

Providing a Model for Financing the Buyer and Supplier in the Supply Chain of Mehrvarzan Healthcare Products Distributor

Hassan Soltani

Department of Management, Shiraz Branch,
Islamic Azad university, Shiraz, Iran

Abstract. The present study aims to provide a model for financing buyer-supplier in Mehrvarzan healthcare Company. The statistical population of the study includes 300 employees of the company. According to Morgan table, 168 people are selected as the statistical sample. Available non-random sampling method has been used. For collecting the required information, the standard buyer-supplier financing questionnaire of Tate et al. (2010) has been used. Data analysis is performed using Amos software with the help of one-sample t-test, correlation coefficient and regression. The results of the research show that there is a positive and significant relationship between all aspects of financing strategy, buyer-supplier financing, and buyer-supplier information sharing with financing performance, which indicates the direct and indirect impact of corporate financing strategy, buyer-supplier information sharing on buyer-supplier financing function.

Keywords. Buyer-Supplier Financing, Buyer-Supplier Information Sharing, Corporate Financing Strategy.

1. Introduction

In the 1980s, many efforts were made to improve the performance of organizations by focusing on internal processes. A review of

organizations' performance results has shown that the bulk of this is influenced by suppliers and customers. Extending the scope for improving organizational performance beyond organizational boundaries required new tools. One of the concepts that has been put forward in this regard is the supply chain management, in which companies, together with each other and with the creation of synergy, become capable of making more efficient decisions. Supply chain is a term that is used today in abundance throughout the world. Companies now need to neatly integrate all manufacturing processes, from raw material to final consumer. Supply chain management, as an integrated approach to managing flow of materials and goods, information and money flow, is able to meet these conditions. The first goal of the existence of a chain is supplying and satisfying customer needs in the process of producing value for itself. The supply chain activities start with the customer's order and ends when the customer pays for the purchase of the goods and services received. Most chains are in fact in the form of a network. The goal of each chain is to maximize the total value produced by it. The difference between the amount paid by the customer and the total cost incurred by the chain for the production and distribution of the goods shows the profitability of the chain. Chain profitability is the total benefit that must be shared between all stages of the chain. Based on this, the success of a chain is defined in terms of its profitability, and supply chain management involves managing flows between and within the steps of a chain to maximize its overall profitability. The supply chain consists of two opposite flows: the direct movement of goods from suppliers of raw materials and components to the customer and the return (vice versa) movement of information and materials from the customer to the suppliers. This chain consists of two parts: internal logistics and external logistics. Internal logistics or material management refers to the activities of receiving, storing, controlling, and processing materials until the required product is procured. External logistics or distribution of products refers to the departure of the products from the company to the customer and the provision of the necessary services to him. The important point in the supply chain is that chain companies are connected to each other in the form of a chain loops, and information

between them must be exchanged accurately and simultaneously in order to obtain the best decisions (Levy et al., 2004).

2. Literature Review

A supply chain covers all sectors that directly or indirectly deal with customer demand. The supply chain includes manufacturers, suppliers, carriers, warehousing, retailers and even customers themselves. Within each organization, such as manufacturing organizations, the supply chain includes all operations involved in receiving and executing customer demand. These tasks include new product development, marketing, production, distribution, finance, customer service, and other operations related to customer need satisfaction (Chapra and Mand, 2007). As competition becomes more global, innovation and creativity are shifted from firm-firm level to supply chain-supply chain level. Increasing competitive advantage will only be achieved if all supply chain actors are fully aligned. Supply chain management includes all planning and management of activities in the provision, supply, transformation and logistics coordination. From this perspective, supply chain management involves co-operation and coordination with chain partners who can be suppliers, intermediaries, third-party service providers, and customers. In fact, supply chain management has the task of integrating supply and demand within and among companies. Attention to the current situation in today's markets, which includes increasing the expectations of customers in terms of price, quality and variety of products and timely delivery, as well as the free flow of information that increases the knowledge and insight of customers towards competing products, and given the significant advancements in manufacturing technologies and transportation and ordering systems, as well as direct labor costs, there is a drastic pressure on firms, which have led firms to move backward and connect to suppliers of the supply chain in order to respond to new needs and provide customer satisfaction and survive in the competition scene, on the one hand, and move forward and connect to customers in order to achieve their strategic objectives, on the other hand. According to Will (2010), buying and profitability should be in such a way as to keep the trend stable. He further emphasizes that sustainable profits can only be achieved if the company is able to balance the interests of its

customers, employees, environment and its shareholders in the world. It becomes increasingly clear that along with managing socio-environmental impacts of the organization itself, the aspects and effects of the entire supply chain also needs to be managed, since the efficiency of the suppliers affects the purchasing efficiency of the organization and its reputation (Lewis et al., 2015). Therefore, purchasing activities are important to regulate and develop the environmental and community benchmark for its suppliers and to improve the overall efficiency of the supply chain. The use of noneconomic considerations in purchasing practices implies activity in relation to the organization's practices and performances. Consequently, the concept of management of purchasing operations has changed over time, which moved from the company's services with the lowest price unit to the coordinated purchasing between different business units, then to the internal integration of interoperability purchases, and the external integration of supply chain management, and ultimately, to the greater value chain (Lewis et al., 2015). According to the given information, in the competitive world of today, the most important aspect of the success of each company is its customers and buyers. The more the company can bring its sales closer to the interests of customers, the better the company can control the market. Therefore, the purpose of this research is to provide a model for the financing of the buyer and supplier in the supply chain of the healthcare products' distribution companies, in order to compete with other companies operating in this field and to become a brand and successful company compared to other manufacturers.

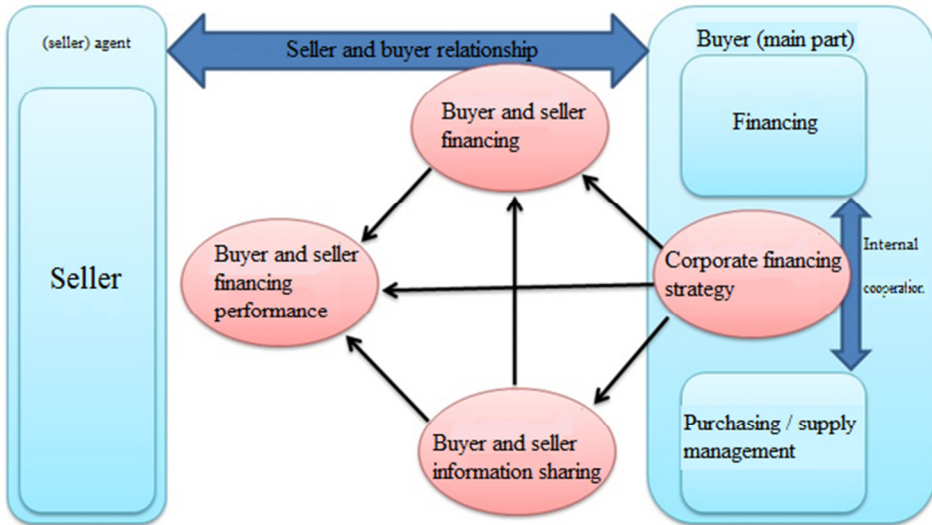


Figure 1: Conceptual model of buyer-supplier financing adopted from Tate et al. (2010)

3. Hypotheses

1. Corporate financing strategy has a significant relationship with buyer-supplier financing.
2. Corporate financing strategy has a significant relationship with buyer-supplier information sharing.
3. Buyer-supplier information sharing has a significant relationship with buyer-supplier financing.
4. Corporate financing strategy has a significant relationship with buyer-supplier financing performance.
5. Buyer-supplier financing has a significant relationship with buyer-supplier financing performance.
6. Buyer-supplier information sharing has a significant relationship with buyer-supplier financing performance.

4. Method

This research is applied because it aims to provide a buyer-supplier model in the supply chain for financial performance. The statistical

population of this research includes all full-time, part-time, marketers, and distributors of Mehrvarzan Company, who are contractually and officially employed in these dealerships. According to the company's deputy office, the number of them is over 300 people. According to the size of the statistical population, using Morgan table and Cochran formula, 168 people were selected as the statistical sample through non-random available sampling method. To collect the information needed in this research, the standard buyer-supplier financing questionnaire of Tate et al. (2010) has been used. The questionnaire has 14 items, the first 5 items are related to buyer-supplier financing, 3 items are related to the buyer-supplier financing strategy, 3 items are related to the buyer-supplier information sharing, and 3 items are related to the buyer-supplier financing performance.

Table 1: Questionnaire and its items

Variable	Items	Reference
buyer-supplier financing strategy	1-5	Tate et al. (2010) standard questionnaire
buyer-supplier information sharing	6-8	Tate et al. (2010) standard questionnaire
buyer-supplier financing	9-11	Tate et al. (2010) standard questionnaire
buyer-supplier financing performance	12-14	Tate et al. (2010) standard questionnaire

Content validity of the questionnaire was confirmed according to the supervisors and experts' opinions. To determine the reliability of the questionnaire, Cronbach's alpha coefficient was calculated. Cronbach's alpha coefficient of all variables of buyer-supplier financing, buyer-supplier information sharing, buyer-supplier financing performance, and buyer-supplier financing strategy was greater than .7 that is acceptable. In order to analyze the data obtained from the questionnaire, after encoding the information and entering them into SPSS and Amos software version 22, they were divided into two sections of the descriptive statistics and inferential statistics. In descriptive statistics section, a frequency table and indicators such as minimum, maximum, mean and standard deviation were used to describe the data. To examine the research objectives, one-sample t-test, correlation coefficient and regression were used.

5. Findings

Another way of checking the status of data normality is to use the Kolmogorov-Smirnov test, which is a non-parametric test. If it is significant for the variable at 5% level, it means that data are not normal and if it is not meaningful, variables are of normal distribution. Variables of financing strategy, buyer-supplier information sharing in the supply chain, buyer-supplier financing in the supply chain, and financing performance are of normal distribution. Therefore, parametric tests can be used to examine the research hypotheses.

Table 2: Kolmogorov-Smirnov test for examining data normality

Variable	k-s-z score	Sig. level
financing strategy	.016	.19
information sharing	.023	.2
buyer-supplier financing	.031	.1
financing performance	.025	.201

First hypothesis: Corporate financing strategy has a significant relationship with buyer-supplier financing.

To investigate the relationship between the two variables of the financing strategy and buyer-supplier financing in the supply chain, Pearson correlation coefficient test was used. The data show that there is a positive and significant relationship between the financing strategy and buyer-supplier financing at the 1% level. Correlation coefficient between these two variables is .346, which is relatively good correlation coefficient. Therefore, it can be said that in the supply chain of Mehrvarzan healthcare products company, the buyer-supplier financing status can be improved by improving the financing strategy.

Table 3: Correlation coefficient test of financing strategy and buyer-supplier financing

Variable	Correlation coefficient	Sig. level
buyer-supplier financing	.346	.001

Second hypothesis: Corporate financing strategy has a significant relationship with buyer-supplier information sharing.

Given the obtained data, there is a positive and significant relationship between the corporate financing strategy and buyer-supplier information sharing at the 1% level. Correlation coefficient between these two variables is .277. According to the positive correlation coefficient, it can be said that buyer-supplier information sharing can be better and more appropriately if corporate financing strategy is improved. In other words, buyer-supplier information sharing will be proper if corporate financing strategy is proper and if the improvement process is continued, information sharing will be better.

Table 4: Correlation coefficient test of financing strategy and buyer-supplier information sharing

Variable	Correlation coefficient	Sig. level
buyer-supplier information sharing	.277	.001

Third hypothesis: Buyer-supplier information sharing has a significant relationship with buyer-supplier financing.

As in the two previous cases, i.e. the relationship between financing strategy with financing and information sharing with financing performance, the relationship between financing performance and financing strategy is also positive and significant in Mehrvarzan Company, but at a level of 5% . According to the correlation coefficient of .279, with the increase and improvement of the corporate financing strategy, the financial performance of the company will also improve in the supply chain and will be closer to the ideal situation.

Table 5: Correlation coefficient test of financing strategy and buyer-supplier financing performance

Variable	Correlation coefficient	Sig. level
Supply chain financing performance	.279	.05

Fourth hypothesis: Corporate financing strategy has a significant relationship with buyer-supplier financing performance.

As can be seen in the table, there is a positive and significant relationship between information sharing and financing at the 5% level. This relationship has been positive with a correlation coefficient of .139.

It means improving the information sharing between the buyer and the supplier in the supply chain of the company can financing status of the company. In other words, by increasing the buyer-supplier information sharing, the financing of the company will be more improved.

Table 6: Correlation coefficient test of buyer-supplier information sharing and buyer-supplier financing

Variable	Correlation coefficient	Sig. level
buyer-supplier financing	.139	.05

Fifth hypothesis: Buyer-supplier financing has a significant relationship with buyer-supplier financing performance.

Information about the correlation coefficient between the two variables of information sharing and financial performance shows that according to the correlation coefficient of .137, it should be said that by increasing the level of information sharing between the buyer and the supplier, the company’s performance will be improved because there is a positive and significant relationship between the two variables of supplier-buyer information sharing and supplier-buyer financing performance at the 5% level.

Table 7: Correlation coefficient test of buyer-supplier information sharing and buyer-supplier financing performance

Variable	Correlation coefficient	Sig. level
buyer-supplier financing performance	.137	.05

Sixth hypothesis: Buyer-supplier information sharing has a significant relationship with buyer-supplier financing performance.

Considering the correlation coefficient of .315 and its positive sign, it should be said that there is a meaningful relationship between buyer-supplier financing with the financing performance of the company, which is as follows, with the improvement of the status of financing of the company in buyer-supplier supply chain, the financing performance of the company will be incremental and appropriate.

Table 8: Correlation coefficient test of buyer-supplier financing and buyer-supplier financing

Variable	Correlation coefficient	Sig. level
buyer-supplier financing performance	.315	.001

6. Conclusion

The results of the research showed that the corporate financing strategy has a positive and significant relationship with the buyer-supplier financing. Therefore, healthcare products distribution companies are recommended to use financing strategies that persuade the supplier to invest more in order to attract more and better financing. The results of the research showed that there is a significant relationship between corporate financing strategies with buyer-supplier information sharing. Therefore, it is suggested to use more flexible financing strategies to improve the status of information sharing between the buyer and the supplier and, on the other hand, to learn more about the needs of customers (buyers). The results of the research showed that the financing strategy has the potential to have an indirect effect on the financing performance, so managers of the company are recommended to consider the best and most appropriate financing strategy for the buyer and supplier with the appropriate decision in order to achieve a satisfactory performance. The results of the research showed that there is a positive and significant relationship between the buyer-supplier information sharing with financing. Therefore, it is suggested that the process of sharing information should be faster to increase the financial suppliers in the company in order to take into account the best and most important needs of customers and, on the other hand, to increase the willingness to invest and finance in the company. The results of the research showed that sharing information between the buyer and the supplier, in addition to the direct effect, has a very high indirect effect on the financing performance of the company. Therefore, it is suggested to set the stage for establishing the relationship between the buyer and the supplier through mobile booths at the place of sale of the products in order to increase the amount of information sharing between the buyer and the supplier. The results of the research determined that the buyer and supplier financing has the ability to have a very strong impact on

the financing performance of the company; therefore, Mehrvarzan healthcare product distributor company is recommended to adopt the best and most appropriate buyer-supplier financing method in order to improve their financial performance. The results of the factor analysis regression revealed that the sharing of information is an applied indirect affective factor; therefore, Mehrvarzan healthcare product distributor company is suggested to inform the company in terms of customer satisfaction and desires by creating areas such as providing information through new Internet software, email and etc. in order to inform the customers about how to use the products and get the information they need. The one-sample t-test results showed that the company's financing performance is in a relatively good position, but there is still room for improvement and progress towards the ideal. Therefore, the decision makers in the company are suggested to make their important decisions by taking into account customers' opinion by creating flexible conditions in order to make it possible to share the customer and buyer information and thus, improve financing performance.

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