvantages of

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e-commerce generally have close relationship to the technology such as capacity and bandwidth problems, security of money and information. E-commerce can benefit its advantages, if it is organized based on a correct business model [1].

The satisfaction of the customers is the most important factor in e-commerce. To achieve this goal, the organizations provide some services to keep attract and to keep the customers satisfied. In order to succeed, e-commerce creates a system called electronic-Customer Relationship Management (e-CRM). E-CRM is a system which tries to provide better customer services with support. This system is divided into three categories, analytical, operational, and collaborative.

Analytical helps the organization maintain long-term relationship with the customers, and find new opportunities for the organization. Operational indicates how organizations should communicate with the customers e.g. e-mail, fax, website, telephone. Since the main purpose of e-CRM is about the customer satisfaction, the communication method should not provide inconvenience for the customer. Finally, collaborative is about interacts of customers with the organization. In this part the customer can communicate with organization with his/her desire. Of course the method that the customer chooses for communication must be suitable with the features of the organization [2] - [3].

There are many researches about e-CRM [4]-[6]. The common issue with all of them is that they have focused on the benefits of e-CRM without proposing a distinct solution about how the organization should be involved to improve the e-CRM.

This paper proposes a new model to increase the customer satisfaction by introducing live-operator. Live-operator is a system which is involved both with the customers and the organization. In this system the customers feel that they receive the service directly from the organization. This system improves the response time, the customer trust, the organization functionality, and the profit ability.

This paper is organized as follows: Section 2 gives an overview of e-CRM and discusses the related work. Section 3 includes our proposal. The conclusion is given in section 4.

## II. RELATED WORK

This section discusses the previously proposed models. As stated above, the purpose of these researches is to indicate the relationship between the related research areas of e-CRM. Before we proceed further we give an overview about e-CRM.

The main structure of e-CRM is composed from three parts: basic, customer service and special service (Fig. 1). Basic part includes the minimum services that organization needs to have

in order to enter the field such as website, and e-mail. The second part is related to customer service such as sales, customer trust, and security. The third part as the most important part in the competition between organizations is related to special services that distinguish organizations from each other.

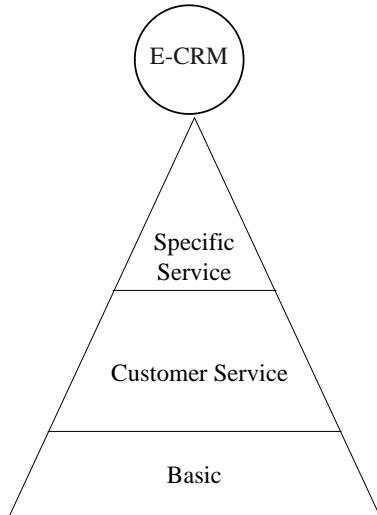


Fig. 1 Structure of e-CRM

The benefits of e-CRM are competition and marketing, manufacturing and services. Competition and marketing describes that when the scope of competition gets extensive, the mode gets serious between organizations. Moreover, when e-commerce marketing becomes vast, the activity of organization and the sales increase. From manufacturing and services point of view, one of the effects of e-CRM is how to increase the speed of handling the needs of the customer, and to provide favorable condition for the customers. The response of service is also increased by reducing redundant activities for the services. Therefore, the organization gets more satisfied from the customers which are good motivation for the organization to increase the production.

There are many researches about e-CRM. We consider three most typical ones [4] - [6] in this paper. Most of them focus on advantages of e-CRM used in e-commerce such as system quality, customer service, and relationship with the suppliers.

According to [4]- [5], success factors in e-CRM are divided into four areas that consist of organizational factor, process factor, technological factor, and project factor. In connection with these areas, they express three well-known dimensions about success system. The first dimension is about quality of system. The main purpose is measuring e-CRM systems in the situation when the information is processed such as response time, flexibility, and functionality. The second one is about the information quality. The measures are about the output of the system such as completeness, correctness, consistency, and relevance. The third one which is related to user satisfaction is the result of two other dimensions, system quality and the information quality (Fig. 2). [6] divides e-CRM into five different areas with some subareas for each of them. Figure 2

illustrates those areas showing the complexity and richness of e-CRM system. Those areas are human factors, markets, business models, knowledge management, and technology. This research explains that process of e-CRM is continuous and evolutionary. This process consists of organizational members and individuals from outside the organization which establish, develop, and maintain important successful customer relationships by using e-CRM technologies. This is the outcomes of relevant e-CRM processes [5].

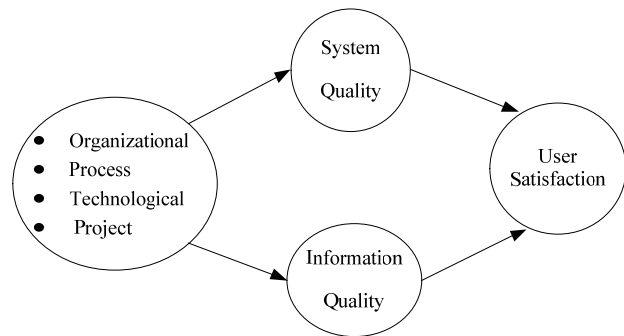


Fig. 2 Conceptual framework of critical success factors for CRM and e-CRM system [5]

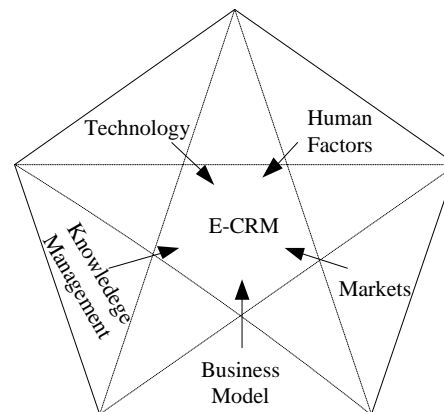


Fig. 3E-CRM research framework [6]

### III. OUR PROPOSAL

This section describes our proposal regarding using live-operator in e-CRM. The purpose is how to improve some of the indicated problems such as response time, customer trust, organization functionality, profit ability. The basic structure of e-CRM (Fig. 1) does not include special case for most of organizations. To explain our proposal, we start from special case in e-CRM.

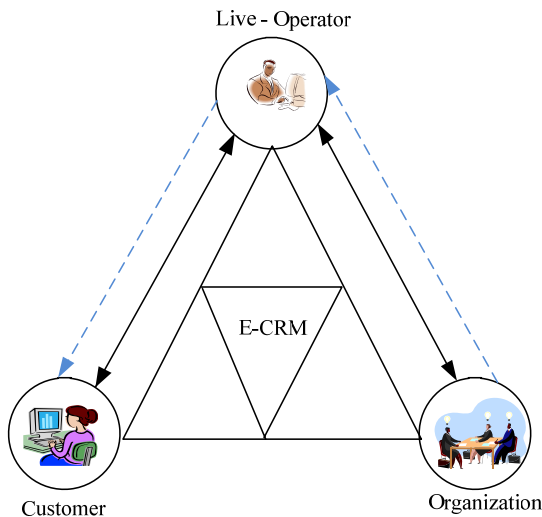


Fig. 4 Virtual model of relationship between live-operator, customer, and the organization

Figure 4 illustrates the proposed model and the related components. The structure consists of three components, live-operator, customer, and organization. As shown, each of two components is connected to each other.

First, as defined organization is the collection of the people who cooperate to achieve a common goal. The main purpose of the organization is to provide better services for its customers. This service is provided by live-operator in such a way that the customer feels that he/she receives the service directly from the organization. In this structure, the organization can recognize the needs of its customers through the live-operator.

Customer is a person who tries to get service for buying or selling the products of the organization. When a customer contacts the organization, the response for the needs of the customer is offered by the related live-operator as if he/she is involving with the organization directly. The benefit of this property is that, the response time is decreased. In addition, the satisfactory of the customers is increased.

Live-operator is a system which is involved both with the customer and the organization. When a customer surfs the website of an organization through the internet, a panel is popped up by the operator for the customer. If that customer has a question for any request, he/she uses the popped up panel to communicate with the operator. In this way, the operator tries to response as quickly as possible for the needs of the customer. This system, not only decreases the response time, increases the satisfactory of the customer because the quick response is like a solution for the issues of the customer.

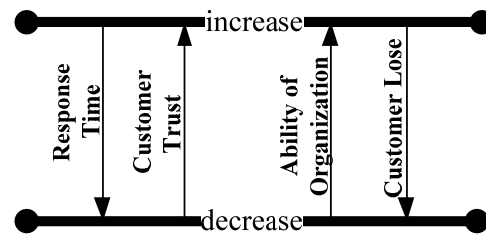


Fig. 5 Advantages of the proposed model

#### IV. CONCLUSION

In this paper, we proposed a new model for e-CRM in e-commerce. For model, we studied the three main components which affect on e-CRM. In this method, we introduced live-operator which is located virtually between the customers and the organization. By this way, when a customer contacts the organization, the response for the needs of the customer is offered by the related live-operator as if he/she is involving with the organization directly.

At the end, we conclude our proposal with some of its contributions (Fig. 5):

- Our model decreases the response time and the customer loss.
- Our model increases customer trust and the ability of organization.

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