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Research Article

ANALYZING COMPETITIVE ADVANTAGE FACTORS OF LOGISTICS SERVICE PROVIDERS: A CASE STUDY OF IZMIR REGION

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ABSTRACT

Competition starts with existence of life itself. In order to survive in the globalizing world, it is a great necessity for companies to provide sustainable competitive advantage. In this sense, in order to achieve a sustainable competitive advantage, factors affecting competition should be deeply perceived and implemented. In recent years, logistics sector has had a complex structure as global competition has been increasing and logistics capabilities are getting more and more critical for the success of logistics service providers. For this reason, it is aimed to determine the attitudes of senior managers who are working in the logistics service provider companies in Izmir towards the factors affecting competition. For this purpose, Delphi method, which is a qualitative research method, has been applied in this research. In the first round of Delphi research, 29 factors affecting competition obtained from the literature review have been asked to experts under six groups and a consensus has been tried to be reached. As a result of the first round, for 6 factors a consensus could not be reached, and then the statements have been re-evaluated and detailed, and another Delphi form for second round has been prepared and implemented. According to the findings, t the valuable, sense of market opportunities and sensitivity to the market, the ability to integrate employees' knowledge and skills with the routines of their operations, after-sales service and reliability which are the factors affecting competition for logistics service providers have been fully agreed upon by logistics service providers. All factors related to dynamic capabilities approach associated with competition in the literature have been considered important by logistics service providers. There has no consensus on the factors related to threats / barriers faced by new entrants in the logistics sector and bargaining power of service buyers.

Keywords: *Competition, Logistics Service Provider, Delphi, Competitive advantage*

1. CONCEPTUAL FRAMEWORK: COMPETITION

According to Henderson (1989: 139), competition begins with life itself and the concept of competition in business science (strategic) and biological competition (natural) are not fundamentally different (Henderson, 1983: 8). One of the basic elements of strategic competition is the ability to understand competitive behavior as a system in which competitors, customers and resources interact continuously (Henderson, 1989: 142).

Understanding the sources of sustainable competitive advantage for companies has been an important research area in the field of strategic management (Barney, 1991: 99). According to the modernist strategic management point of view, what is important and necessary for companies to sustain their long-term life is to gain competitive advantage (Ülgen and Mirze, 2013: 32).

Porter (1980) has approached the concept of competition from an industry-based perspective, by presenting a comprehensive framework gathered under "Five forces" to understand the forces behind competition in sector. This framework aims to help companies to gain a unique position in sector. With the industry structure embodied by five force of competition (existing competitors, new entrants, suppliers, customers and substitutes) offering a way of thinking about how value is created and how it is distributed among current and potential sector participants, the attention is drawn to the fact that competition is more than just competing with existing competitors (Porter, 1980). Porter also classified competitive strategies that can be successful in dealing with these five forces in the sector as cost leadership, differentiation and focus (Porter, 1980: 35).

Wernelfelt (1984), one of the important pioneers of the resource-based approach, associated the competitive advantage with the resources and capabilities of the firms and he defined the resource as anything that could be considered strong or weak for the firm. Barney (1991), who has important contributions to the resource-based approach, has taken into account both the internal (strengths and weaknesses) and external (opportunities and threats) factors of the firm while dealing with the concept of competitive advantage. In addition, not every company resource has the potential for sustainable competitive advantage. In order to have this potential, the resource must have the following four important characteristics; "Valuable", "rare", "inimitable" and " non-substitutable".

According to Barney (1991:102), if the company implements a strategy that creates value, it can have a competitive advantage. But sustainable competitive advantage is implementing a value-creating strategy that other competitors cannot imitate the benefits of this strategy. Unlike Porter, the definition of sustainable competitive advantage adopted by Barney depends on the probability of being imitated by its competitors, not the period in which the company gains competitive advantage.

2. COMPETITION AND LOGISTICS

International logistics service creates an important cost (Hise, 1995). Global competition has been increasing and logistics capabilities getting more and more critical for the success of logistics service providers (Mentzer *et al*., 2004).

Freight forwarders and logistics service providers are intermediary companies that provide services in the global logistics industry that connect shipper and maritime operators / lines and facilitate cross-border trade (Murphy and Daley 2001, as cited in Lee and Song, 2015). Freight forwarder businesses provide important supportive, complementary and facilitating services to businesses that provide logistics, transportation and maritime transport services in international trade (Deveci and Çetin, 2013). Due to the wide variety of and highly complex customer demands, competition among forwarder organizations is getting more and more difficult. In this highly competitive environment, while large organizations that can meet customer needs are growing day by day, smaller organizations are struggling to survive (Lee and Song, 2015).

Logistics service providers should show their customers that they can offer much more value for logistics services than their competitors in the market, and according to Paché and Medina (2007) it is the only way to offer a sustainable competitive advantage. Customers' reliance to logistics service providers will become stronger as the value created by logistics service provider's increases.

Sandberg and Abrahamsson (2011) investigated how two leading Swedish retail stores, which successfully use logistics to gain competitive advantage over their competitors, achieve sustainable competitive advantage, via a resource-based theoretical framework. Their study concluded that sustainable competitive advantage is based on an integration of efficient and effective logistics operations with the information technology systems.

Founou (2002), who examined the contribution of the Internet and related technologies to the value chain of logistics service providers, concluded that information technologies must meet essential requirements in order to create a competitive advantage, and in fact information technologies tend to be a "strategic necessity" in practice.

Hise (1995) stated that *"competition based on time"* is a strategic tool that will enable companies to create competitive advantage in both national and international markets. Time-based competition is then followed by competition on a cost basis and competition by value (providing the highest value at the lowest cost). According to this approach, it is assumed that the most successful companies will be those that provide the highest value at the lowest cost in the shortest time. Seven important logistics management principles have been revealed to strengthen the international time-based competition of companies. These are; (a) focusing on customers' service needs, (b) reducing the emphasis on cost reduction target, (c) emphasizing flexibility (to achieve time goals), (d) coordinating all logistics functions, (e) coordinating logistics and non-logistics functions, (f) improving the rapid flow of information and (g) making decisions faster (Hise, 1995).

By emphasizing the role of logistics in increasing the competitiveness of companies operating in the global supply chain, Bhatnagar and Teo (2009) used Porter's value chain-based framework in their study. A key element of the value chain framework is to take advantage of the links among various business activities. Considering the focus of the study, issues related to procurement and shipping logistics (inbound & outbound) were discussed principally.

Kramer and Kramer (2010) analyzed the strategic impact of price and flexible delivery frequency on the competition among logistics service providers in the supply chain. They performed their studies according to time-based competition literature that deals with customers' selection of logistics service providers based on price and delivery times. The main result of the research is that flexible delivery frequency is a strategic advantage for logistics service providers when customers' inventory costs are relatively high compared to transportation costs. The service provider with higher delivery frequency will be more advantageous for customers as inventory costs will decrease.

In their studies aiming to carry out competitive analysis of air cargo logistics providers, Wen *et al.* (2011) investigated which factors are taken into consideration while the third party logistics service providers are chosen by high technology manufacturers in Taiwan. According to their findings, delivery performance (speed, reliability, door-to-door service, security, service frequency) is perceived as the most important factor affecting the outsourcing selection decisions of high technology manufacturers.

Babacan (2003) conducted interviews with the managers of logistics companies in Turkey about what can be done to gain competitive power in the national and international global logistics sector. According to her findings, the objectives focused by logistics sector are right customer, determination of needs, customer service level, wide product range, profit targets, customer satisfaction, strategic control, special reansportation, interactive and automation supported storage, project transportation and management, knowledge production and successful human resource management.

Çekerol and Kurnaz (2011) stated that logistics sector is highly affected by the negativity in terms of competitiveness due to various reasons such as lack of experience and infrastructure together with the negative effects of the economic crisis. They conducted the SWOT (strengths, weaknesses, opportunities and threats) analysis of the sector by applying survey to logistics industry stakeholders in Turkey. The findings of their research revealed the necessity of establishing a balance between survival strategies and progress strategies in the axis of cost and efficiency in order to keep the competitiveness of the logistics sector at a sustainable and high level. At the same time, in order to gain competitiveness in the logistics sector, importance should be given to physical infrastructure adequacy, facilitation of customs procedures, regulations on transport legislation and cooperation between stakeholders (business, government, chambers, and trade unions).

3. FACTORS AFFECTING COMPETITIVE ADVANTAGE

Competitive advantage of business over competitors depends on a number of factors. In this study, factors affecting the competition are divided into resource dependency approach, dynamic capabilities approach, structural approach, operational factors, marketing factors and quality factors (Table 1).

Resource Dependency refers to combine the firm's resources resulting into generation of high order and heterogeneous resources. These high order and heterogeneous resources possess the potential of sustainable competitive advantage (Barney 1991; 1995; Hamel & Prahalad 1994; Michalisin *et al*., 1997; Porter 1996; Teece *et al*., 1997). Resource Dependency theory include four factors. First, they are valuable, in the sense that they exploit opportunities and/or neutralize threats in a firm's environment. Resources are valuable when they enable a firm to conceive of or implement strategies that improve its efficiency and effectiveness. Second, they are rare, or if possible unique, among a firm's current and potential competition. Third, they are imperfectly imitable, in the sense that these resources and capabilities are costly to copy or hard to imitate (Bhuyan and Padhy, 2015). Gaining resources which are needed for imitating the rival's competitive advantage will shorten the life time of that competitive advantage (Grant, 1991). The final attribute is non-substitutability. There are two forms which are important to explain substitutability. The first one emphasizes that one company may apply the same strategies by substituting a similar resource. The second one emphasizes that the possibilities of different resources of a company become strategic substitutes (Barney, 1991).

Dynamic Capabilities can be defined as the firm's ability to integrate, build and restructure internal and external competencies to address the rapidly changing environment. Dynamic competencies reflect the success of creating new and innovative competitiveness with certain market positions (Teece *et al.,* 1997). The concept of sensing (market sensitivity) is about identifying and evaluating opportunities and threats in technology and the market. According to components of the dynamic capabilities, if the enterprises lack the ability to perceive or their ability is insufficient, it is not possible to talk about dynamic capabilities for those enterprises. Organizational learning is *"the process of change in individual and shared thought and action which is affected and embedded in the institutions of the organization"* (Crossan *et al*., 1999). Lopez *et al.* (2005)' study supports that organizational learning is an important and developing subject in creating strategy policies that improve competitiveness. The capability to integration is defined as the ability to process individual information into new organizational information (Teece, 1982). Coordination capability is defined as the ability to organize and activate tasks, resources and activities in organizational skills (Helfat and Peteraf, 2003).

The five force model show a systematic way to understand and learn about competition in an industry, making it necessary to evaluate the strength of each of the five competitive forces. The integrated effect of these forces reveals the nature of competition in that sector (Porter, 2000; Porter 2010; Barutçugil, 2013). The five forces consist threats of new entrants, bargaining power of suppliers, bargaining power of buyers, threat of substitute products/services, and rivalry among existing competitors. Threats of new entrants will affect their resources and with this impact sectoral changes will occur. The suppliers in the sector show their bargaining power on the sector by increasing the prices or decreasing the quality of the products / services purchased, and accordingly, they increase the costs of the enterprises in the sector and decrease the level of sectoral profitability. Strong customers can gain more value and reduce the profitability of the sector by pressing for lowering prices like strong suppliers, demanding higher quality and more differentiating services, and thereby intensifying competition among enterprises in the sector. Substitutes set the prices that businesses in the sector can set high profitability and reduce the potential returns of that sector. Firms compete with each other with similar strategies such as discounts, developing services, offering new products (Porter, 2008). If there are many strong competitors, if the growth of the industry is slow and the obstacles are high, the competition will be intense (Proctor, 2000). It has a great impact on industry profitability and competitive advantage whether competitors choose to compete on the same dimensions or not (Porter, 2008).

Table 1: Factors Affecting Competitive Advantage

		Porter, 1980	Barney, 1991	Hamel & Prahalad, 1994	Teece *et al.*, 1997	Ghemawat, 2002	Wattanapruttipaisan, 2002	Gonzalez *et al.*, 2004	Dikyol, 2007	Gal, 2010	Vinayan *et al.*, 2012	Wanjiku, 2012	Ağgez, 2013	Kocaoğlu, 2013	Yılmaz, 2014	Bhuyan, 2015	Global competitveness, 2017
Resource-based view	Valuable		✓	✓	✓						✓		✓	✓		✓	
	Rare		✓	✓	✓						✓		✓	✓		✓	
	Inimitable		✓	✓	✓						✓		✓	✓		✓	
	Non-Substitutable		✓	✓	✓						✓		✓	✓		✓	
Dynamic capability view	Market responsiveness				✓						✓		✓	✓			
	Organizational learning				✓						✓			✓		✓	
	Integration				✓						✓			✓			
	Coordination				✓			✓			✓			✓			
Five forces model	Threats of new entrants	✓				✓		✓	✓		✓	✓	✓		✓		
	Bargaining power of suppliers	✓				✓		✓	✓		✓	✓	✓		✓		
	Bargaining power of buyers	✓				✓		✓	✓		✓	✓	✓		✓		
	Threats of substitute products/services	✓				✓		✓	✓		✓	✓	✓		✓		
	Rivalry among existing competitors	✓				✓		✓	✓		✓	✓	✓		✓		
Operational factors	Cost reduction	✓	✓			✓		✓	✓		✓	✓	✓	✓	✓		
	Time											✓	✓				
	Technology						✓			✓	✓	✓	✓	✓	✓		✓
	Research and Development						✓			✓				✓	✓		
	Innovation						✓	✓	✓	✓	✓	✓	✓			✓	
	Qualified workforce						✓	✓	✓	✓				✓	✓		✓
	Manage and take risks						✓							✓			
Factors related to marketing	Value creation / Customer satisfaction							✓	✓		✓		✓				
	Customer orientation						✓	✓		✓		✓	✓	✓			✓
	Market share						✓	✓					✓	✓	✓		
	Services/Value Added Services											✓			✓		
	University-industry cooperation																✓
Factors related to quality	Corporate image and brand					✓			✓					✓	✓	✓	
	Quality and conforming to standards					✓	✓		✓	✓		✓	✓	✓	✓		
	Reliability											✓		✓			
	Ethical behavior of firms									✓							✓

In addition to theories, there are some operational factors that affecting the competitive advantage. One of the most important factors in improving competitiveness is cost reduction. Decreasing costs make businesses strong in the market with their price advantage (Dikyol, 2007). *"Today, time is on the cutting edge "*. Ways to manage time offer the most powerful new resources that provide competitive advantage (Stalk, 1988). Technology is an important factor affecting the competitive advantage. The concept of knowledge management is concerned with the creation of structures that combine the most advanced elements of technology resources and the indispensable input of human response and decision making (Raisinghani, 2000). With the effect of globalization, technological innovations can become old or imitate quickly. In order to compete, businesses have to constantly develop new products / services and implement innovative market strategies in an intensive research and development and scientific study process (Karamustafa *et al.,* 2010). Innovation is the key to competitive advantage in a highly turbulent environment. It is an important driving force for the growth of the organization. Values created by innovations often reveal themselves with the emergence of new things or new products and processes that contribute to wealth (Bhuyan and Padhy, 2015). Businesses that want to survive and succeed in a competitive environment must take advantage of strategic entrepreneurship principles and manage their knowledge effectively (Türkmen and Yılmaz, 2019). Qualified workforce is crucial for both the country and the business image and competitiveness. It is not possible to survive in today's global competition for businesses that do not have a skilled, efficient and educated workforce (Yılmaz, 2014). In today's intense competitive environment, the success of businesses depends largely on their ability to manage and take risks they face (Özer, 2012).

The needs of businesses for marketing and sales activities are increasing day by day in order to survive in global competitive conditions. Because today's competitive conditions make it necessary to foresee market trends and meet customer needs rapidly (Kotler and Armstrong, 2004). The company with the highest competitive advantage is that creates value for the customer and makes it sustainable over time (Kotler, 2000). Because competition means advantage as long as it is sustainable (Bahar and Kozak, 2012). Customer orientation, which is one of the basic components of market orientation, leads businesses in gaining competitive advantage and expresses continuing to create value for customers (Kohli and Jaworski, 1990). If a competitive strategy aiming to increase its existing market share is not supported by strategies aiming to create brand new markets, it is inevitable that other competitors will gain competitive advantage (Kırım, 2004). When the services provided to the customer are various, they can be used to gain competitive advantage. If a firm provides better service, customers may prefer that firm even though its cost is higher (Wanjiku, 2012). Surviving in competition and maintaining a competitive advantage depend on the continuous development of businesses' products, processes, structures and management approaches. In this framework, university-industry cooperation continues to gain vital importance in increasing and sustaining competitiveness (Tanış, 2020).

The quality factors which are corporate image and brand, quality goods and services, conforming to standards, reliability and ethics code affect competitive advantage. The ability of businesses to gain strength and gain competitive advantage in an intense competitive environment depends on having a strong corporate image in the eyes of the customer and providing corporate brand loyalty (Yalçın and Ene, 2013). Businesses have to be able to respond quickly to the increasing demands of consumers on the variety of quality goods and services. In today's world, where competition is at a high level, businesses that produce and serve in line with technological know-how and can adapt to the change in the market can achieve high competitive advantage against competitors by offering higher quality, conforming to standards goods and services. Establishing reliability is one of the main issues that directly affect the competitive advantage, future and therefore the existence of organizations (Asunakutlu, 2002). In a competitive world, an updated and well-defined code of ethics reflects the core values of an organization. This can protect against harassment or dictum, fines and sanctions (Kain and Sharma, 2014).

4. METHODOLOGY OF THE RESEARCH

The factors affecting competition and their degrees of importance differ according to the sectors. In previous studies, any study has been found that determined the factors affecting competition as a whole in logistics sector. It is aimed to contribute to the scientific gap in the literature by determining at the factors affecting competition in a holistic manner in logistics sector. The aim of this study is to determine the attitudes of senior managers working in the logistics service provider companies in Izmir towards the factors affecting competition in the logistics sector which has complex environment in recent years. In order to achieve this purpose, Delphi method, which is a qualitative research method, has been applied.

The reasons for using the Delphi method in this study is its suitability to the subject and its advantages. The most important advantage of the Delphi method is the provided convenience when participants cannot come together frequently due to distance, cost, time and place (Turoff and Hiltz, 2001: 60). Also thanks to the Delphi method; opinions and thoughts are documented and evaluated (Stewart et al., 2007:155), new ideas on the subject are provided (Franklin and Hart, 2007:238), common knowledge shared by experts are captured that previously unspoken or undiscovered (Stewart et al., 2007:155) effective decisions can be made when insufficient and conflicting information is found (Hasson et al., 2000:1008). Besides its advantages, Delphi method also has some disadvantages. For example, difficulty in finding enough experts for questions is one of the most important disadvantage of Delphi method (Gordon, 1994: 11). In addition, Delphi method can be time-consuming and laborious for both researchers and participants. Participants of the Delphi method might also drop out due to the long temporal commitment, distraction between rounds, or disappointment with the process (Donohoe and Needham, 2009).

The origin of the word Delphi is based on an oracle named *"Delphic"* who lived on the island of Delphi and prophesied about the future in Ancient Greek mythology.

As can be understood from the origin of the word, Delphi means to predict some future developments (Clayton, 1997: 376). As a scientific research method, it is considered as a technique that allows each individual of the group to contribute to the solution of complex problems as a process of group communication (Linstone and Turoff, 2002: 3). This method, which was introduced in the 1950s by researchers named Norman Dalkey and Olf Helmer working at RAND (research corporation) in the United States to conduct research on military issues, is based on a structured process to collect and decompose the information of a particular group of experts with the help of a series of questionnaires together with controlled feedback (Dalkey and Helmer, 1963; Ziglio, 1996: 3).

Delphi technique is a widely used and accepted method in which information is collected according to the expertise of the participants. This technique is designed to reach consensus on a particular issue within a group. In Delphi technique, a written form is sent to the experts in the related subject, which includes questions about their point of view and solution suggestions. After the forms are completed by experts, they are sent back to the researcher. Then the opinions and suggestions of all group members or experts are classified and sent back to them again. This process continues until a decision is made and a consensus is reached (Aktan, 2008: 8).

Delphi technique can be seen in marketing, education, information systems, strategic management, tourism, operations and production management, program planning, needs determination, policy making, developing the use of resources to evaluate alternatives and estimation, are confidentiality in the identities of the participants, repetition feature, controlled feedback, statistical analysis of answers and consensus of experts (Sandford and Hsu, 2007: 1). In recent years, it has been observed that the Delphi method is frequently used in the fields of maritime and logistics in both domestic and international literature.

For example, Saldanha and Gray (2002) investigated the expert opinions about the integration of cabotage transportation with multimodal transportation and the potential of British cabotage transportation with Delphi method. Lu *et al*. (2006) used the Delphi method to investigate possible disadvantages, success factors, and ideas for future development of alliances in the liner shippig industry. Emiroğlu and Ozer Çaylan (2014) evaluated the strategic leadership perceptions of the senior port managers in Turkey by Delphi method. Gomez Paz *et al*. (2015) investigated the constraints that may affect the future size of mega container ships by Delphi method. Gülmez and Karataş Çetin (2016) used the Delphi method in their study to consult experts and proposed a model for the ownership and management of logistics centers. Chen and Pak (2017) determined green performance evaluation indicators for Chinese ports by using the Delphi method. In their study, Ayaz and Çetin (2018) evaluated the attitudes of managers working in Turkish ship-owner companies towards green shipping practices using the Delphi method. The Delphi method was used in this study due to its suitability to the subject, its expected advantages to the study and its widespread use in the literature.

Dephi form has been used by Porter, 1980; Barney, 1991; Hamel & Prahalad, 1994; Teece *et a*l., 1997; Ghemawat, 2002; Wattanapruttipaisan, 2002; Gonzalez *et al*., 2004; Dikyol, 2007; Gal, 2010; Vinayan *et al.,* 2012; Wanjiku, 2012; Ağgez, 2013; Kocaoğlu, 2013; Yılmaz, 2014; Bhuyan, 2015 and Global competitiveness, 2017. This study consists of two rounds and two questionnaire forms. The first round consists of a questionnaire compiled from the relevant literature, aiming to measure the attitudes of managers towards the factors affecting competition in the logistics sector. Later, for the questions that could not be agreed at the first round, the second round questionnaire form was used. The information obtained during the research was used for statistical purposes only; the names and private information of the participants were not disclosed.

4.1. Sampling and Data Collection Process

The selection of the participants is on the basis of a successful Delphi research. In order to get the conclusion of the research successfully, the knowledge and cooperation of the people who participated in the study with valuable ideas are very important (Gordon, 1994: 6). There is no definite judgment in the literature about determining the participants to take part in the Delphi research (Hsu and Sandford, 2007: 3). However, in Delphi method, participants are not chosen randomly. People who have certain criteria, whose knowledge and experience can be consulted, are selected and attention is paid to ensure that the participants are people who can participate in all rounds carried out in the study (Hasson *et al*., 2000: 1010; Stitt-Gohdes and Crews, 2004: 61). Participants, who can vary according to the subject, can be in the range of 10-30 people (Rayens and Hahn, 2000: 309).

The sample of the research is composed of senior managers of logistics service providers operating in İzmir province. For the first round of the Delphi method, a Delphi form has sent to the senior executives of 30 companies operating in İzmir province via e-mail and the first round has completed between the dates of 16-22 October 2019. It is observed that the majority of the participants are working with the position of team leader (14 participants), department manager (12 participants) and specialist (4 participants) in their company. The second round questionnaire form has prepared for the questions that could not reached a consensus in the first round, and the second round has completed between the dates of 24-31 October 2019 with the participation of 18 managers.

5. FINDINGS

The findings have been analyzed under 2 headings. These are the findings regarding the logistics companies and the analysis of Delphi results. These results divided into the s the results of the 1st and 2nd Round.

5.1. Profile of the Companies Included in the Study

The participants have been asked three questions (field of activity, total service time of the institution, number of employees of the institution) regarding the logistics companies they worked with. The findings have been obtained within the scope of descriptive statistics and information about the institutions where the participants work are shown in Table 2.

Table 2: Findings Related to Logistics Service Providers

	n	%
Field of Operation		
Maritime Transportion	30	100
Airway Transportion	27	90
Road Transportion	20	66,7
Project Transportation	2	6,7
Railway Transport	1	3,3
Warehousing	1	3,3
Total	30	100
Operation Year		
0-10	10	37
11-20	11	40,8
21-30	1	3,7
41-50	5	18,5
Total	27	100
Number of Employees		
0-50	7	25
51-100	13	46,5
101-150	7	25
151+	1	3,5
Total	28	100

According to the results, all of the companies operate in the field of maritime transport, 90% of them operate in the field of air transport and 66.6% of them in the field of road transport. The logistics companies in the sample also provide project transportation, rail transportation and warehousing services. It is seen that 40.8% of the companies operate in the sector between 11-20 years, while 37% of them operate under 5 years. In the light of the data obtained, it can be concluded that the logistics sector has increased rapidly in recent years and the number of companies operating is increasing day by day. Most logistics companies in the sample employ between 51 and 100 people. Considering the number of departments and the size of the firms, it can be concluded that the İzmir Office employees of the companies in the sample are sufficient.

5.2. Analysis of the Delphi Results

In this study, APMO (The Average Percentage of Majority Opinion) technique used as a consensus measurement. In the calculation process of the first round of Delphi survey, the number of majority agreements and disagreements are calculated by expressing the participants 'comments "agree", "disagree" and "no comment" in percentages per statement. It was defined by Kapoor (1987) as:

$$\text{APMO} = \frac{\text{Majority Agreements} + \text{Majority Disagreements}}{\sum \text{Opinions Expressed}}$$

According to the Brett and Roe (2010: 8); a statement achieved consensus when it reached 70% or more. Authors stated that, a results of 70–79% was categorized as low consensus, consensus between 80 and 89% was categorized as medium consensus and consensus that fell between 90 and 100% was categorized as a high consensus. In this study, the Delphi survey prepared with the data obtained from the literature review has sent to 30 expert participants, the results have been analyzed with the APMO method and the agreement rates have been calculated for each statement. After, the statements that could not be reached a consensus in the first round have been detailed and a second round Delphi survey has been created. 17 participants attended in the second round of Delphi research. At the end of the second round, 2 questions could not be reached a consensus but the research has decided to be terminated both because the consensus rates have above 70% and it has seen that saturation has achieved in the obtained results.

5.2.1. Results of the First Round of the Delphi Survey

In the first round of Delphi research Delphi form consisting of 29 questions have prepared with the data obtained from the literature review and answered by 30 expert participants working in the logistics sector. The agreement rate of each statement in the form has calculated by APMO method.

According to first round of the Delphi survey results, majority of agreements includes 704 statements, majority of disagreements includes 34 statements and total opinions expressed with 868 statements including 78 non-comment responses. APMO cut-off percentage rate for the first round Delphi survey has been found 91% according to this results. When the results have been examined, it has seen that there is a total of 23 statements that over the APMO cut-off percentage rate and reached high consensus rate. It has determined that there is no consensus in 6 statements. Summary results of first round of the Delphi research presented in the Table 3. The statements in order of numbers used to evaluate the findings of the first stage of the Delphi research, the frequency and distribution of the responses of the experts to each statement, and the agreement rates are shown in Table 4.

Table 3: Brief Results of the First Round of the Delphi Research

Majority Agreements	704
Majority Disagreements	86
Total Opinion stating Agree and Disagree	790
Total Opinion announced by Panel Members	868
Average Percent of Majority Opinions	%91
Number of Statements Reaching Consensus	23
Number of Uncompromising Statements	6
Number of Total Statements	29
High Consensus (>90)	23
Medium Consensus (>80 - <89)	-
Low Consensus (>70 <79)	-
Number of Statements over 70 % Consensus	23

When the results of the first round of the Delphi study are examined, it is seen that the participants agree that the valuable and rare of the service provided by logistics service providers, which is one of the factors related to the resource dependency approach, affects the competition in the sector. However, 69% of the participants thought that the inimitability of the services provided by the logistics service providers affected the competition in the logistics sector, only 62% of the participants stated that the non-substitutable of the services has one of the factors affecting the competition in the logistics sector and there is no consensus for these two statements.

Table 4: Results of the First Round of the Delphi Research (1/1)

STATEMENTS	**NUMBER OF ANSWERS**					**RESULTS**
A. Factors related to Resource Based View	**Agree**		**Disagree**		**Unable to Comment**	
	N	**%**	**N**	**%**	**N**	
1. **Value** of the service given by logistics service providers is one of the factors that affect the competition in the logistics sector.	28	100	0	0	2	%100 AGREED CONSENSUS
2. **Rarity** of the service given by logistics service providers is one of the factors that affect the competition in the logistics sector.	27	93	2	7	1	%93 AGREED CONSENSUS
3.**Inimitability** of the service given by logistics service providers is one of the factors that affect the competition in the logistics sector.	20	69	9	31	1	*%69* AGREED
4. **Non-substituted** service given by logistics service providers is one of the factors that affect the competition in the logistics sector.	16	62	10	38	4	*%62* AGREED
B. Factors related to Dynamic Capabilities						
1. The ability of logistics service providers to **sense** opportunities in the market and to be **responsiveness** to the market is one of the factors that affect the competition in the logistics sector.	28	100	0	0	2	%100 AGREED CONSENSUS
2. Logistics service providers' ability to find new solutions, create new knowledge and learn to take advantage of market opportunities (**organizational learning**) in the changing environment is one of the factors that affect the competition in the logistics sector.	28	97	1	3	1	%97 AGREED CONSENSUS
3. The ability of logistics service providers to **integrate the knowledge and skills** of their employees with the routines of their operations is one of the factors that affect the competition in the logistics sector.	28	100	0	0	2	%100 AGREED CONSENSUS
4. The ability of logistics service providers to effectively **coordinate** their resources and activities is one of the factors affecting the competition in the logistics sector.	26	96	1	4	3	%96 AGREED CONSENSUS
C. Factors related to Structural Approach						
1. **Threats and obstacles for new entrants** to the market in the logistics sector are one of the factors affecting the competition.	13	62	8	38	9	*%62* AGREED
2. **Bargaining power of suppliers** is one of the factors affecting the competition in the logistics sectors.	26	96	1	4	3	%96 AGREED CONSENSUS
3. **Competition strategies** implemented by logistics service providers and **rivalry among existing competitors** are one of the factors affecting the competition in the sector.	26	93	2	7	2	%93 AGREED CONSENSUS
4. **Bargaining power of buyers (customers)** is one of the factors affecting the competition in the logistics sectors.	17	63	10	37	3	*%63* AGREED
5. **Threats of substitute services** are one of the factors affecting the competition in the logistics sectors.	14	61	9	39S	7	*%61* AGREED

Table 4: Results of the First Round of the Delphi Research (1/2)

STATEMENTS	**NUMBER OF ANSWERS**					**RESULTS**
D. Operational Factors	**Agree**		**Disagree**		**Unable to Comment**	
	N	**%**	**N**	**%**	**N**	
1. The **cost** of operations is one of the factors that affect the competition in the logistics sector.	28	97	1	3	1	%97 AGREED CONSENSUS
2. The **speed of operations (time)** is one of the factors affecting the competition in the logistics sector.	29	97	1	3	0	%97 AGREED CONSENSUS
3. The **technological** infrastructure used by logistics service providers is one of the factors affecting the competition in the logistics sector.	29	97	1	3	0	%97 AGREED CONSENSUS
4. **Research and development (R&D)** activities implemented by logistics service providers are one of the factors affecting the competition in the logistics sector.	25	93	2	7	3	%93 AGREED CONSENSUS
5. **Innovation** activities implemented by logistics service providers are one of the factors affecting the competition in the logistics sector.	27	93	2	7	1	%93 AGREED CONSENSUS
6. The **qualified workforce** of logistics service providers is one of the factors affecting the competition in the logistics sector.	27	96	1	4	2	%96 AGREED CONSENSUS
7. **Risk taking** tendency of logistics service providers is one of the factors affecting the competition in the logistics sector.	18	69	8	31	4	*%69* AGREED
E. Factors related to Marketing						
1. **Customer satisfaction and value creation** is one of the factors affecting the competition in the logistics sector.	27	93	2	7	1	%93 AGREED CONSENSUS
2. **Customer orientation** is one of the factors that affect competition in the logistics sector.	24	92	2	8	4	%92 AGREED CONSENSUS
3. The **market share** of logistics service providers is one of the factors affecting the competition in the logistics sector.	27	96	1	4	2	%96 AGREED CONSENSUS
4. **After-sales (value-added) services** offered by logistics service providers to their customers is one of the factors affecting the competition in the logistics sector.	29	100	0	0	1	%100 AGREED CONSENSUS
5. The **cooperation between university and industry** is one of the factors affecting the competition in the logistics sector.	21	91	2	9	7	%91 AGREED CONSENSUS
F. Factors related to Quality						
1. The **brand and image** of logistics service providers is one of the factors affecting the competition in the logistics sector.	24	96	1	4	5	%96 AGREED CONSENSUS
2. Compliance of logistics service providers with **quality standards** is one of the factors affecting the competition in the logistics sector.	26	93	2	7	2	%93 AGREED CONSENSUS
3. The **reliability** of logistics service providers is one of the factors affecting the competition in the logistics sector.	27	100	0	0	3	%100 AGREED CONSENSUS
4. The **ethical behavior** displayed by logistics service providers is one of the factors affecting the competition in logistics the sector.	24	92	2	8	2	%92 AGREED CONSENSUS

According to the first round results of the Delphi survey, it can be said that the participants reached a consensus on all factors related to the dynamic capabilities. In other words, the participants agree that the ability to sense opportunities in the market and to be responsiveness to the market, find new solutions and learn, integrate knowledge and skills with the routines of their operations, and the ability to effectively coordinate their resources and activities are factors that affect the competition in the logistics industry. The obtained results emphasize that the logistics sector has become one of the largest and most dynamic sectors in parallel with the increase in international trade volume, the removal of borders between countries and the development of the concept of globalization.

When the factors related to the structural approach are examined, results are showed that the participants agreed that only the market dominance of the logistics sector suppliers and the competitive strategies implemented by the logistics service providers affect the competition in the sector. The lowest consensus rate in the first round of Delphi research has experienced on the impact of the threat of substitution services in the logistics sector on the competition with a consensus rate of 61%. In addition, the participants reached a consensus on all marketing and quality related factors.

At the end of the first round of Delphi research, there are no consensus on a total of 6 statements. The statements that could not be reached a consensus have been re-evaluated, some of the statements are detailed for easier understanding by the participants, and the two statements which are not reached a consensus about the substitution of services provided in the logistics sector are combined in a single question. The second round Delphi form created in the light of these developments has sent to the experts who participated in the first round of the Delphi research.

5.2.2. Results of the Second Round of the Delphi Survey

In the second round of the Delphi survey, the Delphi form consisting of 5 questions and prepared with the data obtained from the first round has answered by 18 expert participants working in the logistics sector who also participated in the first round of the research. Due to time constraints and workloads, 12 participants who participated in the first round could not participate in the second round of the study by informing to the authors about their situation. The consensus rate of each statement in the second round questionnaire has calculated with the APMO method as in the first round.

According to second round of the Delphi research, majority of agreements includes 65 statements, majority of disagreements includes 11 statements and total opinions expressed with 85statements including 9 non-comment responses. APMO cut-off percentage rate for the second round Delphi survey has been found 85,5% according to this results. According to second round of the Delphi survey results, there are 3 statements that over the APMO cut-off percentage rate. Although 2 statements that over the 70%, they could not reach a consensus because they are below to 85,5% APMO cut-off percentage rate for the second round Delphi survey. In the second round of the Delphi study, different from the first round, participants have been asked to state with their reasons whether they agree or disagree with the statements for a more detailed analysis of the results. Summary results of the second round of the Delphi research presented in the Table 5. The statements in order of numbers used to evaluate the findings of the second stage of the Delphi research, the frequency and distribution of the responses of the experts to each statement, and the agreement rates are shown in Table 6.

Table 5: Brief Results of the Second Round of the Delphi Research

Majority Agreements	65
Majority Disagreements	11
Total Opinion stating Agree and Disagree	76
Total Opinion announced by Panel Members	85
Average Percent of Majority Opinions	%85,5
Number of Statements Reaching Consensus	3
Number of Uncompromising Statements	2
Number of Total Statements	5
High Consensus (>90)	2
Medium Consensus (>80 - <89)	1
Low Consensus (>70 <79)	2
Number of Statements over 70 % Consensus	5

When the results of the second round of Delphi research have been examined, it is seen that there is a consensus of 88% in the first question about imitation of logistics services. Only 2 participants are not agreed with this statement. As it can be understood from the comments added by the participants to the Delphi survey form, by imitating a unique service offered for the first time, the company providing this service is no longer in a monopoly position, the service provided becomes cheaper and accessible, and this situation increases the general competition in the logistics sector. In the second question about the substitution of logistics services, it has seen that the highest consensus rate in the second round is reached with a rate of 94%. Participants emphasize that as similar services increase, new options that provide positive results for customers will increase and as a result of this situation.

Logistics service provider will try to create different added value logistics services and also the competitive environment in the sector will increase. Only one participant who expressed a negative opinion stated that the important thing is not to produce similar services, but to make a difference in communication channels and technical issues, and this will affect the whole competitive environment in the logistics sector.

In the third question about the threats and obstacles that new entrants to the market will encounter in the logistics sector, the consensus rate has determined as 71%, and this statement remained the second round APMO cut-off percentage rate of 85.5%. While some participants emphasized that in parallel with the increase in the number of businesses in the sector, the market share will be divided; however, some of them stated that the logistics sector is not a sector that is very open to new businesses. The important thing is to create a perception of trust in the sector and for these reasons new entrants to the market cannot be a threat to the old and well-established companies in the sector.

Table 6: Results of the Second Round of the Delphi Research

STATEMENTS	**RESULTS**					
	Agree		**Disagree**		**Unable to Comment**	
	N	**%**	**N**	**%**	**N**	
1. Imitating a unique logistics service offered to customers by a company for the first time by competitors in the industry and offering the same service is one of the factors affecting the competition in the logistics sector.	15	88	2	12	0	%88 AGREED CONSENSUS
2. The provision of similar services by competitors that create the same value for customers is one of the factors affecting the competition in the logistics sector.	15	94	1	6	1	%94 AGREED CONSENSUS
3. The inclusion of new businesses in the logistics sector is a threat (division of market share, loss of customers, etc.) to existing logistics businesses in the market. The threats to be created by these new entrants are one of the factors affecting the competition in the logistics sector.	10	71	4	29	3	%71 AGREED
4. Customers' demand for higher quality and additional services by trying to lower prices for the service they will purchase is one of the factors affecting the competition in the logistics sector.	11	79	3	21	3	%71 AGREED
5. The risks (new investments, R&D expenditures, etc.) taken by logistics service providers to achieve a sustainable competitive advantage are one of the factors affecting the competition in the sector.	14	93	1	7	2	%93 AGREED CONSENSUS

In the fourth question about the bargaining power of service buyers in the logistics sector, the agreement rate has again 71%, which was below the second round APMO cut-off percentage rate of 85.5 %.

While many participants emphasized in their comments that customers put a great pressure on logistics businesses to lower their prices and this situation increased the competition in the sector. Some participants stated that the bargaining power of customers has not a factor that affects competition in the sector alone, but a result of this competition.

In the last question about the risks taken by logistics service providers, it has seen that there is a consensus with 93%. Most of the participants has stated that the risks achieve success with new investments and R&D expenditures. It can bring new customers, decrease the work intensity, increase the quality of the service and consequently bring a significant competitive advantage against the competitors. Only one participant has expressed the opposite opinion, and 2 participants has remained without comment.

At the end of the second round of the Delphi research, the results of the study have found to be sufficient because the agreement rates of the 2 statements below the second round APMO cut-off percentage rate are not very low (over 70%) and it is thought that sufficient saturation is achieved in the results and the research is terminated without a third round.

6. CONCLUSION

According to Henderson (1983), competition is universal and applied to biological or business competition. Understanding the factors which affect competitive advantage is an important research topic in the strategic management field. The important and necessary thing for companies to sustain their long term life is to gain competitive advantage in the literature.

Logistics capabilities are considerably critical for the success of companies with the effect of global competition in the logistics sector, which has displayed a very complex appearance in recent years. For this reason, it is aimed to determine the attitudes of senior managers working in logistics service companies towards the factors affecting competition. It is aimed to determine the attitudes of senior managers working in logistics service companies towards the factors affecting competition. To achieve this purpose, Delphi method, which is a qualitative research method, has applied. The first stage of the study consists of a questionnaire that aims to measure the attitudes of the managers towards the factors affecting competition in the logistics industry, compiled from the relevant literature. Later, for the statements that could not reached a consensus at the first stage, the second round of the Delphi study has implemented.

In the first round of Delphi research, most of the factors obtained from the literature are consensus. When the results of the first round are examined, it is seen that the participants agree that the value and rare of the service provided by the logistics service providers, which is one of the factors related to the resource dependency approach, affects the competition in the sector. It is seen that the participants agree on all of the factors related to the dynamic skills approach. In other words, the participants agree that the ability to sense opportunities in the market, find new solutions and learn, integrate knowledge and skills with the routines of their operations, and the ability to effectively coordinate their resources and activities are factors that affect the competition in the logistics industry. When the factors related to the structural approach are examined, the participants agreed that only the market dominance of the logistics sector suppliers and the competitive strategies implemented by the logistics service providers affect the competition in the sector. Two of the 5 variables belonging to the approach known as the Porter's five forces model, which is of great importance and associated with competition in the literature, have not been considered as highly significant and compromised by logistics service provider experts as a factor affecting competition. This situation suggests that there is a perception difference between the academy and the industry in terms of the logistics industry. In addition, the participants agreed on all of the factors related to marketing such as value creation, customer orientation, and market share, value added services and university-industry cooperation and factors related to quality such as corporate image and brand, quality and conforming standards, confidence and ethical behavior of firms

As a result of the first round of the Delphi study, a total of statements could not reached a consensus, for this reason the statements have been re-evaluated and detailed, and a second round Delphi form has prepared. When the factor related to imitation of logistical services that could not be reached a consensus in the first round has detailed, it has seen that the experts agreed with this high consensus rate. Likewise, the participants agreed with high consensus rate on the statements regarding the substitution of logistics services and the risks taken by logistics service providers. There has no consensus regarding the threats / barriers faced by new entrants to the market and the bargaining power of the service buyers in the logistics sector. At the end of the second round of the Delphi research, the results of the study have been found to be sufficient because the agreement rates of the 2 statements below the second round APMO cut-off percentage rate are not very low and it is thought that the results are reached sufficient saturation, and the research is terminated without a third round.

The obtained results emphasize that the logistics sector has become one of the largest and most dynamic sectors in parallel with the increase in international trade volume, the removal of borders between countries and the development of the concept of globalization. By imitating a unique service offered for the first time, the company offering this service is no longer in a monopoly position. Therefore, provided service becomes cheaper and accessible, and this condition increases the general competition in the logistics sector. Results of the study indicated that as similar services increase, new options that provide positive results for customers will increase and as a result of this situation, it is thought that logistics service providers will try to create different added value services and the competitive environment in the sector will increase. Some participants emphasized that as the number of businesses in the sector increases, the market share will be divided, while others stated that the logistics sector is not a sector that is very open to new businesses, the important thing is to create reliability in the sector, and for these reasons, new entrants to the market cannot be a threat for old and well-established companies in the sector. In addition, it was stated that the customers put a great pressure on the logistics service providers to lower their prices and this situation increased the competition in the sector. Participants specified that the risks to be taken with new investments and R&D expenditures can bring new customers, reduce the work intensity, increase the quality of the service and, as a result, bring a significant competitive advantage against competitors.

As a result; valuable, sense of market opportunities and sensitivity to the market, the ability to combine the knowledge and skills of employees with the routines of their operations, after-sales service and reliability are factors that reached a 100% consensus rate. All factors related to dynamic capabilities approach associated with competition in the literature have been considered important by logistics service providers. There was no consensus regarding the threats and obstacles faced by new entrants to the market and the bargaining power of the service buyers in the logistics industry.

When the results of the study are examined, it can be seen that high consensus rates in the operational factors' statements such as costs, speed of operations, technological infrastructure and qualified workforce are compatible with the relevant literature. For example, Çekerol and Kurnaz (2011) identified high importance of infrastructure for the gaining competitiveness in the logistics sector. Also, Hise (1995) defended competition related to time is a strategic tool for creating competitive advantage in the logistics sector. Kramer and Kramer (2010) also highlighted the flexible delivery frequency and price in their study. In addition to operational factors, high consensus rates in the quality and marketing factors' statements obtained in the study. Importance of quality in terms of competitiveness of logistics sector has also been emphasized in the literature. For instance, Babacan (2003) stated that choosing the right customer and ensuring accuracy in needs determination, increasing the customer service level and ensuring the balance of customer satisfaction and firm value are important factors for gaining competitive power in the logistics sector. According to the literature review, there haven't been found many studies containing the factors related to resource based view and structural approach in terms competitiveness of the logistics sector.

Limitations and Recommendations of the Study

Due to limited time of the study, a certain number of experts working in logistics provider companies have been reached. For this reason, the research of the study only covers logistics service providers in the İzmir region.

In the following studies, researches can be conducted including overall competition factors based on Turkey. Comparative analyzes can also be performed by increasing the number of studies and expanding the sample groups.

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