

# **Supply Chain Strategies & Its Impact on Achieving a Competitive advantage in food industry organizations in the Kingdom of Saudi Arabia**

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## **Abstract**

This study aims at identifying the Supply Chain Strategies food industry organizations in the Kingdom of Saudi Arabia, and to diagnose the relationship and the impact of Supply Chain Strategies on the of food industry organizations in the tourism sector in the Kingdom and the competitive advantage of these organizations. The descriptive analysis approach was used in order to achieve its goals and to test its hypotheses by distributing a questionnaire designed for this purpose. The study found an impact of the vertical integration of Supply Chain Strategies for food industry organizations in the tourism sector in the Kingdom on the competitive advantage of these organizations. The external of Supply Chain Strategies of these organizations also effects on their competitive advantage. The study presented a set of recommendations, the most important of which is the adoption of the creative chain model if it aims at achieving a rapid response to customer's demands and a high diversification of products. It should also pay more attention to eliminate competition, especially after flexibility by opening new lines of products and diversifying products as well as adopting competitive criteria (cost, quality, flexibility, and delivery speed) in choosing suppliers.

**Keywords:** Supply Chain Management, Supply Chain Strategies, Food industries.

## **1. Introduction**

Business organizations are experiencing many barriers, the most important of which are globalization, intense competition, and the short life cycle of the product, which makes the organizations constantly searching for a larger market share and a distinguished competitive position. . Based on the abovementioned, new issues appeared in the supply chain, including customer's satisfaction, partnerships and competition, which demanded the organizations to pay attention to them and search for the Supply Chain Strategies vision. The topic of Supply Chain has received a great attention by researchers in the fields of operations and marketing management because of the extensive impact of this concept on business organizations due to the developments and the many barriers they face, the most important of which are globalization and intense competition. This has led to a multiplicity of researcher's viewpoints regarding defining the concept of the supply chain, so it is defined as “the jobs or activities and facilities, which include the production, and delivery of the product or service, beginning with suppliers of raw materials and ending with the final customer. As the functions or activities include; forecasting, purchasing, inventory management, information, quality assurance, scheduling, production, distribution, delivery, and customer service. While the facilities include stores, factories, operations centers, distribution centers and retail outlets. Due to the technological developments, the organizations have adopted modern manufacturing practices such as lean production and Total Quality Management, which resulted in improving quality levels as well as reducing business costs to achieve the benefit, and thus maximize benefits for the benefit of customers and the organization. Achieving success in the supply chain of food industry organizations requires several factors:

- A - **Trust:** Trust is a necessary element between the partners in the Supply Chain in order to achieve the goals of the partnership, which lead to the achievement of mutual benefits.
- B. **Cooperation and Stability:** It is represented by reliability, coordination and long-term relationships with the supplier.
- C. **Reliability:** It is represented by sharing information, joint operations, goals and final goals, i.e. dealing with the supplier as a partner.
- D. **Effective communication:** - It requires the integration of technology and means of communication between partners.
- E. **Clarity of the Supply Chain:** - This is done through the partners in the chain linking its components in order to access data on the real stock.
- F. **Event Management Capability:** - It refers to the ability to detect and respond to unplanned events such as shipment delay or reduced stock flow for some materials.
- G. **Performance measurement:** Measuring the performance of the supply chain is necessary to enhance the functions of the expected supply chain and to identify the problems that arise.

The Supply Chain strategies of the food industries companies in the Kingdom includes the vertical integration strategy and the external supply strategy. The vertical integration strategy refers to the expansion of the organization's capabilities in providing products and services, and there are two types of integration, namely; vertical integration towards the sources of supply and vertical integration towards customers. It is executed either through the organization itself or by acquiring another organization. Vertical integration is the expansion of the organization's activity in the direction of the pre-production process, which is toward the raw materials or after the production process, which is toward the market. The external supplying strategy for tourism organizations refers to the process of conveying the traditional internal activities carried out by tourism organizations and their resources to external suppliers. It is a part of the tourism organizations' continuous trend towards benefiting from the competencies of specialization. The fundamental capabilities of the organizations constitute one of the elements of success necessary in achieving the competitive advantage. In 1997 AH, Al-Romansiah Restaurants Company began receiving its guests in its first branch, and since then it has continued to prepare authentic traditional food, by paying attention to all its details of distinctive taste and high quality and serve it in the most delicious way to extend the Al Romansiah chain of restaurants to 30 branches, 5 of which are under construction, and cover the regions of Riyadh, Al-Kharj, Al-Qassim, Al-Ahsa, Dammam, Jeddah, Madinah and the Kingdom of Bahrain. All of this made the brand of Al-Romansiah Restaurants important places in the consumer's mind through hard work and dedication to become the most leading and distinguished brand in the world of food in the Kingdom of Saudi Arabia.

## 2. 1 Study problem

Food industry companies in the tourism sector in the Kingdom seek to cop up the technological developments in order to meet the great barriers presented by the business environment including intense competition, shortening the product life cycle, achieving customer's satisfaction, working to achieve partnerships with others and identifying the aspects and dimensions of competition in the market. This necessitates paying attention to supply chain management according to a clear strategic vision. Accordingly, the study problem is embodied by asking the following questions:

- 1- What is the appropriate Supply Chain Strategies for food industry organizations in the Kingdom?

2. What are the requirements of the success of Supply Chain Strategies in food industry organizations in the Kingdom?
3. What is the impact of Supply Chain Strategies in achieving an advantage for food industry organizations in the Kingdom?

## **2.2 Study objectives**

The study aims to:

- 1- Identifying the Supply Chain Strategies of food industry organizations in the Kingdom.
- 2- Diagnosing the nature of the relationship and the impact between the Supply Chain Strategies of food industry organizations in the Kingdom and the competitive advantage of these organizations.

## **2.3 Study importance**

The importance of research stems from the following points:

- 1- Identifying the reality of Supply Chain Strategies for food industry organizations in the Kingdom and its relationship to the competitive advantage of these organizations.
- 2- Increasing the level of awareness and knowledge of a management of food industry organizations in the tourism sector in the Kingdom about the importance of Supply Chain Strategies for these organizations and the competitive advantage they achieve.

## **2.4 Study hypothesis**

The study stems from two main hypotheses:

- 1- The strategy of vertical integration of supply chains for food industry organizations in the Kingdom does not affect the competitive advantage of these organizations.
- 2- The external supply chain strategy of food industry organizations in the Kingdom does not affect the competitive advantage of these organizations.

## **2.5 Study sample & population**

Al Romansiah Restaurants Company was selected as a community to conduct the study because it is one of the industrial organizations working in the field of food industries in the tourism sector in the Kingdom, which is one of the important industries in the country. As well as the fact that the subject of the study is compatible with the nature of the company. The individuals of the sample were selected from the category of managers and heads of departments as they form the administrative leaders in the company's departments and have extensive experience and dimension regarding the activities carried out by the company.

## **2.6 Study tool**

The questionnaire form was used as a tool for measuring the study variables, which was prepared for this purpose according to the five-dimensional Likert scale to complete the statistical analysis process. The questionnaire was presented to a number of scientific arbitrators in the specializations of strategic management and marketing and production management at Prince Sattam bin Abdulaziz University and

Umm Al-Qura University, King Faisal University and King Saud University, to benefit from their proposals, amendments and additions which they may suggest. 50 forms were distributed to a number of branch managers and department heads in the company, out of which 49 were recovered valid for analysis, meaning that the rate of retrieval is 98%, which is a high rate.

### 3. Literature Review

There are not many studies, which have dealt with the subject of supply chains in food industry organizations in the Kingdom of Saudi Arabia. We will review some studies, which dealt with the issue of supply chains in sectors and places similar to the sector and scope of this study. Among the most important of these studies are:

The study (Al-Hazmi, 2020) emphasized on the importance of using electronic distribution means in the distribution and delivery of tourism services in some travel and tourism organizations in Kharj to the customers of these organizations in a better way than traditional means. The study (Al-Hazmi, 2019) emphasized on the importance of applying the principles of Total Quality Management in the travel and tourism sector in Al-Kharj and the use of technologies, which enhance the quality of tourism services in preparation, supply and consumption by customers in Al-Kharj Governorate. The study (Al-Hazmi, 2020) recommended the necessity of establishing a department to train workers in the tourism and travel sector in the Al-Kharj governorate and work to qualify them to deal with customers entering and exiting the tourist facilities. The study (Sadiq, 2016) emphasized on the importance of identifying and establishing the relationship between productive organizations and the suppliers and suppliers of these organizations and establishing long lasting and strong relationships with them. The study (Al-Azzam, 2017) concluded with the importance of building relationships with members of supply chains and suppliers of various organizations so that they can provide their services continuously and are able to meet the customers' desires in line with quality requirements. The study (Abu Khashaba, 2018) confirmed the existence of a group of pressures by stakeholders on members of supply chains and the importance of having permanent and continuous relationships with them. The study (Hawwa, 2018) emphasized on the importance of building strong relationships with members of supply chains as it affects the level of customer's satisfaction on the quality of services provided to them in order to ensure loyalty to tourism organizations and build long lasting relationships with their customers. As for the study (Al-Barazi, 2018), it clarified that there is a relationship between Supply Chain Management and the organization's performance. The more the organization succeeds in managing supply chains, the more it is reflected positively on its performance and achieving better results in a way that guarantees continuity and competition and vice versa. The study (El Shaibawi, 2019) recommended that supply chains should be managed well in order to achieve the organization's continuity in production and thus win competition by satisfying its customers and gaining their loyalty. The study (Hassan, 2019) confirmed that there is a relationship between the volume of demand and supply chains as supply chains must correspond to the volume of demand for the organization's products in terms of increasing and decreasing. The study (Hussain, 2019) confirmed that supply chain management plays a major role in achieving winning the competition and obtaining a larger market share by ensuring that the organization's products are provided in the market in the appropriate quantity in order to achieve customer's satisfaction. While the study (Sassi, 2019) recommended the necessity of using information systems in the supply chain management to ensure the achievement of efficiency and effectiveness in their performance and to reflect on the organization's performance in general and ensure its continuity in production.

The study (Al-Hazmi, 2020) indicated the necessity of a good choice of appropriate marketing strategy to market tourism services and work to pay attention to supply chains and manage them well in a way that ensures the permanent provision of services to beneficiaries as well as the ability to win competition and achieve a large market share.

Through our review of all previous studies, we find that they dealt with supply chain management in different sectors and regions from the sector and region of this study, as this study was distinguished by being concerned with the food industries sector for tourists in the Kingdom of Saudi Arabia through the study of supply chains for the Romance Restaurants Company. In this way, this study differs from the previous studies in terms of the subject and the place of conducting the study. Hence, the importance of this study is evidenced by the

results and recommendations presented by the organizations working in the field of food industries, especially the Al Romansiah Company, to improve and increase the effectiveness and efficiency of managing their supply chains.

#### 4. Analytical side

The axes of the survey tool were distributed into two variables. Namely; the vertical integration strategy and the external supply strategy, which represent the supply chain strategies with four dependent variables, which form the dimensions of the competitive advantage, which are "cost, quality, flexibility and delivery".

#### First: Presentation and interpretation of the independent variables

##### 1- Vertical integration strategy

**Table 1**

The values of the independent variable for the vertical integration strategy (front and back) .

Variable	Mean	St dev.
Forward vertical integration strategy X1	2.012	0.580
Backward Vertical Integration Strategy X2	4.261	0.862
Total	3.728	0.646

Through the above table, it is evidenced that the forward vertical integration strategy variable obtained an arithmetic mean of 2.012, which is less than the hypothetical mean (3) with a standard deviation of 0.580, and this indicates that Al Romansiah does not have any interest in the front vertical integration and the non-expansion of the activities that it carries out. The back vertical integration strategy variable obtained an arithmetic mean of 4.261, which is higher than the hypothetical arithmetic mean and the standard deviation is 0.862, which means that there is a leaning from Al-Romansiah management to take an advantage of the back vertical integration strategy and move towards raw material sources in its operations. In general, the vertical integration strategy variable has obtained an arithmetic mean of 3.728, which is higher than the hypothetical arithmetic mean and a standard deviation of 0.646. This indicates that the company's management pays a great attention to vertical integration and has no interest in expanding in the market and increasing sales and marketing outlets.

##### 2- External Equipment Strategy:

**Table2**

The values of the independent variable for the external supply strategy.

Variable	Mean	St dev.
Single source X3	2.146	0.712
Multiple source X4	4.456	0.898
Total	3.868	0.657

Table no. (2) Shows that the single source variable obtained an arithmetic mean of 2.146, which is less than the hypothetical arithmetic mean with a standard deviation of 0.712. This indicates that the company does not depend on one source in the supply and supply operations and that the company has a leaning to use multiple sources in the supply operations. While the multiple source variable obtained an arithmetic mean of 4.456, which is higher than the hypothetical arithmetic mean and a standard deviation of 0.898. This is a good

indication of the company that it relies on multiple sources for processing and supply. In general, the external supply strategy variable achieved an arithmetic mean of 3.868, which is higher than the hypothetical arithmetic mean and a standard deviation of 0.657. This indicates that the company's management uses the external supply strategy to manage its activities by relying on single and multiple supply sources through building a partnership relationship and strategic alliances, which constitute a basic and essential point for suppliers.

### Second: Presenting and interpreting the values of the adopted variable, the dimensions of the competitive advantage.

**Table 3**

The competitive advantage dimension values.

Variable	Mean	St dev.
Cost Y1	4.101	0.741
Quality Y2	3.810	0.624
Flexibility Y3	3.176	0.652
Delivery Y4	4.000	0.879
Total (Competitive advantage)	3.729	0.598

From the above table, we notice that the cost variable obtained an arithmetic mean of 4.101, which is higher than the hypothetical arithmetic mean and a standard deviation of 0.741, which indicates that the company's management pays a remarkable interest in its cost reduction policies through interest and contracting with supply sources that have a low price standard. The quality variable obtained an arithmetic mean of 3.810, which is higher than the hypothetical arithmetic mean and a standard deviation of 0.624. This indicates the company management's care of high quality in negotiating contracts with suppliers, while the flexibility variable obtained an arithmetic mean of 3.176. It is approximate to the hypothetical arithmetic mean, with a standard deviation of 0.652, and this indicates that the company has flexibility to some extent to produce multiple products or produce according to the customer's request. While the delivery variable obtained an arithmetic mean of 4.000, which is higher than the hypothetical mean and a standard deviation of 0.879, which means that the company's management pays a great attention to fulfilling its obligations to customers upon delivery of products as well as speed in delivery of products. In general, the competitive advantage variable obtained a mean of 3.729. It is higher than the hypothetical arithmetic mean and a standard deviation of 0.598. This explains the management of Al-Romansiah Company takes a good care of eliminating its competition and trying to be distinguished by one or more dimensions of competition.

### Third: testing the study hypotheses:

#### The first hypothesis:

**Table 4**

The effect of vertical integration strategy on competitive advantage.

Y Competitive advantage	f (calculated)	b	R <sup>2</sup>	R
X				
Vertical integration strategy	24.596	0.312	0.489	0.691*

$P \leq 0.05$

\*Correlation is significant at a level 0.05

Table no. (4) Shows that the correlation relationship between the variable of the vertical integration strategy and the competitive advantage in general is a positive and significant relationship at a level of (0.05). This is supported by the percentage of the determination coefficient reached (49%) which indicates that the change in the competitive advantage in the organization under the study is due in (49%) to the change in the vertical integration strategy. As well as the linear relationship between the adopted variable competitive advantage and the independent variable integration strategy. Since the calculated value of  $f$  reached (24.596) with a significant level (0.05) and the value of  $b$  indicates that a change of one unit in the vertical integration strategy leads to a change in the competitive advantage of ( $b = 0.312$ ). Through these results, the null hypothesis is rejected, which states: The strategy of vertical integration of supply chains for food industry organizations in the tourism sector in the Kingdom does not affect the competitive advantage of these organizations, and we accept the alternative hypothesis. The strategy of vertical integration of supply chains for food industry organizations in the tourism sector in the Kingdom affects the competitive advantage of these organizations.

**Table 5**

Analysis of variance for the vertical integration strategy.

Model	Sum of squares	Df	Mean squares	$R^2$	$f$	Sig.
Regression	30.142	1	29.410			
Residual	37.016	30	1.679	0.489	24.284	0.05
Total	67.021	31				

Through the above table, we notice that the model explains total only 49% of the deviations, and this is clear from the value of the coefficient of determination. In addition, we notice a relative increase in the mean value of the error squares as reached 1.679. Moreover, there are 51% of the deviations that they could not explain, as they are due to other variables not included in the model.

### The second hypothesis:

**Table 6**

The effect of the outdoor supply strategy on the competitive advantage.

X Vertical integration strategy	Y Competitive advantage	f (calculated)	b	$R^2$	R
		55.998	0.389	0.687	0.894*

$P \leq 0.01$

\*Correlation is significant at a level 0.01

Through the above table, it becomes clear that the correlation relationship between the external supply strategy variable and the competitive advantage is a positive and significant relationship with a high moral, reaching (0.894) and at the level ( $0 = 01$ ). The linear relationship between the adopted variable competitive advantage and the independent variable external supply strategy was also noticed, and this means rejecting the null hypothesis which states that there is no effect of the external supply strategy on the competitive advantage. This is supported by the coefficient of determination ( $R^2 = 0.687$ ), which means that the change in the competitive advantage is due in 68% to the change in the external supply strategy, as well as the calculated  $F$  value (55.998), with a significant level ( $0=01$ ), the value of  $b$  indicates that changing the external supply strategy by one unit leads to a change in the competitive advantage of ( $b = 0.389$ ).

**Table 7**

Analysis of variance for the external supply strategy.

Model	Sum of squares	Df	Mean squares	R <sup>2</sup>	f	Sig.
Regression	39.849	1	36.060			
Residual	26	30	0.823	0.687	54.852	0.01
Total	62.931	31				

It is clear from the above table that the model explains 68% of the overall deviations, and this is confirmed by the value of the coefficient of determination. We also notice that the average squares of error amounted to 0.823. This is less than the percentage of the first model, which indicates the validity of the regression model, and that there are 32% of the deviations that were not explained in the model because they are due to other variables not included in the model.

## Conclusion

Through our review of the results of the study and testing its hypotheses, we find that, it has reached the need for food industry organizations in the Kingdom to pay attention to the supply chain initiative because of the benefit and competitive advantage they achieve and consider the supply chain as part of the organization's value chain and confirmed the existence of a strong relationship between supply strategy and competitive advantage. It indicated that there is a significant impact of both the external supply strategy and the vertical integration strategy on the competitive advantage, and the external supply strategy ranked first in terms of impact. Hence, the administration of food industry organizations in the Kingdom must adopt the efficient or functional chain model when designing its supply chain if it aims to achieve profits and reduce costs, and it adopts the creative chain model if it aims to achieve a rapid response to customers' demands and high diversification in products. It should also pay more attention to eliminate competition, especially after flexibility, by opening new lines of products and diversifying products. As well as stressing on the management of Al-Romansiah Company, the necessity of adopting communications and information systems in building partnership relations with the supplier, which contribute to the selection of efficient suppliers and continuous contact with them, and the emphasis on the need to build long-term relationships with suppliers and the direction towards establishing partnership relations with them. The competitive criteria in selecting suppliers are (cost, quality, flexibility and speed of delivery).

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