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SUMMARY OF DOCTORAL THESIS
THE OUTSOURCING OF LOGISTIC SERVICES

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KEYWORDS

Logistics, outsourcing, logistics outsourcing, strategic decision, customer satisfaction

INTRODUCTION TO THE OBJECT OF RESEARCH

The Lufthansa Cargo air operator provides logistic service to a group of other airline companies, that includes brands such as Spanair, SunExpress și Thomas Cook (Goudin, 2009, pg. 218-219). By outsourcing their freight transportation logistics, the three companies take advantage of the Luftahansa Cargo's expertise, resources, scale economies and complex network. This is just one of the many instances in the business world where companies involved in outsourcing logistics have enjoyed mutual benefits.

At a first glance, this process appears to be quite smooth, but reality shows that it is rather complex, sophisticated and strenuous. It is this complexity that made the vast issue of outsourcing logistics a worthwhile object for our research. Our curiosity is understandable, if we consider the large number of failed outsourcing agreements, i.e. more than 55% within the first five years (Donath, B., Mazel J., Dubin, C., Patterson, P., 2002).

We regard logistics outsourcing as an exceedingly captivating and up-to-date topic, because it provides a satisfactory solution to various company issues that pertain to increased costs, access to new and costly technologies, scale economies, specialization, collaboration and integration in efficient and effective supply chains. The management of this activity with its main functions (provision, organization, command, coordination, control) will be approached in our research. The outsourcing of logistic services is a complex concept, that our paper undertakes to discuss in all its aspects.

It should be however noted that in spite of all arguments in favor of outsourcing, managers haven't always achieved the expected outcome and some even declared themselves utterly disappointed. Bengtsson claims that the effects of outsourcing have generated a rather small amount of inconclusive, contradictory results, explaining that only a few studies consider the relationship between the reasons of outsourcing and its effects, while other explanation does justice to the fact that outsourcing is a trade-off and a dilemma. To exemplify: the outsourcing that aims at reducing costs may also impair the capacity to

design and assimilate new products and therefore, the capacity for innovation (Berggren, C și Bengtsson, L., 2004; Dankbaar, 2007). There are also situations where the results of outsourcing depend on the balance of internal and external integration (McIvor, 2005; Espino-Rodriguez, T.F., Padron-Robaina, V., 2006). The high level of complexity and interdependence of activities, processes and systems is often regarded as hindrance in the way of efficient and effective outsourcing.

The objectives of our research are listed below:

- to review the available outsourcing logistics – related literature;
- to determine, based on the information gathered from the reviewed literature, the main characteristics of outsourcing logistics and the role of outsourcing in gaining a competitive edge;
- to review the available literature concerning the impact of outsourcing strategies on the competitiveness of the companies within the business milieu;
- to develop theoretical models required for the assessment of the outsourcing logistics process and for the design and implementation of the outsourcing strategies;
- to propose a model for strategic outsourcing decision-making that aims at cutting costs and improving customer service levels;
- to devise a model for the logistic services providers' performance assessment and selection;
- to devise a model for customer satisfaction assessment as to the logistic services outsourced to specialized third-party suppliers.

In order to materialize these goals, we have initiated our scientific investigation by circumscribing the main concepts of logistics. Chapter I deals with issues pertaining to the role of logistics within a company. Chapter 2 details the role and importance of outsourcing for business companies, whereas Chapter 3 dwells on the outsourcing of logistic activities and processes. Chapter 3 also includes two case studies in order to complement the

information gathered from specialist literature.

The first case study focuses on the issue of the relationship with logistics services providers and proposes a model of provider assessment and selection. The study also reveals that Romanian industrial companies that maintain cooperation relations with their suppliers have a higher success rate in matters of logistics outsourcing.

In Chapter 4, we have devoted our attention to the strategic aspects of outsourcing because a large number of studies confirm the fact that outsourcing does not always lead to the expected benefits, yielding contradictory results, which compels many experts to qualify outsourcing as a form of trade-off. Starting from the rather obvious truth that a company cannot excel in all respects at the same time, it should be noted that its capacity and competences are adapted to the specific market, that determines in fact its particular pattern of organization. The latter must ensure the availability of specific competences to all basic functional departments in an efficient and effective manner quantifiable in terms of quality, time and cost indicators. In the final part of this chapter, we undertake to propose a model of customer satisfaction assessment based on an empirical study.

The fifth chapter of our paper is concerned with an analysis of the current state of logistics outsourcing among industrial companies in Romania. The study surveys companies with more than 50 employees from various branches of industry that were asked to answer questions about various issues, such as the company management in the context of logistics outsourcing, the outsourcing agreement, the negotiation of rates, the relation with the suppliers, the management of quality. The information gathered by means of the questionnaire have been complemented with interviews conducted at 23 of the 108 participating companies.

MOVATION OF RESEARCH

Overcrowding, traffic, hastiness, swiftness, communication, technology, shrinking distances, globalization are just a few of the keywords that define modern life. Much to our delight, the modern world enables us to send our regards to our beloved ones far away with a single click of the mouse or to travel around the world in a matter of hours. We expect to always find our favorite yoghurt on the shelves of the supermarket, to send packages to China by express mail due to arrive in a couple of days, to order goods on the Internet and to have them delivered overnight, as if all those were part of the natural order of things. They have been integrated in our daily routine and we just take them for granted. It is only when the system stumbles and fails to perform as expected that we pause for a moment to wonder what drives the whole thing in the first place. The answer is plain and simple: good logistics make all these happen.

Logistics is part of our life, regardless of what school we have graduated from or what job we may have. We may even regard logistics as the very axis of our lives. A simple mental experiment will suffice to support this view: just imagine that you are unable to find a intensely advertised product in your supermarket or that a letter sent to a nearby town would travel at walking pace. Things would be different indeed, in not necessarily in a convenient way. This exercise of imagination helps us realize how dependent we are on logistics.

This backbone of the world therefore facilitates our daily activities and we are accustomed to such a degree to its benefits that only we notice it when things falter and disrupt our routine. Great experts in this field like Lambert, Ballou, Stock, Rushton, Bowersox, Ketlev have highlighted in their writings the paramount position that logistics are likely to occupy in our society, in an attempt to draw the scientists' attention on the its role and importance.

Logistics are an important function within each company; it generates value, competitive edge, profit and economic growth, if properly managed. In the first chapter of this paper, our aim will be to offer some of the best definitions of the concept. Then we will explore the beginnings of logistics in order to become familiar with the origins of this practice and will end this chapter by enumerating the logistic activities and explaining the importance of understanding logistics.

Chapter 1: Concept demarcations

The term “logistics” has two meanings in Romanian, as defined by the DEX, the comprehensive dictionary of Romanian language:

- A complex of operations (advance, organization, procurement) that enables a army to operate;
- The means and methods that enable the functional organization of a specific service within a business company etc. /<fr. *Logistique* (Crișan E., 2009).

As inferred from the definitions above, logistics relates to both military operations, that represent the historical origin of these activities, that will be discussed later in this chapter, and economic operations. Our paper will focus solely on the economic aspect of the concept of logistics.

Another relevant fact that derives from the definition provided in the New Dictionary of the Romanian Language, is the French origin of the corresponding Romanian word. It just takes a little time to look up further versions of the term in other European languages, e.g. “*logistic*” in English, “*Logistik*” in German and Dutch, “*logistica*” in Italian or “*logística*” in Spanish and Portuguese, to understand the global dissemination of the term itself.

The concept of “logistics” appeared under several “guises”, i.e. alternative designation, throughout recent history:

- Distribution ;
- Physical distribution;
- Technical & material procurement
- Marketing logistics;
- Logistic distribution;
- Material management;
- Logistic material management;
- Procurement chain management;
- Supply Chain Management;
- Industrial logistics;
- Business logistics (Lambert, M.D., Stock, R.J., 1993, p.4).

The list remains open for any further designation used in history, but we believe that the quoted ones are quite relevant and it should be noted that all these designations referred in fact to the same phenomenon: the management of the goods' advancement from the production to the consumption site. At present, the most popular term among experts is *logistics management* and we therefore chose to adopt it for the purposes of this paper also, along “logistics”.

The first writings *that mentioned the term “logistics” in the context of the business world date back to 1961*, when Jules Dupuit argues in his book „On the Measurement of the Utility of Public Works” why a clear definition of the term was not available at that time (Ballou, R.H., 1992, page 3). According to the definition offered at that moment, the notion of logistics included the physical transfer and distribution of goods, including all means and methods used to perform such activities. The aim of logistics was the temporal and spatial transfer of goods – i.e. the main purposes of logistics – the securing of time and space utility and the achievement of an acceptable level of customer service (Ilieş, L., 2003, p. 19) .

Military logistics was regarded as the *branch responsible for the procurement, maintenance, transportation of materials, personnel and equipment* (Ballou, R.H., 1992, page 3). This definition is however way too restrictive, even in a strictly military context.

In 1986, one of the group experts in this field, known as The Council of Logistics Management, formerly known as The Council of Physical Distribution Management SUA, provided a comprehensive definition of the management concept under analysis. According to this definition, *logistics management denotes “the process of planning, implementation, efficiency and effectiveness control related to the transfer and storage of raw materials, inventories, finished goods and information from the source to the final consumer in order to satisfy the customers' requirements”* (Stock, J., R., Lambert, D.M., 2001, page 3).

This is considered to be a relevant definition of logistics and is therefore still in use, after all these years. Emphasis is placed on meeting the customers' needs in this case. The only shortcoming of this definition would be the fact that it ignores service companies.

M. Christopher defines logistics as the science concerned with “the strategic organization of procurement, distribution and storage of goods, the choice of the most appropriate distribution channels deemed to bring in now and in the future the highest amount of profit

with a minimum of effective costs” (Christopher, M., 2005). From this perspective, there are two possible approaches of logistics, namely, a marketing-related approach and an engineering-related one.

1.2 Outsourcing of logistic activities and services: concept demarcations

Outsourcing is a quite encompassing term in Romanian, it may assume various form, that are easily and often mistaken for each other. In contrast, there is marked difference between *outsourcing* and *offshoring* in English. The latter may itself assume various forms, i.e. it may be performed within one and the same major transnational company (“*captive offshoring*”) or in cooperation with a foreign third party (“*offshore outsourcing*”) (Gorp, 2008, page 14).

The two forms of outsourcing denote various strategies applied by some companies to penetrate foreign markets, as the term itself always conveys the notion of a company performing various activities in a foreign location. It is important to bear this detail in mind, because the phenomenon under our scrutiny, i.e. outsourcing, may take place either domestically or abroad, but always through a third party.

In Romanian, there is no marked distinction between these notions and English original terms are often used to avoid confusion. This paper will focus on the term *outsourcing*, construed as the strategic employment of external specialized suppliers to execute or manage activities or services that do not count as core competences for the company that resorts to outsourcing (Rushton, A., Walker, S., 2007).

Other authors, such as Axelsson and Wynstra and Shekar define outsourcing as the “acquisition from third parties of functions previously performed within the company” (Axelsson, B., Wynstra, F., 2002; Shekar, 2008). There are opinions that support the view that outsourcing amounts to a simple acquisition (Razzaque, M., Sheng, C.C., 1998). We don't think that such opinions are particularly persuasive and we opt instead for the definition provided by Rushton și Walker that emphasizes the idea of strategy, continuity and stability in relation to the supplier involved in the outsourcing decision.

Throughout its history, outsourcing has been referred to under a multitude of designations, those listed below being the most suggestive in our view:

- selective sourcing;

- back sourcing;
- international sourcing;
- foreign outsourcing;
- goalsourcing;
- eastsourcing;
- tasksourcing;
- opensourcing.

Such a diversity of terms in the specialist literature suggests a high degree of development and differentiation in the practice of outsourcing (Alsudairi, M., Dwivendi, Y., 2010).

There are certain concepts that are mistaken for outsourcing; a good example would be *subcontracting*. The latter concept is defined by Barreye as the “action by which economic agents entrust to other economic agents the production of goods that will be further used to create finished products” (Ivanj, V, Masson-Franzil, Y., 2006, page 4). The outsourcing decision is a strategic one and its main purpose is to help the company concentrate on its core activity or to gain access to new resources and technologies. Widely-circulated definitions of outsourcing suggest that outsourcing means both execution and responsibility, whereas subcontracting is all about execution.

Barthelemy explains the difference between outsourcing and subcontracting in these terms: outsourcing involves a transfer of performance – production of goods, activities, services or management - to a third-party supplier at the expense of such activity within the company (Barthelemy, 2001, pg. 7-8).

Another frequently encountered concept in specialist literature and also frequently mistaken for outsourcing is offshoring. As the term itself suggests, it concerns activities that are outsourced abroad. This has become a globally common practice, considered by some authors to be “the third industrial revolution” (Gorp, 2008, p. 12).

As indicated in the first part of the current chapter, this way of doing business may take two forms: either by using a foreign subsidiary (in which case we deal with a direct foreign investment, as the mother company retains a high degree of control on the operations) or by using foreign third-party suppliers. In this case we are dealing with the practice of contracting foreign suppliers to perform some part of the company's activities in cooperation with the company itself (Overby, 2003).

Offshoring is frequently encountered in the business world, due to the significant cost reduction benefits that it offers. According to a recent study, the most attractive locations are in India, China, Morocco, South Africa, Chile, Uruguay, the Philippines, Croatia, Romania (Oshiri, I, Kotlarsky, J., Willcocks, L., 2009, page 193).

Other two concepts that may be mistaken for outsourcing are 3PL (Third Party Logistics) and 4PL (Fourth Party Logistics). These differences will be detailed in the third chapter of the thesis.

The specialist literature also makes reference to outsourcing and BPO (Business Process Outsourcing). BPO is not clearly distinguished from the core concept of this paper. BPO means more than just the outsourcing of a specific activity or service and relates instead to various aspect of cooperation “across the organization” in order to generate value for the customers.

Some authors claim that when a process-centered perspective is applied to outsourcing, we are dealing with BPO (Corbett, 2004). BPO shifts the focus of attention from outsourcing in its traditional sense that pertains to the customer – supplier relationship to a process – related approach. Because BPO takes places across the entire organization, the providers of outsourced services have a more complex role compared to that of regular suppliers in regular outsourcing arrangements.

There are significant differences between the two concept, as shown below:

- Although BPO originates in outsourcing, it occupies a higher position on the evolutionary curve of business management;
- In the case of BPO, the customer is the one that matters most and all efforts are directed towards a optimal use of resources, abilities, skills and know-how of external experts in order to maximize customer satisfaction;
- Whereas in normal outsourcing emphasis is placed on inside out supplier relations, in the case of BPO, things are considered from the outside in, with the perpetual improvement of the company's capability to meet customer demands in mind.

Another term often mistaken for outsourcing and used with increasing frequency lately is *e-sourcing*. Although the English designation is often used in Romanian in its original

form, the proper translation refers to the procurement of goods and services through the internet, that may be direct or indirect.

Intelligent outsourcing (or *Smartsourcing*) is a new concept that originates in outsourcing and denotes an advanced mode of outsourcing that emerged by the beginning of the 21st century. Koulopoulos, the author of a famous book on intelligent outsourcing, defines it as related to:

- Competence rather than cutting-edge technologies;
- Partnership rather than ownership;
- Innovation rather than cost reduction;
- Efficient practice, not just theory;
- Bright and highly qualified employees, instead of cheap labour force;
- Long – lasting business commitments, rather than mere random opportunities for quick and easy gain;
- Massive migration towards countries that offer adequately trained labour force;

This is the new face of outsourcing (Koulopoulos, 2006, page 8).

It is essential to clearly define outsourcing and what outsourcing means for business people and academics alike. To this end, we will now outline the evolution of outsourcing from both perspectives.

1.3. Outsourced activities and processes

A study carried out by Goudin Kant on 500 large and very large production US production companies in 2006 reveals that 80% of the surveyed companies outsource logistic activities and processes. A significant increase of logistic activities and processes outsourcing becomes apparent when comparing the figures with those yielded by a similar study in 1991, when only 38% of the respondents resorted to logistics outsourcing (Goudin, 2009, page 234).

The relation between the outsourced activities and processes, the potential benefits and the required resources is crucial in the making of the outsourcing decision. As seen in [table 4-1](#) below, every logistic activity generates a set of benefits, but also involves considerable resources. When a company plans to gain those benefits, but lacks the capital that needs to

be invested in those resources, the logistic activity in question has to be outsourced.

Table 4-1 The relation between logistic activities, advantages and resources

Logistic activities	Types of advantages	Sources of advantage	Involved resources
Transportation; Storage; Packaging; Material handling; Stock management; Reverse logistics;	Related to: cost, quality, customer service level, order cycle time, safety.	Scale economies; Expertise; Location (closer to the customers); Collaboration; Quality.	Infrastructure; Equipment; Human resources; Financial resources; Reputation; Industry networking.

Source: McIvor, 2005, page 75

International studies carried out by Lieb shows that the most frequently outsourced logistic activities are related to:

- Transportation in general and sea shipping in particular;
- Cargo reinforcement;
- Customs brokerage;
- Storage / warehousing;
- Carrier selection;
- Procurement;
- Order processing;
- Aftersale services;
- Reverse logistics (Lieb, 2002).

The experimental research carried out on the Romanian industrial market revealed that the most frequently outsourced services are transportation, storage and order processing. Stock management and reverse logistics are outsourced to a lesser degree.

Chapter 2: Empirical study concerning logistics outsourcing among Romanian industrial companies

2.1 Research methodology and objectives

The main objective of our scientific endeavour concerns the analysis of outsourcing of logistic activities and processes among Romanian industrial companies, of their impact on the companies' performance and the identification of the best practices in this field. The most important among the *secondary objectives* are:

- comparing the reasons and strategies of outsourcing and their effects on costs, customer service level and innovation, based on a survey of Romanian industry;
- determining the degree to which managers keep a proper balance between cost-related imperatives and customer service;
- an assessment of the combined effects of logistic outsourcing and integration;
- devising ways to evaluate and select logistic suppliers of logistic services, as well as to integrate them with internal logistic activities and processes;
- assessing the customer's satisfaction concerning the services provided under outsourcing; specific approaches and good practices of outsourcing various logistic activities, such as: shipment, storage, handling, stock management, packaging for delivery, order processing, reverse logistics.

Before formulating the research hypotheses, we believe that a circumscription of logistics activities, services and processes is recommended in order to shed more light on these concepts. We will therefore define logistics as the “ensemble of activities designed to enable the flow of materials, cash and information, as well as the corresponding management activities for the improvement of the logistic system and the customer services” (Ilieș, L., Crișan, E., Salanță, I., 2011, page 19).

The research hypotheses are listed below:

- Hypothesis 1: The benefits expected and pursued by the companies that outsource logistic activities / processes coincide with the actual benefits obtained.
- Hypothesis 2: The existence of a logistic outsourcing strategy has a positive impact on the materialization of benefits expected in the process of outsourcing.
- Hypothesis 3: There is a direct link between the outsourcing of logistic activities / processes and the improvement of the logistic system.
- Hypothesis 4: The logistic activities and processes outsourcing strategy aimed at reducing costs determines the the performance of the logistic system to a high degree.
- Hypothesis 5: The companies that outsource logistic activities / processes place emphasis on the outsourcing agreement and its role in regulating the outsourcing process.
- Hypothesis 6: The companies that apply a cost reduction orientated outsourcing strategy will experience a diminished capacity of customer service improvement.
- Hypothesis 7: The external integration (of 3PL, 4PL suppliers) has a positive effect on outsourcing, resulting in shorter delivery times (lower inventories), shorter order cycle times, improved functional efficiency and effectiveness of logistic operations, improved flexibility towards special customer requirements.
- Hypothesis 8: The impact of external integration on the outsourcing of logistic processes and activities is stronger when these are more complex in nature.
- Hypothesis 9: The targets of logistics outsourcing stimulate performance.
- Hypothesis 10: The existence of logistics outsourcing strategies has a positive influence on the implementation of logistic activities and processes.

2.2 Data and information collection

We chose to base our research on non-probabilistic sampling, namely on **rational theoretical guided** sampling. This selection technique is based on the reasoning that the selected respondents represent the characteristic of the target group / population. One of the advantages that this technique has to offer is the possibility to control certain characteristics of the population under survey. The main disadvantage, however, is the impossibility to calculate the sampling error.

For our empirical study we have selected industrial companies with more than 50 employees, more than 90% of them being located in the North-West region of Romania. As the application of the questionnaire regarding the outsourcing of logistic activities / processes is concerned (refer to Annex 1), we chose to put together a sample of 300 companies to which questionnaires were sent either by e-mail or directly, after contacting many of them by telephone in order to provide explanation on the concept of our study and to ask for their acceptance of participation to our research. After the distribution of the questionnaire, we contacted the potential respondents by telephone again to express our appreciation for their time and effort. This customized approach yielded a very high response rate: 125 questionnaires have been returned, 17 thereof being invalid.

The questionnaires were collected and checked for validity. The 108 valid questionnaires were numbered and loaded in data processing software. The graphs and frequency tables were generated by this software.

In consequence, a number of 108 valid questionnaires have been taken into account, i.e. *a response rate of 36%*, which is extremely satisfactory, considering the average response rate of approximately 10% to be normally expected in this kind of survey (Craig, A., Edge, M., 2004, page 3). A number of 23 of the 108 participating companies were also interviewed in order to produce additional details concerning certain issues of our research.

2.3. The analysis and interpretation of the results produced by the survey on logistics outsourcing in industrial companies.

Our study was basically targeted towards companies with more than 50 employees. Most of them (51,4%) fit into the range of 50 – 240 employees, which the next range - 250 to 499 employees – accounts for 33,64% of the responding companies. Major companies with more than 500 employees that we managed to involve in our research make up 14,95% of the respondents. It should be noted that we tried to cover a wide diversity of companies in

terms of both size and location (refer to [fig. 5.2](#)).

The legal form of the sampled companies' business organization is illustrated in [fig. no. 5.4](#). and, as one may notice, the distribution of the companies in the two categories is almost identical. The business areas of the respondents are extremely diverse. Such diversity of activities is a major plus of the research in our view, as it makes up for the relative limitation of the area under the survey, namely the northern region of Romania. These data are graphically translated in [fig. 5.5. and 5.3](#).

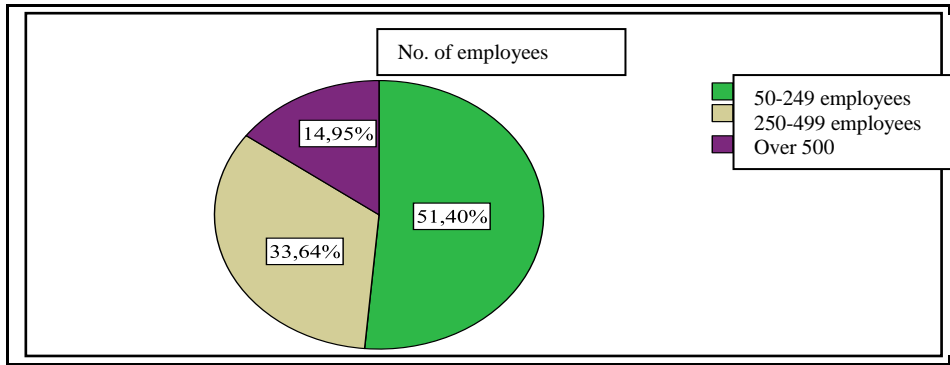


Fig. 5.3 . Size of the companies involved in our research

As seen in the graph [5.3](#). above, we have respondents from all counties from the northern, north-western and central areas of Romania, most of them being located in Bistrița-Năsăud, Satu Mare, Cluj, Mureș and Sălaj.

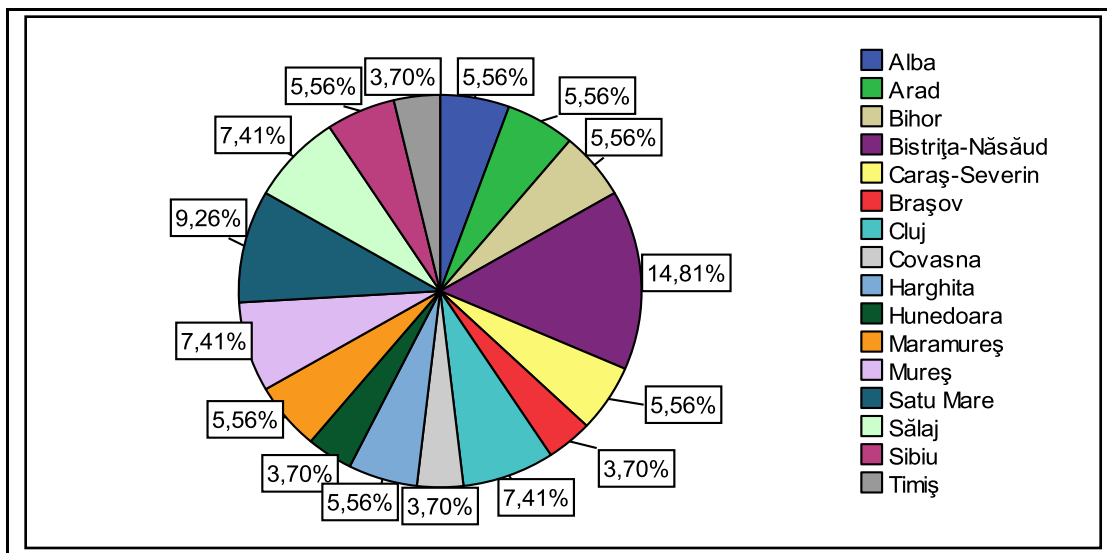


Fig. 5.4 The distribution of respondents per county

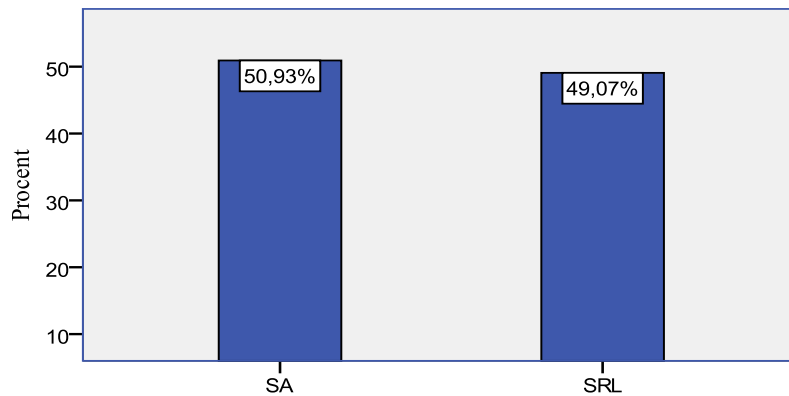


Fig. 5.5 Legal form of the respondents' organization of business

The logistics outsourcing decision

International studies identify logistic activities such as transportation, cargo reinforcement, customs brokerage, warehousing, procurement, order processing, reverse logistics (Lieb, 2002) as the most frequently outsourced ones. In the northern part of Romania, things look a little bit different. The respondent companies claim that during the latest three years they have outsourced transportation, warehousing, packaging for shipment, reverse logistics, order processing, stock management and procurement (refer to table 5-4).

Table 5-2 Logistic activities outsourced during the latest three years

Outsourced logistic activities		Percentages
1.	Transportation	100,0%
2.	Warehousing / storage	42,6%
3.	Packaging for shipment	33,30%
4.	Reverse logistics	31,5%
5.	Stock management	6,5%
6.	Order processing	11,1%
7.	Procurement	19,4%

All 108 participating companies currently outsource or have outsourced transportation during the last three years. This logistic activity has scored the highest percentage of out sourcing, i.e. 100%. Other outsourced activities are packaging for shipment (33,30%), and reverse logistics, with 31,5%. Interviews revealed that more than 90% of reverse logistics concerns the transportation of returned products, while activities related to scrap products and oversized stocks account for an insignificant percentage thereof. Storage is outsourced by 42,6% of respondents, followed by procurement, with 19,4%. As expected, the last position is occupied by stock management, with 6,5%.

In order to cater to the needs of the companies who plan to outsource logistic activities, the suppliers of such services have expanded their offer for potential customers. These changes may be attributed to the increasing variety of demands that buyers of logistic services put forth (Gadde, T. E., Hulthen, K. , 2009). Such variety propelled an evolution from the outsourcing of individual activities to complex packages of logistic activities and processes that require a wide range of competences, skills and innovative solutions (Selviaridis, K., Spring, M., 2007, p. 142).

The diagram 5.7. below shows that companies tend to outsource basic individual logistic activities most frequently (77,78%). There is, however, an increasing number of managers who believe that the global tendency in the future will be to outsource complex packages of logistic processes. The advantages that derive therefrom are linked to scale economies and a better integration with suppliers and customers within the logistic chain (also known as supply chain) and, last but not least, to the improvement of overall performance (Rabinovich, E., Windle, R., Dresner, M., Corsi, T., 1999, page 357).

The interviews carried out in 23 companies showed that the outsourcing of complex processes in collaboration with 4PL providers of logistic services is most frequently practiced by companies with more than 500 employees and to a lesser degree by companies with 250 – 449 employees, while companies with 50 – 449 employees rarely resort to this type of outsourcing, if ever.

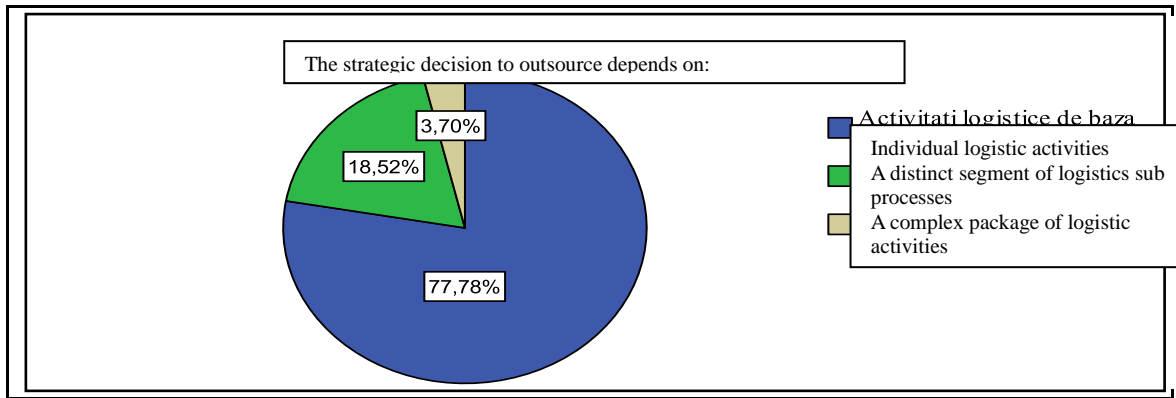


Fig. 5.7 Strategic outsourcing decision

2.4 Outsourcing strategies

In most cases, the companies are forced to keep the balance between cost reduction strategies (97,2 %) and customer service development strategies (62,9%). The answer of the participants is illustrated in fig. 5.11. The companies had the possibility to choose from several alternative answers to this questions. Most of them chose risk reduction and competitiveness improvement strategies. After analysing the answers in the questionnaires, we realized the need to further investigate by means of interviews the effects of cost reduction – centred outsourcing strategies. Thus, companies that choose cost reduction – centred outsourcing strategies will be confronted with the impairment of their capacity to improve the customer service.

“Hypothesis 6: The companies that apply a cost reduction orientated outsourcing strategy will experience a diminished capacity of customer service improvement” is therefore validated.

The cost reduction – centered outsourcing strategy is one of the world's most popular logistic strategies (Yim-Yu, S., Maher, M. E., Nicholson, J. N., Gurney, N. P., 2000, p. 10). This applies to Romanian industry, also (refer to fig. 3.8.).

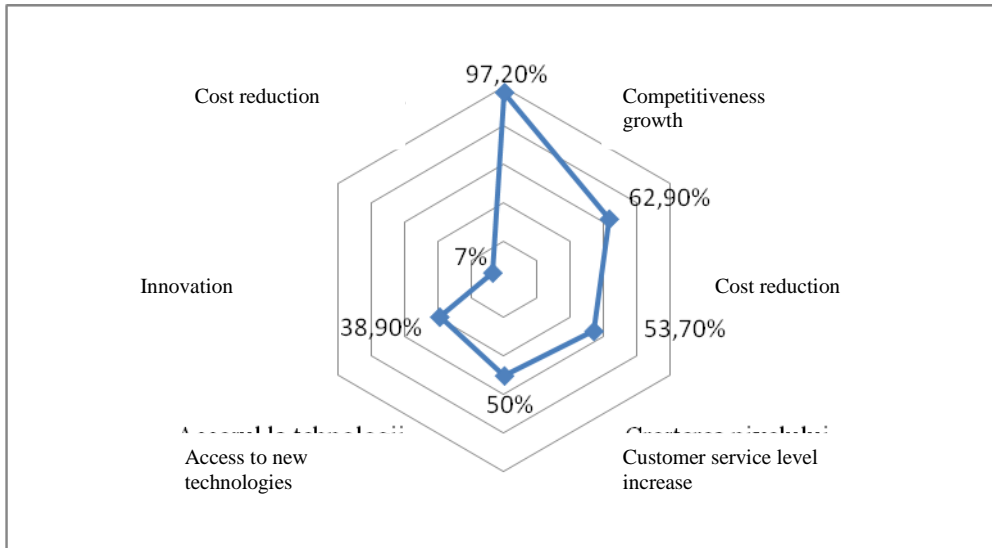


Fig. 5.8 Outsourcing strategies

Thus, 97.2% of the respondents opted for the cost reduction strategy, 51,9% credit the efficiency and effectiveness of this strategy with total agreement, while 44,4% expressed a partial agreement. This suggests that outsourcing produces considerable benefits for business companies in the form of cost reduction, as shown in fig. 5.12. and also confirms our hypothesis no. 4.

“Hypothesis 4: The logistic activities and processes outsourcing strategy aimed at reducing costs determines the the performance of the logistic system to a high degree” is therefore validated.

Recent studies in this field prove that companies that focus on a cost reduction-centered strategy only will manifest a low degree of innovation. On the other hand, companies that try to achieve innovation through outsourcing will sustain higher costs for the development of new products (Bengtsson, L., Von Haartman, R. și Dabhilkar, M., Martie 2009, page 41).

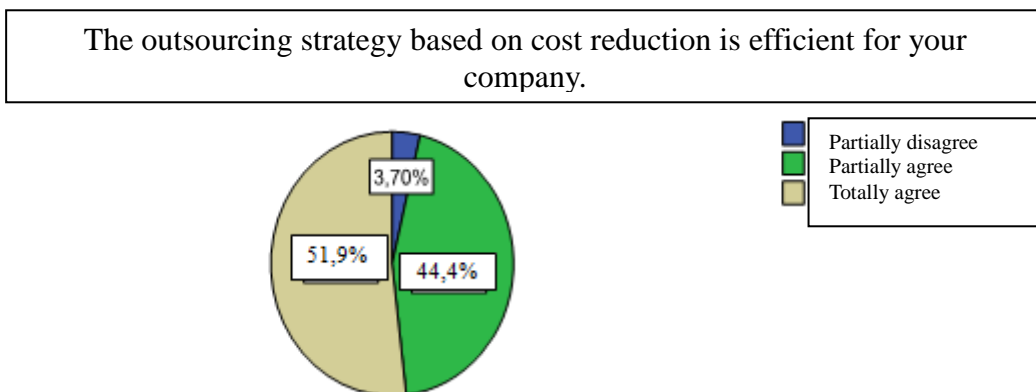


Fig. 5.9 Cost reduction-centered outsourcing strategy

This allows to infer that domestic production companies prefer to cut their costs even at the expense of product innovation. Among the 7% of respondents claiming to apply an innovation orientated outsourcing strategy (refer to fig. 5.11), only 18,5% declared themselves satisfied with the results, 63% expressed a partial agreement and 1,9% voiced their absolute disagreement as to the efficiency and effectiveness of the innovation strategies applied by the company, as fig. 5.13. reveals.

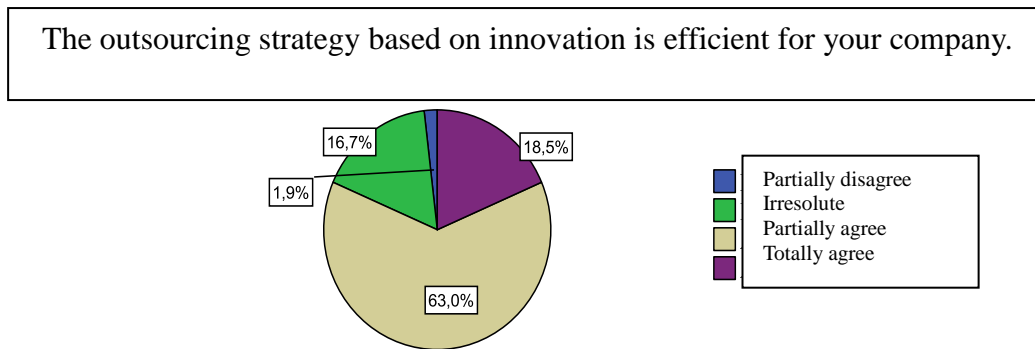


Fig. 5.10 Innovation – orientated outsourcing strategy

The innovation-orientated logistics outsourcing strategy is adopted by large and very large companies that possess the necessary financial resources. Smaller companies must concentrate more on striking a balance between the cost-reduction strategy and the customer service improvement strategy.

Table 5-3 The balance between cost reduction and innovation

Your company manages the balance between cost reduction and innovation successfully		Percentage	Valid percentage
Valid	Partial disagreement	20	20
	Irresolute	11,1	11,1
	Partial agreement	19,4	19,4
	Total agreement	46,3	46,3

Refuse to answer	4,7	3,2
Total	100,0	100,0

Echilibrul între dezideratele de reducere a costurilor și cele legate de inovare este realizat de către 46,3% din firme, lucru specificat prin acord total și în proporție de 19,4% prin acord parțial. Din [tabelul 5-6](#) putem desprinde faptul că firmele reușesc să găsească echilibrul dorit între cele două strategii de externalizare..

The successful maintenance of a proper balance between cost reduction and innovation imperatives is claimed by 46,3% of companies through total agreement and by 19,4% of them through partial agreement. Table 5-6 indicates that most companies manage to strike a balance between the two outsourcing strategies.

The benefits of logistics outsourcing

The participating companies have identified the fundamental benefits reaped from the outsourcing process. In addition to those suggested by us, some respondents have mentioned benefits related to the conservation of their own capitals in the blank space at the end of the question. [Table 5-8](#) summarizes the benefits of outsourcing according to the participants.

As shown in [table 5-8](#), the respondents consider cost reduction to be the most important benefit of outsourcing. This choice is justified, because logistic costs make up approximately 29% of a product's total cost (Fredrinksson, A., Johansson, E., 2009, page 281). This is an effective motivation for resorting to outsourcing, given the fact that outsourcing contains a promise of cost reduction.

Table 5-4 The benefits pursued by companies that resort to logistics outsourcing

<i>No.</i>	<i>Potential benefits</i>	<i>Percentage of respondents</i>
<i>1.</i>	<i>Focus on the company's core competences</i>	<i>55,6%</i>
<i>2.</i>	<i>Cost reduction</i>	<i>96,3%</i>

3.	<i>Increase of customer service level</i>	66,7%
4.	<i>Increased competitiveness</i>	44,4%
5.	<i>Access to new technologies</i>	25,95%
6.	<i>Risk sharing</i>	68,5

By applying the *Crosstab* option of the statistic data processing software we used to organize the research data, we managed to draw a correlation between the benefits pursued by outsourcing companies and the degree of their attainment. Fig. 5.14. shows that 40% of those who pursued the *focus on the company's core competences* as a benefit of outsourcing confirmed its accomplishment by total agreement, while 20% declared a partial accomplishment.

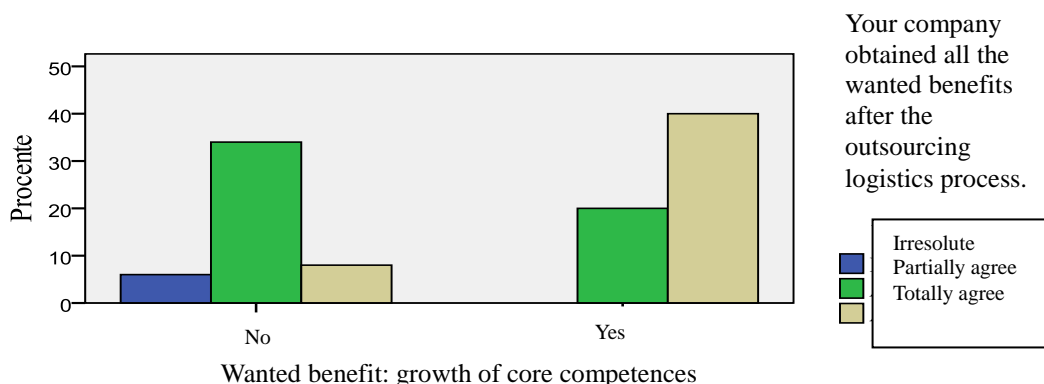


Fig. 5.11 The correlation between the benefit of “concentrating on one's core capabilities” and its degree of accomplishment

2.5. Encountered issues

During our research we had the opportunity to notice that the most frequently cited outsourcing – related inconveniences were: the supplier's failure to meet the required quality standards (43,5%), events of default (39,8%), poor communication with the supplier (33,3%). All problems encountered in the outsourcing process are listed in table 5.11. It should be noted that the respondent companies had several response alternatives to choose from.

Tabel 5-5 Problems encountered during the outsourcing of logistic activities

<i>Logistics outsourcing – related problems:</i>	<i>Percentage</i>
1. What were the issues you had to deal with during the outsourcing process	
<ul style="list-style-type: none"> • events of default; • loss of control on the process; • lack of compatibility between the two parties' strategies; • insufficient competences on the supplier side; • poor communication with the supplier; • failure to meet the required quality standards. 	<p>39,8%</p> <p>13,1%</p> <p>18,9%</p> <p>25,9%</p> <p>33,3%</p> <p>43,5%</p>
2. There were logistics outsourcing – related problems because of hidden costs.	67,9%
3. There were logistics outsourcing – related problems because of insatisfactory performance.	64,2%

The relationship with the supplier of logistic services

The importance of the relationship with the suppliers of logistic services is well understood by the participants, as shown in fig. 5.21. Most participating companies have answered with partial (51,85%) or total agreement (46,30%) to the statement about the collaboration with the suppliers of logistic services. We deem this fact to be extremely important because it marks the starting point of profitable relations for both parties. The lack of an efficient collaboration leads to serious problems in the process of outsourcing. Authors such as Razzaque and Sheng believe that some of the main causes of failure in outsourcing is the insufficient circulation of information and an insufficiently defined collaboration background (Razzaque, M., Sheng, C.C., 1998).

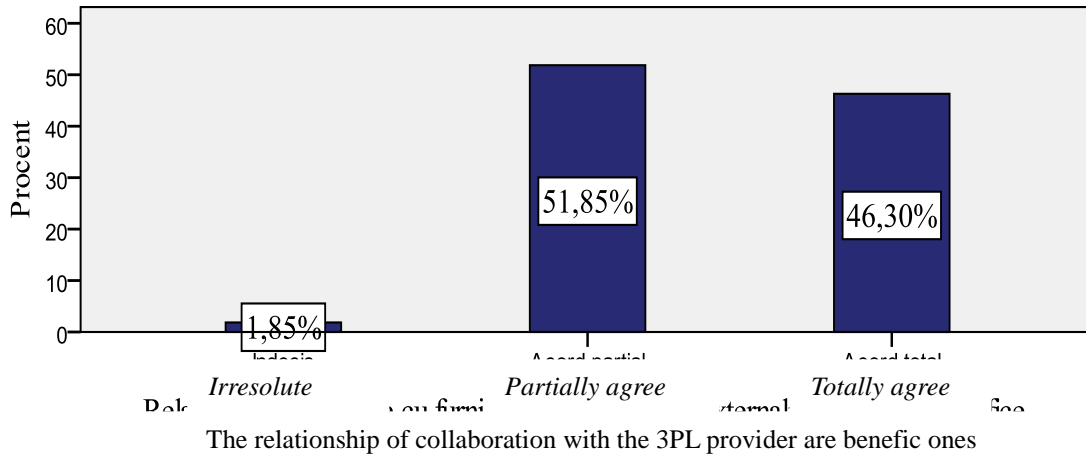


Figura 5.22 The collaboration with the suppliers of logistic services

The outsourcing agreement

Tabel 5-6 Key elements of the outsourcing agreement

Key element of agreement:	Number of respondents:	Percentages obtained:
Legal elements;	82	75,9%
Performance elements;	74	68,5%
Financial elements;	98	90,7%
HR elements;	56	51,9%
Environmental protection elements.	31	28,7%

It is no secret that a well done contract is the most reliable device of protection for companies that want to get involved in outsourcing. The outsourcing logistic of activities and processes involves the transfer of some portion of the business to an external supplier. Supporting a relation based on trust, communication, constant and continuous collaboration, a complex and rigorously drawn up contract secures both partners against any possible inconvenience and financial loss.

We believe that an outsourcing contract must address each of the criteria listed with utmost consideration and caution:

- Performance criteria;

- Financial criteria;
- Legal criteria;
- HR criteria;
- Environmental criteria.

Our respondents have revealed interesting facts about the aspects that they consider to be crucial in a outsourcing agreement. As shown in table 5-15, the most important criteria of this type of product, from the point of view of the interviewee are those of financial nature (90,7%), followed by those of legal nature. It should be noted that these interview item also had several alternative answers for the interviewees to choose from. It is encouraging to see that all four parts of an outsourcing contract are of considered with a high level of consideration in the business world.

Chapter 3: Conclusions and personal contributions

The paper entitled “The outsourcing of logistic services” undertakes to approach an up-to-date issue, namely the outsourcing of logistic activities and processes, given their importance in securing a competitive edge in circumstances of increasingly fierce competition, on an increasingly dynamic and at the same time volatile market. The outsourcing of logistic services has a strong impact on logistic costs, risks and innovation and must be therefore integrated in the company strategy. As globalization and investments in infrastructure, technology and communication progress, the companies are free to choose suppliers of logistic service in any part of the world in order to take advantage of competitive logistic networks.

The decisions regarding the outsourcing of logistic services are designed to optimize the performances within the value chain if the compatibility with the competitive strategy of the company is secured. A company whose competitive drive is the performance of the logistic system will provide a competitive edge in terms of costs, quality and innovation in case of outsourcing. In order to benefit from the advantages of logistics outsourcing, managers must treat this area as a source of competitive edge.

As a company grows, one of the most challenging tasks is to choose the outsourcing strategy, in which the outsourcing of logistic services plays an important part, securing a medium- and long-term competitive edge.

Today many companies with a significant position on the domestic and international markets resort to suppliers of logistic services that – given the complexity of the global logistic chain - establish regional, national and international distribution centers. This fact compels managers to scrutinize the external environment, the market respectively, with utmost attention, to plan logistic activities and processes, to analyze their necessity and adequacy, to develop control procedures and to monitor their success or failure. The aim of outsourcing logistic activities and processes is to develop optimal logistic systems for the targeted market and for each market area. This involves the analysis of the 3PL and 4PL supplier market and the development of alternatives or strategies that will enable the company to achieve its goals. Starting from the goals and from the strategies that must be implemented in the field of centralization, the company management must define the most appropriate organizational background, measure and define the performance of the logistic system and find the most adequate course of operational implementation towards success.

Given the fact that the logistic chain management is based to a considerable degree on cost-service type analyzes, the managers of companies integrated into logistic chains, customers and providers of logistic services must be capable to identify, evaluate and properly implement the optimal mix of cost and service, with equal amounts of consideration given to all elements that make up the service cost.

The use of external logistic services sources is an opportunity that must be carefully considered when designing and evaluating logistic chains. In some cases, the reinforcement of the suppliers' and customers' position has significantly diminished the distributors' value and functionality (e.g.: large shops that employ direct distribution tend to replace small shops that resort to distributors). Advanced technologies make large inventories at distributors and sellers - and often their services altogether - redundant.

We hope that the results of our research will provide starting points for a theoretical approach to outsourcing that will shed more light on concept related to: outsourcing, outsourcing strategies, integration of logistic services in the logistic chain management, contracting outsourced logistic services. From a practical angle, we undertook to identify

the advantages of the bidders and the good practices in this field in order to offer Romanian companies that operate on the industrial market a set of genuine solutions for the increase of competitiveness and for the improvement of the logistic systems' performance. To this end, we took advantage of the experience of Romanian and foreign companies that outsource logistic services successfully.

The general goal of the research is to analyze the ways in which various strategies and modes of outsourcing logistic activities and processes determine the results and performances of the logistic system, by taking into account their specificity and inherent complexity.

Among the specific goals, these most relevant are:

- Performing an empirical comparison of outsourcing motivations, strategies and effects on costs and customer service level based on a survey of Romania industry;
- Determining the degree to which managers keep the balance between cost and customer service requirements;
- Evaluating the combined effects of logistics outsourcing and its potential benefits;
- Devising a model of customer satisfaction assessment as to the services provided by suppliers of logistic services;
- Specific modalities and good practices in outsourcing various activities such as: transportation, warehousing, handling, stock management, packaging for shipment, order processing, reverse logistics;
- Identifying the peculiarities of logistics outsourcing planning, organization and operational implementation among Romanian companies;
- Devising a model of logistic services supplier evaluation and selection; external integration with the customers within the logistic chain;
- Highlighting the ways in which the company management can improve the efficiency and effectiveness of logistics outsourcing by both cost reduction

and improvement of the customer service level;

- Finding the most adequate ways to organize and coordinate the flows of information as a result of logistic services expansion, internal integration and outsourcing by means of appropriate information processing technologies;
- Finding the most adequate ways to develop partnerships between companies that outsource logistic services and their supplier in order to maximize the benefits derived from the opportunities that the development of their planning and cooperation practices has to offer.

The increasingly limited opportunities for growth in terms of efficiency and effectiveness among manufacturing and services companies motivates intensified efforts for the discovery of new “critical area” in the companies' activities that might enable the companies reach their targets that pertain to both cutting or keeping costs to an acceptable level and to the quality of products, services and customer service level. These critical areas are also linked to the area of logistics, that offers considerable opportunities for increasing competitiveness and securing a competitive edge and still provides unexploited or insufficiently exploited resources, in which the drawing up and implementation of outsourcing strategies play an important part.

Personal contributions to the research

The practical contributions to our scientific project consist in:

- Determining the relative stage in the design, organization and operational implementation of logistics outsourcing, of the strategies and policies applied by Romanian industrial companies;
- Identifying the variables and characteristics of the logistics outsourcing planning, organization and control process and management;
- Drawing up a model for the assessment of customer service level and customer satisfaction as to the services provided by suppliers of logistic services;
- Identifying the advantages and good practices of outsourcing in Romanian

industrial companies;

- Identifying the main issues that companies involved in outsourcing logistic activities / process must face;
- Identifying and analyzing the major clauses of outsourcing agreements;
- Determining the performance and quality elements inherent to outsourcing.

The thesis consists of 6 chapters, each of them focusing on a specific issue of logistics outsourcing management. The research project included:

- bibliographical research concerning the outsourcing of logistic services;
- determining the main characteristics of logistics outsourcing, of the role outsourcing plays in securing a competitive edge, based on the review of specialist literature and previous researches in this field;
- developing theoretical models required to evaluate the processes of logistic services outsourcing and for the design and implementation of outsourcing strategies;
- proposing a model of decision making pertaining to outsourcing orientated towards cost reduction, improvement of the customer service level and innovation;
- devising a model for the assessment of the logistic services suppliers and their selection;
- designing a model of customer satisfaction evaluation as to the logistic services outsourced to specialized providers.

Thus, the theoretical research is based on an extensive bibliographical study, with more than 171 references (books, articles, published interviews, statistics) being reviewed, most of them foreign, (as there are only a few studies and research projects concerning outsourcing carried out and published in Romania), as well as documentation in electronic form, available in international databases that can be accessed on the internet. The biographical sources include information from fields such as: corporate management, strategic management, logistic management, marketing, HR management, business ethics,

microeconomics, transformation management, statistics etc.

Studiile experimentale menționate în lucrare sunt luate exclusiv din literatura de specialitate străină, întrucât în România nu am găsit studii extinse și semnificative în domeniu, iar în ramura industriei românești nu putem vorbi de o strategie logistică, la nivel național coerentă, care să aibă ca scop promovarea și susținerea firmelor românești pe piețele naționale și internaționale, în care externalizarea joacă rol important. Acest fapt este constatat și în prezenta lucrare, în care se remarcă că pe piața serviciilor logistice operează furnizori logistici de tip 3PL și 4L, reprezentând firme sau grupuri de firme internaționale. Firmele românești care operează în acest domeniu, oferind servicii complexe și soluții de integrare în lanțul logistic sunt foarte puține (sub 20 %) pe piața serviciilor logistice. The experimental studies mentioned in this paper are quoted from foreign literature exclusively, because in Romania we found it impossible to find any extensive and significant studies in this field and, moreover, the Romanian industry is lacking a coherent strategy of national extent orientated towards promoting and supporting Romanian companies on the domestic and international markets in which outsourcing plays an important role. This fact is reflected in this paper, which notes that on the logistic services market operate mainly suppliers of the 3PL and 4PL variety, that represent international companies or groups of companies. The Romanian companies that operate in this field, offering complex services and logistic chain integration solutions on the logistic services market are just a few (under 20%).

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