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**IMPACT OF FIRM RESOURCES ON THE
PERFORMANCE OF 4PL BULGARIAN COMPANIES ON
THE INTERNATIONAL TRANSPORTATION AND
FREIGHT-FORWARDING SERVICE MARKET**

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ABSTRACT

The study has the aim to explore and investigate what is the influence of the firm resources on the business performance of Bulgarian freight-forwarding companies.

The first theoretical sub-part aims at discovering what is the position of the freight-forwarding firms in the hierarchical system of the service sector the logistics chain and the transportation system.

The resource-base view, the types of resources in possession of the firm, as well as their impact on the organization's competitiveness and performance are discussed also.

Empirical questionnaire survey has been conducted among 73 Bulgarian companies which are members of the National Association of the freight-forwarders in the country.

The results show that those comparatively small and young companies consider that human resources as the most important internal strengths. According to the respondents only the proper and efficient deployment combined with high level of flexibility and larger range of services could make them more competitive and improve their business performance and respectively their profitability.

KEYWORDS: Logistics services; freight-forwarding; 4PL; firm resources; Bulgaria

1. Introduction

This first chapter of the study has the main goal to introduce the field and the problem under investigation, the work purpose and also to outline some important key definitions in order to enhance the understanding of the study. Earlier research has been very briefly presented, the research methodology together with the range of the research. A framework of the thesis has been put forward at the end of the sub-chapter.

1.1. Study background

International transport and freight-forwarding services are positioned at the very back levels of the supply chain, but that does not make them less important or less value adding in regard to the processes of international trade and business relations.

Xu, Hancock and Southworth (2003: 1711) state that the efficient distribution is extremely important in nowadays' business world and the price of transportation comprises an important part of the final price of the products which influence the competitive strengths of the companies on the markets. In this way efficiency could be reached by careful and timely routing and scheduling of the vehicle fleet that operates to perform the distribution tasks.

There have emerged a couple of new trends in the field of transport logistics that produce an influence on the development of the sector as a whole (Van der Putten, Robu and La Putre 2006: 1507). The profit margins in the field have been decreasing because of the vast increase in the competition and the entrance of new and new small carriers and freight forwarders in the market. According to (Van der Putten *et al.* 2003: 1507) another trend is the high complexity and the sophistication of today's supply chains. Those new realities require better and optimized solutions that allow the use of more possibilities and with the participation of new companies. Thus both intra and inter-firm optimization and collaboration are necessary in order a balance to be achieved.

In the transportation management literature there is considerable disagreement on the issues explaining the meanings of the terms 3PLs and 4PLs. Third party logistics service providers 3PL operate on the logistic markets with their own vehicles, that is in order to execute an order for transport of given goods by the shippers (consignor) they have their own fleet of transport trucks. The Fourth party logistic service providers on the other hand have no their own fleet of vehicles but hire such from other 3PL companies or said in a different way the 3PL companies which have no capacity for executing a given transport service forward it to 4PL in order to be fulfilled the transport order. Shippers could also contact directly to the 3PL companies. 4PLs from another point of view can hire either the 3PLs or other from the other markets and the network (see Fig.1) looks somehow mixed (qtd. in van der Putten et al. 2003).

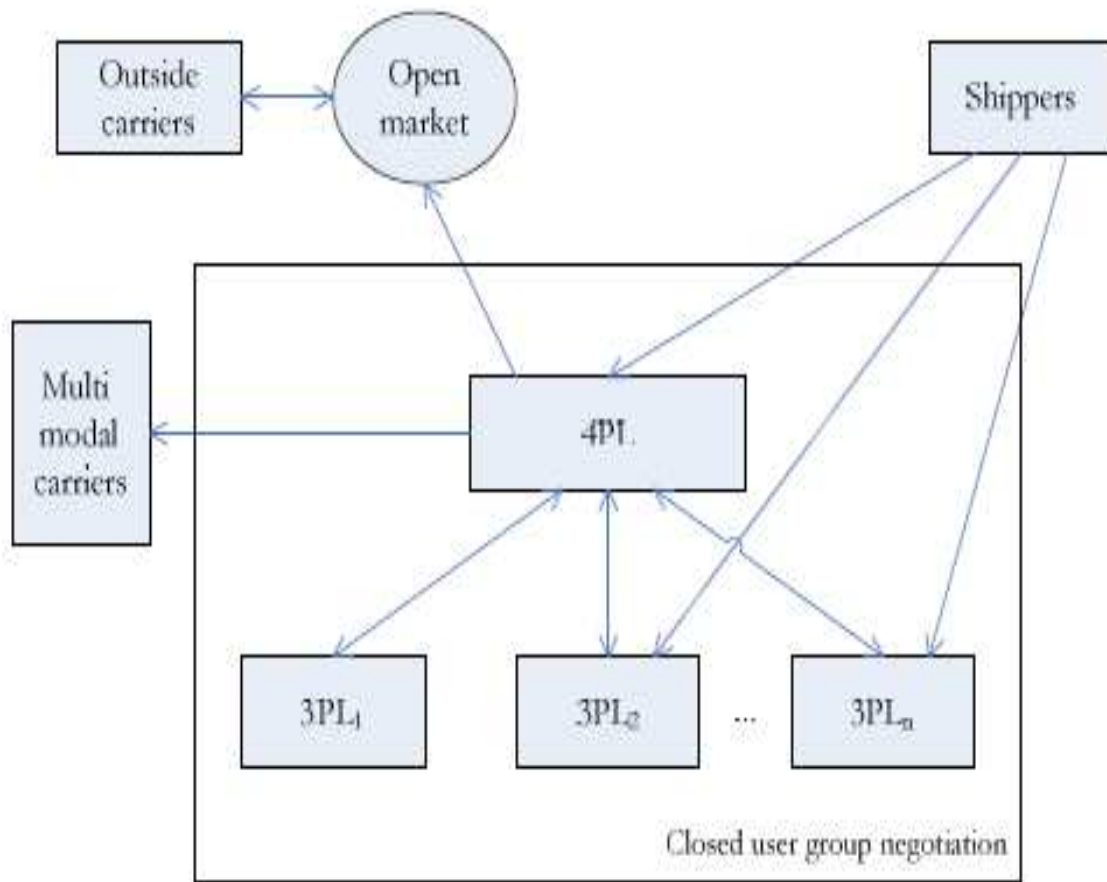


Figure 1 Interactions between parties in multi-party logistics setting (van der Putten, et. al 2006)

Like all industries the transportation one has also a great number of challenges that are preventing the smooth and calm milieu in which the companies operate. In a study Muller (1990: 117) argues that when it is a question about international freight-forwarders a lot of problems concerning the profit margins occur. He states that with the increased demand by the customers to receive quicker and better services on time the challenges in front of forwarders increase even higher, because as it is noticed in the study the prices at which they have been operating have surprisingly stayed the same. Another argument presented in the study is about the size of the firms operating as forwarders. Muller (1990) acknowledges that if the definitions about the main activities and obligation for the operators in that field of the transportation industry could be more or less easily explained, the question about the impact of the firm's size and if it can

compete with the resources and services offered by the large transportation “dinosaurs” is quite serious.

Many observers have predicted the extinction of the small and medium sized carriers, because of the inability to compete with the multitude services offered by the big players in the industry (Muller 1990: 118).

Schwartz (1998: 99) while agreeing on the facts that the international trade has been increasing with a rapid pace, because of the global trends and thus creating even larger market for the freight-forwarding business he noticed also that due to the crucial need for finding their new place on the international market many of those small and large freight operators have created alliances and acquisitions driven by the extremely high competition and customer demand. Unlike Muller, Schwartz even stated that the profit margins of those companies have started even slowing down (contrary to the increased volume of the trade) which questioned the ability of those companies to offer models and modern solutions to the clients.

Bulgarian market for transport and freight-forwarding services in international aspect is a small one, although the country has a strategic geographic situation connecting Europe with the Middle East which by default predetermines intensive traffic in transportation business. In the recent years on the contrary of the tendency of decreasing number of cargo orders mainly within the EU market, there have appeared more and more small transport companies (mainly 4PL) which inevitably meet difficulties in operating and competing with the logistic companies with long traditions on the market. The question that arises now outlines the basis on which the research question of the study is formed. It is going to be explained in more details in the part *purpose of the study*.

1.2. Definition of the problem

The main problem driving the need for the current study can be defined as the necessity to be discovered the functional relation between the resources possessed by firms in the sector of the freight forwarding services and the overall performance of those firms

situated and operating on the Bulgarian transportation market in nowadays extremely sophisticated logistics chains.

1.3. Purpose of the study

The purpose of the work could be defined as an exploratory study with the aim of finding out the influence of the firm resources on the development of the small 4PL companies and how those resources could have been the cause for the improving of the performance of the companies in the recent years, which in its term defines the main research question:

What is the impact of firm resources on the overall business performance of 4PL Bulgarian companies in the international transport and freight-forwarding service sector?

As sub-objectives of the study I have settled the following items: Dissimilating the main research question in to more specific issues that is namely

To describe the characteristic features of freight-forwarding service providers as part of the service sector and as part of logistics supply chain

To find out the role which firm resources have as important determinants for the superior business performance of a given organization

To analyze the role of the resources in the performance of Bulgarian 4PL companies in the international transport service sector from freight-forwarders' point of view

Although many of the terms and key words used in that study will be familiar to the readers it is useful a short clarification to be provided beforehand as well for the more easily organized process of reading.

Consignor – (shipper) is also used as a synonym for the trader who sends the goods or delivers them to a third party or another intermediary in order to be delivered at the final destination. In most of the cases this is the exporter of materials or goods, the seller (Merriam-Webster 2008; The Free dictionary 2008; NSW Government 2008)

Consignee- is the receiver or the buyer of the goods who has already had a contract with the consignor for the purchase of the goods (Merriam-Webster 2008; The Free dictionary 2008; NSW Government 2008)

Carrier- is the transporter of the goods. Carriers are third party for-hire operators engaged in transportation of properties and serving at reasonable charges (Coyle, Bardi & Langley 1996) with own fleet of vehicles and their main aim is to deliver the service of transporting the materials or the goods from the consignor to the receiver.

3PL- is a synonym of carrier. Third-Party Logistics service providers (3PL) orchestrate the logistic processes and assure that they are well executed according to a current logistic concept. (qtd. in Van der Putten et al. 2006)

4PL- Fourth-Party Logistics service providers (4PL) orchestrate the supply chain and are responsible for the design of the logistics concept. (qtd. in Van der Putten et al. 2006)

Freight-rates, comprises the price for which goods have been transferred from the consignor to the consignee. In the price all the items are included like the expenses for the vehicle, different taxes that have to be paid during the transport service and a percentage of a commission for the carrier (Ballou 1992: 153)

Freight-forwarder- (broker,) for-hire carriers of freight and a synonym Fourth-party logistics provider usually they forward the goods to available carriers. They bring shippers and carries together by providing information about rates, routes and capabilities (Ballou 1992: 157)

Although there have been various different explanations and definitions for the mentioned above terms the author of this study will stick to those definitions mentioned and all the explanations and findings will be considered in the light of the meanings of terms that have been cited above.

Van der Putten *et al.* (2006: 1507), in accord with earlier statements, defined two basic trends, which characterized the market of the transportation and freight-forwarding industry. Firstly the researchers acknowledged the sharp emergence of new and small freight-forwarding firms and secondly they recognized the sophistication of the nowadays supply chains where more integrated and fast decisions and solutions had to be solved by the companies in the industry with same amount of resources.

Thus we come to the main problem of the study and namely which concerns the influence of the resources on the behavior of small freight-forwarding companies in more sophisticated supply change and international market challenges that face the transportation industry.

As it was stated before in the study there is considerable lack of literature about freight-forwarding industry. There are logistics modeling solutions for optimization of the loads in the carriers but those as well as other works are concerned mainly with the shipper's point of view and not discussing the problems from the point of view of the freight-forwarding companies as well. Focus has been on the logistics issues and ignoring the freight-forwarding companies as a part of the logistics and transportation services. Also most of the studies of course have been dealing with the main big countries like USA and China. Only a couple of studies have been focused on small countries but those have been concerned with some lateral services offered by logistics companies and none has stressed about the obviously growing competition in that industry today. That is why this work will be concentrated with a small market and small companies but though on a strategic cross road of Europe. The study will also be interested in mainly road operating companies though most of them have resources for operating with air rail and water cargoes, since according to a report of the European Union (2001: 13) till that moment road transport is the main mode of goods transportation in continental

industrialized countries. As an example, in the period 1970 to 2000 it has grown in the European Union countries from 52 to 74 per cent of the total quantity of tonne kilometres hauled reaching a value of 1348 £ 109 tkm (European Communities 2003).

The study is meant to be an exploratory one, thus revealing the problem issues only in the sector of firms performing freight-forwarding services and without their own transportation fleet and regarding their resource base. As such a qualitative research is going to be performed through interview semi-structured questionnaires consisting between seven up to thirteen opened and closed questions directed to the managers or experts in sector Export-Import of those companies that are targeted for the study. Information is going to be obtained also through phone interviews (if possible), internet and web-based sites or links, desk and library research as well will be used.

The study will be focused on 4PL companies which are mainly small and medium sized firms. As obvious from the research question big companies with own vehicles will not be studied in depth. Large multinational logistic service providers will also be beyond the scope of the study. The research has no intention of giving practical advices to managers of such companies on issues how to develop better business working firms in highly competitive environment or when establishing such service entities. It would rather discover some problematic areas in the sector with the idea of exploration of possible directions towards more competitive advantages. Those could also be considered the managerial issues evolving from the study. Another limitation of the study will be the fact that it will be focused on the internal forces that are in possession of the firm and which the firm can change in order to improve its overall performance. In that sense the external forces are not going to be discussed in that study. Porter's diamond despite the fact that gives very good explanations for the environmental factors surrounding firms and despite that is classified by many authors Barney (2002) as a complementary system for the strategic choices of organization will be beyond the scope of the current work.

1.4. Earlier research

It should be stated in advance that in the literature there is a gap in the research dedicated to small freight forwarding firms in the transport and logistics service sector.

In a descriptive report done by the National Institute of Standards and Technologies and the National Science Foundation the service sector is explored as a part of the economies of the countries. The ratio of the sector as a producer of countries' GDP is described and the importance for the employment and R&D activities are discussed. Sirilli and Evangelista (1998) get into deeper attempts in understanding the services as they discuss the innovation in technologies as a determination of the performances of companies in the sector as well as identifying the financial weakness as a major drawback for the industry. Howells (2001) defines the services as "the major drivers" for the economy of a country. This statement is confirmed and developed later on in 2008 by a report by NAICS and the OECD acknowledging that the organizations in the Tertiary sector influence strongly the innovation in the development of the other industry sectors.

La Donde and Masters (1994) identify and describe the two most important business logistics strategies for the American market and which they believe will remain actual and important in the next decades as well, and those are the supply chain management and the cycle time compression which both represent complementary approaches to corporate logistics. The results are empirically tested for the US market.

Bardi (1973), Ballou (1992) and Coyle, Langley and Bardi (1996) describe the process of logistics and logistics management as part of the service sector by explaining the essence of the logistics systems and the management of the logistics processes in the light of the building of the supply chain and its management. Bardi (1973) discusses the importance of the choice in the logistics processes and the selection criteria for the picking up the most relevant logistics service provider by testing those criteria on different groups of selecting clients from the multitude of carriers.

Barke (1986) locates the transportation system as the link that connects the fixed parts of the logistics processes and the units of the supply chain.

In a study by Richardson (1995) discusses the outsourcing of logistics functions to third party operators which according to her is a must in the new reality of the markets rules where the demand for efficiency in transportation has increased significantly.

Baykasogly and Kaplanogly (2007) have developed a case study which has provided insights about the problems with the logistics processes and the operations of intermediaries in those processes by having a point of discussion from the name of the logistics providers. They have developed and tested on a logistic company costing models for determining and decreasing of the costs and expenses for those firms. The findings proved to be very useful for increasing the efficiency planning procedures and for the clarification of the structure of expenses for logistics providers.

Muller (1990) outlines the freight-forwarding companies as small and medium-sized firms which face the competition with the “dinosaurs” in the logistics industry arguing that the price wars are the cornerstone which such brokerage firms face and fight the most on the their way for improving their activities. Schwartz (1998) in accord with Muller and Larssen (2000) sees the price competition as the driver for the process of alliances and acquisitions in the field of freight-forwarding solution providing industry since the profit margins of the companies have decreased in a negative functional dependency to the increased demand for services.

Van der Putten *et al.* (2006) defined two regularities for the freight-forwarding companies and developed a framework for application of agent mediated negotiation techniques in transportation logistics and an optimization model for the efficiency in the execution of orders. They tested their models to a Dutch freight-forwarding company and the results proved to increase the efficiency of those processes and activities in the firm. Xu *et al.* (2003) have proposed a Dynamic Freight-forwarding Model constructed for studying the effects of highly developed information technologies and logistics strategies on freight transportation. Real time information is applied to the model as

well. Findings have shown that the system has the capacity to provide a better, more in-depth understanding of freight movements on the physical transportation network.

Caputo *et al.* (2004) have presented a decision support system which deals with the analysis of the cost-effectiveness in executing the orders by the freight-forwarders including the interactive computer procedures and a database structure which have shown that the main critical items from the point of view of the freight-forwarding management are the manual logistics planning in the carrier allocations on demand shipments.

In a study by Holweg and Markides (2006) and following studies concentrated on the US markets the diversification of services and activities by freight forwarders in the UK are discussed. The results have shown that the diversification appeared to be according to the size of the companies and the diversified asset base, since the motivation for that process emerged from the erosion of the revenues of the freight-forwarding firms, because companies have started the search for profits outside the traditional services while trying to address the needs for the customers.

Murphy and Daley (1997; 2000) have created studies which concentrated on the profiling of the international freight-forwarders in US and the essence of the relationship between them and the shippers in the processes of the logistics solutions. Their findings confirm many of the previous studies in the field since they state that the demand for such services will increase but the volatility and the competition would be a major drawback for the companies.

Montgomery (1985) and Montgomery and Christensen (1981) argue that the diversification and the market structure and firm performance are in a strong relationship in the field of small freight-forwarding firms. Their findings suggest that more diversified organizations have lower market power in comparison to bigger ones and not so diversified which is in contrast to the general understandings of the traditional market power theory stressing on the general rather than on the specific market power of diversified firms. Fuller, O'Connor and Rawlinson (1993) and Kumar,

Vrat and Shankar (2006) have supported the statements of Montgomery and Christensen and Montgomery about the distinction of services in the business logistics and Gilmour, Driva and Hunt (1995) and Krajewska and Kopfer (2006) focused their studies for the integration of the services offered by the freight-forwarders on the Australian market.

Wang, Zantow, Lai and Wang (2006) confirmed the importance of service diversification in contrast to price issues for the customers' satisfaction.

Vaaland and Heide (2007) focused their research on the individual players in the supply chain in Norway and found out that e-solutions are the future goals that should be implemented in the logistics planning processes if efficiency is to be achieved.

Gummesson (1994), Gronroos (1997; 1998 and 2001) and Lovelock and Gummesson (2004) argued that service marketing has turned into an inseparable part of the overall management. They defined some key attributes to the services and presented the service paradigm based on the service quality and the technical and functional performance of the services and service perception by the clients. By testing the generalizability of the attributes the authors concluded that only some of them are typical only for the services and not the products as outcomes of the firm's processes.

Berglund, van Laarhoven, Sharaman and Wandel (1999) however focusing on the services offered by freight-forwarders have come to the conclusion that despite the similarities in the characteristics of the freight-forwarders as service providers, they form differentiated group industry because of the specificity of their services, namely the intermediary and broker services which performance is determined by financial results and profits earned.

As far as the resources of firms have been studied, there are quite many researches on that item. Resources and their impact on firm for giving sustained competitive advantage has been researched in-depth by Ansoff (1965), Andrews (1971), Wernerfelt (1984), Porter (1985) Barney (1986; 1991), and Peteraf (1993). The resource based view has been researched by many scholars and also many others who have criticized it.

Barney (1991) has built his study on the assumption that strategic resources are heterogeneously distributed across firms and that these differences are stable over time, he has examined the relationship between the resources and the sustained competitive advantages. In different studies made by Barney, Gautam and Muhanna (2004; 2005) the impact of the resource-based theory has been explored with having as an independent variable not the overall performance of the company but the effectiveness of the business processes on a sample of North American firms and the findings have shown that advantages are not necessarily reflected in the firm level performance. Second the same group of scholars examined the impact of It on the customers service processes again on a sample of North American companies and the results suggested that only tacit, and socially complex specific resources are able to cause the differences in the performance processes.

Volberda and DeLeeuw (1996) and Fredericks (2005) have observed the flexibility as organizational response to the volatility of the processes and the environment. Fredericks has concentrated on the flexibility and the possibility to be distributed through business-to-business firms having as a background the resource-based theory again. Superior intra and inter flexibility influencing the business performance measured in terms of marketplace success.

Foss and Knudsen (2003) have criticized the resource-based theory arguing that the dependent variables explaining its influence are somehow unclear and vague.

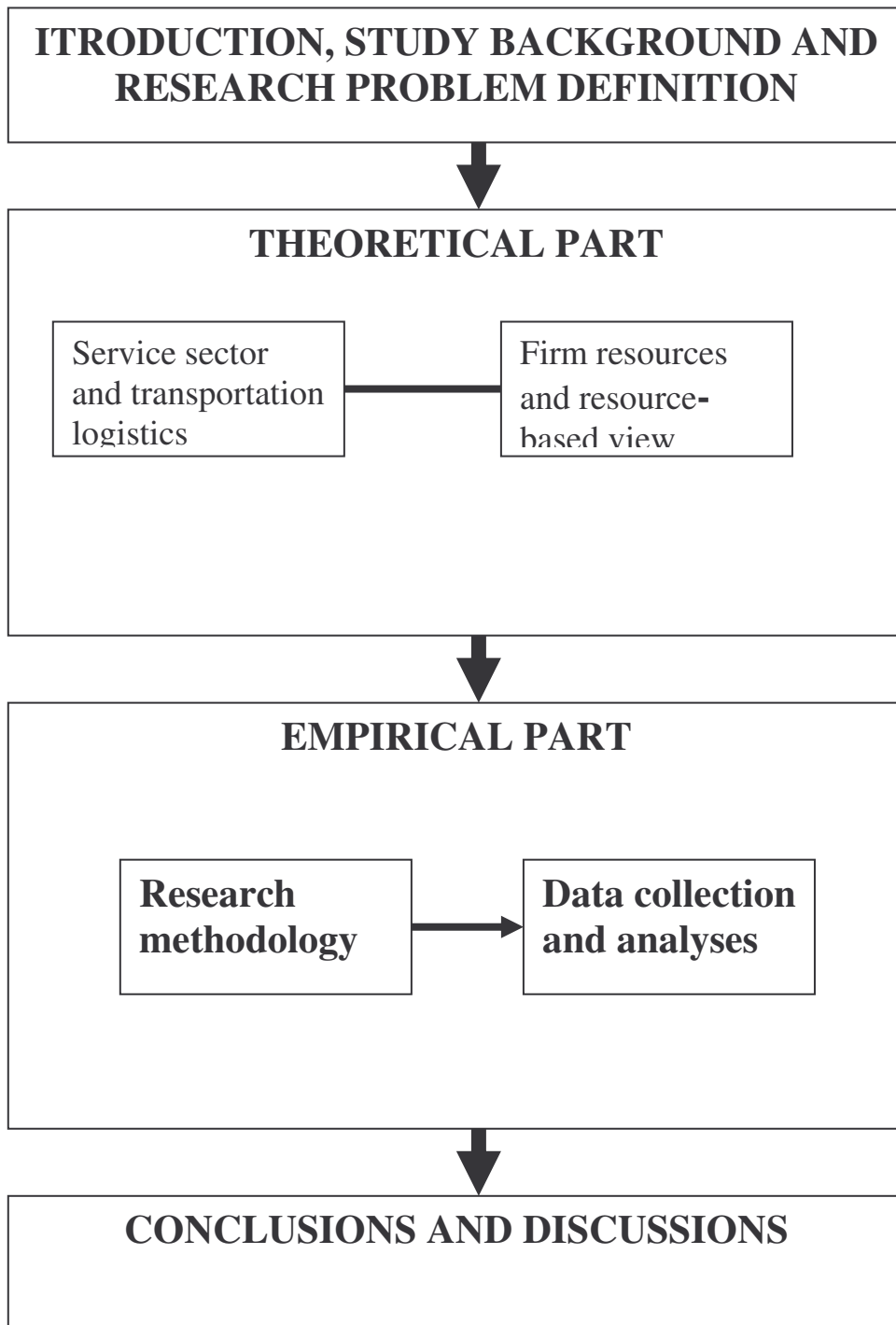
Dhanaraj and Beamish (2003) have explored through the view of the resource based theory the impact that firm attributes have on the export performance having chosen it as a dependent variable for the firm performance. The attributes here have been firm size, enterprise and technological intensity. The results have confirmed the validity of a model called LIESREL having influence on the firm performance. Daellenbach and Rouse (2001) have suggested that a new and fresh view is needed for the empirical testing of the resource based view of the firm because with the time the validity of the findings have started to have new and other dimensions.

Kennerly and Neely (2003) and Tseng, Chen and Chiu (2007) conducted studies to measure business performance indicators and drivers from different companies and in volatile environment. Teo and Sum (1999), Yeung, Selen, Sum and Huo (2006) and Wang, Zantow, Lai and Wang (2006) provided studies on the relation between the strategic choices made by

forwarding firms and their business performance respectively on the markets of Singapore, China and Hong Kong.

As it is obvious from the literature mentioned so far not too much attention has been paid on the essence of the transport and freight-forwarding companies as small and medium sized business units, their role in the supply chain, the influence of their resources on the overall performance and the possibilities for them to compete with large logistics service providers.

1.5. Structure of the study



2. Service sector, logistics, transportation and freight-forwarding

This sub-part of the work has the intention to present the service sector and its characteristics, the logistics service field and transportation as a system in it. After that the freight-forwarding companies are presented as economic units and their role in that macro system is revealed. Some important features of those organizations are discussed as well.

2.1. Service sector as a field in the economy of a country

According to Sirilli and Evangelista (1998: 881) the developed service sector in today's global economy could be regarded as a characteristic feature for the modern and advanced countries.

It has been estimated that in 1991 more than two thirds of the jobs that have been taken in the countries members of OECD had been provided by the public and private service sector. This in term is a logical and consecutive process that has started with a high rate of employment in the agriculture with the slow transition to a high rate of employment in the manufacturing with the final shift in the employment in the field of the service activities or the so called Tertiary sector of the economy. In this field of the economy among the main components of the structure of the sector could be enumerated the financial and business services, social community and other services (qtd. in Sirilli and Evangelista 1998: 882.)

The authors also state that the development of new services together with the processes of restructuring of the service sector and the industrialization show that the service sector is in the very base in the structural changes in the modern economies and the innovation and technology being the drivers of that change (1998: 882).

In another study of the service sector (Council of Economic advisors, 2004) the service sector is defined as the “nonagricultural, non-manufacturing, non-mining and non-

constructional sector” of the economy. It is also characterized by an industry in which the production and the consumption of the services happens in a close interaction, with a high degree of intangibility of the output, relatively high information content and a stress has been put on the importance of the capital of labor in the creation of the output (Sirilli and Evangelista 1998: 884).

Services in the Tertiary sector are characterized by weak intellectual properties, with the so called technology “pull” and client-led technology orientation, outsourced research and innovation processes, high impact of labor productivity, usually long innovation cycle times, intangible and difficult to store products and regional and national “reach” or spatial scale of system (National Science Foundation and National Institutes of Standards & Technology 2005: 7-8.)

Table 1 Comparison between manufacturing and service sector (National Science Foundation and National Institutes of Standards & Technology 2005)

System Trait	Manufacturing	Services
Intellectual property rights	Strong; patents	Weak; copyright
Technology orientation	Technology “push”; science and technology led	Technology “pull”; consumer/client-led (co-terminality)
Research/innovation	“In-house”	Out-sourced—embodied in purchases, inputs
Labor productivity	High impact	High impact (since the 1980s)
Innovation cycle times	Short	Long (except for computer services)
Product characteristics	Tangible, easy to store	Intangible, difficult to store
Spatial scale of system or “reach”	National, global	Regional, national

It is difficult to distinguish between product and process and this is due to the intangibility nature of the services as products. This in term has lead to the view that industries in the service sector are characterized as static, non-innovative and technology consuming (Miles 1993; Sundbo 1997; Tether, Hipp and Miles 2001 and Tether 2002).

Howells (2001) in addition states that the service sector is “a dynamic driver of the economy” especially in the recent years. Another view describing the characteristics of the services is the idea that they have been considered as discreet products. But with the more complicated nature of the services nowadays combined with the technology advance, service providers have been offering more sets of services. The ultimate result of this has been that the organizations in the sector of the services have become more intensive in research and are the locomotive force of the innovation for the customers in the other industries (NAICS 2008).

Quite much attention has been paid to the services as such by the so called Nordic marketing school.

Gummesson (1994) stated that there have been considerable shift from goods oriented paradigm to service oriented paradigm, thus increasing the importance during the years of services with the increase of automation and robotization of economies. Service management has turned into a push factor for the development of the management thinking as a whole. The main shift according to Gummesson (1994) could be expressed by the following figure.

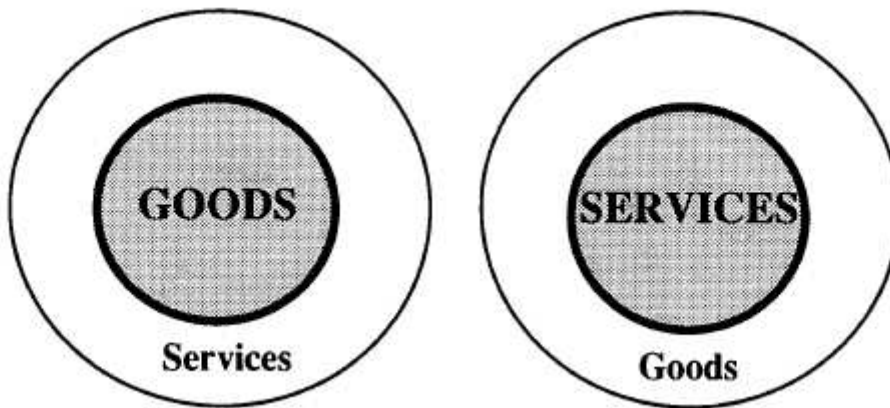


Figure 2 Shifting from a goods focused to a service focused paradigm (Gummesson 1994)

Gummesson (1994), Gronroos (1994; 1998 and 2001) and Lovelock and Gummesson (2004) also argued that the services have four attributes which distinguish them from the goods in their definition. Those attributes are the intangibility (Sirilli and Evangelista 1998), inseparability, heterogeneity and perishability or the inability to be stored. The intangibility could be understood as physical and mental intangibility (qtd. in Lovelock and Gummesson 2004). The idea of intangibility is usually connected with the pre-purchase of the service. The heterogeneity or variability of the services is based on the variations in the worker performance. Inseparability has to do with the concepts of interaction and the service encounter. And the idea of the perishability means that the services as is stated by the authors cannot be stored.

Gronroos (1997, 2001) argued that the marketing of services cannot any more be separated from the overall management as a whole. Besides, Gronroos has been the first to introduce the concepts of service quality and the interactive marketing function. The quality concept means that it is normally regarded that the perceived quality of a given service will be the outcome of an evaluation process, where the expectations of the consumer are compared with what he has received, and i.e. a scale between perceived against received service is evaluated, and the result being the perceived quality of the service. In this way the quality of the service is dependent on the two variables: the expected and the perceived service (Gronroos 2001).

From another point of view there could be distinguished the technical or instrumental quality of the service which corresponds to the outcome of the consumption of the service and the functional or the performance quality which corresponds with the interaction of the consumer with the service producer and the satisfactory technical quality is just a prerequisite for the satisfactory high quality of the functional part of the service perception for the customers (Gronroos 2001.)

2.1.1. The role of Logistics in the service sector and as a part of the supply chain

Logistics services and transportation are also an industry in the service sector of each economy. La Donde and Masters (1994) for example have identified that for the development of the transportation and logistics services sector there would be much more possibilities than ever before. They state that there have emerged five new reasons for the increase development of the logistics and transportation industry: the increasing globalization, the mergers and acquisitions, the downsizing, the increased complexity uncertainty and competition and the information technology as the main driving forces for the future perspectives in that field of the service sector.

The product of Logistics as is stated in (Ballou 1992: 53) is a collection of characteristics that are subjected to manipulation by the logistician.

Bardi (1973: 23) gets into more detailed and profound description on a micro level of the industry itself. He argues that the labor specialization, the sources of raw material with localized origin and the mass production have as a result more centralized production in the economies. This has created needs because usually the areas of supply have most often been on a different location regarding the areas of demand. This non-coincidence of supply and demand or also called by the author-“the producer-consumer gap” creates the need of transferring the goods from areas of oversupply to areas where the supply is at a lower extent.

The function of the transportation and logistics firms is to create a bridge for the gap between the production and the consumption of raw materials and the final finished

goods. More clearly the idea for the business logistics or transportation services confines to the movement and the storage of goods which helps the smooth coordination of supply and demand in the producing of time and place utility for the goods. The author also describes the logistics system as sequence of nodes: raw material sources-production and demand centers and commodity storage points and bridges-transportation methods (Bardi 1973: 23.)

According to Bardi (1973: 24) the transportation bridge provides the flow of the goods between the various nodes and thus the producer-consumer gap is filled and thus the purchase of the transportation service is the important connection between the logistics nodes.

For the purpose of this study a short explanation will be provided in order confusion to be avoided. So far we have used both the terms logistics and transportation. Although they have very close and similar meaning there are considerable distinctions and they will be addressed in the following rows.

Logistics as a service provide the bridge between the production and market locations which are separated by the time and the distance (Ballou 1992: 5). A broader definition of the term says: “Logistics is the process of planning, implementing and controlling the efficient, cost effective flow and storage of raw materials, in-process inventory, finished goods and related information from point of origin to point of consumption for the purpose of conforming to customer requirements”. So the mission of logistics is to get the right goods or services to the right place, at the right time, and in the desired condition, with the greatest contribution to the firm (Ballou 1992: 6).

- Transportation system and types of transport modes

The transportation service is part of the logistics service and it usually represents the single most significant element in the logistics costs for most of the companies. A transport service is a set of performance characteristics that are purchased at a given price. The user of transportation services usually has a very wide range of services at his

disposal and all are evolving from the basic modes of transportation: water, rail, truck, air and pipeline or a combination of those (Ballou 1992: 137.)

This study is going to focus on services performed mainly by firms that are referred to the truck transportation mode.

The transportation system is the physical link connecting a company's customers, raw material suppliers, plants, warehouses, and channel members which comprise the fixed part of the logistics supply chain. The fixed points in the logistics system are where some activity temporarily stops the flow of goods in the logistics pipeline. Transportation service connects those facilities adding operational and transportation costs (Coyle, Bardi and Langley 1996). Another characteristic of the transportation service and system is the relationship to the economy being characterized by some authors as the "circulation of blood in the human body", since it provides the energy that goes through any region or area (Barke 1986: 2).

- Supply chain network and supply chain integration

According to some business dictionaries and tutorials the definitions of supply chain are very clear despite the intensive process of integration and coalitions along the chain itself where the roles of different parties start to fade while new functions have been adopted by different units. Supply chain is the network of retailers, distributors, transporters, storage facilities and suppliers that participate in the sale, delivery and production of a particular product. In briefer that refers to the distribution channel that connects the sourcing and the final consumer. Normally, several firms are responsible for the production of a given product and while one can be concentrated on raw material processing another does the assembly part, third is responsible for the final product design and forth takes control of the delivery part. The set of firms taking part in that process could be referred as supply chain (La Donde and Masters 1994).

The supply chain is defined as an integrating philosophy to be managed the flow of a distribution channel from a supplier to the ultimate customer (Coyle, Bardi and Langley

1996). Supply chain has intercompany and “boundary-spanning” nature, because of its purpose to manage and control the flow of material from one in raw state to the final product no matter if purchased by a consumer or another industry company. The role of efficiency and effectiveness or value-adding is also of high importance across the supply chain, because the integration and the management of this form of network is a hard task. The physical supply channel corresponds to the time and space gap between a firm’s immediate material sources and its processing points. In the same way the physical distribution channel refers to the time and space gap between the firm’s processing points and its customers. Those two processes are integrated into business logistics (Ballou 1992).

A successful supply chain integration and management is based upon a couple of aims. The first one is refers to the attempt to be recognized the final customer’s service level requirements, since his demand acts like a magnet that attracts the inventories through the supply chain. The second aim is to be recognized the basic operating principles of logistics management in terms of what, where and how much is needed to be satisfied the customer. And the third objective is shows that a kind of a coordinating mechanism is needed in order to be managed the supply chain. This mechanism could be in the form of procedures and policies. The overall sets of objectives as well as the characteristics of the supply chain management are related and synergistic (Coyle, Bardi and Langlely 1996.)

- Value added

Ballou (1992: 11) also states that logistics is about the creation of value expressed in terms of time and place. A product or a service has almost no value if it is not available to the customers at the time and place where they wish to consume it. When a company bears the cost of moving a product or executing a service toward the customer or making an inventory available in a timely manner, value has been offered to the customer. This value has not been there before. We all know that business creates four types of value in products or services: form, time, place and possession. Logistics

controls the time and place values in products, mainly through the means of transportation, information flows and inventories.

In a study by Helen Richardson (1995) the idea that the increase in the demand for efficient transportation services at the best possible price could be a unique competitive advantage for firms operating in the sector is described. An integrative solution where the logistics services are interrelated with the marketing, planning and the production function has also considered by the researchers as a strategic perspective for the transportation industry in the service sector (La Donde and Masters 1994, Richardson 1995).

Yeung, Selen, Sum and Huo (2006: 210) defend the idea that the studies of La Donde and Masters (1995) together with Richardson (1995) and Sum, Teo and Ng (2001) provide very valuable benchmarking information and insights for the logistics industry and its place in the field of the business services.

Baykasoglu and Kaplanoglu (2007: 621) argue that the only possible solution in the volatile business environment today and the international competition for the companies involved in the providing transportation services is to adopt new techniques for the satisfaction of the customers. A higher emphasize should be put on motivation customers satisfaction ad on-time investments. Fig.3 shows a framework of the environment in which nowadays transportation system operates.

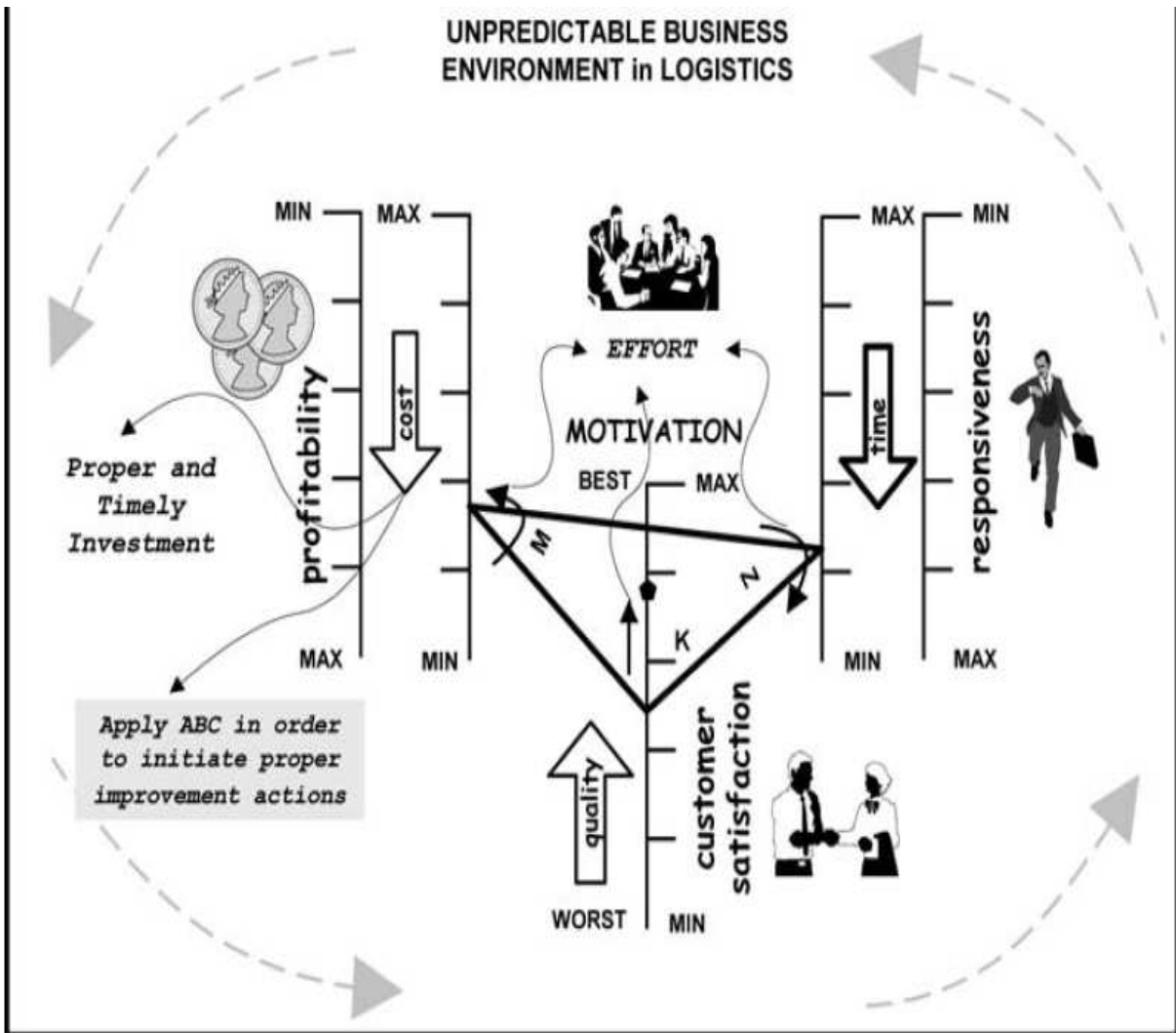


Figure 3 The unpredictable business environment in the field of transport logistics (Baykasoglu and Kaplanoglu 2007)

2.1.2. Studying the problem

Van der Putten *et al.* (2006: 1507), in accord with earlier statements, defined two basic trends, which characterized the market of the transportation and freight-forwarding industry. Firstly the researchers acknowledged the sharp emergence of new and small freight-forwarding firms and secondly they recognized the sophistication of the nowadays supply chains where more integrated and fast decisions and solutions had to be solved by the companies in the industry with same amount of resources.

Thus we come to the main problem of the study and namely which concerns the influence of the resources on the behavior of small freight-forwarding companies in more sophisticated supply change and international market challenges that face the transportation industry.

As it was stated before in the study there is considerable lack of literature about freight-forwarding industry. There are logistics modeling solutions for optimization of the loads in the carriers but those as well as other works are concerned mainly with the shipper's point of view and not discussing the problems from the point of view of the freight-forwarding companies as well. Focus has been on the logistics issues and ignoring the freight-forwarding companies as a part of the logistics and transportation services. Also most of the studies of course have been dealing with the main big countries like USA and China. Only a couple of studies have been focused on small countries but those have been concerned with some lateral services offered by logistics companies and none has stressed about the obviously growing competition in that industry today. That is why this work will be concentrated with a small market and small companies but though on a strategic cross road of Europe. The study will also be interested in mainly road operating companies though most of them have resources for operating with air rail and water cargoes, since according to a report of the European Union (2001: 13) till that moment road transport is the main mode of goods transportation in continental industrialized countries. As an example, in the period 1970 to 2000 it has grown in the European Union countries from 52 to 74 per cent of the total quantity of tonne kilometres hauled reaching a value of 1348 £ 109 tkm (European Communities 2003).

According to Holweg and Markides (2006: 337) the volatility the service sector in the field of the forwarding industry driven by the consolidation and restructuring. Murphy and Daley (2000) has put forward the idea of the total `logistics` and the appearance of the large and much diversified service providers. It has been stated also that freight-forwarders would start operating in a niche market just by providing a bundle of different services to the clients (qtd. in Holweg and Markides 2006). In the same study two contradictory points of view have been presented since as Christensen and Montgomery (1981) have stated that diversification and integration would have brought

a positive effect on performance due to economies of scale and that conglomerates create nothing but decreased profitability and less market power (Montgomery 1985). The industrial organization literature also stated in favour of the positive synergy effects from diversification (qtd. in Holweig and Markides 2006).

The dramatic changes that have been observed in the in the function of the providers of forwarding services have been provoked by the emergence of new types of forwarders executing a more broad array of services (qtd. in Montgomery 1985.)

2.1.3. Freight-forwarders (4PL) as units in the supply chain

As mentioned in the introductory chapters the efficient distribution of the goods or materials from the sources through the supply chain to the final customers is of “paramount” importance for the businesses today (Xu *et al.* 2003: 1711). Very important roles here have the intermediary companies that are responsible for that movement through the supply chain. As one of the key players in the system it is important to be investigated in more details the place of the freight-forwarders as some of the last but not with least importance units in the chain.

- Emergence and role of freight-forwarders

The idea of the implementation of the integrated logistics management or the concept of the supply chain has emerged in the mid 80's. The idea was that the material movement throughout a company had the possibility of being managed in both organic and systematic way and in such a way that the efficiency and effectiveness could have been improved at a very high level. The close coordination in the very back levels of that chain involving the participation of different service providing firms, according to the authors is the source of exclusive levels of competition and sophistication in performance from which benefit the players along the whole chain (La Donde and Masters 1994.)

In quite many works as stated in the study of van der Putten *et al.* (2003), there have been considerable disagreements about the exact place and role of providers of freight-forwarding services in the supply chain literature especially today when an integrated and more complex systems have been developed. That is why for the purposes of that study and because logically the explanations provided in the work by van der Putten *et al.* seems to be the most relevant to the problem under exploration here. The term Third party logistic service providers (3PL) companies are those firms that denote the carriers because they are third party for the consignor and the consignee and provide transportation service along the supply chain. Those companies have their own vehicles for executing the service and their profit respectively price or freight-rate is composed by the expenses for the service itself with a commission profit (Muller 1990: 118).

Forth party logistic service providers (4PL) are newly emerged companies namely because of the increased sophistication of the supply chains and have the role of managing and coordinating the chains. They act as an intermediary between the shipper and the carrier and play the role of carrier's sales agent and as a shipper's traffic manager. With the knowledge of the capacity of carries available somewhere on the transport system network the freight-forwarder contacts the shipper and solicits freight to meet the carrier's needs. Since 1980s the number and use of those companies has increased due to the Motor Carrier Act which reduces the entry requirements (Coyle, Bardi and Langley 1996: 6). Those firms quite often small ones (Gilmour, Driva and Hunt 1995:25-30, Holweg and Markides 2006: 336), have not own vehicles and that is why they forward the service to normal carriers - 3PL in order to deliver the order on behalf of the consignor. The profits those companies form by levying additional commissions on the initial price (freight-rate) of the carries. So those freight-forwarders are agents or brokers that form another intermediary level in the supply chains. Richardson (1995:60) states that freight forwarding parties bring several benefits for the service users. The benefits included distribution cost saving, greater control of businesses, better customer service and satisfaction, etc, thought as we might see later on those companies cannot be classified as pure service organizations. Other benefits could be in terms of reduction in capital investment in facilities, equipment, and IT, improved customer service and delivery and reduction of the complexity of logistics

operations (qtd. in Kumar, Vrat and Shankar 2006: 703). Fuller, O'Connor and Rawlinson (1993:87-88) declare that one important reason for the growth of forwarding industry services is that companies compete in a number of businesses that are logistically distinct due to great variances of needs.

- Prices and profit formation for freight-forwarders

It is arguable if those new companies help or are rivals with 3PLs since they increase the final price in a market where all the customers have the interest of receiving services faster and at lower prices (Sum, Ng and Teo 2001 and Einbock 2006: 177). It is also true that at times carriers are using the 4PL companies in order to be provided cargoes in periods with not so intensive flow of goods.

The price (cost) of the transport service to a consignor is just the rate for the transporting of goods plus any additional or terminal charges. When a freight-forwarder (broker) is used the rate charged for the service of the movement of the goods between the two points plus any additional charges like insurance, packaging and delivery and pick up procedures constitute the final price of the service which is added to the relevant price (this is the price for the fuel, labor, maintenance depreciation of equipment and administrative costs).

The process with determining the price policies often involves direct negotiations with the 3PL firms- a process of extreme importance, since transportation costs account for about 50 % of the total logistic costs (qtd. in van der Putten *et al.* 2006). Another important argument in that direction could be that the costs would become higher challenge with the progressive diffusion of e-commerce activities (Ho, Au and Newton 2003; Caputo, Cucchiella, Fratocchi, Pelaggage and Scacchia 2004) when shippers might be able to browse in the net to discover the best transport solution at the price that best suits them (Muller 1990: 119-120). Besides the cost which could be considered as the most important one other criteria on which the negotiations and choices are based on are: quality of service, schedule reliability, geographic location, possibility of negotiating terms and conditions of delivery, and cost (Abshire and Premeaux 1991;

Harrington 1996; Jerman, Anderson and Constantin 1978; Murphy et al. 1997; Thuermer 1992). The formation of the price depends also on the points of loading and unloading and their number: the less loading and unloading zones the less the freight would be (see fig.3). One of the weakest points of 4Pl firms in comparison with the larger carriers and some 3PLs when referring to the resources is about the so called by (Schartz 1990, Muller 1994) and later on Einbock (2006: 156) effects of pre-financing which play the role of drawbacks and disadvantages for small companies. In the field of transport and logistics services usually in payments are characterized with a lag of at least 30 days in most of the countries in EU compared to the out payments for those companies. This means that the possibility for small freight firms to become insolvent is much higher compared to large multinational transport carriers or large freight-forwarders as well. This bridge –financing effect has led to driving out of market for great number of small transport service providers.

On the contrary to the price and cost issues, Wang, Zantow, Lai and Wang (2006) argue that nowadays differentiation goals rather than cost efficiency are perceived by providers of freight-forwarding services to the customers. In their study focused on the Chinese market they have identified four distinctive alternative paths to be followed by the freight-forwarding firms: firms seeking differentiation in services and prices, companies seeking differentiation only in prices, differentiations only in services and companies that did not seek for any possible advantages.

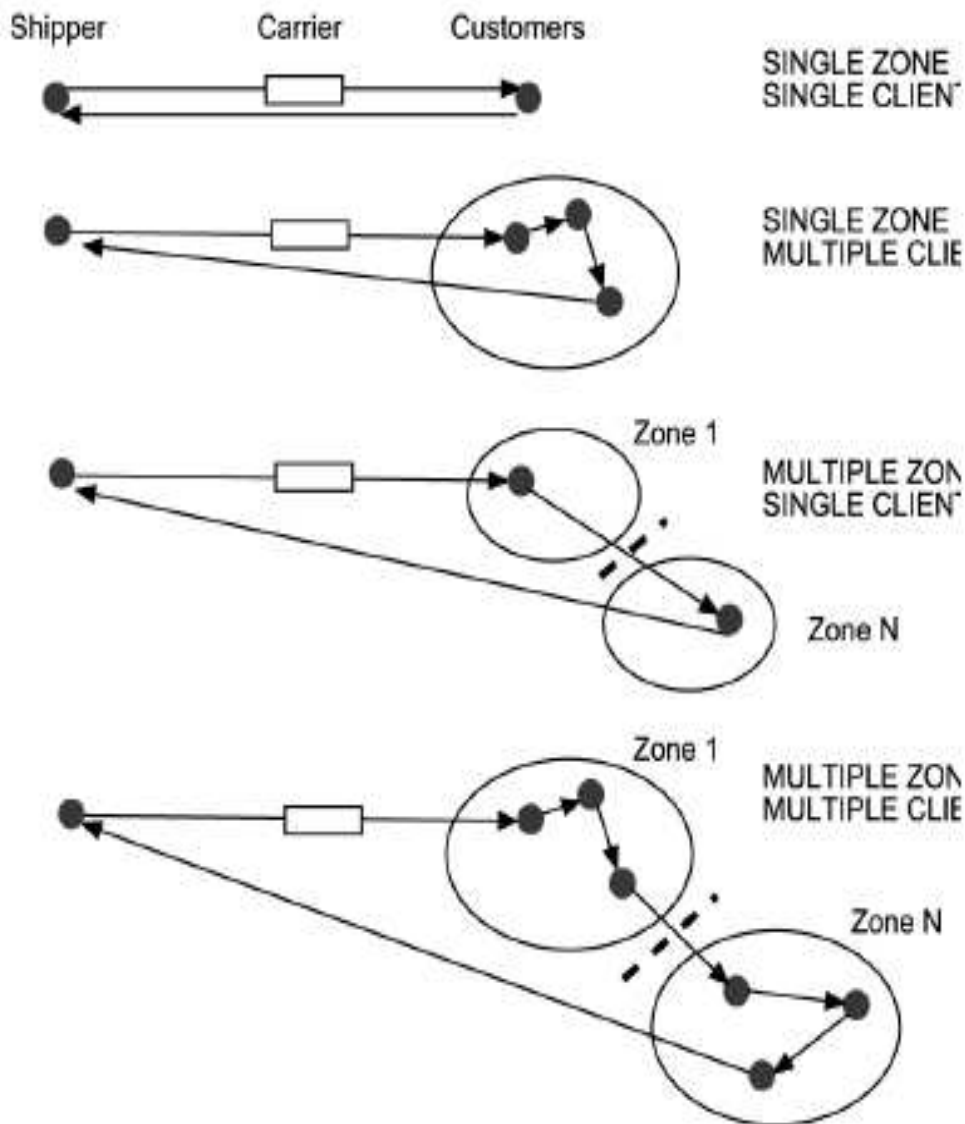


Figure 4 Schematization of loading and unloading zones in the route of the carriers (Caputo et al. 2005)

- Berglund's segmentation of providers of freight-forwarding services

Quite an interesting and in depth study devoted to the companies involved in the service provision and their active participation in the supply chain integration and supply chain management have done Berglund *et al.* (1999: 59). Although they agreed on the facts that firms that provide logistics services for shippers by finding carriers have emerged mainly due to the increased process of outsourcing of transportation activities (Gilmour

et al. 1995: 25, Gentry 1996, Tate 1996) a process driven by both the demand and the supply sides of big companies to small and specialized ones and many studies by far have been concentrated on the shippers point of view, they do not agree with the statement that such companies are fourth player in the interaction between the consignor and the consignee but a third one (Lieb and Hugh 1996; Virum 1993). Despite that their study covers many important issues concerning the freight-forwarders. Berglund *et al.* (1990) for example regarded the freight-forwarding industry as a separate industry because of the specific activities that they perform and because of the increasing numbers of new entrants in the field. The firms entering the freight-forwarding business could be divided into three waves of entrants-from the 80's, early 90's and late 90's with the difference being in the fact that the first two waves consisted of companies that are more asset-based and the third wave comprised of more system-based players. Another not surprising view suggested is that the number and the scope of the industry is very hard to be measured due to reasons like: lack of government statistics, many providers of forwarding services are part of bigger companies and thus without own revenues, subcontracting to even lower levels of service providers and the problem with the confusions in the terminology of the industry (Berglund *et. al* 1990; Laarhoven and Sharman 1994: 39). The issue that concerns the strategic segmentation of the firms in the freight-forwarding industry is something new and in the following paragraphs this is going to be addressed. Berglund *et al.* (1990: 63) divide the players in the industry into two main categories.

Table 2 Mission statements of companies in the segments and some characteristics of the segments (Berglund et. al 1999)

Examples of Mission Statements of Companies in Each of the Four Segments and Other Characteristics of the Segments.			
	Service	Solution	Examples
Value-added logistics	Value leader in global integrated logistics services for durable consumer goods	Provide consultative logistics solutions	Order processing, kitting, repair/recycle, network design, inventory management
Basic logistics	Supporting companies in being more competitive by using our service	Provide complex third party logistics solutions	Transport, warehousing, (de)consolidation, labeling
Customer value proposition	Specific competitive service at low cost	Customized comprehensive offering at competitive cost	
Customers	<ul style="list-style-type: none"> - Many - Logistics is core - Standard concepts - Multiple sources 	<ul style="list-style-type: none"> - Few, large - Logistics is non-core - Complex situations - Single sourcing 	
Advantages	Focus, sharing, scale	Complexity management subcontracting skills	
Examples	LTL, express package/freight, spare parts	Ambient food distribution EDCs	

According to the segmentation the first group (see Table 2) of companies are specific service providers and they concentrate upon few standard services with the possibility of adding some extra activities and those companies usually use economies of scale when providing those services. The second group of firms is called solution providers

which focus on several industries and tailor their services according to the specific features of those industries. In the figure the separation between the activities and services carried ca be seen and the value added activities as well together with some advantages and disadvantages for the players.

Another very important issue is the description of the issue how those two groups add value to their services. It is obvious that both groups are doing that in a different way. While the firs group strives to find customers which could fit into the special services that it offers and thus deriving more knowledge from these customers and increasing efficiency and economies of scale, the second group gets into a situation in search for clients with sophisticated situations where the solution could be applied. A comparison of the value added activities and the basic segments are shown in the following table as well.

Table 3 Comparison between value added and basic segments (Berglund et. al 1999)

Segments	% of personnel in gen. mgmt & business development	% of services is value-added	Expected annual growth rate 1995-1998 in %	Competencies	Skills lacking
Value-added	26.9	16.8	55	Functional problem solving	Advanced logistics/ design skills
Basic	11.3	11.4	24	-Cost efficiency -Operational skills	IT

Further on in the study Berglund *et al.* (1990) offer a possible explanation and suggest how freight-forwarding companies could increase their valued added activities in the supply chain. The reaching of operational efficiency at a level higher than other providers is considered to be the most important tool for adding valued to the clients, with the factor costs as a driver for that process (see Table 3).

Sharing resources with the customers is the other way of providing value used by the forwarders. In this situation the driver for the process is considered the economies of scale.

While those two are internal for the companies the next two ways are external. And according to Berglund *et. al* (1990), Gummesson (1994) and Gronroos (2001) just like the shipper companies outsource part of their activities, logistics service providers could also outsource part of theirs as well horizontal and vertical integration being the third way of value adding.

The last way to be created values to the customers is to be improved the customers' supply chain by using and applying logistical concepts. This process could also be found in the literature by the following variances: supply chain management or supply chain integration and optimization. The processes are presented in the Table 4 below.

Table 4 The increase of the complexity of the processes of the supply chain integration (Berglund et. al 1999)

	Increasing Complexity			
Description	Operational efficiency	Integration of customer operations	Vertical or horizontal integration	Supply chain management & integration
Driver	Factor costs	Scale	Asset reduction Scale Factor costs	Development of customer business process
Skills	Operations (IT)	Operations IT	Operations IT (Conceptual)	Operations IT Conceptual
Example	Run warehouse efficiently	Share warehouse among several shippers	Outsourcing to lower tier providers	Cross-docking or other new concepts

If we relate the studies made by Gronroos and Gummesson concerning the services and their quality and the Berglund's study we might find that Berglund's statements despite agreeing that providers of freight-forwarding services are supposed to be considered as part of the concepts presented by Gummesson and Gronroos, form a different industry. Freight-forwarders deal with customers and satisfy their needs, thus corresponding with the service marketing paradigm of Gronroos and Gummesson. However, as defined before and also according to the separation of those types of services in a different industry by Berglund (1999) it seems that freight-forwarding service providers cannot be classified as normal service providers because their operational tasks are brokering thus acting both on the behalf of the clients and the carriers. Their main goal is to increase their financial profits since the real providers of the services of transportations are not the freight-forwarders but the carriers themselves.

Finally Berglund *et al.* (1999) discuss the necessary skills needed by the forwarding providers for the management of the supply chain. They are summarized in the Table 5. They consider that the new entrants in the industry will have the possibility to play a substantial role in the processes of optimization and management of the supply chain by adding activities which bring more value to the customers.

Table 5 Necessary skills for the supply chain management and the supply chain integration (Berglund et. al 1999)

Skills	TPL-providers		
	Traditional	Network players	New entrants
Operational	+	+	-
IT	+/-	+	+/-
Conceptual	-	-	+

In the industry the authors suggest that there will be room for more new entrants from the third wave who could combine their skill together with the skills of the first and second wave entrants in order to be achieved efficiency on the market. As far as the industry itself is concerned, according to the curve of growth, it could be somewhere between the emergency and the segmentation state still far beyond the state of maturity (Fig.5).

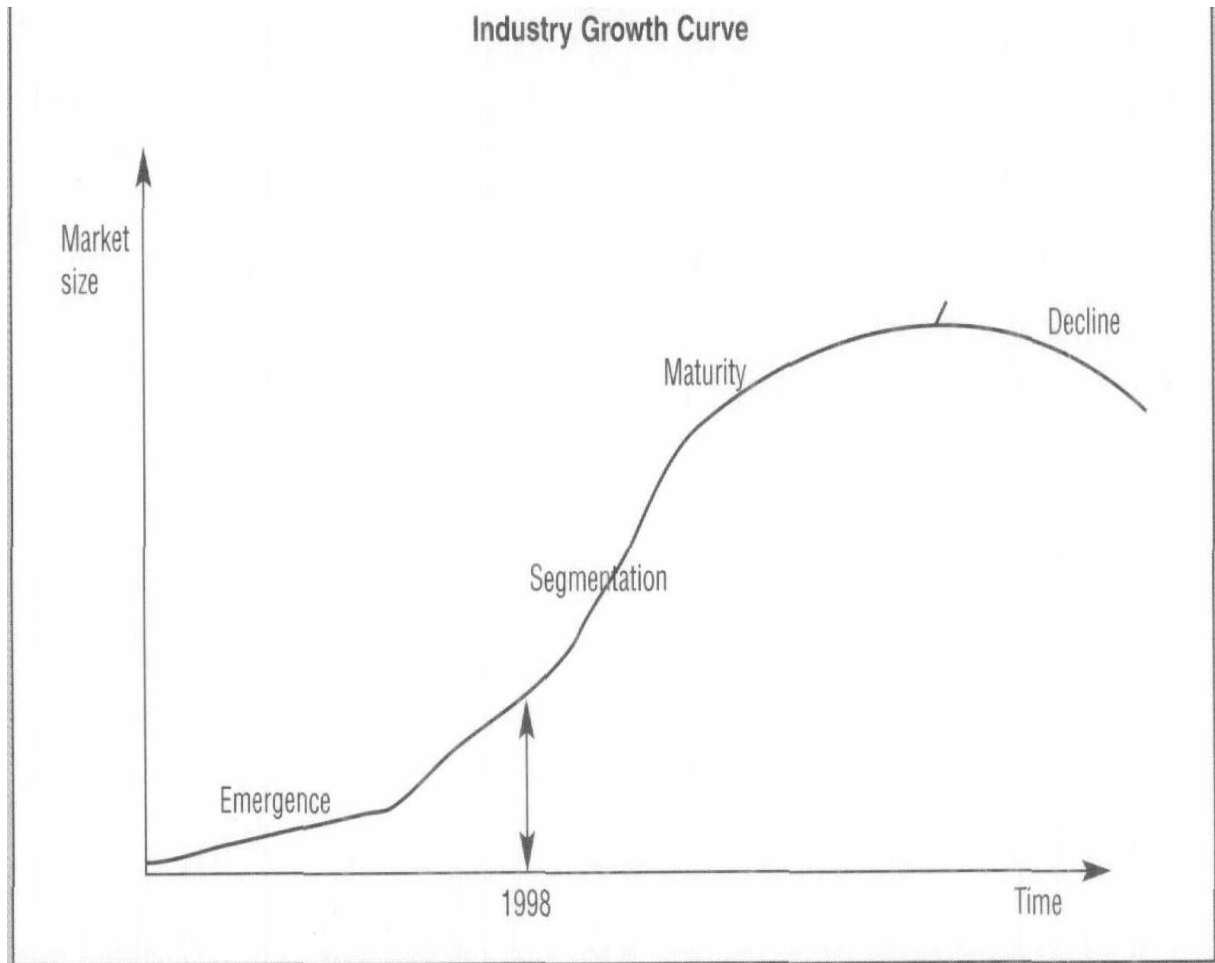


Figure 5 Curve of the growth of the industry (Berglund et. al 1999)

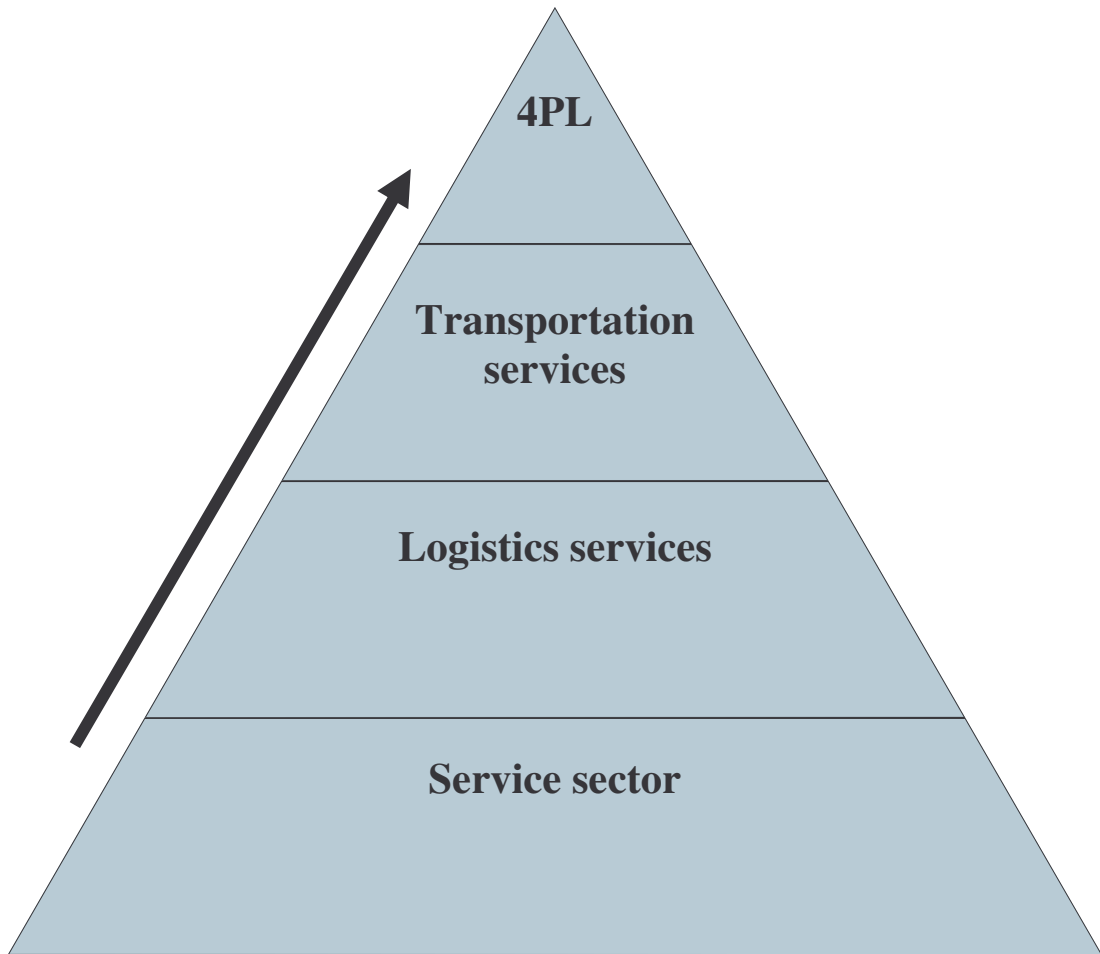
In more recent study on the issue of the freight-forwarders, because of the lack of large portfolios of resources like the large companies are doomed to lose their share in the business in the service sector and point out that the only possible solution could be collaborating with other forwarders in a so called program international collaborative freight-forwarder planning between distinct companies. According to the authors their study has no analogue in the literature so far. In the model based on a combinatorial auction theory and Game theory for planning as they have proposed the collaborative firms form common service centres where they all share common databases of clients and resources and can more easily and timely respond to the number of requests. The system is designed in a way that it is win-win for all the players in the model and thus instead of being competitors between each other the companies share their resources in a synergy effect and more efficiently distribute their orders. There are no possibilities

that a firm might receive a negative result and thus the authors explain the incentives among the players to participate and share know how they possess (Krajewska and Kopfer 2006.)

Another study by Larssen (2000) focused broadly on the supply chain management and the participants in it. The shift has been from moving of the focus on internal efficiency to external relations between parties in the supply chain. Namely those relations between individual, independent parties in the chain have been considered as main areas of potential improvements.

Agreeing on the definition of the supply chain management as a concept covering all the business processes between vertically integrated organizations, Vaaland and Heide (2007: 20) suggest in their study that nowadays competition is mainly enhanced by the individual players in the supply chain and their ability to integrate their processes. But they also state that for small and medium size firms in the supply chains challenges are quite high since the propensity to adopt modern planning and control methods is very low.

At the end of that chapter a concluding framework of the development of the chapter is given. The main aim is to facilitate the understanding of the first purpose of the study.



- Structure of the characteristic features frame of 4PL

3. Firm resources

The third sub-chapter deals with the internal resources of the firms, their characteristics and role in creating and maintaining competitive advantages for the organizations. The influence of the resources on the business performance of companies is discussed and the way that influence enhances the competitive power and the profitability of firms in the freight-forwarding business

The resources of a firm and their contribution for the fulfillment of the strategic goals of the companies have received enough attention from the academic world (Porter 1985: 45-47; Wernerfelt 1984). Firm resources are the assets, organizational processes, capabilities, firm attributes knowledge, information and etc. which are in possession of the firm and drive her towards the improvement of its efficiency and effectiveness (Barney 1991).

The views and ideas about the resources of the firms and their influence on the competitive advantages of the companies could be presented in more schematic way (Andrews 1971; Ansoff 1965). Barney (1991: 100) summarizes the framework on Fig.6 as a good example of the process in which a firm receives sustained competitive advantages through the application of strategies which use the benefits of the internal strong characteristic features of the firm, meanwhile being aware and exploiting the opportunities offered by the environment, suppressing the threats from the external milieu and diminishing its own weaknesses. Root (1994: 34) states about the resources that the more abundant the resources of a firm are the more strategic choices it can exercise.

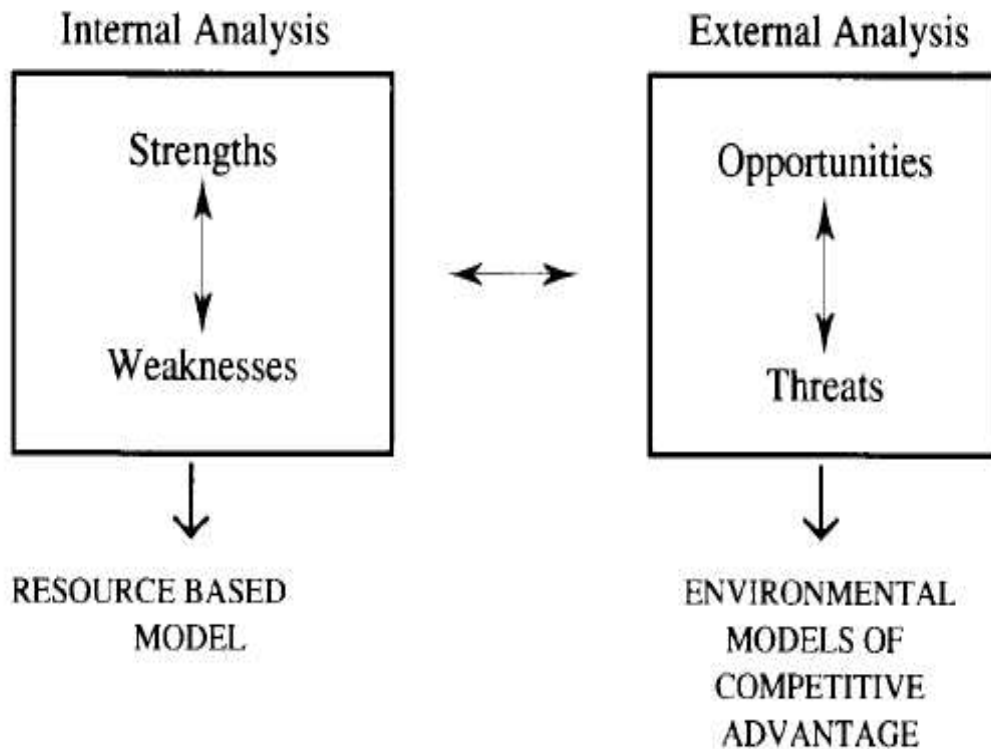


Figure 6 The relationship between traditional "strengths-weaknesses-opportunities-threats" - SWOT analyses, the resource-based model and models of industry attractiveness (Barney 1991)

The studies of Jay Barney (1991) on the resources of the firm and the competitive advantages for the companies are very detailed and also understandable and that would be one of the reasons that a great deal of attention to them would be paid in that paper as well. Before entering into the main question of the types of firm resources and the advantages that they provide to the owner of those, some definitions would be introduced for the proper approach towards the main problem of the study.

3.1. Types of resources and some definitions

Barney (1991) argues that in many of the studies made upon the competitiveness of companies the authors have dealt either with the internal positive and negative features separately or with the external opportunities and threats. What we are interested in and what we would try to find out in the study later on is how the environmental conditions

favor the internal strengths of the freight-forwarding firms in their strive for competitive performance.

Research that has focused according to Barney (1991) on the influence of opportunities and threats in a firm's environment on competitive advantage has shown the limitations which are embedded in the analysis of the competitive advantage with the assumption that the resources of an organization are homogeneously distributed and with high mobility.

3.2. Categories of firm resources

The classification divides the resources of the firms into three main groups: physical capital resources (Williamson 1975), human capital resources (Becker 1964B.R.) and organizational capital resources.

- Physical capital resources are determined as the physical technology used in the company, the plants and the equipments of the company, the geographical location as well as its access to the raw materials.
- Human capital resources characterize the training the experience, the relationships, the intelligence, the judgment and what is internal for the managers and the employees of the firm.
- Organizational capital resources accounts for the firm's reporting structure the formal and informal planning, controlling, and systems for coordination together with the informal relationships amongst the company itself and also between the company and the environment that surrounds it.

In another study (Barney 1986b: 660) the author gives more clarification to the categorization problem of the company's resources by stating that there are resources and attributes in the possession of the firms which instead of giving a kind of an advantage in front of other competitors draws back the company and decreases its levels of efficiency and effectiveness. But as long as it is possible for the economic unit to

“conceive of and implement strategies that improve its efficiency and effectiveness” the drivers responsible for that are called firm resources (Wernerfelt 1984; Barney 1991).

When a firm is able to implement in a proper way the resources that it possesses it could benefit from gaining competitive or sustained competitive advantage. In the following paragraphs the definitions of those terms would be explained.

According to Barney a firm would have a competitive advantage if at a definite moment it applies a strategy that adds value which in that same moment has not been implemented by any other company on the market in which it operates. And the competitive advantage could in turn develop itself into a sustained competitive advantage when the strategy that is adding value is not easy to be duplicated and benefited by the other firms. It is important that the definitions concerns firms that are about to enter the industry as well-or said in a different way the potential competitors are considered when applying this definition as well (Barney 1986a). The question of time for the issue of sustainability is regarded to the difficulties for the duplication of the advantage and the time when the efforts for the duplication have stopped.

Of course, with the presumption that the resources are the same and easy to be acquired, in the situation presented above if a company enjoys the availability of resources and is able to implement successful strategies and the other rival firms are also available to implement same strategies none of the firms in the industry will be able to achieve and enjoy any competitive advantages though in (1998) Peng and Luo oppose the above idea with their view about the first mover advantage.

As a further development of the study of Porter (Porter 1985), Barney (1991) has extended the idea that firm resources must be heterogeneous and immobile, presented in his study the framework of the four attributes that the resources of a given company should possess in order to be possible for the firm itself to create and sustain its competitive advantages. The resources must be valuable, rare and imperfectly imitable and they should not be under substitution. The characteristics of the resources according to the framework presented above have the aim to prove that statement that the

heterogeneity and the immobility of firm resources are those qualities that enhance the sustainability of the competitive position that a company has. The attributes could be an issue for the characteristic division of the resources of the firms and they are explained in more details in the following abstracts.

3.3. Resource based view, competitiveness on the performance and characteristics of the resources

According to the Resource-based theory, the resources of the organizations with both tangible and intangible characteristics together with knowledge applied in the best possible way would have a contribution to the competitive advantages of those organizations only if the resources are valuable, rare difficult to be imitated and non-substitutable. In this sense there are companies that are richer in resources than others and due to flexibility are better able to relocate them in the proper way so that the overall performance of such companies is better compared to their competitors. In other words the performance of companies lays on both the resource base and the ability those resources to be utilized (Barney 1991).

Resources based theory has been considered by many scholars including Fredericks (2005) as a level above of the contingency theory. It rather complements it determining the performance of companies as a function of the resource mix. With that statement the variance in the resource portfolio determines the differences in the line of development of a company on the market.

The resource-based view of the firm unlike the statements of Porter (1990), stress on the impact of the internal attributes of the firm as a source of achieving competitive advantage. The core idea here is being not the environment and the industry that influence the performance of the firm, but the so called “idiosyncratic” attributes that lay on the argument that heterogeneous and immobile resources are what determines the fight for competitiveness of the organizations (Barney 1991; Barney and Petaraf 2003; Barney *et al.* 2004 and 2005).

The resource-based framework states that if a firm is having the opportunity to exploit the advantages created by its own resources then that firm is performing efficiently and effectively, generating profits and those profits could be defined as “efficiency profits” (qtd. in Barney and Peteraf 2003).

Barney (1991) also argues that the resource-based model evokes integrative approach from the organizational and economic ideas and that the organizational managers are not able to exert control on the internal attributes of the company which might be considered as a limitation of the model.

The framework of the resource based view has rarely been reviewed quite critically from the empirical point of view. That is because most of the tests that have been used in order to be tested the model have used a common approach which unfortunately might have very often lead the scholars to sometimes misleading conclusions and assumptions (Gautam, Barney Muhanna 2004).

Barney *et al.*(2004) argue that the approach most frequently used so far have been focused on the developing of measures that have been later proved when the criteria for creating sustained competitive advantages provided in the theoretical art have been met and then those measures have been related to the performances of the organizations under exploration. The authors develop their idea by stating that what could be considered as a limitation with the testing of the resourced-based model is the concentration of much aggregated variable-which is the performance of the firm. The variable deserves its attention since the performance of the firm is considered to be one of the most valuable indicators of the efficiency of the business behavior. Also it is considered that it might not be the best evaluator of the resource-based view of the companies. In order to be advocated the idea stated, Barney *et al.* suggest that since a company may have competitive advantages in a given business process and competitive disadvantage in others, relating the resources and the different business process would not always give the right explanation of the questions that drive the business performance of given organizations. Of significant importance also is here that the performance of the companies and the business processes that have exerted any

influence over that performance usually have a lag in the time, which means that sometimes positive results from business processes might not have effect on the performance at all since the interests of the stakeholders might overtake the lag in the time, thus preventing the cause of the business process in the performance. Another corner stone is the unrealized potential through the business activities that some resources might have. That is why Barney *et al.* (2004: 24) argue that the introduction of more specific variable such as the effectiveness of the business processes might have better explanatory value compared to the adopted approaches so far. In order to be achieved that a definition of business processes has been given:

“Business processes are actions that firms engage in to accomplish some business purposes or objective. Thus, business processes can be thought of as the routines or activities that a firm develops in order to get something done” (Porter 1990).

In this way three reasons have been stated by the authors defending the choice of that specific variable: the firm's overall performance have been in dependence on the pure net effect of the business processes on the market position of the firm, the possibility that the stakeholders might have appropriated the results from the resources' competitive advantages before the effect on the performance have shown its influence and of course the nature of the business process as a way in which the competitive potential of the resources and organizational capabilities are exercised. And what could be summarized in the view of the authors mentioned above is that the resources and the capabilities when not implemented into the routines and activities or business processes would rather have a negative impact on the performance itself, since the activities, business processes and routines are the instruments for the application of the resources into the market environment (Barney *et al.* 2004: 35-36). The same group of authors in the year of (2005) developed their previous research and applied it to a firm in the IT industry thus confirming that the attributes of the resources and the firm ability to use them in the best possible way is better path of measuring the variances in processes among competitors. In accordance with previous studies of Barney, they state that the cost to be imitated a given resource should only occur in the presence of mechanisms

like the path dependence, causal ambiguity, social complexity and team-embodied abilities (Barney 1991, Barney *et al.* 2004; 2005).

Being built on the assumption of the heterogeneity and mobility of the resources the resources based view, Barney (1991) suggests that the strategic planning, the information processing systems and the positive reputations are those components which when applied with the characteristics of the resources are able to create the competitiveness of organizations.

Those, according to Barney are supplement components that increase highly the competitiveness of the firms and are related to the strategic management theory.

There are four main characteristic features related to the resources of companies. Those are value, rareness, imperfect imitability and substitutability of the resources. (Barney 1991; Barney 2002: 54; Barney and Peteraf 2003: 312; Barney, Gautam and Muhanna 2004: 26; 2005: 626)

3.3.1. Value of the resources

The only way in which a company might have a competitive advantage over its competitors could be if the resource is valuable. That means that it is not necessary a resource to possess the three other attributes, because only if it enables the company to apply and implement strategies which in turn increase the effectiveness and the efficiency of the performance then a resource is a valuable one and it could be a driver for the enhancing the competitive or sustained competitive advantages of firms above other rivals. To be increased the effectiveness and the efficiency according to the author means that a firm is able to implement strategies which use the opportunities and decrease the excitable threats in the environment. Regarding the value of the resources, a complementary framework exists between the environmental models of the competitive advantages and the model which has for its basis the resources with the latter model further giving place for the other features that must be possessed by the resources for the firms' competitiveness.

3.3.2. Rareness of the resources

If however a resource that is extremely valuable is possessed by a great number of companies, that means that the same amount of companies would be able to use it and implement it into the strategic bundle aims that the company wants to achieve and thus this valuable resource would be available to many firms. That is not going to be a source of competitive and sustained competitive advantage for the company from which follows the next idea: besides that resources should be valuable, they should also be rare. The idea of rareness does not imply that the not rare resources are useless. They are able to provide the “competitive parity” of the firm in the field of the economy in which it operates which at other conditions equal could provide the survival of the firm (McKelvey 1982, Porter 1980). Although the uniqueness of the firms’ resources might be a push towards competitive advantages the author states that depending on the market conditions a small number of firms possessing unique resources could sustain its competitiveness for a definite period of time (qtd. in Barney1991). It is obvious that if the number of the companies possessing those valuable resources that are able to provide competitive power is less than the number of the firms for the creation of perfect competition in an industry then the resources have the ability to give the potential competitive influence of their owners for longer terms.

3.3.3. Imperfectly imitable resources

It is understandable that the value and the rareness of the resources of a company are enough as a condition for the firm to be able to deploy them in a way that the most efficient strategies could be implemented and the effectiveness of the performance activities of the companies enhanced in order to be achieved competitive advantage in front of the rivals. That idea is defended by the notion of the First mover advantages described above by Peng and Luo (1990). The need for a resource to bring the competitive advantage is developed by the idea of the ability those resources that are rare and valuable to be hard to duplicate or imitate (Barney 1991; Barney 1986a: 794; 1986b: 660; Lippman and Rumelt 1982: 419). The property of the resources to be

imperfectly imitable for the company could be a consequence of several reasons: unique historical conditions, causal ambiguity between the sustained advantage of a firm and its resources and the social complexity of the resources of the firm (Diericks and Cool 1989: 1504). The sources for the state of imperfectly imitable resources are beyond the scope of that study and thus we are not going to examine them in details.

3.3.4. Substitutability of the resources

There is another type of property that the resources of a firm should possess in order to bring some competitive advantages to its owner. That is the property of the resources that do not allow other companies to substitute it. Or in other words the resources should not be substitutable if they are to bring competitive and sustained competitive advantage for the firms for longer period of time. This last requirement means that if a company has valuable, rare and imperfectly imitable resources and is able to implement strategies that exploit the opportunities and reduce the threats would gain competitive advantages only if another firm or firms does not possess strategically equivalent but not the same resources which are valuable and rare as well so that it could also conceive of and exploit similar strategies.

However if the resources have the property to be substitutable then it would be easy for the potential rivals also to use similar resources to implement the strategies that bring competitive and sustained competitive advantages. There are two aspects that are typical for the substitutability of the resources. The first of them is when a firm finds a way to implement a similar resource for implementing same strategies as the rivals. The second aspect concerns the idea that sometimes it is possible that two completely different resources of two different firms are able to bring them same strategic importance although those two resources have completely rare valuable and imitable character. In this case the substitutability plays the form of a barrier or equalizer of the potential sustained competitive advantages that might arise from the uniqueness of the resources by their own (Barney 1991.)

It is quite arguable of course the extent to which a given resource could be subjected to any kind of substitutability but as long as the resources although quite different in their characteristics and applicability, bring same benefits from the strategic point of view for the companies that possess them they cannot be sources of competitive or sustained competitive advantages to the firms. A short scheme would summarize the types of firm resources and their contribution for the development of the strategic image for the companies. (See Fig.7)

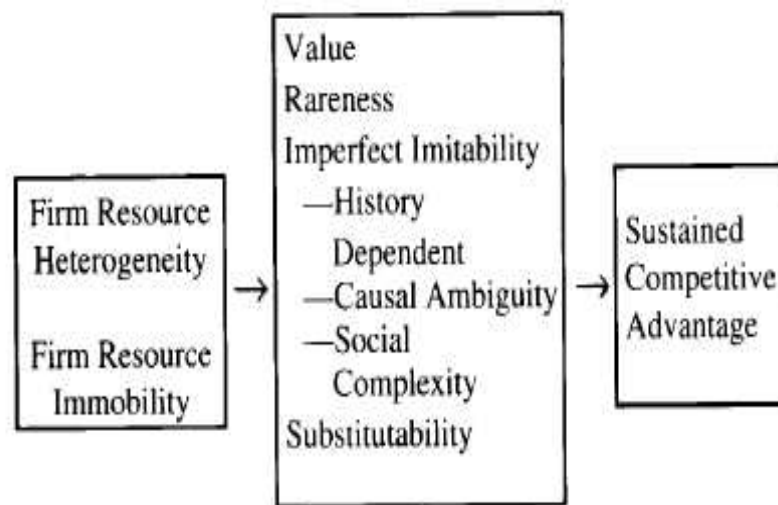


Figure 7 The relationship between resource heterogeneity and immobility, value, rareness, imperfect imitability and substitutability and sustained competitive advantage. (Barney 1991)

3.4. Flexibility as a fifth type of resource for the organizations

As it was stated above quite many studies have focused on either environmental or internal strengths and opportunities for the organizations when shaping their behavior on the volatile markets. Fredericks (2005) states that the forces that shape the behavior of the firms in respond to the uncertainty in the environment have extremely important influence which impacts the survival of the organizations since this behavior incurs the market activity and interaction of the companies. The basket of resources that an organization has and the ability with which it applies them into the choice of strategies and their implementation determines the extent to which a firm may use flexibility as a

another source of sustained competitive advantage. Managing the uncertainty processes demands that a company should have a bundle of strategic choices as well a coordination of resources on an intra and inter firm level (Ciborra 1996: 103-104). The portfolio of firm resources and the extent to which it is used in the most proper way into the strategic market choices is very important since that would be a generator of flexible behavior which is considered by Fredericks (2005) as provider of sustained competitive advantage as well.

The resource-based theory following some contingency theories suggest that tangible and intangible resources as well as knowledge if properly applied into the strategic behavior of companies could bring sustained competitive advantage on the conditions that those resources are valuable, rare, cannot be duplicated and are not easily substituted (Duncan 1972: 157; Venkatraman 1989: 429-430; Barney 1991). Of course different firms are able to use the resources in a different level and manner, which means that some of them are more easily subjected to the achievement of competitive advantages than others. In this way not only the characteristics of the resources, like value rareness, imitability and substitutability are important, but also the flexible way of implementing them into strategies.

The uncertainty of the markets' environment is a threat that cannot be avoided by the companies, which means that a level of understanding is obligatory for the organizations on a given market (Fredericks 2005: 556.)

When there is a disruption of the behavior of customers, competitors or some changes in the technology sector a dynamic change of the environmental conditions have occurred (Grewal and Tansuhaj 2001). Those changes frequently cause fluctuations in the processes of the demand and supply, which in turn diminish the opportunities that exist for firms, increase the threats and eventually decrease the competitive advantages that those firms might have possessed. This dynamic process appears to be the main driver of the environmental uncertainty (Duncan 1972: 155; Glazer and Weiss 1993: 509; Bourgeois and Eisenhardt 1998: 816-818). In such

situation what is most important for the firm is to remain competitive and maintain its strengths while trying to neutralize the weak points.

Some researchers consider that being flexible in similar situations for an organization means the only way to be achieved control over the unpredictability of the situation. And when a kind of balance is reached between the reactions towards the uncertainty and the strategic choices of the firm and its structure, than the flexibility is exerted (Volberda 1997: 169-173.)

3.4.1. Definitions of flexibility

In the literature there are a great number of different definitions that could be applied to the explanation of the term flexibility. In this work we are going to mention some of them and then explain about different types of flexibility that could exist in the firm level:

“Flexibility can be measured by two proxy objectives: external flexibility achieved through a diversified pattern of product-market investments and internal flexibility through liquidity of resources” (Ansoff 1965).

“Flexibility is gain by decreasing the firm’s dependence on assets already in place” (qtd. in Fredericks 2005).

“Capability to modify strategies. . . Strategic flexibility is created when firms create the capacity to be agile and versatile. Organizations instill capabilities for responding to diverse scenarios. Such capabilities are built by placing emphasis on the management component of environmental diversity and variability” (qtd. in Fredericks 2005).

“Firm’s ability to respond to various demands from dynamic competitive environments’; impact of new product creation technologies on resources for developing, producing, distributing, and marketing products’; ‘critical interdependencies between the flexibilities in a firm’s product creation resources and

the firm's ability to apply those resources effectively through new product strategies and organizational structure" (qtd. in Fredericks 2005).

"The degree to which an organization possesses a variety of actual and potential procedures that help the firm to exercise control over its environment and its management improve the overall controllability of the organization" (De Leeuw and Volberda 1996: 122).

"Ability to reallocate resources quickly and smoothly in response to change" (qtd. in Fredericks 2005).

Quite often organizations when facing volatility in the environment are biased to execute responses that are well learned and adapted to the firm's strategies. Usually those responses are appropriate when a major threat would not follow the environmental threat and then the responses could turn out to be the best possible solution. Routines however are not considered the best possible responses when the firm faces very high levels of dynamism in the environment, because they create the effect of mismatching between the external demands and the company's responses. (qtd. in Fredericks 2005: 557.)

Flexibility has appeared to be the instrument with which firms may suppress to a considerable extent the influence that the uncertainty in the environment has applied to the firm. Flexibility presupposes that each company has a bundle of choices of actions for critical situations, because being affected by the uncertainty that could bring a problem for the proper performance processes of the company. From what has already been said about the flexibility Fredericks (2005: 558) argues that there is a positive functional relation between the bundle of strategic options for responses to the environment (the flexibility level of a firm) and the uncertainty of the markets. The same author also draws the conclusion that flexibility has most often been applied to determining of the degree to which the resources of a firm have been utilized and their coordination managed.

3.4.2. Types of flexibility

The flexible resources and the flexible coordination are the two factors, which disclose the performances of firms in volatile and uncertain times. The flexibility could be divided into three main types: strategic flexibility, operational flexibility and tactical flexibility. Those three are explained in more details in the following abstracts.

- Strategic Flexibility

Strategic flexibility is responsible for the reply of the firm to the opportunities on the markets and the changes in the technologies which have a significant impact on the performance of a given organization (qtd in Fredericks 2005: 558). The companies are obliged to be armed with clear bundle of optional choices which refer to the positioning of the firm in relation to its competitors. The firm should also be aware of its strategic aims and objectives.

In cases of strong environmental disturbances it is the obligation of the firm itself to copy its resource portfolio, choose different strategies and modify them. Those flexible responses usually come before the operational and tactical solutions. The threats and expenses and risks are often at a higher level compared to the same magnitudes of the operational and tactical flexibilities. The strategic flexibility lies upon the abilities of the organizations to create and develop their resource portfolios and implement different strategies (Grewal and Tansuhaj 2001: 67-68; Fredericks 2005: 558).

- Tactical flexibility

Under the definition of tactical flexibility the idea of how to implement the strategic tools available in cases of moderate turbulence of the environment exist (qtd in Fredericks 2005: 558).

- Operational flexibility

Operational flexibility means the tools and instruments which an organization possesses and the know-how to manage the processes of volatility in the demand, the raw materials supply labor and equipment for short term periods. This is associated with comparatively low level of dynamism where quick adjustment with everyday operational strategies and processes is applied (qtd in Fredericks 2005: 558.)

Flexibility could be exercised as a powerful resource on two levels in the organizations: intra- firm and inter-firm levels. From the view point of the organization the intra firm level means the ability of the firm to gain resources and the ability to use them in the right directions. While the inter-firm flexibility is associated with the possibilities that the firm would face in the dynamic environment and how the firm would respond to them with the capacity that possesses (qtd in Fredericks 2005: 558-560.)

From the view point of the supply chain management and the idea that more integrated and complex supply chains have been created nowadays offering variable services and the strive of freight-forwarders as part of those chains to enrich their value to the customers as Ivan Petrov in term of the 4PL market (Capital 03 2004) and Larsen (2000: 382) viewing the supply chain perspectives state, namely the efficient inter and intra firm flexibility of the processes could provide more effective communication and that value for the customers.

3.5. Critics of the resource-based view

Along with the many studies which support the resource-based theory, there are also plenty of works which recognize many weak points about it. The reduction of the main fundamental conditions of the resources based-view to uncertainty and immobility for example has been a major critical notion presented by some scholars. The needed for better clarification for some of the terms used in the exploration of the theory such as competitive advantages and what comes after the competitive advantages. Foss and Knudsen (2002) also have tried to verify and find some drawbacks in the foundations of the framework.

The study of Barney (1991) having in some aspects as basis the studies done in (1985) and (1986) together with the one of Peteraf in (1993) are the most cited and in-depth works focused on the Resource-based theory and the competitive advantages for the firms. This is also confirmed by Foss and Knudsen (2002: 291), but they also argue that the theoretical framework offered by Barney and Peteraf have been lacking some key points, because of the somehow quick manner of accomplishing it and drawing the conclusions vaguely. First a reference to that study will be done in more detailed manner.

A concern of least importance as Foss and Knudsen (2002: 291) argue is lack of industry duality in the resource-based framework. Though the possibility of ignoring that small defect, what is more important is the vague explanatory effect of the theory in regard to the main dependent variable or the sustained competitive advantage and its not well-defined explanation. The characterization of the theory as one of the competitive advantage or as one of the rents, or even both, is what has been argued on a first place in the study of Foss and Knudsen (2002: 291). Another issue which has served as a driver that provoked ambiguity has been the conditions that are necessary and those that are additional for the gaining of sustained competitive advantage. Drawing attention on the “strictly positive differential profits in excess of opportunity costs” chosen by Peteraf (1993: 1-4) as dependent variable, which is different than the variable that Barney had chosen, Foss and Knudsen argue that since the relevant differentials might be explained both on inter and intra- industry level, the study and explanation of Peteraf seems somehow unclear. Moreover it seems that the only two necessary and also sufficient conditions with respect to the sustained competitive advantage are the uncertainty and the immobility.

Being a theory taking into account the individual resources and their characteristics and having a factor oriented rather than product-oriented approach (Barney 1986) it formulates the strategies by firms on the markets (Barney 1991). What is meant here is that the uniqueness of the resources as one of its characteristics is just implicitly explained and the attention has been focused on the attributes of the resources themselves.

The identification and classification of the attributes of the resources necessary first to be obtained competitive advantage and later on to be gained sustained competitive advantage by the organization allows the categorization of the attributes as barriers, which prevent the entry and obtaining of any competitive advantages by companies in a given industry. Thus after visualizing a situation when the attempts by the competitors to duplicate or gain competitive advantages have stopped the model presented by Barney has turned into a kind of equilibrium (Foss and Knudsen 2002). Another issues provoking criticism are the choice of dependent variables in the different studies on the Resource-based theory. The relation between what has been defined as a prerequisite for the sustained competitive advantage and the four attributes of the resources has not been completely clarified.

As a short summary of what the main arguments presented by Foss and Knudsen towards the definitions and explanations presented by Barney (1991) and Peteraf (1993) it could be stated that the resource-based theory in the sense of product –market strategies with sustained uniqueness in equilibrium and the resource-based view in terms of differential profits in equilibrium are not related and left not-clarified.

In support of their arguments Foss and Knudsen (2002) claim that uncertainty and immobility are the only two and sufficient conditions in order a sustained competitive advantage to be obtained by companies. Other conditions seem to be only additional since they are derived from the uncertainty and the immobility and help into giving a more specific form to the term of the sustained competitive advantage. Also the additional conditions, besides giving more realism, serve as instruments of intermediary character in the causal chain that creates the sustained competitive advantages. Resource based theory has causal character. The model that is presented in support of the arguments of Foss and Knudsen is given in the following Fig. 8

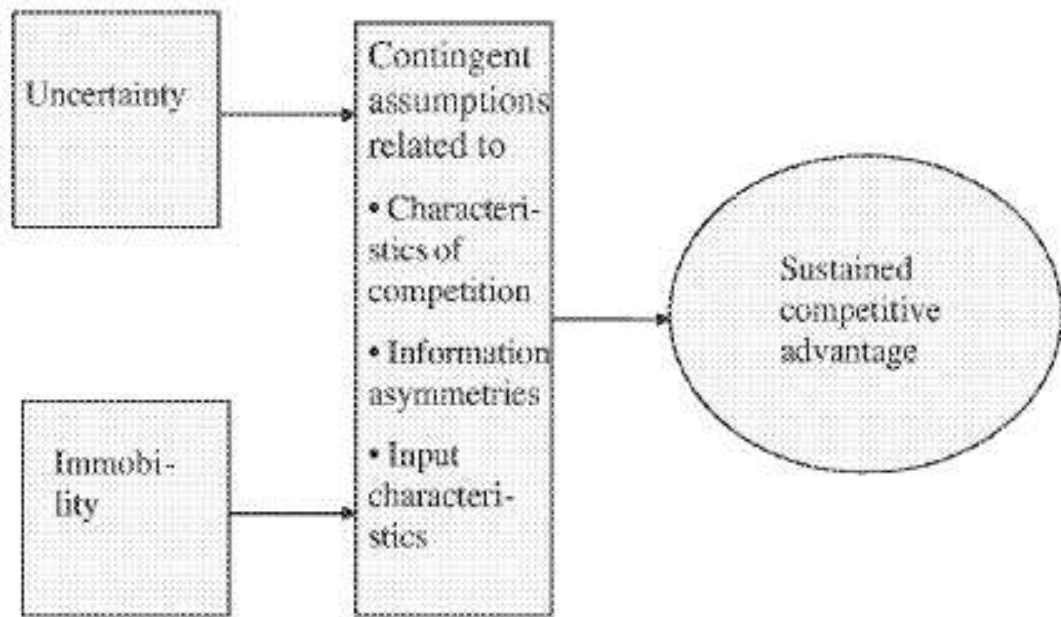


Figure 8 Foss and Knudsen's model for sustained competitive advantage (Foss and Knudsen 2003)

Although Barney and Peteraf (2005) agree to some extent with part of the critics like the necessity for putting the ideas about some of the terms used in the works like competitive advantage and what meanings lay under it, they disagree with the ignoring of the heterogeneity as one of the key conditions that supports the framework for the resources as a basis for the competitive powers of given organizations. Moreover they claim that Foss and Knudsen's statements underestimate the role of heterogeneity in the explanation of the resource-based theory. They structure of their study lies on three related items. First and largest in scope is the explanation about the meaning of the theory as one of competitive advantage or as one of rents. The re-definition of the sustainable competitive advantages is included as a second issue in their work and the last but not least is the question about the reference of Foss and Knudsen about the dependent variable of the theory.

In short the two problematic areas defined in the critical view of the theory are the definition of sustained competitive advantage and the structure of the resources-based explanations.

By adding the idea of the inter-industry comparison Foss and Knudsen broaden the scope of the resource-based view and contribute different sense of the essence of the framework. Thus, changing the dependent variable and the excess returns are due not only to the heterogeneity of the factors, but also factors like forces on an industry level. Because of that Barney and Peteraf (2005) argue that the only real and obligatory reason to be defined the dependent variable comes from the fact that their study has had the aim of providing “an explanation of performance differences among competing firms, attributable to the differences in their resources”. Thus the lacking point in Foss and Knudsen’s view is the clear argument about the issues which inter-industry differentials are due to sources based on resource-model and which are due to other resources. Moreover they define the theory as both a theory of the competitive advantage and theory of the rents. While agreeing with the idea that heterogeneity might derive from conditions of uncertainty and immobility, as well as from quite many other conditions, Barney and Peteraf (2002) state that it is that fundamental issue that for the resource based view that holds the theory and strongly disagree that this condition might be considered as “unnecessary”.

In the literature among the critical studies focused on the resource-based theory we can distinguish another one though not so sharp towards the unconvincing statements that the model has presented. Rouse and Daellenbach (2001) argue that despite of the many attempts to be clarified the assumptions and relations in the theory have still been deprived of the relevant empirical supply of testing. Their main reason they claim is the failure to be measured the performance related issues as the most problematic barriers. They refer that item to the unavailability of information and the not properly constructed with accordance with the essence of the theory methodological designs with a concentration on the measurements on the resource level. Thus it seems that the mismatching between the theory and the methodology as the main problem in the empirical treatments of the framework. The problem is addressed by the construction of a framework which is meant to increase the efficiency of the empirical testing of the resource-based theory.

Table 6 Key aspects of the resource-based view and their implications for research design according to Rouse and Daellenbach (Rouse and Daellenbach 2001)

Assumptions about Firms Underlying the RBV	Research Design Considerations
Firms have areas of competitive advantage, parity, and disadvantage.	Overall firm performance results from the effects of both relative strengths and weaknesses.
Firms deploy bundles of resources/capabilities.	Broader sets of resources need to be analyzed.
Advantages/disadvantages are relative to other firms pursuing similar value creation activities.	Samples must be selected to include firms seeking comparable value creation activities.

According to Rouse and Daellenbach (2001) the question about the extent to which we could reach in the generalizability of the theory and the value creation that it sets forth are of high importance and relevance for the business and the academic society. It is obvious that in some case the findings of the empirical testing could be generalized across a range of particular settings. In other cases on the other hand the value of a given resource and its ability to provide sustained competitive advantage could be referred to some particular group or industry. The idea of context-specific qualities of the resources is evident.

In an attempt to create a kind of a summary of the revision of the essence of the resource-based view we will review some of the critical definitions towards the model. Moreover it is an efficiency-based explanation of performance differences and not a framework which counts on market powers or strategic behavior. Competitive advantages according to the model stem from specific for the organization resources which are both rare and unique in comparison to others (Barney 1991, Barney and Peteraf 2005). This means that companies which possess somehow superior resources are able to provide greater benefits to its customers for a definite cost (or same benefits for lower cost), and thus the explanation not only stresses on the lower expenses but on the item that a greater net values are provided to the customers as well (Peteraf 1993).

Another key aspect of the resource-based framework is the offering of resource-level and enterprise level of explanation of sustained competitive dissimilarities between the companies. This means a focus on the resources and capabilities in possession of the firms which serve as a basis for the sustained differences in the performance. The main goal of the resource theory is to be a complementary framework to other works and not a substitute, since each model attempts at providing different starting points for analyses and understanding of the behavior and the performance of the companies (Barney and Peteraf 2005: 320). And the availability of data sufficiently detailed to enable researchers to find out the link between resources and disaggregate performance due to those resources as well as the link between the bundle of resources and the overall performance could be another key achievement in the tangle of the resource based model (Rouse and Daellenbach 1999: 11; Dhanarah and Beamish 2003: 244).

3.6. Impact of resources on 4PL companies and business performance

After a in-depth literature review of the service sector and the role of freight-forwarding companies in it and also on the aspects of the firm performance and the factors in the name of resources and environment for the development of sustained competitive advantage by the organization and achieving of superior overall business performance we can draw our attention on the main problem of this study. We aim to explore what is the influence of the resources that are in possession of Bulgarian freight-forwarding companies on the business performance on the international market of transportation and logistics services.

Before that a short overview of the literature based on the business performance measurement is necessary for achieving our empirical goals, because so far we have been using that term but haven't explored it in more depth.

Business performance and what is more important superior business performance is “a rate of return in excess of the return on governmental securities adjusted by the risk of capital losses” or in other words the return in excess of a firm's cost of capital” (Porter 1990, Barney 2002).

Performance measurement has received considerable attention during the recent years and firms operating in all kinds of industries have spent a lot of resources improving the measurement of their business performance as an indicator of their success. Performance measures have been used to be estimated the success of organizations (Porter 1990; Barney; Virum 1993; Sum and Teo 1999; 2002; Kennerley and Neeley 2003; Yeung *et al.* 2006; Wang *et al.* 2006). Because of the development of the modern accounting frameworks, the assessment of the performance for companies has mainly been made in relation to the financial performance, or the returns and profits for the companies as stated at an earlier stage by Porter (1990) and Barney (2002). When the ownership and management in different types of organizations have been separated, the measures on the return and profits have been used to be measured the rate of management achieved by the management body and reported t the ownership body of the companies (qtd. in Kennerley and Neely 2003). As main drawback in the beginning it has been considered that while the traditional financial systems have indicated the performance of the organizational activities, no indication has been provided how that performance has been achieved and what has been necessary to be improved. Those measures have been internally or resource-oriented and not externally (competition oriented).

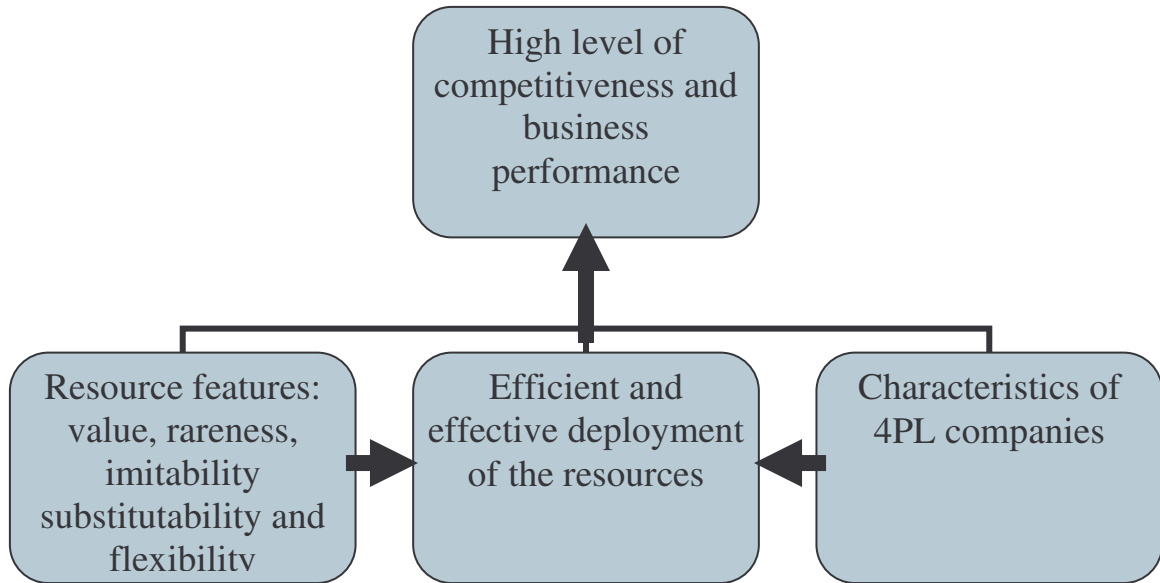
Tseng, Chui and Chen (2007) extended their understanding about the performance as an indicator of the of the superior well-being or failure of organizations, stating that only a careful evaluation could bring about a good idea of the current state of a firm. Evolving from the traditional financial indicators stated above as the return on investments, profits and revenues, Tseng *et al.* (2007) however argued that external forces should not be omitted in evaluation processes. Tseng *et al.* suggested performance indicators as competition performance, financial performance, innovation capability and supply chain relations as driving points for evaluation. Teo and Sum (1999) and Wang *et al.* (2006), studying in an identical way the business performance of companies in the logistics field respectively in Singapore and China, relate to business performance the financial aspect of the matters. The findings reflected the different strategic choices made by the companies and those choices had influenced the business performance of the latter.

Yeung *et al.* (2006) directly linking the business performance with the financial performance, argued that the main challenge for freight-forwarders is to pick up the most relevant strategy in a way that an acceptable business performance is achieved. Acknowledging that research on that area is too scarce he justified the aim of his study focused on companies in Hong Kong. Yeung *et al.* (2006) while agreeing that literature review has been concentrated so far on measuring business performance, extended the scope of his study to measure how strategic choices of the firms have influenced the performance. He defined business performance as the profitability and growth of the freight-forwarders.

This study will try to view how the impact of the resources of the companies in the freight-forwarding field influence the performance of the Bulgarian 4PLs through the lenses of the managers, owners or export-import specialists of those companies in Bulgaria, since those companies have their specificity to act like brokers and are not fully related to the field of transport companies as service providers.

A more concise frame of the theoretical foundation of the study so far will try to summarize the main ideas so far in the research.

- Framework of the theoretical foundation



The empirical part of the study is based on e-mail questionnaire interviews that are meant to find out the relation between the mentioned above variables by addressing the CEOs and some export –import employed workers of the companies. If possible online interviews will be included in the research as well.

4. Research methodology

The outline of the research methodology is presented in the next part of the study. It consists of five sub-chapters, explained in the research structure.

4.1. Research structure

The fourth chapter of the study has the aim to introduce the research methodology on which the empirical findings are based. Some clarification over the research philosophy will be given, and then the research design, approaches and methods will be dealt with, together with a short discussion and justification of the reason for their choice. An introduction of the target group for the empirical study will be provided and some explanations of the data collection. At the end the validity and reliability issues will be considered.

4.2. Research philosophy, approaches and research design of the study

The research philosophy usually depends on the way we think about the development of knowledge. This issue, though seeming a bit abstract and remote has an impact on the way we are conducting our research. There are two views that are predominant in the literature: the positivism and the phenomenology. They are different and have different views about the way how knowledge is developed and besides that, they have important role in the management and business research. (Saunders, Lewis and Thornhill 2000: 85).

Positivism is related to the idea of the natural scientist, meaning that the researcher would just make impartial interpretations and analysis about the collected data and usually as Saunders *et al.* argue is connected with very structured methodology and mainly quantifiable data subject of a statistical analysis.

The other stream in the field of the business and management research would rather argue that deeper understanding of the sophistication of different phenomenon would lose its sense if it is subjected to generalizations of any kind which is typical for the positivistic stream, and such views are more often classified as phenomenologicistic. This means that according to the principles of the phenomenologists business situations are not only very complex but unique and are function of bundle of circumstances and individuals. Generalisability is not of high importance at all.

The research design relates to the overall strategic choice that needs to be made by the researcher in order to be developed an approach which is most suitable and allows in the best way the research question to be answered regarding the given limits (Ghuri, Gronhaug and Khristianslund 1995: 26.)

The research design should be effective because it is supposed to help the researcher in tackling the main problem in the best possible way and thus revealing the information that is needed. All that should be considered in the scope of the constraints that are typically accompanying the research objective.

The research objectives or the research problems usually vary in its structure. This means that the problems might be not so well understood. Having that structural issue as a base we can define three types of research designs: exploratory, descriptive and causal (explanatory). The first one is said to be unstructured and the second and third are structured. In the next sentences a short review of the designs will be given.

The exploratory design refers to cases when the research problem is badly understood. A very important characteristic for this type is its flexibility. (Ghuri *et al.* 1995: 28)

In addition to that, Saunders *et al.* (2000: 97) define three principal ways by which an exploratory study could be conducted: a search of the literature; talking to experts in the subject and conducting focus group interviews. Adaptability is also developed as an attribute to that type of design.

Descriptive research supposes that the problem under studying is well understood and structured. Besides that it is structured another important characteristics for the descriptive design are the precise rules and procedures. Studies which are defined as descriptive according to Ghauri *et al.* (1995: 28) might include more than one variable and they have the key role to be something like an extension to an exploratory study.

And finally in the causal or explanatory study the problem under scrutiny is structured again. But here unlike the descriptive design the researcher is faced with problems having the cause-effect relationship in their origins. The main idea here is to be isolated the cause and to be proved and justified the degree too which that “cause” has as a results the “effects”.

The research approaches that flow from the research philosophies could be defined as two types: deductive and inductive. The differences of those are explained in brief in the following paragraphs.

Deduction or testing of theory is more related to the mentioned above scientific research which corresponds to the positivistic philosophy. It includes the development of a theory which is afterwards subjected to tests in order to be proved its consistency. There have been identified five phases through which the deduction process goes: deducing a hypothesis; the expression of the hypothesis into operational terms, which suggests a relationship between two or more variables; testing of the operational hypothesis by experiment; examining the specific result from the experiment which in turn will prove the theory or will suggest further modifications and finally the modification of the theory according to what are the findings (qtd. in Saunders *et al.* 2000: 87.)

Other important characteristic features of the deductive approach are the striving in search of causal relationship between variables. The control allowing the test of the hypothesis is another important attribute to the deductive approach. Usually the use of highly structured methodology is typical for the deduction. The operationalisation of concepts, the principle of reductionism and generalization are among the rest of the characteristics for the deductive approach in business and management research.

The induction or the building of theory is the alternative approach for conducting of research in the business and management field. The main goal here is to be understood the nature of the problem or a phenomenon. The task is to be made sense by the data that is gathered and afterwards analyzed. The outcome of that analysis will be of course the formulation of a theory. In the inductive approach theory follows the data, unlike the deductive approach where this process is just the opposite.

Inductive approach has as a strong point the idea that humans should be aware of the social world around them, stressing more on the contexts in which events take place and also the permission of more explanative approaches. In this way, according to Saunders *et al.* (2000: 89), a study of small sample of subjects is considered as more appropriate than a large number, which is something typical for the deductive approaches. Here more qualitative data is used and the use of different types of methods for the collection of that data in order to be possible deeper understanding of phenomena to be achieved.

Over viewing what has been said so far about the research philosophy, design and approaches I would rather define my philosophical stance as phenomenological, because in the study I am trying to get deeper understanding of some newly emerged business entities and the way they function with the uniqueness of those and in the light of the circumstances typical for their environment. Avoiding generalisability and with the main aim of understanding a problem I may say that first part of my study is more explorative with the discovery of the place of freight-forwarding firms in the logistics chain. Second part of the study having as a main aim to explain the relationship between the resources that a company has and the business performance of that company has more causal character. The problem is not so structured and I have no propositions or guesses to test. Moreover, after an extensive literature review on the topic, I define my study as having a deductive approach. The data generated and analyzed corresponds with the qualitative measures. Discussion about those will be given in the following sub-chapter.

4.3. Data collection and analyses

Data that is collected by researchers in their striving to answer a given research problem could be secondary and primary data.

Despite the underestimation that it usually gets, the secondary data has some advantages. Among all it saves time and money. Ghauri *et al.* (1995: 54) also suggests that secondary data could provide suitable methods to be tackled a particular problem in research. Every research should start by using secondary data.

Together with its advantages of course secondary data has its cons. as well. One of those is that usually those data that have secondary source have been collected for other purposes and often very different than the problem under scrutiny. Quite frequently the variables and the measures are too different than the necessity of the study that is at hand. The accuracy of the secondary data could also be named as a disadvantage.

Usually when the secondary data is not sufficient or unable to answer the problem, for example unstructured problem with not so much literature on it, the primary data is needed. This justifies the use of primary data for this study as well.

Primary data is collected by the researcher him or herself in order to be solved the problem at hand. The scope and nature of this data depends mainly on the problem and question that this data is meant to solve. Considering the means with which primary data is collected, we can define three of them: observations; surveys (questionnaires) and interviews. Short description will follow about those.

Observation supposes listening and watching other people's behavior so that an analysis could be evolved out of that observation. What is important is the behavior, the attitude and the situation and its dynamism itself, something that is hard to be achieved by using surveys or interviews.

As a main obstacle or disadvantage about that method could be the impossibility to be the translation of systematically observed phenomena into information that could have scientific value. Saunders *et al.* (2000: 221) suggest different type of participant observation according to the role of the participant. They could be complete observer, complete participant, observer as participant and participant as observer. Important are the questions of validity and reliability.

Surveys and questionnaires are considered to be the most popular method for the collection of primary data in the field of business and management studies. As a main part of the questionnaires are the descriptive and analytical. The nature of the survey whether a descriptive or an analytical usually is determined by the nature of the research problem definition and clarification.

Analytical surveys are used in order to be tested a theory. In such surveys, independent, dependent and extraneous data are controlled by using of statistical techniques. Ghauri *et al.* (1995: 59).

The other type of surveys Ghauri *et al.* (1995: 60) describe as concerned with the identification of the phenomenon, whose variance needs to be described.

Saunders *et al.* (2000: 280) give definition for questionnaires as being self-administered and interview-administered. Self administered on one part could be on-line, postal or delivered and collected ones. Interview-administered could be telephone questionnaire and structured interview.

What are important for the current study are the types of data collected through questionnaires. The data could be attitude, belief, behavior an attribute. Those usually influence the wording of the questions (qtd. in Saunders et al. 2000: 286).

Interviews could be two types: survey research interview and unstructured interview. The first type uses a standard format of interview with a stress on fixed response categories, systematical sampling and predominantly quantitative and statistical

methods. In the unstructured interviews the respondents are given full liberty to express and discuss reactions, beliefs, opinions and behavior on a particular problem. Questions and answers are not systematically coded beforehand (Ghauri *et al.* 1995: 64.)

There is another type of interviews that are called semi-structured ones. They differ from the two types described above on matters like topics and issues covered, sample size, peoples that are interviewed and questions asked. In-depth interviews according to Ghauri *et al.* reveal and present much more accurate picture of the problem under scrutiny.

There are two types of methods that serve researchers when they have already collected the primary data for answering the research problem. The first one is quantitative method. It serves for the analyses of data that is in numerical form or could easily be quantified. Quantitative data could be simple like frequency of occurrence and more complicated as test scores and prices. In order to be useful and to produce the necessary outcome-which is the answer of the research problem this type of data should be analyzed and interpreted through quantitative techniques like tables, diagrams, statistical relationships among variables and statistical modeling.

The other type of data which is more relevant to the current research since the results have qualitative character and would be analyzed through qualitative methods is namely the qualitative data.

Some authors suggest that though it seems quite familiar as a term not too much attention has been paid to the definition of the qualitative research. (Piekkari and Welch 2006)

Cassel, Buehring, Symon and Johnson (2006), argue that the interdisciplinary nature of the qualitative research, since it involves many different approaches for collecting and analyzing data, prevents the straight-forward definition to the qualitative research as such.

In qualitative research, the results are arrived at not through statistical methods or other quantification procedures. This is mainly the difference by the two methods. Both methods are not mutually exclusive either. Qualitative research is defined as mixture of the rational, explorative and intuitive and the skills of the researcher have more weight in the evaluation of the results. Qualitative research according to Ghauri *et al.* is focused on social process and not on social structures. And the necessity of using qualitative approach as indicated above on issues concerning exploratory studies on not so familiar phenomenon require the use of those methods since it enhances understanding and more detailed view of a given problem.

As it is suggested by Ghauri *et al.* (1995: 85) there are three major components of qualitative research. The data is usually collected by the use of interviews and observations, there are interpretive and analytical procedures and the techniques to conceptualize and analyze that data are used in order to be arrived at some findings or theories and report is written or verbal.

According to Ziebland and McPherson (2006) qualitative studies often explore participants' different perspectives and understandings. Therefore, the analysis is not limited to just those issues that the researcher initially considers as important or interesting. A search for interesting findings which emerge from the data (i.e. topics that are not specifically asked about but, which at the same time directly or not are raised by the respondents) is also very probable for qualitative analysis. In this way the focus in such types of analysis has focus has been turned on emergent themes as well as anticipated. This might lead to conclusions and findings which at first sight do not have much in common or sometimes even completely different to what has been anticipated results.

It is accepted that for inductive and exploratory studies, qualitative methods are most useful, because they can lead to the creation of hypothesis and explanation. In the light of that the current study has used semi-structured, self-administered interview questionnaires sent by e-mail to the participants in the research. The questions were

designed to be 14, but after a pilot interview with two companies and a short discussion over one of the questions and its appropriateness they were reduced to 13. After getting other positive insights into the relevance and the understandability of the question no more changes have been made to the method. The questions were divided into two parts. The first part consists of closed questions for determining some categorization characteristics typical for the participants in the study. Those are defined under background questions. The second part consists of open ended question which aim at discovering the attitudes, beliefs and behavior of the participants in relation to the exploration and explanation of the problem under research. Those are named practically related questions. The questions are accompanied by a cover letter in which the aim of the research is provided to the participants and they are explained the purpose and the benefits for them from the voluntary participation of their firms. The last questions are related to the position of the person who has responded to the question and its position in the firm as well as a gratitude to the participants. A deadline is provided for the returning the questions. The cover letter and the questions are provided in English (in case the participants have propensity to answer in English) and Bulgarian (the native language of the researcher) and the results have been translated and evaluated by the researcher qualitatively. The interviews questions and their correspondent answers were recorded and transcribed and translated after that. A considerable qualitative base was achieved as a result of that 53 pages totally were gathered for analysis. The process of analysis was started by processing the answers for each question of the whole number of gathered results. After that in the open questions part the results were analyzed with regard to the content and the aim has been to be discovered common themes emerging from the data. As a next step the data was classified with regard to the themes. The main themes were then presented in the empirical part and some citations were also provided in order to be provided some evidence for the conclusion part of the study.

Additionally, on-line interviews have been made in order to be verified the content of the respondents results. The choice of the method has been justified by the limits of time and budgets for the conducting of the research.

The choice of methods is in the light of Humerinta - Peltomaki and Nummela (2006) statement that more mixed approach towards the research with only enhances the understanding of a problem since flexibility of the former brings better clarification.

4.4. Target sample

Choosing the right source of primary data is quite challenging and not an easy process at all. Each participant in a research project is called unit, and all the participants chosen for the final source of primary data are called sample. The collections of all units that are eligible for being an object for a research are called population.

Research problems are structured in such a way that the importance of having all the necessary answers from the population is very valuable. But unfortunately almost always that is impossible, time consuming and costly. Such cases are called census. (Ghuri *et al.* 1995: 73) Sampling indicates the saving of work by receiving the results from a sample of population instead of from the whole population. There are probability and non-probability sampling.

Judgment sample or purposive sampling (Saunders *et al.* 2000: 174) means that the judgment of the researchers is used in order to be selected the most appropriate according to the researcher cases for receiving the results and meeting the objectives. It is variance of the non-probability sampling. Also it is important for small sample cases which as mentioned above are typical form explorative studies and in part in explanatory ones.

In the study at hand a purposive sampling has been chosen by focusing on a comparatively not so big group of objects to be explored.

The target sample has been based on a website of a organization which represent an Association of all Bulgarian freight-forwarding companies on the market which have registered themselves as such. The list comprises of totally 79 firms. On the website those firms who are actually members of that association have presented themselves

shortly and have provided their contact information. There are of course other units which might be included in the criteria for freight-forwarding companies but their absence from this association means that they have not their main field of operating in the freight forwarding industry or are normal carriers who have freight-forwarding activities partly included in their performance. Since such organizations are not included in the association they are not going to be taken into account for the study at hand. From the list of the participants there are three firms which are freight-forwarders, but they are branches of global logistics and freight-forwarding corporations. Since the main focus is on the Bulgarian 4PL firms those representatives have been excluded from the target sample. Two other companies by mistake or by some technical reasons have not given contact information or it is just not displayed on the website. Those are also excluded from the study. This comprises totally of 74 4PL firms which have been contacted by the e-mails in order their opinion about the research question at hand to be explored and explained. The results of the findings would be discussed in the next chapter after the overview of some discussion about the validity and the reliability of the study.

After the research has been conducted the results showed that: Out of the 74 e-mails sent to the companies from the target sample there has been only one returned e-mail marked as undelivered due to wrong or not actual address. One e-mail has been marked as out of office, but by the deadline mentioned in it the second (reminding) e-mail was sent one week after the first set of e-mails and it has been considered valid, since no more out of office return mail has been received. Totally the number of respondents has been 12 out of 73 which comprises a response rate of 16, 44 %. According to the character of the study and in light of the assumptions about such type of studies mentioned above this rate of response could be considered as considerably high. All the received answered interview questions there were not any which could be considered as non-useable, which means that all the 12 respondents have understood the questions and have answered them correctly with the highest possible degree of collaboration to the study. The results of the rate of response proves that the method applied in the particular situation and are chosen properly enough with regard to the conditions and budget and

time constraints of the researcher. The profile of the respondents will be discussed in the following sub-chapter.

4.5. Validity and reliability of the study

The question of credibility for the findings of a research is of high importance as well. The notion to what extent the results that have been arrived at in a given research are really related to the problem stated means that the researcher himself or herself should try to reduce the possibility of getting wrong answers. Literally of course that is not absolutely possible (Saunders *et al.* 2000: 100.)

In order to be achieved high credibility, the researcher should take into consideration two specific issues: the validity and the reliability of the study.

Validity relates to the question if the study really studies what it is supposed to study. Construct validity is one type of validity. It could be defined as the degree to which an operationalization measures the concept which it purports to measure (Ghauri *et al.* 1995: 48.)

Construct validity could be estimated in different ways. Among them is the face validity, which tells to what extent the measures used are reasonable enough in order to explore what they really mean to explore.

Convergent validity narrates to what extent multiple measures and methods could generate similar findings.

Divergent validity reports to the fact to what degree a construct is identifiable to another construct.

The mentioned above forms of validity are mainly applicable and assessed in quantitative studies.

Two other forms of validity: internal and external validity are more concentrated on cause and effect relationships. Internal validity refers to the degree to which it could be stated that a causal relationship between two or more variables exists. External validity means the extent to which a generalization could be derived. Generalisation as it was discussed above is not so much appropriate to qualitative studies on small base of sample population, however the external validity has been increased by a try of collecting considerable, according to the target sample, number of response rate. Internal validity has been assured by the extensive previous research and theories as a frame of reference that has been applied.

The main reason for a potential superior level of qualitative approaches for the gaining of data is the flexible and responsive interaction which is possible to be observed between the participants and the view at the situation through different angles. This ensures a high level of validity in relation to qualitative studies. (qtd. in Saunders *et al.* 1995: 250)

The validity of the current study is considered high. It has been assured by an extensive literature review and the data collected has achieved the aims which have been set forth by the researcher. Other methods for data collection considering the different constraints would not have been suitable.

In accordance to the approaches chosen and in accordance with the methods for the collection of the data there are different requirements for the reliability of the studies. Short revision will be given, together with a discussion of the reliability measurement of the current study.

Reliability for deductive studies should be in accord with the answer of the question if the results arrived at could be achieved through different occasions and relating to the inductive approach the question underlying is if similar observations would be made by different researchers on different occasions. (Saunders *et al.* 2000: 100)

There have been defined four potential threats to the reliability. Those are subject error, subject bias, observer error and observer bias.

In qualitative researches the question for reliability and validity is not so rigorous. (Ghauri *et al.* 1995: 52).

Saunders *et al.* (2000: 251) continues that findings and results from non-standardized research approaches as is the case of the current study are not necessarily intended to be replicated, because they reflect the reality at the time when they are collected and in a contemporary situation with the specific circumstances complex and dynamic. The emphasize using those type of approach is taken from the flexibility that might be used to be explored and explained an unfamiliar topic. In that sense the attempt to be proved that the replication of such non-standardized approach by other researchers would be not so relevant. Justification of the research design could be a good prove in the case qualitative and non-standardized approaches to a given research problem.

In the current study a semi-structured self-administered, opened and closed interview questions have been adopted as a method of research and together with the results two phone interviews have been used in order to be verified the consistency and clarity of the data collected. The interview were conducted with different members of the two companies chosen so that the insurance that the results interpreted by the researcher are really what they appear to be and to be enhanced the understanding of the problem as well. Reliability of the study at hand has been increased by the systematic and consecutive analysis of the empirical data and thus more easiness and understandability is created for the reader to follow the structure of the work and the stages of the process of analysis. Other similar studies have not been found in order to be verified the results but future research on the topic of freight-forwarders could throw more light on that issue.

5. Empirical Analysis and Results

The empirical part of the study is divided into five sub-parts. Firstly the Bulgarian transportation and freight-forwarding market is presented. The data about that market has been collected in the form of secondary data from different sources of information. After that some background information is provided of the population that responded to the questions sent. Some data and percentages are given also. The third part consists of the presentation of the profile of the companies that have participated in the research by giving their answers to the questions. That information can be obtained by the first group of questions in the questionnaire. The fourth sub-part of the empirical findings chapter deals with attitudes, beliefs and opinions of the respondent population to the problems in the research that are coded into the second part or questions into the questionnaires or normally related as questions of practical character. And finally overall discussion about the findings is provided at the end of the chapter.

5.1. Bulgarian transportation system and 4PL

Bulgarian transport services market is a structure determining field in the Bulgarian economy. It is characterized by that because of the strategic geographical situation which the country possesses on the map of Europe. The country is situated on the Balkan Peninsula and appears to be a bridge between the countries from Western and Central Europe, the Middle East and Western and Central Asia as well as the direction North to South. The latter factors provide the possibilities for the country to accept the traffic of goods and throughout the territory of the country. Along the country it is useful to be executed transport to the Black sea region and from there to the other continents. Five strategic Pan European transport corridors pass along the territory the country which presupposes a heavy traffic of goods and transportation services. All types of transport services are executed on the territory of the country but we will focus our attention on the road transport as freight-forwarding companies are mainly dealing with it. Shipping firms as well as air-freight forwarders and railway agents are beyond the scope of the study (Ministry of Transport 2008.)

The transport corridors passing along the country are as follows

Corridor IV- direction: Dresden/Nurnberg-Prague-Viena/Bratislava-Budapest-Krayova-Constanza/Sofia-solun/Plovdiv-Istanbul

Corridor VII - direction: Rein-Main-Danube

Corridor VIII- direction: Duras-Tirana-Kaftan/Kafasan-Skopie-Gueshevo-Sofia-Plovdiv-Burgas-Varna

Corridor IX- direction: Helsinki-St.Pitsburg-Moscow-Vitebsk-Kiev-Kishinew-Bukurest-Rouse-Dimtrovgrad-Aleksandropulis

Corridor X-direction: Zalzburg-Lubljana-Zagreb-Belgrad-Nish-Skopie-Veles-Solun-Nish/Sofia

(Ministry of Transport 2005)

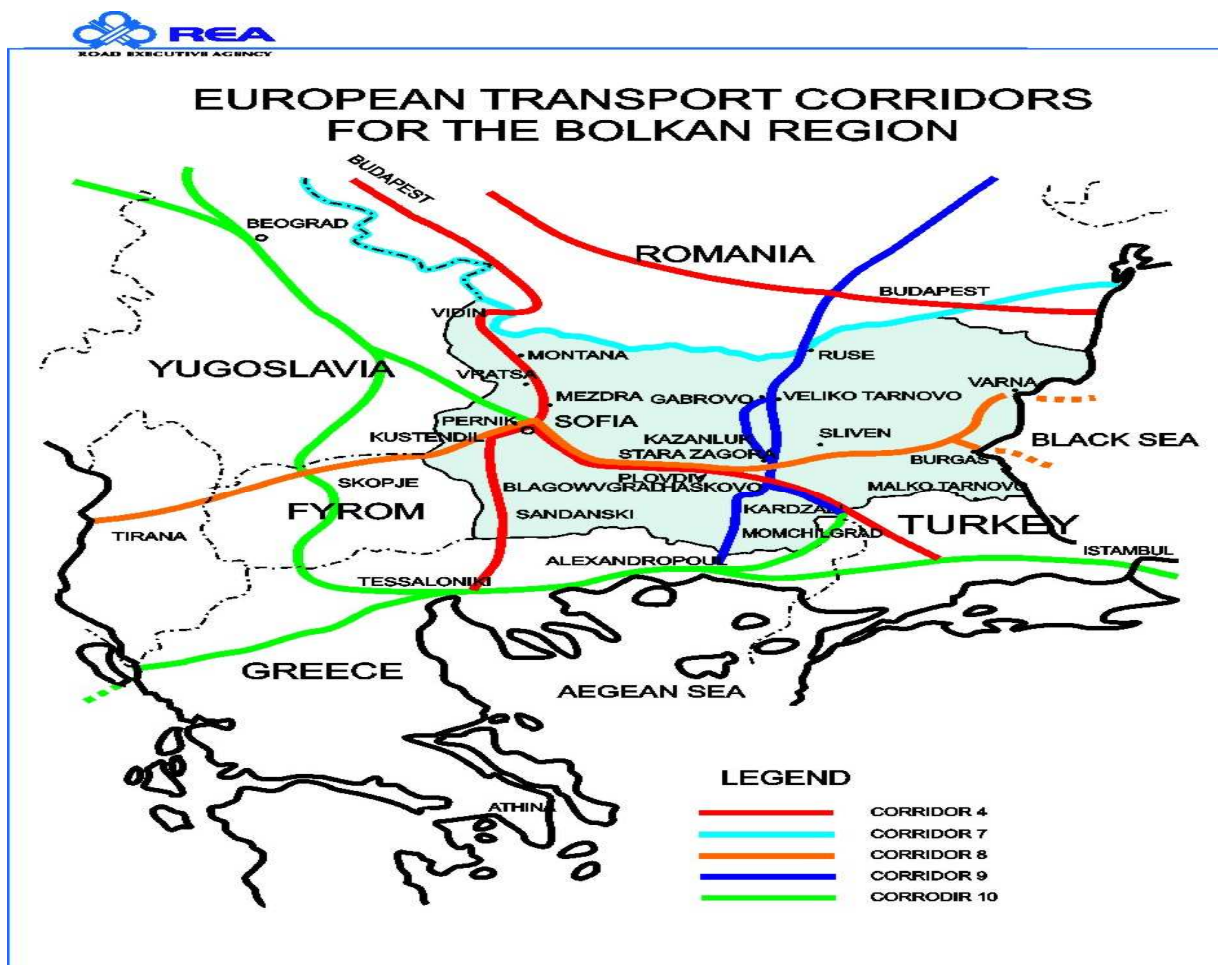


Figure 9 European transport corridors for the Balkan region and Bulgaria (Ministry of regional development and public works 2008)

In the sources of Euro stat unfortunately statistics about the road transport for Bulgaria are available after the country joined the EU and the data from the national sources is not available. But for 2006 for example the amount of transport in million tkm is as follows: National (5 806), International (6 368), Cross-trade (1 387) and Cabotage (204). In percentages that accounts for about 77 % of international intra-EU 27, 13 % CC and EFTA and 10 % other international (Pasi 2008: 1-8) Transport sector provides employment for around 110 000 employees but the number decreases on a continual bases (Ministry of Transport 2008). (See Figure 10)

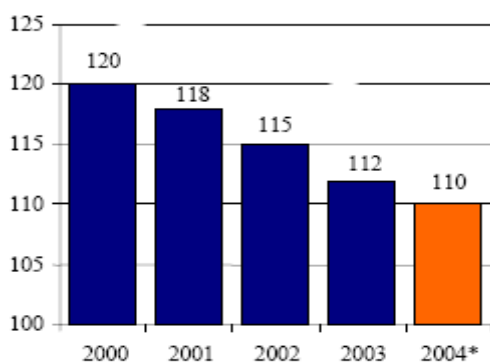


Figure 10 Employment in the Transport sector of Republic of Bulgaria (Ministry of Transport 2008)

In the last couple of years the numbers of loads transported in the transport services sector in Bulgaria decreases continuously as well. Only in the year of 2004 it increased with 8 % compared to the previous year and

on the next year 2005 it was almost 1.4 % less than 2004 (Ministry of regional development and Public Works 2008).

On the freight-forwarding market there are few very large transportation companies which have their own fleet of vehicles and which provide additional value adding services to the clients. There are also quite many small 4PL firms (quite few of them members of NSBS) which sometimes cooperate with the large multinational companies and sometimes they compete in terms of getting more customers. The reasons for the emergence of many small freight-forwarders are the relatively low barriers which provide entrance to a market where in the years of high volume of traffic loads could easily gain competitiveness and operate with considerable profits at for the their sizes.

At the moment the unofficial number of freight-forwarding companies in Bulgaria is around 1000 (NSBS 2008) and in official transportation books they amount to 400 with around 30 of them operating as joint ventures.

According to Ivan Petrov CEO of the BNAFF the services offered by the 4PL companies nowadays are various because of the highly increased competition in the sector and the financial part of the relationships have become more and more liberal for the customers (Capital 03 April 2004). After the joining of Bulgaria in the European Union Ivan Petrov continues the number of mergers and acquisitions in the sector will increase sharply and he predicts that small 4PL companies on the basis of their resource potentials might not be able to compete with large multinationals (Capital 03 April 2004).

5.2. Profile of the respondents

The first three questions from the interview are closed questions and they have the aim to present to some extent the profile of the participants in terms of period in which they have been operating, possession of own transport vehicles and number of employees as a whole and of those that are dealing with freight-forwarding services exclusively.

The variety of periods for which the freight-forwarding companies have been operating on the market is considerable. Only two firms are considered as absolutely new entrants in the market since they have less than five years of experience in the freight-forwarding industry. At this item the exactly half of the respondent companies have between five and ten years of experience on the market, which could again be considered as mostly new companies in the freight- forwarding and transportation market. The rest of the firms have more than ten years of operating in the field and they might be marked as comparatively mature companies. One of them has been executing freight-forwarding services for already 16 years. In accord with the findings, the majority of the results show that in deed the companies that are operating in the field are mostly new entrants which are also in line with view that such companies are comparatively new trend in the logistic system.(see Appendix 1)

On the second issue concerning the possession of own transportation fleet and which is in turn in the light of the scope of the study the majority of the companies state that they do not have own transportation vehicles. One firm has available five trucks and another one has only one truck at the disposal of the clients' demands.

A chief - executive of one of the respondent firms states:

“We have been dealing with driving and freight-forwarding (the pure brokerage performance) of the once state-owned and biggest monopoly player on the Bulgarian transportation market for many, many years, and after a serious consideration we decide to concentrate our main focus on pure freight-forwarding performance of services to our clients.”

The clear focus on performing the freight-forwarding service as such is obvious from the results of the respondents participating in the interview and also who are members of the National Association of the Bulgarian Freight-forwarders.

The third item concerns the number of employees which are working for the companies that are participating in the target sample.

Two of the respondents have stated that they have less than five employees working in the company. From those two firms all of the employees are dealing with the freight-forwarding services only.

Around 33 % of the respondents have declared that have between five and ten employees. Another 25 % have between eleven and twenty peoples hired and rest companies have the biggest number over 20 employees. A respondent has stated that the total numbers of workers in the company is estimated to be 180 and 34 have been dealing with freight-forwarding services only.(see Appendix 1)

The view of the characteristics used in the initial phase of the interview has the main aim to represent and clarify to some extent the profile of the Bulgarian 4PL companies that are operating on the freight- forwarding market and thus enhance better understanding for the some of the characteristic features of those companies. In the next sub-chapter open ended questions have been utilized to further extend the idea of the field of the freight forwarding business and the scope of activities that those firms perform and to position them better in the picture of the logistics and transportation system. Also the attitude of the firms towards the resources and how they influence the process of performance itself would be discussed.

5.3. Scope of services and impact of resource base on the performance of freight-forwarders

The explanation and the provision of the findings and the results from the second sub-part of the interview has been arranged in such a way that terms, performance operations, believes, opinions and attitudes have been distinguished depending on their appearance in the answers and later on they are grouped according to their repetition of the different respondents' answers. At times abstracts from the opinions of different participants have also been expressed in the development of the findings.

The fourth item in the interview questions requires from the respondents to account for the variety of services which they offer to the customers in addition to the main freight-forwarding function.

The majority of the participants accounting for 75 % of them state that besides the main freight-forwarding activity their companies offer to the clients - customs brokerage for the goods or material in a process of transportation and also warehousing facilities.

“If it happens that by chance our warehouse availability is not appropriate for our client what we do is to find out where at that particular moment there are available warehouses under somebody else’s property which are able to suit the necessities of our clients. In this way we do not confine to our own warehouse facilities only, but provide our client with the help needed in order to be stored the goods or materials.”

More than one third of the participants have also reported that they offer document processing aid and the service of insurance for the loads in process of transportation.

A cargo tracking has been mentioned as another service in favor of the clients to Bulgarian freight-forwarding companies that are participating in the research. They account for 33 % of the total number of respondents.

The same rate of 33 % of the participants have also mentioned that they offer other services but they have not specified what type of those services exactly they have in mind.

A small number of 25 % of the freight forwarding companies have the capacity and the facilities to offer loading and unloading services to their clients thus enlarging the scope of their activities towards more fully integrated logistics and freight-forwarding services.

As it was obvious from the question about the possession of transport vehicles 2 out of the 12 responding Bulgarian freight-forwarders offer the service of a for-hire carrier since they have own trucks. So they have more integrated logistics profile and are developing the scope of their service provision towards more multinational like integrated logistics companies and thus trying to escape form the definition of a pure freight-forwarder.

The same number of respondents state that they provide the clients with distribution of the cargo if needed, which again shows that diversifying the portfolio of activities is something that is not absolutely uncommon for the new freight-forwarding entities.

One company has stated that the main aim since its foundation in 1992 has been to diversify the business services in its range by offering services which have not so much in common with the logistics business as well. For example it is stated:

“Besides the pure brokerage services we offer to our clients services in support of contracts for production of the textile industry, supply and distribution, warehousing of the inventories and ready production. We also execute services of control of quality of the textile production. We have contracts with a lot of firms from the pharmaceutical industry as well offering them also distribution and supply practices and warehouse facilities. We represent them in front of state authorities and in some cases we might even block some production which doesn't correspond to the norms and regulations of the industry. E are trying to build to plants for machinery equipment and also we

represent the firms under our services in front of the tax authorities and thus consulting and helping our clients with the tax payment issues. But besides that variety of services our main core competencies remains in the field of freight-forwarding, which contributes the most to the profit formation of the company.”

From the responses of the participants it may be stated that those firms are concentrated on few core services and only a couple of them execute different solutions to the clients. Thus such companies are rather positioned as service providers than solution providers.(see Appendix 1)

The majority of the respondents consider that capital resources in the form of material base and office buildings, though extremely important are not critical for the performance of the freight-forwarding companies. Some of the participants - 25% state that they cannot divide the resources to important and not so much important and they consider that all of the resources have equal effect on the performance of the firms. Two of the respondent firms have indicated that resources which are accessible to all the competitors on the freight-forwarding market cannot be considered as so important and that is why they have marked them as having less effect on the overall performance of the firms.

One participant has indicated that a resource that has less influence on the performance of the companies is the organizational structure of the company and another participant has mentioned that own vehicles though considered by capital resources are those assets that have really small weight in the impact of the resource base on the activities of the firms.

“The organizational structure I put at the lowest level of having importance in regard to the activities of the companies, since sometimes it could even become a drawback to the smooth execution of processes of the firm. That is why I consider it as not important and also because freight-forwarders to me are the really valuable resources of our firm.”

Another important opinion states: *“The created own material base- like warehouses and offices has minor importance to our activities. We start towards building or acquisitions when we possess with our own free financial resources, and because of that return on investments is not a factor which has direct influence on the decisions. But as a matter of fact that is rather a question of philosophy namely- how should we use the generated profit. Our choice is reinvesting, not personal benefits.”*

The following question deals with the assessment of the respondents about the most valuable in their opinion resources for their companies.(see Appendix 1)

Almost all of the participants have stated that human resources are the most valuable and important core in the resource base of the companies: *“Definitely the most important are the human resources. The economic migration and the inflation highly increase the price of labor. And in order to be retained the experienced and skilful employees nowadays (even the warehouse workers) we have increase their salaries with rates, which considerably exceed the rates of increase of the profit generated by the performance. In such case unfortunately it is obvious that we cannot even think of comparing the salaries with the productivity of human labor.”*

Half of the participants have also indicated that financial resources have extremely important influence for the company. 25% of the respondents have stated that capital resources still have important influence on the companies. One third of the firms have indicated that organizational structure as a resource has serious impact on the competitiveness and the performance of the freight - forwarding firms.

The data base created, the network of relationships, the own vehicles, IT base and the know-how as resources have been separately indicated by different participants as having also strong impact on the activities of the firms.

“Those are intangible resources like personal contacts and relationships created by us as freight-forwarders with the clients’ data-base and already worked routes and destinations. The network of contacts is such resource also.”

As a next issue concerning the opinion of the respondents appears the view of the participants towards what important improvements in the resource base they consider that could increase the benefits of their companies.(see Appendix 1)

Five respondents out of 12, though seemingly a bit in contradiction with the statements in a previous question, have declared that they have the idea of acquiring own transportation vehicles, since thus, as considered by the interviews, would be increased the profitability of their firms.

One third of the interviewees, assess that improvements should be done into the warehouse facilities in possession of the firms: *“We have to enlarge the area of the warehouses. Especially the warehouses under customs control. Unfortunately however the price of the areas and of the building materials are too high, because of speculative reasons the supply of areas in the industrial zones has almost been frozen.”*

Some of the respondents have stated that the IT base needs considerable improvement in nowadays era, in a way that Bulgarian freight-forwarders could be competitive to their international rivals. Two participants have added communications as another item in the resource base of the organizations that in their opinion suffers from the lack of enough potential.

Small group of participants (25%) have outlined the level of qualification of the human resources as a step further towards the improvement of the resource base: *“Sometimes the level of education and qualification turns out to be crucial for the execution of even simple tasks. In the light of that I think that intensive attendance to additional qualification courses is a must in order to be improved the level of efficiency of the human resources of the organizations.”*

Another idea expressed by the respondents in one of the interviews is the ability to and the flexible way of negotiating the prices and freight terms as a crucial moment in the enhancing the profits of the freight-forwarding firms.

The next interview question concerns the way that the resources have influence on the business performance and activities of the freight-forwarding firms. The answers generated by the questions have created rich and versatile database of opinions.

Five of the interviewees comprising approximately 42% of the responding firms state that only the effective management and the efficiency in the use and deployment of the resources could be a prerequisite towards sufficient and in accord with the financial aims performance of the firms.

Other respondents assume that the human resources and their proper training and qualification enhance better financial performance and results of the firms in the sector. Besides that some interviewees add that the IT base in combination with the know-how of the human resources is that power that secures the financial growth and development of freight-forwarding firms in the transportation and logistics sector.

According to another participant the resource base of a company (independently of what types of resources) is that kind of a “fuel” which pushes the firms in the field towards better financial results.

“The competitive power of our firms rests on the resources that we possess.” states one of the participants.

Quite interesting opinion gives another firm respondent: *“The rich and properly used resource base of the company gives mainly positive results, but this unfortunately at times has some negative impacts on the liquidity of the firm.”*

Flexibility and the extent to which it influence the competitiveness of the companies is the next item discussed by the participants.

Eleven out of 12 participants state that flexibility is of utmost importance for creating competitiveness of firms in the field of freight-forwarding business.

One respondent considers that flexibility is not so important for the competitive power of his organization.

For another participant, firm flexibility as a driver for the competitive advantages, is expressed in terms of behavior and activities performed by the human resources mainly, and there is also a response where the firm assumes the flexibility as a means of survival of the company.

Of high interest is also the opinion of the interviewees about the factors impeding the proper performance of the organizations. It is initiated as a next issue of the interview questions.

Problematic communication on the level of the human resources has been mentioned by five participants as a major drawback for the activities of the firms in the freight-forwarding business. The organizational and the payment issues have been indicated by two participants as impediments for the companies. The financial problems have been considered as well by one respondent and the IT related obstacles have also been expressed as major concerns for the performance of 4PLs.

Two companies have stated that they have not experienced significant drawbacks from the internal firm attributes.

The poor resource base and the destroyed level of coordination between the units, because of the increased number of human factor (mainly not well qualified) has been proposed as a reason for worsening quality of the financial outcomes and results of the freight-forwarding organizations.

The possibilities facing the freight-forwarders in their international competition with organizations that are providers of similar services have been a topic of discussion in the next interview question.

Almost half of the respondents consider that the data base of clients and customers which they have created as a network of collaboration is the crucial key which could reassure the competitiveness of the firms abroad. But these conditions as mentioned by the participants must be met only if resources are properly deployed and enlarged.

One respondent has stated that the flexibility in the price negotiations could lead his firm to better competitive positions. The long term contracts with customers on predetermined price freights are the key to rival internationally for another respondent firm. A company with a focus Middle East market considers that this niche market could secure its success for some period of time since their network of relationships on those markets is considered by the company member as considerably strong. Two of the firms have declared that they cannot compete at the moment with the international logistics providers and freight-forwarders on a long-term base, because of difficulties in the financial aspect of the company. Another participant states: *“We could be competitive on an international level if we manage to offer a combination of complex services even not related to the main core competences of the firm. We have to work more with the human resources by teaching and qualifying them and we have to develop characters by rewarding them with remuneration packages with social benefits as well. We could benefit from the individual work or the so called human approach with our clients because we as small firms have more possibilities to get into direct contact with our clients unlike large multinational organizations whose beaurucratic rules make them impartial towards their clients in the process of pursue of the profit.”*

Horizontal collaboration and cooperation has been indicated by another company as a key to gain more competitiveness on the international freight-forwarding and transportation markets.

From the 12 respondent companies, 3 have been stated that the results have been provided by the CEO of the company, 1 as a vice-CEO, another 6 have reported that answers to the questions have been given by regular freight-forwarders in the companies, and 2 have not specified their position in the organizations. Three out of the

12 participants have presented their contact information stating that they would be interested in getting familiar both with the results and the whole study as well.

5.4. Overall discussion on the empirical findings

The research conducted through the Bulgarian freight-forwarding organizations, which are members of The Association of the Freight-forwarders, has produced rich in opinions and data information which has helped revealing the main objectives of the study.

From the data of the responding firms it becomes clear that the majority of the firms in the field are comparatively new entrants in the industry with few more experienced organizations as well. Almost all companies do not possess their own transportation vehicles, which classifies them exactly as the pure brokerage freight-forwarders or 4PL firms. The number of the employees of the companies that have participated in the research is comparatively stable, since the majority of the responding firms have employees between 10 and 20 people and just a few firms have less than 5 and more than 20 people in their staff.

Again the majority of the freight-forwarding firms besides their main core activity, offer customs brokerage, warehousing facilities, insurance, documental processing and cargo tracking as additional services to their clients. Other activities like loading and unloading, distribution together with some completely different representative activities are also offered by some companies in order to be diversified the portfolio of the services provided to the clients.

“We have no other chances, but constantly diversifying our activities that we provide to our clients if we want to remain competitive on the market. That is why besides our freight-forwarding and other supplementing activities, we offer to our customers supportive activities that are far beyond our competence: activities in the textile industry, pharmaceutical industry, supply of machinery equipment, representative

functions in front of the Tax Authorities in Bulgaria and some other services as well” (Shivarov 2008).

The majority of the respondents have declared that the some of the capital resources (mainly the material base and office facilities) and those that are not rare and are possessed by the other members in the industry have less weight in the influence on the competitive performance of the firms. On the other hand human and to certain extent financial resources have been indicated as having extremely crucial importance for the superior performance of the freight-forwarding companies that have participated in the e-mail interviews.

Quite many of the responding organization consider that the acquisition of own vehicles and larger warehousing base are the main items that needs improvement in their resources base. Of less but also high importance are the constant qualification of the human resources, IT base and the communication between the units in the organizations.

The great majority of the firms state that the effective and proper use of a rich resource base is the only necessary condition which they assess as having impact on the performance and the financial results of the organizations in the freight-forwarding service sector. However it is added that rich resource base leads at times to lower levels of liquidity of the firms.

Flexibility is indicated as one of the most crucial factors which determine the success of the firms by all but one of the interviewees. It is sometimes even a matter of “survival” argues one of the respondents.

The problems in the human factor and to some extent the level of communication and the financial issues is seen by the participants as a drawback for their companies’ success. Some have mentioned as a drawback the organizational structure and the payment systems typical for the industry as well. Poor resource base and some

incompetence among the employees are outlined by others as factors determining the poor business performance of the firms in the sector.

Although a participant doesn't consider that his company soon would become competitive enough in order to rival with international giants of logistics providers, majority of the respondents claim that the network of relationships and clients database that have created are capable to secure them good positions on the international level for the future intentions and strategies of the organizations. The ability to have more "human approach" e. i. more easily access to personal contacts with customers because of less bureaucratic reasons and more flexible attitude towards the clients are also key to a successful performance and higher profits in the field of freight-forwarding business. Some cooperation and coordination are also indicated as possibilities in order to remain competitive.

"Niches markets and possibilities still appear, and it is our obligation to grab them because competition is quick enough to overtake us. Nowadays we have concentrated on one such niche and we consider that our network of contacts created there is a good reason to secure us big profits in long term and high level of competitiveness" (Kirilova 2008).

6. Summary and Conclusion

This chapter draws final comments on the study. It has been structured into four subchapters. The first one summarizes the main ideas and purposes of the study. The conclusion sub-part provides final commentaries on the problem under investigation in the work. The third sub-chapter called managerial implications suggests some important reasons of purely practical character for the conducting of the study. The last sub-part outlines some limitations of the study and also suggests some possible ideas for future research.

6.1. Summary of the study

The role of the study is to explore and investigate the influence which the resources of the Bulgarian companies in the freight-forwarding business exert on their performance. Firstly the study sets the aim to explore the role that the freight-forwarding firms have in the economy of a given country. This is done by defining the service sector as a separate industry and then outlining the peculiarities of the logistics field and transportation services as a system. After that the freight-forwarding firms are positioned according to their role in that system as service providing organizations with extremely important weight in the final price formation of the products and materials delivered to the customers. The main characteristics of the companies specialized in the provision of the freight-forwarding services are discussed and some aspects having significant value for their business performance and profit formation have been presented and discussed. Thus a sufficient and clear picture of the sector and the participants has been provided. In this way freight-forwarders are presented as companies in the service sector which are part of the logistics chain and comprise considerable part of the expenses in the transportation industry which in its term is also part of the logistics field

As a second purpose the study has set the goal to discover and investigate and explain the resource-based theories and their influence on creating competitiveness for the

organizations as well as their impact on the business processes of the firms themselves. This is achieved by investigation of the different firm resources, their characteristics and the ways in which they give competitive power to the companies. After that the influence of the resource base on the business performance of firms in the logistics sector has been discussed. After exploring the resource-based view, the study shows that only through the efficient and proper use of the internal resources by the 4PLs superior performance could be achieved.

As an empirical third objective the study has had the purpose to find out the opinions, beliefs and attitudes of people involved in the freight-forwarding business regarding the role of the resources of the firms and their impact on the business processes and performance of the companies. Since the units under research have been chosen as only founded on the Bulgarian freight-forwarding market and being members of the Association of the Bulgarian forwarders a presentation and discussion of that market has been provided as well.

The criteria for the choice of the companies as it was stated above was their membership and according to it the number of participants invited to participate in the research has been initially set as 79. Since some of the firms on the list have been identified as foreign subsidiaries of large multinational logistics providers, those firms have been excluded from the list. Overall the number of the participants has been reduced to 73. A set of interview questions with open and closed possible answers have been sent by e-mail to the participants. The number of the questions is 13 with the last two questions having the goal to get some address and background information for the interviewees personally. Totally 12 answers have been received back after the second week from the sending. A reminding e-mail has been sent as well one week after the first one. Two interviews were also conducted in order to be clarified the meanings of the results as well as to be obtained some more useful information. Thus reliability of the study has been increased as well.

After the results have been received a qualitative analysis has been conducted and the data coded and put into written form for the purpose of the research. The results and

opinions of the respondents have been presented in an analyzed form in the empirical part of the work and citations with some tables in the appendixes have been provided in order to be concluded the main purpose of the study.

6.2. Conclusions

Freight-forwarding of 4PLs providers are units which provide the service of brokerage between the producer of the seller and the carrier in order to be delivered the goods to the buyer or the final customer. Those companies usually do not have own vehicles and play the role of a carrier's sales agent or a consignor's traffic manager. Transportation costs usually account for almost 50 % of the total logistics cost. That explains why the role of such brokerage firms in the process of the provision of quicker and more effective and efficient supply chain is very important.

Pricing policy of 4PLs is of high importance as well. Their main goal is to increase their financial results, the latter being the difference between the contracted freight with the carriers and the price agreed with the consignors for the execution of the service. Price formation is conducted by direct negotiation and bargaining.

Freight-forwarding companies could be divided roughly into specific service providers and solution providers. The first group focuses on a set of standard services with the possibility of adding some extra activities, in such a way that economies of scale are used, when providing those services. The solution providers focus on several industries with the main goal to tailor their services according to the specific features of those industries and to provide the best possible solution to the clients.

Firm resources are those internal factors which help the firms in the process of creating competitive advantages and keeping them sustained for longer periods of time. There have been identified four types of firm resources: valuable, rare hard to imitate and hard to substitute. Flexibility is another attribute of the resources-based characteristics of the firms, which helps the organizations to respond to uncertainty and volatility typical for

the market environment. Flexibility could be three types: strategic, tactical and operational.

Firm resources exert serious impact on the companies' business performance and in direction of increasing or (sometimes decreasing) the profitability of freight-forwarders.

Bulgarian transportation market offers good possibilities for the development of organizations from the freight-forwarding sector because of both the favorable geographical situation and the evolving because of that heavy traffic of goods and materials flows from Europe to the Middle and Far East.

Empirical results indicate that majority of the companies under investigation with not so many years of experience. Again the majority of them stated that they do not possess their own transportation vehicles and thus perform brokerage as their core competent activity, which is also in accord with the definition of (qtd. in van der Putten *et. al* 2006) about the 4PL firms. The number of employees in those units varies mainly between 10 and 20 people.

Besides the main freight-forwarding function, most of the companies perform customs brokerage and warehousing services for the customers, along with document processing and insurance functions.

Some of the capital resources in the form of material base and the office buildings also with other resources that are possessed by most of the organizations from the sector are considered as having lower level of impact on the business performance and the profitability. On the other hand human resources and to some extent financial and organizational ones have according to the respondents the highest level of impact on the performance processes and profitability.

Adding more capital in the form of moveable property as own vehicles however is considered as a step forward towards improving the resource base. Better warehouse services, higher qualification of the work force and modern IT base have also been indicated as another major improvement item.

The efficient resource base and its proper and effective use, though at times decreasing the liquidity in the short-term, according to the participants has very strong positive effect on the competitiveness and business profitability of the companies.

Flexibility as an attribute and as a question of survival is considered by almost all the respondents as a vital characteristic of their organizations in the process of competition.

Possible drawbacks in the human resources are stated by the majority of the firms as main impediments for the success of the firms.

As a possible solution towards becoming more competitive on the international transportation market and freight-forwarding markets the respondents view the established network of clients and database and also the complex variety of different and additional to the core activities services which could be offered to the customers. Horizontal and vertical integration or cooperation in the field is seen as another step towards that aim.

Bulgarian freight-forwarders are showing many similarities as their international rivals regarding their business activities and problems. This study contributes to the literature and to the few and insufficient according to the author existing studies on the freight-forwarding units as such. Though slight contradictions could be found in the results, which could probably be explained by the lack of enough experience of the comparatively young firms in the sector, the empirical findings provide good background for the research at hand and answers to the objectives and questions stated in the beginning of the study. Also some suggestions and space for larger future research on the topic and more managerial implications is provided to the academic society.

6.3. Managerial implications

Though not having the primary aim to give any kinds of solutions to the managerial and owners groups which are involved in the running or owning organization in the field of

the provision of freight-forwarding activities, the paper has its value to show some possible areas in the essence of the freight-forwarding business which might give some useful explanations to the governing bodies in the field. The academic insights that are suggested in the paper are good enough in order to be generated answers to questions which many of the participants in the freight-forwarding business might have always wanted to find out, but have never been aware where or how to find the solutions and answers by themselves. As another important contribution issue of the work could be identified the empirical results that are provided in order to be used as some guides and orientation instruments for the participants in the field of the freight-forwarding business as well. Moreover opinions of the competition in the sector could always bring some use for managers of comparatively new companies such as most of the freight-forwarders under investigation in this work are.

6.4. Limitations and future research

The study has several limitations. It has been concentrated mainly on the internal forces which shape the performance and activities of freight-forwarders, though it is well known that resource-base is important but not the only factor influencing the performance and profitability of organizations. In the light of that external forces have not been discussed in the paper. In spite of the fact that in the literature and in the practical field of the transportation and business logistics there have been a lot of discussions and arguments on the matter of what are the role of the carriers and the freight-forwarders and aren't they competitors or simply have different levels in the vertical structure of the supply chain, this study has been focused only on the role of the freight-forwarders from the point of view of the brokerage services provided by them. The time and budget concerns have also added some limitations towards the research paper.

The study offers large field for future research. Since the paper at hand has been concentrated on the Bulgarian freight-forwarding companies, a possible future work could have the aim at extending the investigation on other markets and also including larger variety of logistics providers and carriers as well and not only focusing on the

freight-forwarders as providers of brokerage services. Another possible field of research hinted by the study at hand could be the including of the external factors as forces shaping the activities and business performance of the organizations in the transportation and logistics field.

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APPENDIX 1

Table 1

Period of involvement in the business	Number of respondents	%
up to 5 years	2	16,67
between 6 to 10 years	7	58,33
between 11 to 15 years	2	16,67
more than 15 years	1	8,33

Table 2

Number of employees	Number of respondents	%
1 to 5	2	16,67
between 6 and 10	4	33,33
between 11 and 20	3	25
more than 20	3	25

Table 3

Activities offered by the freight-forwarders in addition to the main service	Number of respondents	%
Customs brokerage	9	75
Warehousing	9	75
Processing of documents	5	41,67
Insurance	5	41,67
Cargo tracking	4	33,33
Carrier service with own vehicle	2	16,67
Loading and unloading	3	25
Others	4	33,33

** respondents have given more than one answer*

Table 4

Resources which have extremely high importance for the competitiveness of the firm	Number of respondents	%
Human resources	11	91,67
Financial resources	6	50
Organizational resources	4	33,33
IT resources	1	8,33
Know-how	1	8,33

**respondents have given more than one answer*

Table 5

Areas of improvement in the resource base of the firm	Number of respondents	%
Acquisition of own transportation vehicles	5	41,65
Warehousing facilities	4	33,33
Qualification of human resources	3	25
IT resources	3	25

** respondents have given more than one answer*

APPENDIX 2

-Survey Cover Letter-

RESEARCH ON THE IMPACT OF FIRM RESOURCES ON THE OVERALL BUSINESS PERFORMANCE OF THE BULGARIAN FREIGHT- FORWARDING COMPANIES

Dear Respondent,

I am inviting you to participate in a research project aiming at exploring what is the effect that the resources of freight-forwarding companies apply on the business performance of those companies. This study is being conducted by Ivan Incov, Master's Degree student in International Business at the University of Vaasa, Finland and the results of the research will be evaluated and analyzed in the empirical part of the final Master's Thesis project *Impact of firm resources on the performance of 4PL Bulgarian companies on the international transport and freight-forwarding service market*.

The objective of the study is to provide empirical evidence for the influence that Bulgarian freight-forwarding companies bear by their resources and how this influence determines the business performance of those companies. The potential benefits and use for your company might be the implications and results provided by the study which might serve as a kind of an orientation tool which could give you some theoretical and academic insights into your business and from the identification of the possible answers to questions that you have been searching for. The results and findings from the research might also enhance your understanding for the major drivers leading your business to better or not so better performance.

Please take some time and fill up the open ended and closed questions. They are 13 in number. The estimated time for completing the survey is between 8 and 12 minutes. Your participation in this study is completely voluntary.

The information about your company has been collected through the National Association of the Bulgarian Freight-Forwarders' website. The sample has been chosen according to the criterion- Bulgarian founded freight-forwarding firms listed in the website of the National Association of the Freight-Forwarders. The selected companies have been invited to participate in the research. Since the validity of the results depend on obtaining a high response rate, your participation is crucial to the success of this study.

Please answer all questions and if you are not sure of an answer, please provide your best estimate. Your responses will remain strictly confidential and specific figures will not be presented individually or together with the name of your company. If you would like a copy of the results please indicate so upon the returning of the e-mail interview. Your copy will be submitted not later than 15 of June 2008.

If you have any questions regarding the questions or the content of the study, please do not hesitate to contact the author. The deadline for filling in the survey is 22.05.2008.

Thank you in advance for your time and effort towards this study.

Sincerely,

Ivan Incov

Name of researcher: Ivan Incov

Telephone number: 00358440155016, 00359888846165

Email address: ivan.incov@uwasa.fi, ivan.incov@gmail.com

University of Vaasa

Wolffintie 34

FI-65101 VAASA, Finland

Interviewing question:

Background questions

Q1. For how long has your company being involved in international freight-forwarding operations?

Q2. Does your company possess own transport vehicles?

A. Yes

B. No

Q3. How many employees work in your company (totally) and how many of them work in the export-import department?Indicate the second answer next to the number marked!

A. 1-5

B. 6-10

C. 11-20

D. more than 20

Practically related questions

Q4. What other services besides the freight-forwarding services does your company offer ?

Q5. Which resources of your company do you consider as least important for the competitiveness of the firm?

Q6. Which resources of your company do you consider as most important for the competitiveness of the firm?

Q7. What do you think that should be improved in your resource base?

Q8. In what way do you think that the financial performance of your company is a function of its resource base?

Q9. To what extent do you think that flexibility plays a key role in increasing your company's performance?

Q10. What are the barriers in the internal strenghts of the company that could be evaluated as a hindrance to the growth and the profits of the firm?

Q11. How do you think that your company could compete with the large logistics providers?

Q12. Please specify your position within the company?

Q13. Thank you for your time. Your answers are very valuable for my study. If you are interested in receiving a copy of the study results please fill out the fields below!

This information will be treated confidentially.

Name:

Company:

Business area/ Department:

Telephone:

E- mail address:

-Уводно писмо и въпросник-

Проучване за влиянието на фирмените ресурси върху дейността на Българските спедиторски компании.

Уважаеми/, а господине/госпожо,

Каня Ви да вземете участие в изследователския проект, имащ за цел да открие влиянието, което фирмените ресурси на спедиторските компании оказват върху бизнес дейността на самите компании. Проучването се провежда от Иван Инков, студент в магистърската програма Международен бизнес в Университета във Вааса, Финландия, а резултатите ще бъдат оценени и анализирани в практичната част от финалната магистърска теза с работно заглавие: *Влияние на фирмените ресурси върху дейността на Българските спедиторски компании на международния пазар на транспортни и спедиторски услуги.*

Идеята на проекта е да предложи практични свидетелства за въздействието, което ресурсите на Българските спедиторски компании оказват върху самите компании и как това въздействие определя и влияе върху дейността на тези фирми.

Потенциалните ползи и позитиви за Вашата фирма биха се изразили в заключенията и резултатите предложени от проучването, които биха послужили като някакъв вид ориентировъчен инструмент, даващ Ви известна информация за Вашият бизнес от теоретична и академична гледна точка, а също така готови отговори на въпроси, които може би мнозина от Вас са си задавали в процеса на работа във фирмата. Резултатите и заключенията от изследването биха допринесли също така и за обогатяване на Вашите познания за основните движещи механизми за развитието на логистичния и в частност на спедиторския бизнес.

Моля, отделете няколко минути от несъмнено ценното Ви време, за да попълните отворените и затворените въпроси, които са 13 на брой. Приблизителното време за попълване на въпросите е изчислено между 8 и 12 минути. Участието Ви в това проучване, разбира се, е абсолютно доброволно.

Информацията за Вашата компания е намерена от официалния уебсайт на Националното Сдружение на Българските Спедитори. Фирмите избрани за участие в проучването са избрани в следствие на критериите: Основани в България спедиторски фирми, членове на Националното Сдружение на Българските Спедитори. Избраните компании са поканени да вземат участие проучването чрез настоящето писмо. Тъй като валидността на резултатите естествено зависи от получаването на висок процент на отговори на въпросите, Вашето участие е от изключително значение и за крайната оценка на моята магистърска теза.

Моля, отговорете на всичките въпроси, а ако не сте сигурни в отговорите на някои от тях, просто предложете Вашата най-добра преценка. Вашите отговори ще останат абсолютно конфиденциални и резултатите няма да бъдат представяни индивидуално или заедно с името на компанията Ви. Ако бихте желали копие от разработката, посочете това при изпращане на отговорите си. Копието мога да ви изпратя не по късно от 15 Юни 2008г.

Ако имате някакви питання относно съдържанието на проучването или самите въпроси, моля не се колебайте да се свържете с автора. Към електронната поща има прикачен и английски вариант на въпросите. Можете да изберете кой от двата да попълните. Срокът за попълване и връщане на въпросниците е 22 Май 2008г.

Предварително Ви Благодаря за времето, усилията и търпението Ви, относно това изследване!

Желая Ви бъдещи професионални успехи!!!

Иван Инков

Име на автора: Иван Инков

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Университет Вааса

Уолфинтие 34

Фин.- 65101 Вааса, Финландия

Въпросник

Общи въпроси

В.1. От какъв период от време компанията Ви изпълнява международни спедиторски услуги?

В.2. Притежава ли компанията Ви собствен автомобилен парк?

А. Да

Б. Не

B.3. Колко на брой служители работят в компанията Ви (общо) и колко от тях се занимават единствено със спедиторски услуги? Вторият отговор посочете с точна цифра!

А. 1-5

Б. 6-10

В. 11-20

Г. Над 20

Въпроси с практическа насоченост

B.4. Какви други логистични услуги освен спедиторски предлага компанията на своите клиенти?

B.5. Кои от ресурсите на фирмата считате че имат най-малка тежест върху конкурентната и способност?

B.6. Кои от ресурсите на фирмата считате че имат най-голяма тежест върху конкурентната и способност?

B.7. Какво смятате, че би трябвало да се подобри в ресурсната база на компанията?

B.8. По какъв начин смятате, че ресурсната база оказва влияние върху финансовия резултат на компанията?

B.9. До каква степен смятате, че гъвкавостта (флексibilitността) като ресурс, играе роля за увеличаване на конкурентността на бизнес дейността на фирмата?

B.10. Кои вътрешнофирмени фактори смятате, че по-скоро играят ролята на бариера за растежа и финансовата стабилност на компанията?

B.11. По какъв начин смятате, че компанията би могла да се конкурира с мултинационалните логистични корпорации?

B.12. Моля, посочете длъжността, която заемате в компанията!

B.13. Благодаря Ви за отделеното време. Вашите отговори са от изключителна важност за моята магистърска теза. Ако сте заинтересовани от получаването на копие от работата (има само английска версия), моля попълнете необходимите по-долу данни!

Тази информация ще бъде третирана конфиденциално!

Име:

Компания:

Отдел:

Тел. Номер:

Ел. Адрес, на който бихте желали да получите резултатите и/или копие от изследването:

