The role of innovation and perceived service quality in creating customer value: a study on employees of a call center establishment

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Abstract

In this research it is aimed to examine the role of innovations in services, processes and managerial practices on customer value creation. Most of the studies in the literature support that the innovation is considered as one of the most important factors that affect customer value. Nevertheless, there has been relatively little significant research focusing on these issues. The research framework developed in this study was tested by 1117 call center employees in Turkey. In this context, as a result of statistical analysis applied to the data obtained from employees in call center establishment; it's accepted that a significant relationships were found between the variables. Accordingly, innovations on services and processes affect customer value positively.

Keywords: Customer value, Innovation, Call center establishment

1. Introduction

Although the rapid developments in every field raises the living standards of societies over time, they also made the customers, who are forced to choose among different services and product alternatives, the focal point in organizational activities. Today, the establishments of a long-term marketing relationship with the customers, which are becoming increasingly sophisticated and have preferences, because of their experiences, become more difficult for organizations day by day. Given that the call center establishments in particular, are organizations offering different services with different forms and standards in different destinations, in a highly competitive environment, it can be said that establishing a customer loyalty is not so easy. At this point, in recent years researchers emphasize the concept of "value", which represents the difference between "benefits" and "cost of benefit" provided to the customer, other than the service quality which is associated with "what is presented" and "how it is presented" to customers. Accordingly, the customer perceives the value of services rendered, just as he/she perceived the quality of service offered by the business. The "customer value" created as a result of this perception, should be considered as the fundamental basis of a long-term sustainable marketing relationship. Creating a customer value; in other words, offering more value to the customer, compared to rival companies, is related to the organizational capabilities. Many elements, affecting formation of customer's perception, are observed, when the characteristics of services and service processes offered in customer relations. The value presented to the customer; is formed when the customer compares the benefits and costs of services offered with the benefits and costs offered by competitors. Consequently, achieving competitive advantage by offering value to the customer requires being different and superior in many elements such as services, service processes, systems, quality, speed, etc. than competitors. Ensuring this depends on bringing

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innovations in services, service processes and managerial processes and the continuation of those innovations. In this study, the relationship between customer value and innovation will be discussed, which we believe it's increasingly gaining importance in customer relations.

1. Literature Review And Hypotheses

1.1. Customer Value

Customer value has become a managerial tool, with the understanding of the importance of providing customers a value, in the development of the service processes (Olaru et al, 2008). The customer value has been described as the main instrument of competitive strategies and the heart of management approaches by the researchers (Fortuin and Omta, 2007; Brennan and Henneberg, 2008). In addition to this, the customer value is closely related to marketing approach and customer-oriented nature of an organization (Brennan and Henneberg, 2008). Creation of the value and its presentation to customer lies at the center of the organization's marketing activities. Although there is no agreement in definition of the "value" concept and its underlying dimensional meanings in the literature yet; as a term it's mostly used in "customer value", "perceived value" or simply "value" forms (Howden and Pressey, 2008).

Customer value; can be defined as the difference between the sum of the expectations of customers regarding the product or service, and the total costs that they should bear in order to use that product or service (Kotler, 2000). The customer value is the difference between the total benefit obtained from the product or service and the total cost incurred to obtain that product or service (Aktepe et al, 2009). The customer value will be formed as a result of the customer's perception that the level of service quality exceeds the fee paid for that service (cost). In contrast; one can not speak of a value offering to the customer, if it's perceived that the costs incurred is higher than the level of services rendered.

1.2. Relationship between Innovation and Customer Value

The innovation in services industry is the result of the energy spent by the enterprise on thinking like the customer, and hence the innovation efforts will result in the formation of a customer value (Kandampully, 2002: 24). Innovation is defined as production of new ideas to create a sustainable customer value, and adoption of these ideas in new products, new processes and managerial procedures, by Nasution and Mavondo (2008). Sintes and Mattsson (2009) emphasized that the innovation may be related to all actors and processes in regard to preparing the service for presentation and its presentation, in accommodation establishments; and divided the innovation in four types, as managerial innovation, innovation in external communication, innovation in services' scope and innovation in back-office. In this study, three innovation dimensions, which their suitability is accepted in literature (Nasution and Mavondo, 2008:4), will be presented, which we think that they are more appropriate for the characteristics of call center establishments: Innovation in services, innovation in processes, and managerial innovation.

In the studies in literature (Mavondo and Farrell, 2003; Fortuin and Omta, 2007(20); Nasution and Mavondo, 2008; Mathuramaytha and Ussahawanitchakit, 2008; Flint et al., 2008; Chang, 2008; Sintes and Mattsson, 2009; Hjaleger, 2010) it's accepted that the innovative practices are fundamental ability, which can affect the formation of the customer value. In addition to this, there are almost no empirical studies carried out for testing the relationship in question. In this respect, in Turkish call center establishment the following hypotheses were developed, in order to examine the relationship between customer value and innovation:

| Independent variables     | Mediating variables | Dependent Variable |
|---------------------------|---------------------|--------------------|
| Innovation in services    | Perceived service quality | Customer Value    |
| Managerial innovation     |                      |                    |
| Innovation in processes   |                      |                    |

Figure 1: Proposed Research Model for the Call Center Establishments
The hypothesis are developed in accordance with the assumed relations in the research model for future research, are as follows:

- **Hypothesis 1**: Innovation in services affects the customer value
- **Hypothesis 2**: Innovation in processes affects the customer value
- **Hypothesis 3**: Innovation in services affects the perceived service quality
- **Hypothesis 4**: Innovation in processes affects the perceived service quality
- **Hypothesis 5**: Managerial innovation affects the perceived service quality
- **Hypothesis 6**: Perceived service quality affects the customer value

It's suggested that an investigation of the relationship between innovation and the customer value in call center establishments, together with the intermediate variable on perceived quality of service has importance. It can be stated that the new studies to be conducted on this subject will offer new insights to researchers.

### 1.3. Perceived Service Quality

Service quality is often conceptualized as the comparison of service expectations with actual performance perceptions (Zeithaml et al., 1990). Service quality has been acknowledged as a multi-dimensional construct. Bloemer, Ruyter and Wetzel's (1998) considered five key dimensions of service quality in their study. These are; reliability, responsiveness, assurance, empathy, and tangibles are listed as the dimensions. Another theme involves the heightened interest in the technical and functional quality dimensions identifies. The consumer perceives what he or she receives as the outcome of the process in which the resources are used, i.e. the technical or outcome quality of the process. But he or she also, and often more importantly, perceives how the process itself functions, i.e. the functional or process quality dimension. Thus, the technical quality and functional quality dimensions of perceived service quality emerge (Grönnroos, 2001). Rust and Oliver (1994) offer a three-component model: the service product (i.e., technical quality), the service delivery (i.e., functional quality), and the service environment. That is, service quality is defined by either or all of a customer's perception regarding (1) an organization's technical and functional quality; (2) the service product, service delivery, and service environment; or (3) the reliability, responsiveness, empathy, assurances, and tangibles associated with a service experience.

### 2. Methodology

#### 2.1. Objectives, Method and Scope

The aim of the study can be summarized as to explain the relationship between innovations in services, process, administration and the customer value, in call center establishments. Survey technique was used to collect data. The research results are limited to the area of application of the questionnaire, which is generated via a literature review, to the employees of call center establishment in Turkey, because of the costs and opportunities.

#### 3.2. Sampling

The sample used for the study consists of approximately 1117 employees, who served in various positions in one of the biggest call center establishments operating in Turkey.

#### 3.3. Measuring Instrument

Measures used in the questionnaire are adapted from questionnaires used in the studies from literature. The variables used in the customer value measure; are taken from Yang and Peterson's (2004) study and Mavondo and Nasution's (2008) study. And the variables in the innovation measure are again taken from Nasution and Mavondo's (2008) study. For answers to the statements of survey, a Likert-type metric, that is, expressions with five intervals has been used. Anchored such; "1- strongly disagree, 2- disagree, 3- undecided, 4- agree, 5-strongly agree". There are also 5 demographic questions in the questionnaire. As a result of the conducted pilot study, it's observed that the items in the factor analysis, where (n=30) was applied, displayed a proper distribution, in accordance with the theoretical characteristics.
3.4. Statistical Methods

The data obtained from the study, were evaluated by help of AMOS for Windows 20.0 program. After the confirmatory Factor Analysis performed in order to test the reliability of each measure, the internal consistency coefficients (Cronbach's Alpha) were calculated separately for each measure; all Cronbach’s Alpha value scores were higher than 0.85 therefore all measures can be inferred as reliable. The path analysis method was used to determine the presence of interdependency among variables and to test the research hypotheses and to calculate model fit.

3. Results

The results of the hypothesis tests are described subsequently. The detailed conceptual model with the hypothesized relationships as discussed above are indicated in tables, to provide a summary of the hypotheses. The results indicate that innovation in services affects the customer value, supporting H1. Services that are innovative and proactive are more likely to make contribution to the customer value. As predicted by H2, innovation in processes affects the customer value. Innovation in services affects the perceived service quality, supporting H3. Organizations are more likely to upgrade perceived service quality, where they have successfully implemented radical and innovative changes to their services. Moreover, the results also indicate that innovation in processes affects the perceived service quality, supporting H4. As predicted by H5, managerial innovation affects the perceived service quality. And finally, perceived service quality affects the customer value which is supported in H6.

![Figure 2: Regression Weights for Proposed Research Model for the Call Center Establishments](image-url)
### Standardized Regression Weights

|                                | \( R^2 \) | Estimate | S.E. | C.R. | P       |
|--------------------------------|-----------|----------|------|------|---------|
| Perceived Serv. Qual.          |           |          |      |      |         |
| Perceived Serv. Qual.          | \(<---\)  | Inn. in Services | 0.649 | ,345 | ,011   | 19,469 | *** |
| Perceived Serv. Qual.          | \(<---\)  | Managerial Inn. | 0.630 | ,432 | ,010   | 24,387 | *** |
| Perceived Serv. Qual.          | \(<---\)  | Inn. in Processes | 0.586 | ,586 | ,011   | 33,044 | *** |
| Customer Value                 | \(<---\)  | Perceived Serv. Qual. | 0.603 | ,323 | ,041   | 10,160 | *** |
| Customer Value                 | \(<---\)  | Inn. in Services | 0.517 | ,345 | ,018   | 14,526 | *** |
| Customer Value                 | \(<---\)  | Managerial Inn. | 0.468 | ,468 | ,016   | 20,050 | *** |
| Customer Value                 | \(<---\)  | Inn. in Processes | 0.074 | ,074 | ,020   | -2,779 | .005 |

### Standardized Total Effects

|                                | Inn. in Processes | Managerial Inn. | Inn. in Services | Perceived Serv. Qual. |
|--------------------------------|-------------------|------------------|------------------|-----------------------|
| Perceived Serv. Qual.          | ,586              | ,432             | ,345             | ,000                  |
| Customer Value                 | ,116              | ,608             | ,429             | ,323                  |

### Standardized Direct Effects

|                                | Inn. in Processes | Managerial Inn. | Inn. in Services | Perceived Serv. Qual. |
|--------------------------------|-------------------|------------------|------------------|-----------------------|
| Perceived Serv. Qual.          | ,586              | ,432             | ,345             | ,000                  |
| Customer Value                 | ,074              | ,468             | ,317             | ,323                  |

### Standardized Indirect Effects

|                                | Inn. in Processes | Managerial Inn. | Inn. in Services | Perceived Serv. Qual. |
|--------------------------------|-------------------|------------------|------------------|-----------------------|
| Customer Value                 | ,189              | ,140             | ,112             | ,000                  |

Furthermore, it is encountered that the three of process innovation, managerial innovation and innovation in services have indirect effects on customer value. These variables increase customer value indirectly by the means of affecting perceived service quality. In fact, it is come out that innovation in processes have indirect affect on customer value more than its direct affect. For reliability concerns; selected model fit values are: CFI = 0.88; GFI=0.88; RMSEA=0.074; NFI=0.89, which are over acceptable fit level and very close to good fit.

### 4. Discussion

According to a definition of International Call Center Management Institute, a call center is a coordinated system of people, processes, technologies, and strategies that effectively integrates organizational resources and multiple channels of communication to enable customer interactions that create value for the customer and the organization. Call center establishments are an important touch-point between the company and its customers. A study conducted by Purdue University found that 92% of US customers form their image of a company based on their experience using the company’s call center Call center performance is critical to the image of an organization.

By this view the current study which is defined from the employee’s perspective showed the relationships between innovation, perceived service quality and customer value in call centers which are crucial for the organizations. The findings of the study provide satisfactory support for the conceptual framework. A central theme of this study is that innovation affects customer value by the means of perceived service quality. The theoretical constructs operate largely as hypothesized and explain a satisfactory proportion of the variation in competitive advantage.

New technology has made a significant impact on call centers. Even with the developments in the technology the call center employees are still the key to organization’s customer value strategy. As predicted in call centers innovation influences both perceived service quality and customer value. Findings suggest that organizations should...
invest in innovation to increase perceived service quality which effects on customer value. And these actions should be promoted to all employees.

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