The Study of Relation Between Supply Relationship Management and Customer Satisfaction in Textile Industry

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Abstract: In this study the quality of supply chain relations of which the dimensions contain communications, cooperation, commitment, adaption and trust is investigated as one of the main processes in the supply chain management and the independent variable in the research. Consumer satisfaction as an important factor for quality evaluation was also researched as the dependent variable and later the relation between two variables was defined. Practically, the research is a correlation type and it is performed as a field research. Community survey includes thirty suppliers of Mazandaran Textile Company as the selected samples. The measurement tool was a questionnaire and the relation between two variables was evaluated by Pearson relation. Results show that the communication management for the suppliers in textile industry is directly related to the customer satisfaction. The most related dimension with customer satisfaction is communication and the least is dependence. The supply chain management in textile industry has a direct relation to the customer satisfaction.

Key words: Supply chain management · Supply relation management · Customer satisfaction · textile industry

INTRODUCTION

The great changes in business and new requirements of business and manufacture and production in this age, created new looks and views which should be paid attention by manufacturers and business persons. So, some new points of views and aspects about supply called supply chain management have been developed so that they created new appearances in supply management [1]. Some activities like supply and demand planning, providing materials, production and planning products, produce maintenance services, inventory control, distribution, delivery and saving the customers which all were done in company size, now were transferred and changed to chain level. Management and coordination control of all these activities are the key factor in a supply chain. Supply chain management is a phenomenon that does it so that the customers receive reliable and fast services with the best quality and good prices [2].

Generally, the supply chain consists of two or more organizations which are separated formally but are related by materials, information and financial activities. These organizations are companies that provide first materials or raw materials, parts, manufactured products or services like distribution, supplement, wholesale, retail sale and even the consumers [3].

For effective supply chain management, it is necessary that suppliers and customers interact in a coordinated way and good partnership and information relationships. It means quick flow of information in the elements of a chain which enables them to create an effective supply chain [4].

The competition increase and market changes and workplace changes have changed the ways of supplying and providing items and products and relations of suppliers and customers. In this new situation, it is necessary to increase the relations to suppliers and develop the stable partnership relationships in order to decrease the prices and increasing the flexibility against market changes. So, some big companies suggested some solution called supply relation management which are effective and made remarkable improvements. These systems were created through increasing dependence on contractors and suppliers in organizations. To increase benefit and make profit, the companies must find and choose a suitable supplier in a short time, increase the strategic relations to suppliers and interact effectively. The systems of supply relation management present instruments that by which it is possible to develop interactive, developed and strategic relations to suppliers. These systems manage the supplementary processes and supply strategies within and among some organizations [5].
In this study, we have tried to study the supply relations of textile products through similar studies and doing a research in the study of the effects of using supply chain management on the quality of textile products.

A research was done in the name of the effect of the quality of supply chain relation in function of quality by Brian Fynes, Chris Woss and Sean de Burca from Dublin University, Ireland in 2004 [6].

The main questions that this study is focused on are:

- Is it possible to determine the multi-dimension identity of supply chain relations?
- What is the effect of supply chain relations on quality function?

The study focused on the dimensions of quality relations to suppliers that are as followings:

**Trust:** Trust is among the most frequently cited dimensions of SC relationships in the literature and has been defined as “the firm’s belief that that another company will perform actions that will result in positive actions for the firm, as well as not take unexpected actions that would result in negative outcomes for the firm” [7].

**Adaptation:** Suppliers adapt to the needs of specific important customers and that customers adapt to the capabilities of specific suppliers. Such adaptation frequently occurs by way of investing in transaction specific assets such as product/process technology and human resources [8].

**Communications:** Communication can be defined as “the formal as well as informal sharing of meaningful and timely information between firms” [7]. Effective communication is therefore essential for successful collaboration [9].

**Interdependence:** Dependence refers to a firm’s need to maintain an exchange relationship to achieve desired goals [10, 11].

**Commitment:** Commitment refers to the willingness of trading partners to exert effort on behalf of the relationship and suggests a future orientation in which firms attempt to build a relationship that can be sustained in the face of unanticipated problems [12].

**Co-Operation:** Co-operation refers to situations in which firms work together to achieve mutual goals [7]. Because conflicting behaviours can co-exist temporarily with co-operative actions, co-operation is not simply the absence of conflict [10].

The hypothesis that Brian Fynes deals with include: [6].

H1: SCRQ is a higher order latent construct reflective of the dimensions of communication, trust, adaptation, commitment, interdependence and co-operation.

H2: SCRQ has a positive effect on conformance quality.

H3: SCRQ has a positive effect on design quality.

H4: Design quality has a positive effect on conformance quality.

H5: Design quality has positive effect on customer satisfaction.

H6: Conformance quality has a positive effect on customer satisfaction.

This research tries to accept or reject the hypothesis as a field research and the investigated society was the suppliers of Ireland’s electronic section. Afterwards, the hypothesis 1, 3, 4, 5 and 6 were accepted and the hypothesis 2 was rejected.

Regarding to the dimensions of supplier relations presented by Brian Fynes they are as trust, adaptation, communication, inter dependence, commitment and co-operation, we presented a new conceptual model.

H7: There is a relation between the communications of textile product suppliers and customer satisfaction.

H8: There is a relation between the cooperation of textile product suppliers and customer satisfaction.

H9: there is a relation between the commitment of textile product suppliers and customer satisfaction.

H10: There is a relation between the adaption of textile product suppliers and customer satisfaction.

H11: There is a relation between the dependence of textile product suppliers and customer satisfaction.

H12: There is a relation between the trust of textile product suppliers and customer satisfaction.

**EXPERIMENTAL**

This is a field research and it practically investigated the correlation between two independent and dependent variables. Questionnaires were used in order to gather data. One of the questionnaires was designed.
RESULT AND DISCUSSION

The first hypothesis: communication among supply chain members of textile products causes customer satisfaction. Statistical result in Table 1 shows that p-value is less than the level of accepted errors. So $h_0$ is rejected and $h_1$ based on meaningful relation between communication and customer satisfaction is accepted in level of 0.05. Correlation coefficient between communication and customer satisfaction is 5%, 96% in a meaningful level.

The second hypothesis: co-operation among supply chain members of textile products causes customer satisfaction. Statistical result in Table 1 shows that p-value is less than the level of accepted errors. So $h_0$ is rejected and $h_1$ based on meaningful relation between co-operation and customer satisfaction is accepted in level of 0.05. Correlation coefficient between co-operation and customer satisfaction is 5%, 96% in a meaningful level.

The third hypothesis: commitment among supply chain members of textile products causes customer satisfaction. Statistical result in Table 1 shows that p-value is less than the level of accepted errors. So $h_0$ is rejected and $h_1$ based on meaningful relation between commitment and customer satisfaction is accepted in level of 0.05. Correlation coefficient between commitment and customer satisfaction is 5%, 83% in a meaningful level.

The fourth hypothesis: adaptation among supply chain members of textile products causes customer satisfaction. Statistical result in Table 1 shows that p-value is less than the level of accepted errors. So $h_0$ is rejected and $h_1$ based on meaningful relation between adaptation and customer satisfaction is accepted in level of 0.05. Correlation coefficient between adaptation and customer satisfaction is 5%, 94% in a meaningful level.

The fifth hypothesis: interdependence among supply chain members of textile products causes customer satisfaction. Statistical result in Table 1 shows that p-value is less than the level of accepted errors. So $h_0$ is rejected and $h_1$ based on meaningful relation between interdependence and customer satisfaction is accepted in level of 0.05. Correlation coefficient between interdependence and customer satisfaction is 5%, 94% in a meaningful level.

The community survey contains thirty suppliers of Mazandaran Textile Company. In order to select the suppliers, the simple random sampling method was used. Suppliers were yarn and cotton providers for the company as raw material.

Questionnaires were designed regarding the local conditions of the suppliers and producers. The evaluation test results for the questionnaires were performed by Cronbach’s alpha test showing 85 and 86 percent.

To prove the linear relation between the variables, Pearson correlation coefficients were used. This was because of the variable types which were both in interval scale format. Table 1 shows the correlation between the independent and dependent variables.

Table 1: Statistical results of research hypothesis

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Independent variable</th>
<th>Dependent variable</th>
<th>P-value</th>
<th>Level of error</th>
<th>Correlation coefficient</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Communications</td>
<td>Customer satisfaction</td>
<td>0.000</td>
<td>0.05</td>
<td>0.96</td>
<td>$H_0$ is rejected</td>
</tr>
<tr>
<td>2</td>
<td>Co-operation</td>
<td>Customer satisfaction</td>
<td>0.000</td>
<td>0.05</td>
<td>0.86</td>
<td>$H_0$ is rejected</td>
</tr>
<tr>
<td>3</td>
<td>Commitment</td>
<td>Customer satisfaction</td>
<td>0.000</td>
<td>0.05</td>
<td>0.84</td>
<td>$H_0$ is rejected</td>
</tr>
<tr>
<td>4</td>
<td>Adaptation</td>
<td>Customer satisfaction</td>
<td>0.000</td>
<td>0.05</td>
<td>0.94</td>
<td>$H_0$ is rejected</td>
</tr>
<tr>
<td>5</td>
<td>Interdependence</td>
<td>Customer satisfaction</td>
<td>0.000</td>
<td>0.05</td>
<td>0.83</td>
<td>$H_0$ is rejected</td>
</tr>
<tr>
<td>6</td>
<td>Trust</td>
<td>Customer satisfaction</td>
<td>0.000</td>
<td>0.05</td>
<td>0.91</td>
<td>$H_0$ is rejected</td>
</tr>
</tbody>
</table>
Fig. 2: Relation between communication and customer satisfaction

Fig. 3: Relation between co-operation and customer satisfaction

Fig. 4: Relation between commitment and customer satisfaction

Fig. 5: Relation between adaptation and customer satisfaction

Fig. 6: Relation between interdependence and customer satisfaction

Fig. 7: Relation between trust and customer satisfaction
rejected and $h_i$ based on meaningful relation between interdependence and customer satisfaction is accepted in level of 0.05. Correlation coefficient between interdependence and customer satisfaction is 5%, 83% in a meaningful level.

The sixth hypothesis: trust among supply chain members of textile products causes customer satisfaction. Statistical result in Table 1 shows that p-value is less than the level of accepted errors. so $h_i$ is rejected and $h_i$ based on meaningful relation between trust and customer satisfaction is accepted in level of 0.05. Correlation coefficient between trust and customer satisfaction is 5%, 91% in a meaningful level.

CONCLUSION

After analyzing research data, results show that supply relation management affects on customer satisfaction and increase in the suppliers' relations increases satisfaction of producers (customers). According to the hypothesis, supply relation management is divided into six dimensions. All dimensions of supply relation management have direct relations to customer satisfaction.

The dimensions are communication, co-operation, commitment, adaptation, interdependence and trust. The dimension which affects the most on customer satisfaction is communication and the least affecting dimension is interdependence. Therefore, supply relation management of textile products suppliers causes increased customer satisfaction and also it increases the quality of textile products.

REFERENCES