An Evaluation on Supply Chain Structure in the Tourism Industry

Neslihan Kan Sönmez\textsuperscript{a,1}, Elbeyi Pelit\textsuperscript{b}

\textsuperscript{a}Department of Recreation Management, School of Tourism and Hotel Management, Harran University, Şanlıurfa, 63000, Turkey
\textsuperscript{b}Department of Tourism Guidance, Faculty of Tourism, Afyon Kocatepe University, Afyonkarahisar, 03200, Turkey

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Abstract

As the competition became intense and markets get globalized after 1990s, difficulties also increased created by delivering a product and a service to the correct place at the right time with the lowest cost. Enterprises understood that increasing the efficiency within an organization is not sufficient on its own against these increasing difficulties, instead, all supply chains should be competitive. Today, the supply chain became a preliminary condition for enterprises to remain competitive in the global race. Upon examining research performed regarding the supply chain, it is seen that a major part of the related literature focuses on generally the service industry and especially the manufacturing industry by making few references to the tourism industry. In this study which is based on the literature screening, the concept of the supply chain, its structures, and the benefits of creating supply chains moreover the concept of supply chains in the tourism industry, its structure and cooperation have been covered and the importance of supply chain in the tourism industry has been tried to be emphasized.

Keywords: Tourism; tourism supply chain; tourism supply chain structure; tourism supply chain collaboration.

1 Introduction

Scientific and technological advancements, surrounding our daily lives at a very high speed, obliged enterprises to have activities towards meeting the demands of consumers to adapt themselves to this change with a domino effect. Businesses that cannot keep up with change are experiencing collapse, while businesses that are open to innovations that embrace change have found themselves in an intensely competitive environment. The quality of the products and services offered by the enterprises is no longer sufficient in obtaining a competitive advantage; It is as important as quality to deliver products and services at the right time, at the lowest cost, to the right place. Today, businesses are trying to create a competitive advantage in their supply chains with a number of integration strategies to ensure continuity or increase the ratio of existing market share. At this point, the success of enterprises is not independent to some extent of the success of the supply chain in which they are involved (Yıldız, 2021). All these developments have made it inevitable to establish a supply chain system (Kotler & Keller, 2018), which refers to a wide channel that extends to the raw materials and components of the final products carried to the final consumer. When the research on the supply chain are examined; it is noted that a large part of the relevant literature focuses on the manufacturing industry, with little reference to the service industry in general and the tourism
industry in particular (Song, 2012). However, the importance of the supply chain in the tourism industry is no less than the importance it needs to be given in the manufacturing industry. From the perspective of the tourism industry, this situation is actually a little bit surprising. At an early date, such as 1975, the United Nations World Tourism Organization published a report on the distribution channels of the tourism industry. A distribution channel is essentially a type of supply chain (Zhang, Song, & Huang, 2009). Despite this, the academic community's interest in the tourism supply chain has remained limited, not proportional to the rapid development of the industry. Although studies on tourism supply chains may be limited, some authors have touched on the concept of tourism supply chains, or their counterparts such as tourism value chains and tourism industry chains (Nguyen Ngoc, 2020).

In this study which is based on the literature screening, the concept of the supply chain, its structures, and the benefits of creating supply chains moreover the concept of supply chains in the tourism industry, its structure and cooperation have been covered and the importance of supply chain in the tourism industry has been tried to be emphasized.

2 Supply Chain

2.1 Concept of supply chain

The supply chain is the network of businesses that are involved in different processes and activities that value the products and services offered to the final consumer, through the up (supply) and down (distribution) links (Christopher, 2005). The businesses involved in this network are the structures that supply raw materials and materials, making them return to products, and making deliveries with distribution channels of products that are ready for sale (Ho, Zheng, Yıldız, & Talluri, 2015).

The supply chain refers to a broad channel that extends to the raw materials and components of final products transported to the final consumer (Kotler & Keller, 2018). Businesses on this channel are creating a chain, and every business is a supplier to the business that comes after it. Thus, the members of the chain can act as a single business and produce high-quality, low-cost, market-fast goods and services (Sarıoğlan & Avcıkurt, 2010).

Membership in the supply chain is not limited to a supplier, manufacturer, and distributor, and is open to any business that offers different services related to the flow. In this direction, we can define three degrees of the supply chain: "basic supply chain", "extended supply chain" and "final supply chain" (Mentzer et al., 2001).

![Supply Chain Model](image_url)

organization as other parties. The financial provider may offer contributions, such as providing financing, taking on a portion of the risk, or providing financial advice. The logistics provider will perform logistics activities. And finally, the market research organization gives business to the business about the ultimate customers. All of them support the supply chain. This latest model, which is widely seen in large-scale enterprises, briefly shows many of the functions that complex supply chains can do and perform (Mentzer et. al., 2001).

2.2 Benefits of creating a supply chain

Today, businesses are unable to compete effectively, apart from suppliers and other organizations in the supply chain. The interest in the concept of the supply chain has increased steadily since the 1990s, when businesses saw the benefits of collaborative relationships within their organization and beyond.

At the beginning of the benefits a business can achieve with the supply chain, there are reduced stock risks and costs, as well as reductions in storage, distribution, and transportation costs. Over time, businesses experience sustainable cost savings through effective business processes with increased efficiency in procurement and procurement, fulfillment, receivability and debt accounts, and complaint management. Among the more subtle benefits of the supply chain are accelerated product delivery times, more efficient product development efforts, and lower product production costs. For businesses with advanced supply chain capabilities, the most important benefits that can be achieved in the long term will be more satisfying and faster solution generation, increased flexibility for changing market conditions, the quality of service offered to the customer, and the increase in customer satisfaction, increased customer loyalty and market activity (Horvath, 2001).

Lambert, Cooper, and Pough have discussed the benefits of the supply chain created in businesses under five main headings. The first of these is the common benefit to businesses that are in the supply chain. It is possible to create high products and services in terms of quality, price, and design with the consolidation of the information they have. The other benefit of the supply chain is that all of the businesses in the chain have in-depth knowledge, skills, and experience, and the job that they do best with another expression, which is specialization. Apart from these, long-term planning will help to reduce inventory levels and eliminate uncertainties in customer service (Yildiz, 2019).

When working with suppliers, always expectations may not be met, and a variety of failure alternatives may be raised. In such a case, the development of suppliers and the performance of the supplier in addition to supplier modification or in-business production options are also an option. It is possible to develop supplier performance and capabilities through various activities carried out by supplier development experts (Krause, 1997). The benefits of supplier development are multi-orientation in the size of the supply chain in the buyer, supplier, and broad perspective. The main benefits are the increase of the competitive advantage of the buyer, along with the increase in buyer demands and expectations, the improvement of supplier performance valuation in the factors (quality, delivery, cost etc.), productivity growth in buyer and supplier operations can be sorted as the establishment of a stronger buyer and supplier relationship with the transformation of the supplier's operations more regularly and programmatically. An increase in the quality of product and service, cost reduction, improvement in cycle processes, and promotion of delivery speed is other benefits of supplier development. Apart from these, the benefits of ensuring new market opportunities and ultimate customer satisfaction, increasing the technical and managerial competencies of the supplier, transforming the supplier business to more professional and corporate, adapting to supply chain members, and increasing supply chain activity are available as well (ErDal, 2014).

3 Supply Chain Structures

Supply chain structure, which is a system that must be installed in all production and service organizations, is able to change across industries, as well as the operating scale and the activity area. Automotive, construction, defense, chemical et al. The dynamics of the production and service industries are different. Considering all industries, operations, uncertainty, and risks, material buying groups and logistic movements have their own characteristics. There is no single structuring model in the supply chain construction for businesses with the cabinet (ErDal, 2014). The related literature, however, is frequently discussed in two ways by Metz, a single-phase supply chain in 1998 and a multi-phase supply chain.

3.1 Single-phase supply chain

The single-phase supply chain includes material flow functions such as the extraction, production, distribution, and delivery of raw materials. However, it has the functions of information processing, decision making, and fund management. This single-phase supply chain, which is often found in small-scale enterprises, has been the primary focus of the supply chain so far (Metz, 1998). Figure 2 shows a single-phase supply chain.
3.2 Multi-phase supply chain

In businesses that operate on a large scale, the situation can get a little more complicated. The number of facilities, scale, business volume, and number of employees have changed. The product family is in the foreground of topics such as geographical propagation, production quantities, and whether or not the subparts that make up the product require expertise. The multi-phase supply chain is typically the supply chain that includes such businesses, in fact, they are multiple copies of the single-stage supply chain (Metz, 1998). In particular, it is possible to say that the businesses that carry out their activities through leveraging external sources (outsourcing) are going to a multi-stage supply chain by focusing on their core capabilities, (Karasu, 2006). Figure 3 shows the multi-phase supply chain.
4 Supply Chain Mix

Operating functions that are included in the supply chain scope are expressed as a supply chain mix. These operating functions are by Quayle (2006); planning and marketing strategy (basic effects of design and marketing to materials and distribution demands), procurement (procurement research and selection, settlement, establishment of supplier partnership programs), production planning (plant capacity, location, placement, manufacturing resource planning, support and control of existing activities), stocking and material distribution (storage and distribution of products, use, packaging), inventory management (inventory control, obtaining minimum inventory level, minimum retention costs) Reduced to level), warehouses (location, capacity, and activities), transportation (transportation shape decision, planning, road and activities to follow), customer service (demand forecasting, service level, order process, service support, post-sales activities), technical support (preparation and management of the system required to support these activities).

5 Supply Chain in Tourism Industry

5.1 Concept of the supply chain in the tourism industry

Due to the nature of the tourism supply chain, a service is a supply chain format. It is important to establish the tourism supply chain structure due to the provision of tourism products and services, as well as the extensive variety of tourism suppliers associated with each other (Page, 2003; Zhang, Song, & Huang, 2009). The tourism supply chain consists of a series of activities that share resources, reduce cost and create customer value throughout all tourism activities, including products and services, finance, and information flows that affect tourists' experiences. As a network of suppliers, operators, tourists, and other associated organizations, the tourism supply chain is getting the necessary resources and eventually, these resources are transferred to the core service and support that will be presented to tourists (Nguyen Ngoc 2020).

In a comprehensive manner, the tourism supply chain is treated as a network of tourism products and tourism organizations (such as flight and lodging), which includes tourism organizations that engage in different activities ranging from delivery to the distribution and marketing of final tourism in a particular tourism degeneration and includes a wide range of participants from both the private and public industry (Song, 2012).

While the tourism supply chain is being analyzed, some elements should be taken into consideration. The first of these is the structure of the supply chain (strategies, concepts, distribution channels, competitive advantages, etc.). Another is the market relations between individuals involved in the supply chain (e.g., food-drink businesses, accommodation businesses, travel agencies, and tourists). Finally, the measurement of supply chain performance (tourist satisfaction, financial performance, organizational efficiency, and the sustainable development of tourism) (Tigu & Camaretu, 2013; Slusarczyk, Smolag, & Kot, 2016).

5.2 Supply chain structure in tourism industry

The tourism supply chain is a complex structure (Page, 2009, Piboonrungroj & Disney, 2015). This complex structure covers every effort related to the production and delivery of a final touristic product or service from the supplier of the supplier to the customer of the customer (Kobun, 2011). In this context, it is stated that the tourism supply chain can be explained by the multi-phase supply chain, as the production groups involved in the tourism supply chain are also subject to their own suppliers (Solmaz, 2016).

Tourism supply chain structure is generally included in the suppliers of raw materials and services (food beverage suppliers, plant suppliers), tourist facilities that buy the goods and services of these suppliers (hotel businesses, food-beverage businesses, shopping centers), tourists who develop their tourism products by taking advantage of tourist facilities (travel agents and tour operators), and the tourists who buy these products (Huang, Song, Huang & Lou, 2012). As can be seen; many businesses are involved in the tourism supply chain through different connections, and participate in the process of creating and distributing tourism products and services. The links and relationships between them are presented in a detailed form in Figure 4.
The tourism supply chain, located in Figure 4, consists of first-tier suppliers, second-tier suppliers, first-tier organizers-agencies, second-tier organizers-agencies, submitter agencies, and tourists. The second-tier suppliers included in the chain provide services for first-tier suppliers, while the first-tier suppliers provide services for the benefit of direct tourists. Second-tier suppliers, food producers, and shipping and construction materials manufacturers can be sampled as equipment manufacturers of tourist facilities, souvenirs and guidebook manufacturers. Examples of accommodation businesses (hotels, resorts), food-beverage businesses, carriers, managers of local tourist sites, tourist guides can be given as examples of first-tier suppliers. The next ring of the supply chain is the second-tier organizers-agencies, which are servicing both tourists and tour operators. They offer the opportunity for tourists to buy the trips they want to make to the attractions of touristic deportations. First-tier organisers-the agencies, also called the wholesalers of the tourism industry are also the tour operators with the highest impact on the impact force of this industry. Tour operators purchase products and services from first-tier suppliers and agencies, then convert them into a package tours, taking advantage of existing distribution channels or agencies and selling them to tourists at their own selling points. The sender agencies, which serve as broker-dealers between tour operators and tourists, are at the next level of the supply chain. The most recent part of the chain is tourists. (Kusa, from 2009, Slusarczyk, Smolag, & Kot, 2016).
In order for a clearer understanding of the tourism supply chain structure, the process of hotel business to the final consumer presentation of a product produced in the food-beverage department has been discussed. In this process, it is seen that the product received from the vegetable-fruit manufacturer, which is the main supplier, reached the hotel business through the intermediate wholesaler, and then the transportation companies (logistics) entered into the hotel business of the product to ensure the delivery of the storage conditions and the delivery of storage conditions.

Figure 5. An Example of a Supply Chain for Food and Beverage Production in Hotel Businesses


In this supply chain process, from the first manufacturer to the final consumer (tourist) the right flow of goods and services is the right information and money flow from the last consumer (tourist) to the first manufacturer (Solmaz, 2016).

5.3 Supply chain collaboration in the tourism industry

Businesses that are involved in the tourism supply chain are often in collaboration. The main objective of this collaboration is to provide the support of suppliers at the point of increasing competitive advantages in the market. Competitive superiority is undoubtedly not only available in the production of quality goods and services (Ganesan, 1994). Because competition is operating at the supply chain level, not at the business level. It is possible to carry out collaboration in the tourism supply chain horizontally and vertically. Horizontal collaboration refers to the collaboration between businesses of the same level. For example, the second tier is the collaboration between suppliers (food producers, shipping and construction materials manufacturers, equipment manufacturers of tourist facilities, repair and construction companies, media providers, sewage businesses, telecommunications services providers, souvenirs, and guidebook manufacturers). However, horizontal collaboration can be done in two ways as intra-industry collaboration and inter-industries collaboration. In-industry business unions are the collaboration between businesses in the same industry. The business association between the media provider and another media provider can be given as an example. Cross-industrial business unions are the collaboration between businesses in different industries but at the same level. Examples of collaboration between the manufacturers of transport and construction materials at the second level suppliers level and the equipment manufacturers of the tourist facilities can be given as an example. Vertical collaboration refers to upstream collaboration and downstream collaboration. Businesses are engaged in the upstream business unit, and the downstream business unit is for the sale of the product. The collaboration of a holiday village with food producers is an example of the upward collaboration of the tour operators and examples of the downstream business unit. Figure 6 shows the business association activities of a hotel business in the tourism supply chain.
5.4 **Structural differences of the tourism industry supply chain**

The tourism supply chain is different from the supply chains in other industries due to its characteristic characteristics of the tourism industry. Yang Li (2013) ranked the tourism supply chain as the complexity, high risk, and quality control difficulty of its different from the manufacturing industry supply chain. First, the scope of tourism products brings complex supply chains process, and each supply chain process matters on the amount, quality, suitability, and allocation of resources. Second, the tourism risk factor is a high-risk factor because of the flexible demand for tourism, and the factors related to the presentation of products and services are complementary and irreplaceable. The third differential is that quality is not easily controlled. Catering, accommodation, and transportation suppliers face a number of challenges at the point of delivering quality products, and it is difficult for travel agencies to coordinate their tourism products in the final production stage and to control product quality (Ling, 2015).

The first difference between the tourism supply chain from the health supply chain is that in the tourism industry, the effort to minimize costs is at the forefront, while in the health industry, there is a cost-based reimbursement system and therefore there is little tendency to reduce costs. The performance criterion of the tourism industry is to make a profit by creating guest value. On the other hand, the performance criterion of the health industry is to create patient value. Making a profit is not its main objective. It provides services with public weight within the social state understanding. In the tourism supply chain, inventory risks are lower than in the health industry, and the number of alternative sources is higher. Collaborations in the tourism supply chain are both vertical (upstream or downstream) and horizontal (intra- and inter-industrial), whereas collaborations in the health supply chain are usually vertical collaborations. In the tourism supply chain, the final consumers are the guests (tourists) who are "external customers". The guest determines his/her own demand and the tourism demand is not accidental. This situation creates a great deal of harmonization in production and sales forecasts within the supply process. In the health supply chain, the final consumers of the supplied materials are doctors, nurses, and other health workers who are the "internal customers" of the system (Schneller & Smeltzer, 2006). The demand of the patient is determined by the doctor, demand elasticity is rigid, and demand is random (cannot be predetermined). Therefore,
production and sales forecasts may be inconsistent (Benton, 2009; Wisner, Tan, & Leong, 2012; Acar & Bozaykut But, 2017; Şentürk, İkizler, & Koç Aytekin, 2020; Satır, 2023).

The supply chain structure, which is a system that must be established in all industries, may vary between industries due to the operations carried out, uncertainties and risks, and the specific characteristics of the material purchasing groups, as well as according to the scale and field of activity of the enterprise. Therefore, it is important for all enterprises, regardless of the industry in which they operate, to create the most appropriate supply chain structuring model for themselves. Today, it is no longer possible for businesses to compete effectively without suppliers and other organizations in the supply chain. Businesses will only be able to remain competitive in the global race if they understand the importance of the supply chain and implement the most beneficial supply chain structuring model for the business.

6 Conclusion

In the process of competing on a global scale, businesses are constantly aiming to increase their current market share, while also aiming to reduce cost costs. It is, therefore, necessary to supply customers with high-quality products and services at the right time, with the right channels, while working effectively with suppliers to deliver them at the right time and at the lowest cost (Eymen, 2007). It is important to establish the supply chain structure in order for such a system to be created in enterprises operating in the tourism industry (Page, 2003; Zhang, Song, & Huang, 2009).

In this study, the conceptual framework of the supply chain has been drawn and the current situation in the tourism industry, where the supply chain structuring is intense, has been examined. In this direction, firstly it can be said that the tourism supply chain structure is different from other industries’ supply chains structures due to its characteristic characteristics of the tourism industry. Tourism supply is based on labor-intensive production, the reversal of distribution channels in tourism marketing and consumption is simultaneous with production, the touristic product being a composite product (having a structure that covers accommodation, travel, food and beverage, and other complementary services); these are the main factors that differentiate the tourism supply chain structure from the supply chains structures in other industries. The tourism supply chain is a complex structure. This complex structure covers every effort related to the production and delivery of a final touristic product or service from the supplier of the supplier to the customer of the customer. In this context, it is possible that the tourism supply chain can be explained by the multi-phase supply chain, as the production groups involved in the tourism supply chain are also subject to their own suppliers. Tourism supply chain structure is generally included in the suppliers of raw materials and services (food beverage suppliers, plant suppliers), tourist facilities that buy the goods and services of these suppliers (hotel businesses, food-beverage businesses, shopping centers), tourists who develop their tourism products by taking advantage of tourist facilities (travel agents and tour operators), and the tourists who buy these products. Businesses that are involved in the tourism supply chain are often in collaboration. Because competition is operating at the supply chain level, not at the business level. It is possible to carry out collaboration in the tourism supply chain horizontally (intra-industry collaboration and inter-industry collaboration) and vertically (upstream collaboration and downstream collaboration). Also, it is necessary to express a problem that the tourism supply chain hosts in its current situation. As it is known, in most of tourist destinations, comprehensive marketing and acceptance systems are now being created thanks to the tourism supply chain; these destinations are able to provide accommodation, food-beverage, and entertainment services to all of the tourists, from their e-commerce platforms. In the process, travel agencies have also slowly lost their leading position in the market.

In line with these determinations, it is possible to say that a multi-phase supply chain structure suitable for the complex structure of the tourism industry will contribute to the performance of the tourism business and increase the satisfaction of the tourists with the service they receive and the employees with their work. This will be possible with the cooperation of all businesses included in the tourism chain. Thanks to this collaboration, the support of the suppliers will be provided at the point of increasing the competitive advantages in the market. Competitive superiority is undoubtedly not only available in the production of quality goods and services. Because competition is operating at the supply chain level, not at the business level.

Finally, this study is intended to contribute to the literature on the supply chain. In future studies, it may be advisable to cover the process in a specific area of the tourism industry or the functioning of the supply chain in the COVID-19 period. It can be recommended to support future studies with field research.

References


Ulusal Tez Merkezi | Anasayfa (yok.gov.tr)


