

## **Analysis the Effect of Supply Chain Functions on Competitive Advantage and Organizational Performance in Food Industry (Case Study: Pegah Co.)**

Marziyeh Hedayatie and Seyed-Javad Iranban  
Department of Management, College of Economic and Management,  
Islamic Azad University, Shiraz Branch, Shiraz, Iran

**Abstract:** The present study purpose is to examine the effect of supply chain functions on the performance of the company regarding the competitive advantage of all production managers and experts is Pegah Fars Co. Variables of the study according to Li include supply chain functions, the company performance, the competitive advantage. The present study was conducted using descriptive-survey method and the study population consisted of production managers and experts of Pegah Fars Co. that using census sampling method 100 questionnaires were distributed and evaluated. In this study, in order to collect information a questionnaire was used that the validity is confirmed. The Cronbach's alpha was used to measure the reliability. The Cronbach's alpha obtained is equal to 0.87. In order to analyze data using software SPSS, AMOS Kolmogorov-Smirnov statistical methods, regression analysis and structural equations were used. The results of the study confirmed the conceptual model resented and showed that a relationship is found between supply chain functions and the company performance regarding the competitive advantage of all production managers and experts of Pegah Fars Co.

**Key words:** Supply chain, performance, competitive advantage, pegah fars, advantage

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### **INTRODUCTION**

**Statement of the problem:** Many experts believe that in today's competitive world, the competition level has been extended from companies to their supply chain and having an efficient and agile supply chain is a very important and decisive competitive advantage in the field of competition. In this regard, many experts believe that by extending the competition from companies to their supply chain, the product quality and quality management should also be extended from companies to their supply chain because as a product is underway from a member of the supply chain to another, the quality can also be affected, weakened or strengthened by other companies not owned by us. So, companies are obliged to act to have an effective and efficient quality management guaranteed the quality of the final product to customers as supply chain management by effective communication between chain partners, "cross-organizational" provides an opportunity to be able to cooperate to improve the quality of their products and services more effectively. Also in new business paradigm presented it is said that the competitive advantage is realized by having three factors at the same time of competitive quality, price and

delivery. And given the fact that competitive quality is realized in the field of quality management and competitive delivery is realized in the field of supply chain management, payments on quality management and supply chain management seem absolutely necessary.

In response to new paradigms presented, researchers in recent years introduced and developed a concept as "supply chain quality management" and mention it as the last step in a movement toward "total quality management" by which companies will be able to increase supply chain performance and the quality of final product to customers at the same time by effective integration of concepts of two management philosophies of total quality management and supply chain management and creating synergies and simultaneously having three mentioned competing factors and thereby obtain their competitive advantage.

However, all experts agree on the opinion that the implementation of quality management at the supply chain level is very difficult because as for implementing quality management at companies' level, partnership and commitment of the organization members including managers and employees are vital and in the implementation of quality management at the supply chain level coordination, participation and full integration of the

supply chain of the supply chain members are determinants that it is much more difficult and requires management that although uses principles and concepts of total quality management but is different from companies' level quality management because here management of supply chain and coordination between companies with different missions and objectives are presented that increased complexity and management challenges seem obvious.

Undoubtedly, Pegah Fars range of measures and activities from the past to date was with the aim of satisfying its customers and stakeholders and for the realization of this has taken fundamental step in all research aspects that the outcome of activities carried out has led to distinguish the company from other competitors. Pegah Co. in the field of production and processing of a variety of products using superior technology and today technical knowledge of the world, benefiting from the experience of 50 years of honest service to the community, timely need assessment of customers, the establishment of quality management systems in accordance with customers' opinion assessment systems of suppliers of raw material especially ranchers, supervising supply of good quality raw milk and based on quality standards, the use of optimized distribution and transportation systems and commitment to carrying out social responsibilities that as unwritten are the company responsibility has managed to achieve an optimized combination of products and deliver a baskets full of products in the right time and place and to the desired value to its customers and target markets. The company has always considered customer rights protection and promotion of healthy and safe food consumption patterns as the top of its activities and regarding the emphasis of Islam on respecting the rights of consumers and the importance of this subject in the areas of production and distribution with the benefit of comprehensive guidelines and planning has considered the development of indices and criteria of customer satisfaction measurement as one of its main policies and has always tried to help consumers on their rights and and thus increase public trust in the chain of production and distribution and creating mental relaxation in order. It should be noted Pegah Fars Milk Co. located in 32 km road Shiraz-Persepolis is one of the corporations covered by Iran Milk Industry Co. (Pegah) with more than half a century of experience in production and processing of milk and other dairy products, using modern and advanced devices of the world and the largest chain of distribution and dealers in the south of the country over 4000 dealers and stores is considered as the largest dairy industry south of the country. The company now with a

capacity of about 500 tons delivers its products with the name of Pegah Fars in hygienic packaging to the market. The company's products include a variety of milk products such as pasteurized milk packed in modern and the world standards and technology-compliant, simple and flavored sterilized milk, yoghurt, dough with different flavors and packaging, Iranian cup and envelop cheese, molded butter, whey pasteurized, sterilized and pasteurized cream, a variety of powdered products such as whey powder (permeate) and colored whey powder, dried milk, MPC powder and etc. Due to high competition in the dairy industry and the presence of strong companies that are active in this area if the company fails to supply equipment and raw material will fail in the competition and performance and profitability will be reduced. In the meantime, by the use of supply chain it should move to create competitive advantage for the organization. This is a major challenge for the company managers. Today, analyzing the performance in competitive and successful firms at a level beyond financial and productivity-oriented approaches is underway and firms' managers use various indices to measure performance. Some of these indices used in the past are directly associated with the production process, including the capacity, efficiency and productivity. But there is another category of indices to analyze the performance which is closely associated with the organization's strategic approach and is widely used today. The analysis of the competitive performance of firms is based on four aspects of competition in the areas of quality, price, speed of delivery and flexibility. From the perspective of Porter, firms have three major paths to improve their competitive position in the market ahead: First, to achieve the lowest production costs compared with competitors, second to produce a product with distinct characteristics and third to focus on a specific area of the market based on cost leadership or differentiation. Now the question arises that what is the relationship between the functions of supply chain management, the competitive advantage and organizational performance?

**The significance of the study:** The information revolution, the emergence of new forms of cross-organizational communication and increased expectations of customers in the field of cost of products and services, quality, delivery, technology, cycle time committed due to increased competition in global markets and the like are the factors that have caused changing traditional purchasing systems, procurement and moving toward modern systems of supply chain management by organizations in the world. But in the 21st century due to

globalization and economic activity in a competitive environment and growing companies and firms in the field of international business and their intense competition for survival and having a larger share of the market have caused creating a complex and difficult environment for decision making by managers and today by moving towards the future due to rapid changes and more complex conditions, organizations and firms' handling gets more difficult. The reasons of the importance of supply chain management can be expressed as follows:

**Increasing speed of technology change:** By growing changes in technology, plants in order to maintain technical experts in the field of activities that they arrange are strengthening their partners in the supply chain.

**The globalization of trade:** In a global economy, different regions of the world will be a supply chain steps. This may be a result of unlimited combinations of supply resources (endless resources' cooperation), including proximity to natural resources, infrastructure support, labor force characteristics and political space.

**Willingness to outsourcing:** In the past decades, plants did different tasks. Now, they increasingly turned their attention to things that can be competitive in one or more fields with other global competitors. To achieve this goal, it is essential that these plants to produce some of their products to meet final customer need do outsourcing of activities and strengthening other plants.

More emphasis on the quality, usefulness and customer satisfaction: Various motivations of purchase as as comfort, dignity, form, features, services and etc., in different time and place play an important role. Today customers when decision making in buying consider the quality and usefulness more. Some famous companies apply measures to upgrade the quality to the highest level and at the same time, reduce costs. The companies consider the slogan, "more supply for less cost, constantly" as a priority. Of course, there is the belief that improving the quality should be formed along the chain and we cannot expect qualitative development from only one part of the chain.

**More emphasis on the relationship with the customer and keep him:** In the past, marketing theory has been more centered on the principle that how "selling" should be performed. But selling with no knowledge about the customer and whether he will buy again or not is completely useless. Today marketers are more seeking for permanent customers. Here, the fundamental change of thinking of doing business is to make a relationship. Now companies consider relationships' management of their customers and create databases for their customers,

databases with information about demographic status, lifestyle and different levels of customers' sensitivity to different marketing stimuli and their past transactions. Thus, by what they supply obtain satisfied or happy customers, customers who always remain loyal to the company.

**Emphasis on developing relationships with suppliers:** Today business focus on long-term relationships based on mutual benefit related to the supplier, producer and distributor. Forming alliance then consolidation and institutionalization of trust and unity will increase business strength and stability along the chain.

**More emphasis on business processes' management and integration of operations:** Today companies are seeking for their thinking change, they put aside management style on a set of independent functional areas and move toward managing their basic processes according to areas of production and distribution both based on sustainable value flow. This is a positive development that increases business insight to economic activity in the form of a generating value flow and provide them with more and great opportunities.

**The necessity of establishing strategic links and networks:** After globalization of companies, they realize that to be successful they do not have all needed resources and necessities and their size in this area is not very important. Institutions with a view to their complete business chain to create usefulness inevitably find the need for partnerships with other organizations. Companies such as Ford, McDonald and the like owe their success to having global chain, meaning partners who supply everything that is needed for success. And senior management assigns more time to prepare and design strategic links and networks, links and networks that create stable competitive advantage for partner companies in terms of production and today world trade.

**Development of economy based on knowledge and technology:** Economic growth is primarily due to the emergence of businesses with high knowledge and technology. The institutions are obviously different from traditional institutions. Their high-tech business faces a greater risk because their goods will be accepted at a slower rate, their goods' life span is shorter and finally accelerating "technological obsolescence" acceleration is much faster. In confronting these challenges, developing network business and based on sharing chain causes probable risks of these types of businesses.

Also, given that no comprehensive study was conducted in this regard in the dairy industry, we decided to implement it in Pegah Fars Co.

**Supply chain management:** Concise definitions of supply chain management include: Supply chain management is a phenomenon that works in ways that customers can receive reliable and fast service with quality products at the lowest cost. Supply chain management is an integrated philosophy in the management of the distribution from the supplier to the end user and as a managerial philosophy includes the amount of integrated behaviors for collaboration between the customer and supplier during external integration.

Supply chain management as a set of management processes includes a process of managing relationships, information and material flow within the boundaries set for customer service delivery and economic value by the management of physical channels and related information of the resources for consumption. A definition of supply chain management is: the integration of commercial processes from the end user to the main supplier of products increases services and information and adds extra value to the customer and shareholders.

Supply chain management is considered as a set of approaches and efforts that supports producers, suppliers and distributors and coordinates the value chain in such a way that products are produced and distributed in appropriate amounts, time and place until the customer satisfaction is achieved.

Handfield has defined the supply chain as follows: supply chain includes all activities associated with the flow and transformation of goods from raw materials to the final state as well as defined supply chain management as integrating related activities with material flow and into through improving chain relationships to achieve reliable and sustainable competitive position.

Public image consisted of all producers, transmitters, distributors, their relationships, services and totally different physical, financial and information flows between elements from raw material suppliers to the customer, there is a network called supply chain and managing the chain, the task of identifying the characteristics of the network to select an appropriate approach, is called supply chain management. A supply chain is composed of all parties involved, directly or indirectly in resolving the customer request. Supply chain has not been formed only from the manufacturer and suppliers, but also includes transporters, warehouses, retailers and even customers.

Supply chain management is a set of approaches to integrate performance of suppliers, manufacturers, warehouse and shops, so that an appropriate amount of goods is distributed to the right place at the right time until the entire system costs are minimized. In general,

supply chain management is defined as a planning and monitoring on materials, information and financial statements in a process of supply, production wholesale, retail and finally the customer.

Supply chain management does the task of integrating organizational units along the chain and coordination of material, information and financial flows in order to satisfy the final customer demand with the aim of improving supply competitiveness.

Supply chain is considered as a network of independent or semi-independent commercial institutions that collectively are responsible for providing, producing and distribution of a product and activities associated with products such as after-sales service. Supply chain management increasingly has determinants to be able to compete.

**The main components of supply chain management:**

Supply chain management is a combination of art and science that improves the method of finding raw materials required by the company for production or service. The five main components of supply chain management include:

**Plan:** The plan is strategic part of supply chain management. To manage the resources that are used to meet the customer demand you need a strategy. Developing a set of parameters for monitoring the effectiveness, minimizing costs and high-quality delivery of supply chain constitute a great part of the planning.

**Resourcing:** Select suppliers who will deliver needed goods and services to produce a product or service, develop processes of pricing, delivery, payment as well as apply parameters to monitor and improve relationships with suppliers and finally the use of these processes in the management of goods' inventory and services received from suppliers, including receiving shipments and their identification are necessary.

**Structure:** In the step activities required for production, packaging and preparation for delivery are done.

**Delivery:** the part that is also known as logistics. Coordination of receiving customers' orders, develop a network of warehouses and set up the invoice system for payments make up this section.

**Return:** The problematic part of supply chain and creating a network of receiving defects and returns from customers and support for customers who have problems with the product delivered.

**Organizational performance:** Performance means state or function quality, so organizational performance is a general structure that refers to organizational operations (Ramzgouyan and Pour, 2013). The most famous definition of performance has been presented by Nili (2002) (the process of explaining the quality of effectiveness and of past actions).

**Perceived organizational performance:** Refers to how to do missions, organizational activities and their results and evaluate a complex process of assessment and judgment of the performance (Sheikhzadeh, 2009). And it indicates the status and degree to which the organization has achieved its objectives. Organizational performance evaluation: a process by which the organization is examined at regular intervals and systematically determines the strengths and weaknesses of the organization. Customers of an organization can be a vital source of information and ideas of the performance of an organization (Marquardt, 2006).

Feizabadi and Jafarnejad conducted a study entitled providing a conceptual framework to evaluate supply chain performance with an emphasis on integrity. In this study, regarding the need to determine criteria for evaluating supply chain performance by analysis of models and frameworks of supply chain performance evaluation a new model has been presented for evaluating the performance of the supply chain. This model has been developed by taking into account the uncertainty of the supply chain in order to overcome the four kinds of uncertainty and achieve the highest level of integrity of the supply chain. Rahmanseresht and Afsar (2008) conducted a study entitled the effect of information sharing on competitive strategies and supply chain performance. In this study, the effect of information sharing on competitive strategies and supply chain performance is concerned. For this purpose, according to Iran's steel industry competitive advantages, steel supply chain (including Mobarakeh Steel, Khuzestan Steel and ESCO) was selected for review and comments of 95 managers and experts of these companies as samples have been examined. Then, structural equations modeling method was used to analyze the data. The results of the study indicate that a significant direct relationship is found between information sharing and competitive strategies of supply chain and a significant direct relationship is found between supply chain competition strategies and the performance of the supply chain. Mohammadi conducted a study entitled examining the effect of using information technology tools on capabilities and supply chain performance in Fars dairy companies: a case study. In this study, the effect of using

information technology tools on capabilities and supply chain performance in Fars dairy companies has been examined. In this study, a set of information technology tools, supply chain communications' system, information electronic interchange, e-mail, barcode and radio frequency identification in the field of supply chain capabilities on four aspects of exchange of information, coordination, integration of activities, reactivity of supply chain and in the field of supply chain performance variables, including performance, sales and financial performance are reviewed. The results show that, based on the process model of the study, using the tools of Information Technology (IT) affects capabilities of the supply chain and subsequently supply chain performance. Nikbkhsh conducted a study entitled identifying factors affecting supply chain performance and improve it using system dynamics case in Darougar Co. In this study, a case of great supply chain of production and distribution of health care products was studied in Darougar Co. and system dynamics have been used to identify variables affecting supply chain and performance improvement methods. Simulation started by presenting dynamic assumption and then causal rings, rate-state charts and mathematical formulas have been completed and then the models have been examined by systems' dynamics' methods and statistical methods known. Three policies have been implemented to improve indices known of supply chain performance evaluation. The policies include: reducing the amount of lost sales, reduce inventory and get the right information that their implementation will improve indices. The result of this study enables us to predict the results of any change in variables, relationships and/ or chain structure that is very important regarding the complexity of the supply chain. Shafi and Tarmast in a study entitled the effect of supply chain management processes on the competitive advantage and organizational performance (case study: SAPCO) stated that during recent years in various theories and research, supply chain management has been presented as a main construct associated with organizational performance. Due to the increasing development of supply chain management approach, the present study examines its effect on organizational performance through the intervention of the competitive advantage. For this purpose, researchers in addition to thorough review of literature and using descriptive survey method and selecting statistical sample members randomly among members of the complex have designed measured the study hypotheses using structural equation modeling method and regression. The results of the study showed that supply chain management directly affects competitive advantage and also organizational

performance. Also a significant relationship is found between competitive advantage and organizational performance. But with the intervention of competitive advantage, the intensity of the relationship between supply chain management and organizational performance is enhanced. Finally, fitness test of the model indicates the model and its suitability for the complex of supply chain is SAPCO. Cui and Madhu conducted a study entitled identifying critical success factors in supply chain quality management. The two researchers, during a field study in Taiwan examined variables affecting increased effectiveness of supply chain in an environment based on quality. They considered three variables of supplier relationship, quality information systems and customer focus useful in this regard. Flynn and Flynn conducted a study entitled communication between supply chain management and quality management. The population of this study consisted of 164 plants in industries of machinery, electronics and transportation and in five countries including United States, Germany, Italy, Japan and UK. To do so, by examining the literature, they identified six key factors of quality management related to supply chain that were:

- Focusing on the customer and market
- Leadership
- Information and analysis
- Human resource development and management
- Process management
- Strategic planning. Silla in their study sought the importance of analyzing issues related to an organization's quality in its supply chain and for this purpose examined the state of supply chain quality management in US manufacturing companies

The results of this study showed despite companies involve their main customers in quality initiatives but do not involve the main suppliers while the quality of parts delivered to customers has a direct relationship with the quality of materials and parts received from suppliers and companies should try to improve the quality of their suppliers more.

Yeung in 2006 studied the competition among payment supply chains to examine the interaction and communication of strategic supply chains with quality management systems in order to create a competitive advantage and increase competitiveness. He using structural equations' modeling showed strategic chain management has a significant relationship with implementing quality management and implementing quality management paves the way for implementing strategic supply chain management. He also showed that quality management is the foundation of strategic chain

management and a key factor for continuous improvement of supply chain. Cui proposed a strategic framework for implementing supply chain quality management. They followed the following four objectives in their study:

- Development of a conceptual framework for the implementation of supply chain quality management
- Identify potential gaps in relation to the implementation of supply chain quality management among supply chain members
- Understanding the differences between the perception of high-level managers and middle managers in connection with the implementation of supply chain quality management

Lee also examined the relationship between applications and quality assurance functions of supply chain and supply chain performance within SCOR model framework. In their studies with a population of 232 Chinese companies Holder of ISO 9000, they showed that if each of the five high-level processes of SCOR model (planning, sourcing, manufacturing, delivery and return) are integrated effectively with the requirements and standards of ISO 9000 quality management system, supply chain quality performance is dramatically increased in three functional indices associated with customers (reliability, responsiveness and flexibility and cost) that have been considered by SCOR model. Ghayyum in a study entitled the effect of supply chain management functions on financial performance examined this relationship in organizations. In this study, researchers have used questionnaires. The results of the study have confirmed a significant relationship between the study variables.

## **MATERIALS AND METHODS**

This study method is survey and correlation. The population of this study is all managers and production experts of Pegah Fars Co. Total number of the subjects is 100 persons. Due to the limited size of population census is sampling method in this study and all subjects are sampled. To analyze the data of this study descriptive and inferential tests will be used. In the descriptive part percentage, mean and standard deviation will be used and in the inferential part Pearson correlation tests and structural equations will be used. To analyze the study data software SPSS and LISREL will be used. Data analysis method is confirmatory factor analysis test and structural equations using software LISREL. Then, each of these methods are described. The conceptual model of this study is presented. Based on the conceptual model this study hypotheses are expressed as follows:

- A significant relationship is found between functions of supply chain management and organizational performance
- A significant relationship is found between functions of supply chain management and the competitive advantage
- A significant relationship is found between aspects of functions of supply chain management and organizational performance
- A significant relationship is found between aspects of functions of supply chain management and the competitive advantage
- The competitive advantage mediating plays the role of a mediator in the relationship between the functions of supply chain and organizational performance

## RESULTS AND DISCUSSION

Structural model of the relationship between supply chain management and the Co. performance. In this section structural model of the relationship between supply chain management and the Co. performance is presented below: In this study the variable of supply chain management is shown by SCM and the Co. performance variable is shown by P (Fig. 1).

According to the Table 1 above all studied indices have been accepted to evaluate confirmatory factor model fitness. Due to this it can be said that fitness of this model has been confirmed. As can be seen in the Table value of GFI has been calculated 0.922 that is  $>0.9$  standard. This means that the relative value of variance and covariance is jointly evaluated at an appropriate level. Also value of CFI has been calculated 0.931 that the index is also  $>0.9$  standard. This means that the amount of improvement by comparing a so-called independent model where between

variables there is no relationship to the proposed model is at an appropriate level. Finally, Chi square value has been calculated twice the degree of freedom 2.456. This standard is 3 or less. This means that given model is consistent with covariate pattern between observed variables. Finally root mean square approximation or RMSEA has been calculated 0.022. That is  $<0.1$  standard and therefore we can say the model fitness is totally evaluated at an appropriate level.

**Structural model of the relationship between supply chain management and the competitive advantage:** In this section structural model related to aspects of cultural intelligence is presented below: In this study the variable of supply chain management is shown with SCM, the variable of competitive advantage is shown with CA. In the following table fitness indices of confirmatory factor analysis of structural model structural have been investigated (Fig. 2).

According to the Table 2 above all studied indices have been accepted to evaluate confirmatory factor model fitness. Due to this it can be said that fitness of this model has been confirmed. As can be seen in the Table value of GFI has been calculated 0.910 that is  $>0.9$  standard. This

Table 1: Fitness goodness indices of structural model

State	Acceptable value	Obtained value	Index
Acceptable	GFI $>90\%$	0.922	GFI
Acceptable	$0.90 < CFI < 1$	0.931	CFI
Acceptable	$< 3$	2.456	CMIN/df
Acceptable	RMSEA $<0.1$	0.022	RMSEA
Acceptable	RMR $<0.5$	0.061	RMR
Acceptable	NFI $>90\%$	0.925	NFI

Table 2: Goodness indices of fit of confirmatory model of structural model

State	Acceptable value	Obtained value	Index
Acceptable	GFI $>90\%$	0.910	GFI
Acceptable	$0.90 < CFI < 1$	0.941	CFI
Acceptable	$< 3$	2.564	CMIN/df
Acceptable	RMSEA $<0.1$	0.028	RMSEA
Acceptable	RMR $<0.5$	0.087	RMR
Acceptable	NFI $>90\%$	0.933	NFI

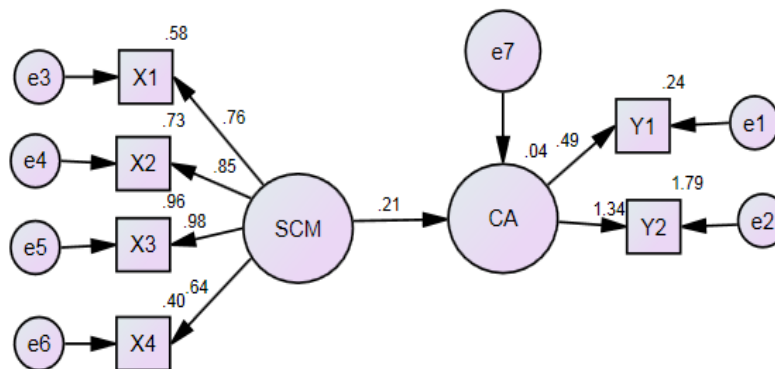


Fig. 1: Structural model of the relationship between supply chain management and the Co. performance

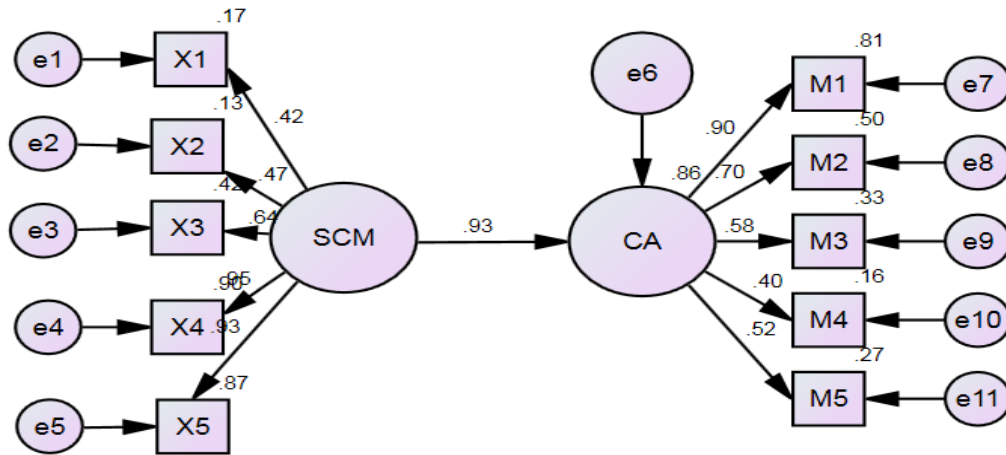


Fig. 2: Structural model of the relationship between supply chain management and the competitive advantage

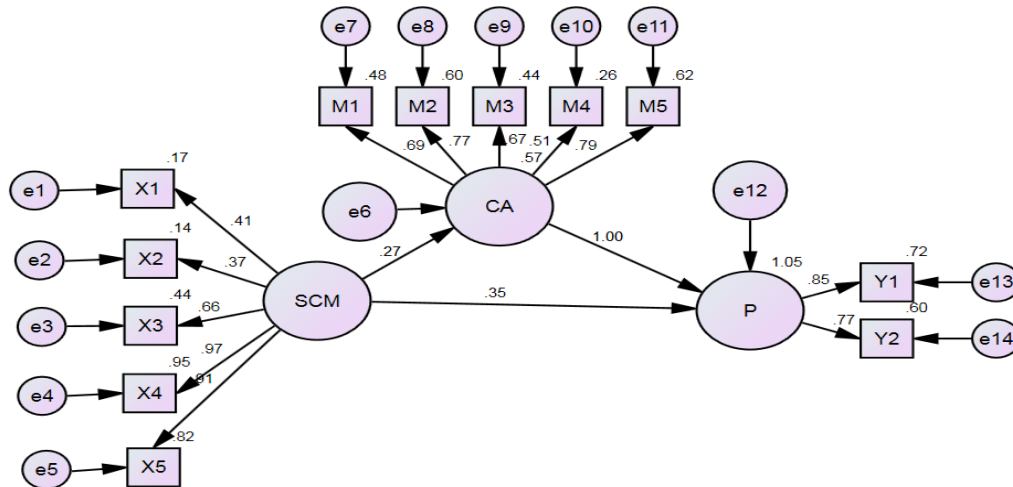


Fig. 3: Structural equation modeling of the study

means that the relative value of variance and covariance is jointly evaluated at an appropriate level. Also value of CFI has been calculated 0.941 that the index is also  $>0.9$  standard.

This means that the amount of improvement by comparing a so-called independent model where between variables there is no relationship to the proposed model is at an appropriate level. Finally, chi-square value has been calculated twice the degree of freedom 2.564. This standard is 3 or less. This means that given model is consistent with covariate pattern between observed variables. Finally root mean square approximation or RMSEA has been calculated 0.028. That is  $<0.1$  standard and therefore we can say the model fitness is totally evaluated at an appropriate level.

**Structural equations modeling:** After reviewing and confirming the measurement model, the model is drawn

Table 3: Goodness indices of fit of confirmatory model of structural model

State	Acceptable value	Obtained value	Index
Acceptable	GFI $>90\%$	0.906	GFI
Acceptable	$0.90 < CFI < 1$	0.931	CFI
Acceptable	$< 3$	2.555	CMIN/df
Acceptable	RMSEA $<0.1$	0.085	RMSEA
Acceptable	RMR $<0.5$	0.051	RMR
Acceptable	NFI $>90\%$	0.990	NFI

and the relationships between latent variables are studied. In this case, first we ensure of fitness indices and then examine assumed relationships between latent variables. In this section the variable of supply chain management is shown with SCM, the variable of the competitive advantage is shown with CA and company performance variable is shown with p (Fig. 3). According to the Table 3 all studied indices have been accepted to evaluate confirmatory factor model fitness. Due to this it can be said that fitness of this model has been confirmed. As can be seen in table value of GFI has been calculated



Table 4: The results of testing the model

Models	Hypotheses	Critical value	p-values	Regression coefficient	Result
1	<b>The company performance</b>				
	Supply chain management functions	2.5450	0.011	0.35	Confirmed
2	<b>Competitive advantage</b>				
	Supply chain management functions	3.2320	0.006	0.27	Confirmed
3	<b>The company performance</b>				
	Suppliers	11.7620	0.000	0.929	Confirmed
	Partners	7.0900	0.000	0.661	Confirmed
	Customers' relationships	3.915	0.000	0.400	Confirmed
	Knowledge dissemination levels	4.290	0.000	0.433	Confirmed
	Knowledge dissemination quality	2.634	0.021	0.373	Confirmed
4	<b>Competitive advantage</b>				
	Suppliers	5.459	0.000	0.429	Confirmed
	Partners	6.507	0.000	0.561	Confirmed
	Customers' relationships	4.883	0.000	0.705	Confirmed
	Knowledge dissemination levels	3.089	0.000	0.499	Confirmed
	Knowledge dissemination quality	6.705	0.002	0.275	Confirmed

0.906 that is  $>0.9$  standard. This means that the relative value of variance and covariance is jointly evaluated at an appropriate level. Also value of CFI has been calculated 0.931 that the index is also  $>0.9$  standard. This means that the amount of improvement by comparing a so-called independent model where between variables there is no relationship to the proposed model is at an appropriate level. Finally, Chi-square value has been calculated twice the degree of freedom 2.555. This standard is 3 or less. This means that given model is consistent with covariate pattern between observed variables. Finally root mean square approximation or RMSEA has been calculated 0.085. That is  $<0.1$  standard and therefore we can say the model fitness is totally evaluated at an appropriate level.

**Testing hypotheses of the study:** After reviewing and confirming the patterns to test the significance of the hypotheses indices of partial and critical value and significance level were used. Critical value is obtained by dividing regression weight estimation by standard error. According to significance level 0.05 critical value should be  $>1.96$ .

The results of testing the model and partial indices values are given in Table 4. In testing H<sub>1</sub> standardized regression coefficient for the hypothesis is 0.35 with P value of the regression coefficient that is smaller than 0.05 we can conclude that this hypothesis can be accepted with confidence 0.95. In other words, we can say functions of supply chain management can have a significant effect on organizational performance.

In testing H<sub>2</sub> standardized regression coefficient for the hypothesis is 0.27 with p-value of the regression coefficient that is smaller than 0.05 we can conclude that this hypothesis can be accepted with confidence 0.95. In other words, we can say functions of supply chain management can have a significant effect on the competitive advantage. In testing H<sub>3</sub> standardized regression coefficient for the hypothesis 0.929, 0.661,

0.400, 0.433 and 0.373, respectively for suppliers, partners, customer relationships, levels of dissemination of knowledge and quality of dissemination of knowledge that p-value for each of the aspects for regression coefficients is  $<0.05$  we can conclude that this hypothesis can be accepted with confidence 0.95. In other words, we can say functions of supply chain management can have a significant effect on the competitive advantage.

In testing H<sub>4</sub> standardized regression coefficient for the hypothesis 0.429, 0.561, 0.705, 0.499 and 0.275, respectively for suppliers, partners, customer relationships, levels of dissemination of knowledge and quality of dissemination of knowledge that p-value for each of the aspects for regression coefficients is  $<0.05$  we can conclude that this hypothesis can be accepted with confidence 0.95. In other words, we can say functions of supply chain management can have a significant effect on the Co. performance.

#### Comparing the results with the results of other studies:

The present study results show a significant relationship is found between functions of supply chain management and organizational performance. And a significant relationship is found between functions of supply chain management and the competitive advantage. Also a significant relationship is found between aspects of functions of supply chain management and organizational performance. And finally a significant relationship is found between aspects of functions of supply chain management and the competitive advantage. The results of other studies are also consistent with the present study results. For example, Lee also examined the relationship between applications and quality assurance functions of supply chain and supply chain performance and showed that a significant relationship is found between the study variables. The results of the present study also examined the relationship between aspects of the supply chain and organizational performance and show that this

relationship is positive and consistent. In other words, supply chain with the process of planning, implementation and control of operations associated with the supply chain is in the most efficient manner possible will lead to improved organizational performance. This is also shown in the study of Lee with the difference that in this study, Li considered supply chain performance but in this study generally organizational performance is referred. Also Ghayyum showed functions of supply chain management affect financial performance. This study is also consistent with the results of the present study, indicating a positive relationship between functions of supply chain management and performance. In other words, functions of supply chain management allow an organization to reduce delivery time to the market, minimize warehouses' inventory and reduce production and distribution costs. This will lead to improved organizational performance and profitability therefore these results are consistent with the results of the present study. Also Ghayyum in their research focused on financial performance and have examined it. But, the present study considered the organization's overall performance that also includes financial discussion and profitability. Yeung results in 2006 also showed a significant relationship is found between strategic chain management and quality management implementation and implementing quality management paves the way for the implementation of strategic chain management, the study is not consistent with the variables of the present study but refers to the result of supply chain management in the organization that the result and consequence has reached to organizational quality improvement. The present study result also considered organizational performance as general that includes the quality. Also Shafie and Tarmast showed that supply chain management directly affects competitive advantage and organizational performance. These results are also consistent with the results of the present study. The present study also confirmed the relationship. Implementation of supply chain management solutions are essential in organizations because of supply chain management prevents long and complex processes and problems, helps in achieving customers' satisfaction and reduce different costs. The results of the present study confirm that it increases the competitive advantage and consequently improves organizational performance. The results of Shafie and Tarmast confirm this. Shafie and Tarmast also showed a significant relationship is found between the competitive advantage and organizational performance. But with the intervention of the competitive advantage, the intensity of relationship between supply

chain management and organizational performance is enhanced. The results of the present study have not been studied and can be considered as future research and examined.

## CONCLUSION

As mentioned in earlier chapters supply chain includes all activities associated with the flow and transformation of goods from raw materials to the final state as well as information flows associated with them. In today's competitive world, the competition has been extended from the level companies to their supply chains. And given that competitive quality is realized in the field of quality management and also competitive delivery is realized in the field of supply chain management, the importance of the relationship between supply chain and competitive advantage is considered.

Accordingly, this study was conducted aimed to examine the effect of supply chain functions on the performance of the company regarding the competitive advantage of all managers and production experts of Pegah Fars Co. In this study, after study and examine theoretical principles and literature done on the subject, five aspects (suppliers, partners, customer relationships, levels of dissemination of knowledge and quality of dissemination of knowledge) to measure supply chain management were identified as independent variables and the company performance (financial and market) as were identified dependent variables and the competitive advantage (price, quality, timely delivery, innovation and leadership) were identified as a mediator variables according to Li. Next, the researcher developed a questionnaire with 2 parts of demographic questions and questions related to indices of the study variables, according to experts and its validity and reliability were measured and distributed to all managers and production experts of Pegah Fars Co. and collected. Finally, the results of the questionnaires' analysis were derived. Finally, according to the results of structural equations modeling all hypotheses were confirmed. In other words, a significant relationship is found between functions of supply chain management and organizational performance.

A significant relationship is found between functions of supply chain management and the competitive advantage. A significant relationship is found between aspects of functions of supply chain management and organizational performance. A significant relationship is found between aspects of functions of supply chain management and the competitive advantage.

## **SUGGESTIONS**

As the results show that functions of supply chain management and its aspects are effective on the company performance and the competitive advantage in other words, to strengthen the aspects and regarding functions of supply chain management the company performance can be increased and conversely in other words, a significant positive relationship is found between these variables and it is also a direct relationship. Thus, managers and production experts of Pegah Fars Co. should consider aspects and functions of supply chain in the organization. A supply chain refers to the flow of materials, information, funds and services of suppliers of raw materials from workshops and warehouses to end customers and includes organizations and processes that create and deliver goods, information and services to consumers. The chain consists of many tasks such as shopping, flow of funds, materials' transportation, planning and production control, inventory control and logistics and distribution and delivery. Considering the following is important for managers and production experts of Pegah Fars Co.

Consider quality as an index of selecting suppliers jointly solve organized problems with suppliers. Consider suppliers and help them to improve and enhance the

quality of the organization products determine and evaluate future expectations of customers periodic evaluation of communication with customers informing business partners about advancing the changing needs sharing special information with partners information on issues that affect our business with business partners information exchange with business partners for planning business partners notification about events and changes that may be effective. Information exchange with business partners accurately, completely, adequately and reliably.

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