

ON THE CORRELATION BETWEEN MANAGING SUPPLYING CHAIN QUALITY AND CUSTOMER SATISFACTION OF WEST AZERBAIJAN VETERINARY DEPARTMENT

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ABSTRACT

The aim of the present study is to investigate the relationship between managing supplying chain quality and customer satisfaction of West Azerbaijan Veterinary Department. The study is applied and field-dependent in terms of goal and method, respectively. The statistical population comprises of 272 employers working at West Azerbaijan veterinary Department and 159 people were chosen as sample size using Morgan table, the main instrument used to collect data was Herzberg Johnston Customer Satisfaction Inventory (1997) and researcher-developed questionnaire measuring managing supply chain quality. Having piloted the questionnaires, the reliability was obtained as 0.874 using Cronbach alpha coefficient. Having collected the data, central tendency indexes as well as distribution and Kolmogorov-Smirnov as well as Pearson correlation coefficient were employed. The results manifested that there was a relationship between managing chain supply quality and customers satisfaction.

KEYWORDS: managing supply chain quality, customers' satisfaction, West Azerbaijan Veterinary Department

INTRODUCTION

Organizations follow specific goals. Every organization such as big companies, public companies, manufacturing industries or small businesses attempt to pride the way for meeting their client's' needs, so, these centers demand specific materials, equipment, facilities, and providers. The performance of one organization is affected by the activity if other organizations who generate the providing chain. The role of knowledge sharing in achieving competitiveness is the concept that has been considered in the past few years. Effectiveness and productivity of organizations are derived from the performance of management and structure of its supplying chain. The key of success to nowadays organizations is the perception and understanding of customers' needs and rapid responding to these latent needs. The supplying chain includes all activities related to the transaction of goods and services from the raw material to the final product which is consumable by customer. These transfers involve the information and financial data (Jafarnejad, 2007). One of the most important management sciences which have opened up new discussions in this field is managing supply chain. Making use of these instruments, organizations would be capable of optimizing their commercial relations with commercial counterparts such as raw materials providers, distributors and contractors of goods transformations. Hence, the economic enterprise would be able to distribute its goods to the market and reduce the extra expenses. Managing supply chain integrates the supplying chain activities and related information trends through improving the relations of chain in order to attain irresistible competitive advantage. Managing supply chain is characterized by the integration process of supply chain activities and related information trends through improving and synchronizing activities within the productive supplying chain and distributing goods (Jafarnejad *et al.*, 2007).

Definition of managing supply chain

It is defined as the set of methods employed to integrate provider's products, storages and sellers so that the goods are distributed in appropriate time and place aiming to minimizing system expenses. Managing supply chain involves integrity of production, storages, localization and transportation among the participants of one chain supplying so as to attain a better composition to respond to market needs (Gazanfari *et al.*, 2001).

Efficiency of supply chain

Efficiency of supply chain means supplying expense and delivering goods to customers. When discussing on supplying chain, continuous decrease of expenses having to do with materials development is considered for all shareholders of

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supply chain. In other words, every member of supply chain endeavors to reduce the ultimate expense in lieu of selling product to other members of supply chain with a higher rate of expense. This leads to the fact that the ultimate expense of goods reduces and the performance of company increases, so, one can take it into account as one of the strategies for supply chain (Rabie *et al.*, 2006).

Performance of supply chain

Evaluation of supply chain performance has been taken into account by researchers. One can divide measuring methods of supply chain by five categories, namely, traditional performance evaluation methods, global-level performance evaluation systems, SCORE model, balanced scorecard model, specific models of each supply chain. In case the study is carried out on types of supply chains, one can use models of the first four categories (Emam, 2002).

Quality of services

Despite the longtime of discussion on service quality issue and the methods for its evaluation, the attention toward this notion has not been reduced. The evaluation of quality in service-based organizations is the extent to which the provided service meets the needs of customers. Awareness of service quality concept and effort to improve it lead to provide services with low-rate quality and one can expect customers' satisfaction through improving the level of service quality. Parasorman *et al.* define service quality as the customer judgment and the difference between customers' expectations and what is supposed to be provided by company. So, one can state that service quality is based on the difference between expectation or demands of customers and the real performance of service (Talegani, 2011). Grewner (2005) declares that service quality can be considered on two levels: implementation quality (what is done) and performance-based quality (how it is done) (Wong amy & Shoal Amrik, 2002).

Bari *et al.* (1988) have provided a general definition of quality which is the conformation in relation to attribute. Although they have demonstrated that confirmation to customers attributes is the definition of quality by customer and not the one to be provided by management (Wen-Baolin, 2007). A number of organizations and companies have indicated that customer satisfaction is considered as the incoming successors in terms of commerce. The questions posed here is that what characteristics of goods yield the satisfaction of customers and what attributes prevent customers unsatisfactory. In fact, Kano's model was proposed in order to draw conclusions for management in the field of customer satisfaction (Aliyari, 2006). Customer is the individual who defines his needs, the one who consumes goods and provided services and is able to pay the pertinent expenses. But the fact is that the customer tries to pay the expenses till he/she understands value of goods (Mohamadi, 2009).

Customer satisfaction is a positive feeling to be generated within the individual after consuming the good. In case the good or received product provides the needs of customer, a good feeling of satisfaction is achieved; otherwise, no satisfaction would be anticipated. Scientific and practical studies show that unsatisfied customer perform more active in sharing the emotion with others and the rate of negative emotions transfer within these individuals is double that of satisfied customers. So, customers not satisfaction is more contributive than their satisfaction (Kavosi & Sagayi, 2009). Customer satisfaction involves determined pleasant and unpleasant emotions derived from intellectual performance comparison and customer expectation. Customer satisfaction is the degree of real performance of company which provides customers' expectations. The more the perceived quality of customer, the more customer satisfaction will be (Divandari and Delkhah, 2005). Satisfaction of service can be defined as the comparison between individual's expectations from those services or his/her perceptions of provided services. In case the provided services are higher than customers' expectations, those services are regarded more pleasant. When customers' expectations are conformed, the quality of provided services will be satisfactory. Studies imply that less than 5% of customers show their unsatisfactory status although four of them are not satisfied with their purchases (Tizfahm Takmedash, 2005).

Goods and services quality is liable to result in customer satisfaction and repercussion of customer satisfaction. Customer satisfaction brings about many advantages for companies, preserving good customers in long-term is advantageous in comparison with attracting new customers. Higher rates of customer satisfaction are a type of insurance in relation to probable mistakes of company. Thus, changes related to producing goods and services are not inevitable. Consistent customers are more ignorant when confronting such situations due to the fact that they ignore the mistakes easily they have already experienced. So, it is not surprising that attracting customer satisfaction is the most important task of organizations and institutes (Benos & Safaeian, 2001).

Related studies

Lee *et al.* (2011) investigated the relationship between programs and performances of "guaranteeing quality of supply chain" and "performance of supply chain" within the SCORE model framework. They showed in their study that in case each of the high-level process model of SCORE model were combined effectively with the requirements and standards of ISO 9000 quality management, performance of supply chain would be increased in three performance-based indexes related to customers. In another study, Teimori (2009) investigated the development of providers choosing model and distributing with supply chain management approach. Regarding the research flows, a mathematical model was provided to make optimization. These two tasks were mainly choosing as well as developing providers as members of supply chain and distributing as well as delivering existing tools in central storage through secondary storages. Researchers in the study provided an integrated mathematical model for choosing providers and simultaneous development of them. Evaluation and choosing supply chain management in the case of individual resource identification with fuzzy approaches were studies by Jafarnejad *et al.* (2007). The aim of the study was to provide a fuzzy-based decision-making method for issues of suppliers choosing in supply chain, the quality of determining the most appropriate supplier has been considered in the recent years. Generally speaking, the issue of choosing suppliers has confronted inaccurate and ambiguous data. Vazifedost and Ataolahi (2007) identified and prioritized the affective factors on customer satisfaction in relation to after-sales services using Kano model. 21 factors were identified in the first hand by the researchers and they were prioritized based on Kano model.

MATERIALS AND METHODS

The statistical population comprises of 272 employers working at West Azerbaijan Veterinary Department and 159 questionnaires were distributed among them, Herzberg Customer Satisfaction Questionnaire (1997) and researcher-developed questionnaire of supply chain quality management were developed. 49 items were included in the questionnaire rated as Likert-5 item scale ranging from very low to very high. Descriptive statistical and inferential statistics were employed to make statistical analysis.

Discussion and conclusion

To show the normal or non-normal status of variables distribution, Kolmogorov-Smirnov test is used. In case the level of significance I greater than 0.05, data are normally distributed.

Table 1. Results of K-S test to study normal distribution of variables

	Number	Kolmogorov-Smirnov	Level of significance
Managing supply chain quality	159	1.08	0.124
Customer satisfaction	159	1.02	0.199

Table 1 shows that all of the variables are distributed normally.

Hypothesis 1: there is a relationship between managing supply chain and customer satisfaction in West Azerbaijan Veterinary Department

Table 2. The relationship between managing supply chain and customer satisfaction

Managing supply chain quality		
Customer satisfaction	Person correlation coefficient	0.585
	Level of significance	0.000
	Frequency	159

As it is seen in the above table, the level of significance for Person correlation test to study the relationship between managing supply chain and customer satisfaction is 0.000 and the minimum of this level is less than the level of significance (0.005). So, alternative hypothesis is accepted and null hypothesis is rejected. This means that there is relationship between managing supply chain and customer satisfaction in West Azerbaijan Veterinary Department.

Testing hypothesis 2: there is a relationship between cooperation as well as communication with customers along with suppliers and customer satisfaction in West Azerbaijan Veterinary Department

Table 3. The relationship between cooperation as well as communication with customers along with suppliers and customer satisfaction

cooperation as well as communication with customers along with suppliers		
Customer satisfaction	Person correlation coefficient	0.218
	Level of significance	0.038
	Frequency	159

As it is seen in the above table, the level of significance for Person correlation test to study the relationship between cooperation as well as communication with customers along with suppliers and customer satisfaction is 0.038 and the minimum of this level is less than the level of significance (0.005). So, alternative hypothesis is accepted and null hypothesis is rejected. This means that there is relationship between cooperation as well as communication with customers along with suppliers and customer satisfaction in West Azerbaijan Veterinary Department. Testing hypothesis 3: there is a relationship between integrity as well as process management in chain level and customer satisfaction in West Azerbaijan Veterinary Department

Table 4. The relationship between integrity as well as process management in chain level and customer satisfaction

integrity as well as process management		
Customer satisfaction	Person correlation coefficient	0.473
	Level of significance	0.000
	Frequency	159

As it is seen in the above table, the level of significance for Person correlation test to study the relationship between integrity as well as process management in chain level and customer satisfaction is 0.000 and the minimum of this level is less than the level of significance (0.005). So, alternative hypothesis is accepted and null hypothesis is rejected. This means that there is relationship between integrity as well as process management in chain level and customer satisfaction in West Azerbaijan Veterinary Department.

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