



**FACULTY OF ENGINEERING
AND SUSTAINABLE DEVELOPMENT**

**Using the resource based view theory to analysis
logistics competencies of a small third party logistics firm**

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June 2012

Bachelor's Thesis in Industrial Management & Logistics

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Acknowledgements

First of all, we gratefully acknowledge the help of our supervisor Robin, who has offered us valuable suggestions and guidelines. He has spent much time guiding our thesis with his patience, encouragement, and professional instructions.

In addition, we feel deeply indebted to our examiner Roland Hellberg for his patience and experience.

Thirdly, we would like to express our thanks to interviewees Peter Jonsson and Ylva Söderlund for their support and kind cooperation in the interview. We want to particularly thank the interviewers for taking the time to participate in our case study and share their information and personal experiences. Without your participation, this study would have undeniably been impossible to implement.

Finally, our gratitude also reaches to our teachers and fellow students at University of Gävle, whose suggestions and help have improved our thesis immensely. We also would like to thank our parents, classmates, and all of our teachers - without them we would never get this far.

Gävle, July 2012

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Abstract

The systematic management of 3PL began to develop in the second half of the 1980s and it has been adopted by more and more manufacturers who want to expand their business. Currently, 3PL occupies a critical portion of the whole logistic provision system and contributes to about 28% of total logistics in the European Union.

How 3PL gained a sustainable future has been a heated discussion in the field. Multiple theories have been proposed. In our paper, the Resource-Based View (RBV) theory was introduced and studied as an approach.

The purpose of this paper is to test the ability of the RBV to describe and analyze logistics competencies of third party logistics firms.

The qualitative approach was chosen as the methodology, since the author hoped to get rich and deep information for analysis. We interviewed two persons at FLB(which is a 3PL company). FLB lost their major customer, Ericsson, and decided to change their business strategy to offer more than only providing traditional 3PL service. In the analysis part, combined with the RBV theory and the interview materials, four critical resources were identified and discussed. FLB is now planning to keep their core competitiveness with Human Resources and they plan to develop their Human Resources at first then use Human Resources to drive three other resources.

Through the case study of FLB, we developed a model based on RBV in the use of other 3PL that companies can use to improve their logistics competencies. In conclusion, this paper tests RBV theory and application with a 3PL company, and proves that RBV theory can be a quite all-inclusive approach for the company to identify and analyze their existing and potential resources. At the same time, the core competitive resource - Human Resources - is also discussed.

Key words: RBV (resourced-based view), third party logistics. Logistics service providers.

Abbreviation list

Abbreviation	Full Name
AGV	Automatic guide vehicle
CIMS	Computer integrated manufacturing system
EDI	Electronic data interchange
EOS	Electronic order system
GPS	Global positioning system
GIS	Geographic information system
IT	Information technology
LIS	Logistics information system
LSP	Logistics service provider
MIS	Manage information system
RBV	Resource-based view
RFID	Radio frequency identification
TMS	Transportation management system
3PL	Third party logistics
VRIN	value, Rare, Imperfectly and Non-substitutable
VMS	warehouse management system

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1. Introduction

1.1 Background

Due to the growth of global competition, the logistics industry has become of vital importance for delivering products with qualified service and high efficiency. This trend has driven scores of companies to concentrate on their existing competitive advantages, focus on the core service/products that are critical, instead of spending loads of investment in self-managed logistics without third party logistics (3PL) (Grant, 2006; Snyder & Shen, 2011). The 3PL provider has developed during the past few decades, and has proven to be a good solution for the demanding pressure of logistics (Paul & Wood, 2004).

3PL, also termed logistic outsourcing or contract logistics, has been growing over the past few decades. The systematic management of 3PL began to develop in the second half of the 1980s and it has been adopted by more and more manufacturers who want to expand their business (ibid). Currently, 3PL occupies a critical portion of the logistic provision system and contributes to about 28% of total logistics in the European Union (Datamonitor, 2006). The market size is still on the increase. The basic idea behind 3PL originated from the simple premise that logistics services could be managed by companies who are specialized in the logistics field. These services may include transportation, warehousing, and other valued-added services such as assembling, packaging, quality control, etc. In all, the concept of 3PL could be defined as activities carried out by logistics service providers on behalf of a shipper/customer (Choy, et al. 2008; Laarhoven et al, 2000).

While 3PL has a positive outlook, it is critical for 3PL providers to recognize that there is never a sure-win strategy to maintain their continued success. Simply offering low prices will not fully meet the demands and challenges (Sahay, 2006). A sustainable and scientific strategy needs to be devised for 3PL providers to identify and categorize their potential, challenges, and future developmental path. The providers need to identify core competencies through this scope (Sahay, 2006). After all, the quality of service relies largely on 3PL providers' ability to maintain activities (Halldórsson, & Skjøtt-Larsen, 2004). Then how would 3PL providers develop their

logistics competencies? What type of strategy shall be applied? We would like to identify the possible solution to these questions by researching a local 3PL company, FLB. In this study, we would like to focus on the resources that a logistics company can control and develop by itself, instead of explaining other relevant resources such as governmental, environmental, etc. according to RBV (Resources based view) theory, we are going to divide the resources of FLB as physical resources, technology resources, human resources and relationship resources, which this four kinds of resources are the most important resources for 3PL provider. Our case company – FLB, a local small 3PL provider can be a good case to analysis by RBV theory.

1.2 Aim and purpose

The purpose of this thesis is to describe how to develop competence of 3PL Company by using Resources Based View theory. Through the study of a 3PL company to develop a model based on RBV so other small 3PL companies could improve their logistics competencies.

2. Theoretical perspectives-Resources based view/theory (RBV)

The Resource-based view/theory has been developed as a business management theory to create a sustainable strategy for development of firms or industry. According to the RBV, firms consist of bundles of resources, or in other words, it could be regarded as a collection of productive resources ((Penrose, 1959; Grant, 1991; Wernerfelt, 1984). The quality and quantity of the output products/services are fully dependent on the types of resources that have been input. The idea of RBV was first mentioned in 1959 by Edith Penrose in the book ‘The Theory of the Growth of the Firm,’ which was about the importance for the firm to identify its own heterogenous resource which is different from other firms, and which could be taken as a trigger of growth for the firm. Other researchers have also put forward arguments regarding different ways of identifying resources, different criteria of identifying, the frameworks of application, flexibility and validity of theory, etc. (e.g. Wernerfelt,

1984; Rumelt,1984; Dierickx and Cool, 1989 et al). For realizing the purpose of our thesis, this section is aimed at offering some important theory guidelines that pinpoint two aspects: what could be defined as significant resources for gaining competitive advantages, and the methods of applying the RBV framework. In the Finding and analysis part, this paper adopts a holistic analysis to make a final conclusion.

2.1 Choices of literature

In order to gain a broad knowledge base of 3PL providers, a broad literature review was conducted before any empirical interviews were done. We used keywords such as ‘third party logistics’, ‘outsourcing logistics’, ‘resources based view/approach/theory/perspective’, to search through the database. The same key words were repeated when searching through different databases. Major databases used in this thesis are Google Scholar, Science Direct, EBSCO, and Emerald. Some articles related to the topic were downloaded; the articles were read through in order to gain the basic idea. After initial reading, about 20 articles were saved as the most relevant ones to the thesis. They are assorted into two categories as their different contents: there were 5 articles write about the resource-based view; another 15 articles were write about the composition, development, and competencies of 3PL providers. In addition of the articles above, the courses literatures about logistics management were also important resources of the references.

2.2 Characteristics of firms’ resources

Before one investigates how to use or exploit resources, one needs to first define what can be identified as a resource. One of the major developers of RBV, Barney (2001), has given a rich but concise definition of resources:

‘Resources... are the tangible and intangible assets firms use to conceive of and implement their strategies. Firms develop or acquire resources in strategic factor markets’ (Barney, 2001).

Based on the business management structure, resources can be categorized as physical capital resources such as the firm's equipment and the size of the plant (Barney, 1991). Human capital resources can be categorized as the skills, intelligence, experience, and judgment of the personnel (Becker, 1964). The organizational capital resources we categorize as the firm's management structure, strategic management, planning, etc (Tomer, 1987). Different types of firms may adapt the categories in different ways. In our thesis, where a logistics company is taken as research objective, we would contextualize the categories according to the earlier research of the logistics industry.

Then what are the criteria for defining resources? Even though much of the criteria have been defined by researchers such as Grant (1991) and Peteraf (1993), the most well-recognized indicator of the systematic RBV theory was developed by Barney in 1991, in the article 'Firm Resources and Sustained Competitive Advantages.' Within this study the four fundamental characteristics of firms' resources were brought out. These four characteristics are also regarded as four indicators of the potential resources that a company may possess, or may thrive to possess, in order to generate a sustained competitive advantage. They are referred to as VRIN principles - Valuable, Rare, Imperfectly Imitable, and Non-Substitutable. A detailed explanation of each indicator is presented below:

Valuable - The resource can only be regarded as valuable when they enable the firm to reduce the weaknesses or enhance the strength in the competitive market. A valuable resource is key to the firm for outperforming its competitors (Barney, 1991; Mahoney and Prahalad, 1992).

Rare - Aside from being valuable, the resource must be rare, which means that the resource is owned only by this firm or only by a few of the firms that it is competing with. A firm would enjoy a competitive advantage when it has a particular value or a potential value-creating strategy, which others competitors do not have. When most of the competitors have gained the capability of exploiting this resource, the former uniqueness would be lost (Barney, 1991). In our understanding, Rare means knowledge for the industry.

Imperfectly Imitable - Another significant feature of resource is imperfectly imitable. The resource that the firm contains shall not be easily duplicated by other firms. For example, the unique historical conditions would be an imperfectly imitable resource for some companies (ibid).

Non-Substitutable - Following the idea of rare and imperfectly imitable, the idea of non-substitutable indicates that the resource shall not be easily substituted by a competitor's new strategy, nor will it be easily substituted by the internal strategy within the firm (ibid).

At the same time, Barney (1991) has also emphasized the importance of the *sustainability* of competitive advantage, and these four indicators serve differently as shown in the flowing figure:

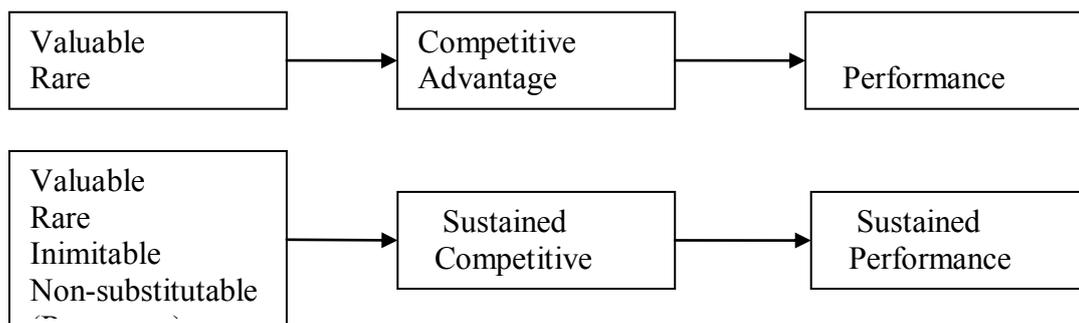


Figure1. Barney's (1991) conceptual model

Aside from the four key indicators, two primary assumptions of resources in RBV are also important. The first is that resources and capabilities should be *internally heterogeneous*. When defining the resource, the firm shall categorize the resources distinctly, without similar factors interlacing with each other. The second assumption is *imperfectly mobile/immobility* (Barney, 1991). These two premises lay the foundation for the creation a dynamic view towards the development of firms.

After defining the four indicators, further discussions have shown that in practice resources that possess all 'VRIN' features are hard to find. In most cases, a single type of source cannot capture all four features within a single resource. The *causal ambiguity* is allowed for explaining and exploiting resources, as long as this resource

is one of the reasons that could lead to the outperformance of the firm during competition. On the other hand, the underlying of issue ‘imperfect limitability’ as an indicator of causal ambiguity, co-existing with the other contributors of the imperfect limitability, are historical and socially complex (Barney, 1991; Barney, 2001; Peteraf, 1993).

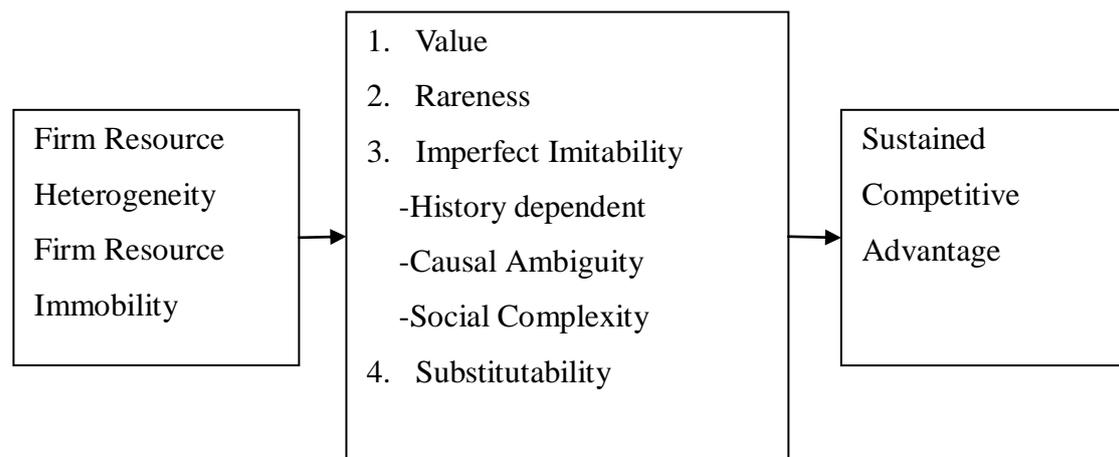


Figure 2. Barney’s (1991) the resources framework

2.3 The application of the RBV framework

As stated before, the firm’s resources include all inputs that would lead to the competitive advantage of the company. During the whole process from identifying the resources to gaining competitive advantage, three main forms are worth explaining here: the *resources possession*, *resources exploitation*, and *resources bundle*. These concepts contain the status of the existing resources that the firms possess, the potential resources that the firms would like to hold in the future, and the mixture of these two resources to create a good future. These two categories of resources would be helpful to analyze the situation of the firm as well as for developing a future strategy. These two concepts go through the entire process of the application. Sirmon

et al. (2007) has generated a map that describes the integrated process of application, as shown in Figure 3.

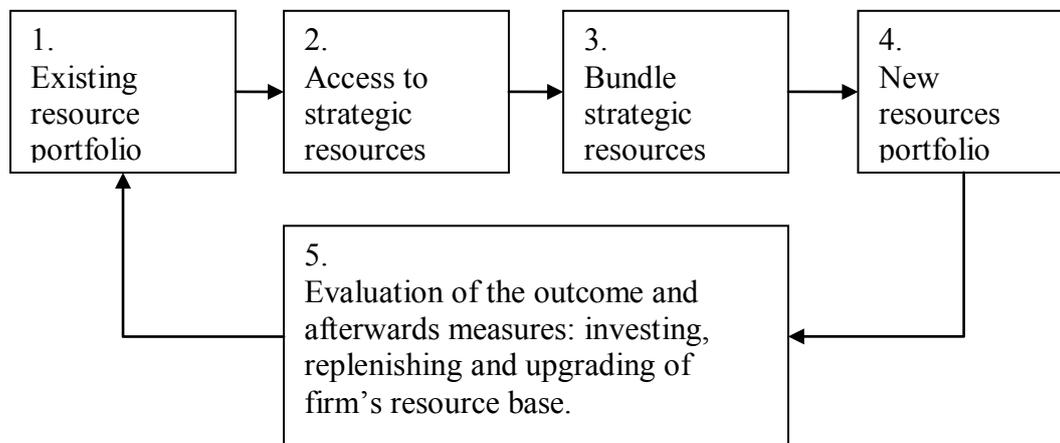


Figure 3. Application of RBV (Simon et al, 2007)

As shown in the figure, the application of the RBV framework is basically a circular mode containing 5 steps as described below.

Step 1. Identify an existing resource portfolio - The resources of the firm bear one primary feature of being *heterogeneous*. Behind the constitution of one single advantage there might be several co-existing resources. Resource portfolios may be re-organized in different ways to adjust to different needs.

Step 2. Access to strategic resources - The strategic resources may be regarded as the critical key of gaining competitive advantage, since the firm needs to exploit the resources that have not been identified within the firm, nor with the majority of other competitors. These four indicators conjointly described the important resources for the firm. One example of this is the Internet Commerce between Federal Express and UPS at the end of the 21st century. Even though these two companies have a similar structure, customer group, and flow of goods, FedEx outperformed its arch-rival UPS. This is due to the fact that FedEx focused largely on developing information

technology resources, and these IT resources met the VRIN criteria during that time (Lappin, 1996).

Step 3. Bundle strategic resources - The organization's capacity of gaining competitive advantages depends on its ability to bundle resources. With the recognition of existing and potential resources, the company would need to act strategically to prioritize, combine, or mix the resources to create the most suitable bundle for the current and future competitive market.

Step 4. Resource portfolio formation and implementation - After the prior three steps, a complete resources portfolio shall be generated from the analysis, and the portfolio shall be strategic and grounded to ensure that the company has the capability to transfer resources for the purposes of competitive advantage, and maximize use of the resources.

Step 5. As one might notice in the figure 3, the whole framework is constantly retracing and circulating. There will never be a final version of the resources portfolio. After the resource-based implementation, the firm has to make an evaluation of the strength and weakness of the portfolio, and make adjustments accordingly.

2.4 The third-party logistics provider

In this study, since our research objective is the 3PL providers and the methods that would enhance the competitive advantage, we would like to present this section with a brief summary to identify the main issues regarding to the topics. Also introduced what kind of definition there are, what a 3PL does, what they do, and what kind of competencies are important for 3PL companies.

2.4.1 Introduction of 3PL provider

1. Definition of 3PL

Third-party logistics (3PL) can also be called outsourcing logistics and contract logistics. Practitioners and theoretical workers have presented definitions of 3PL from different perspectives. The understanding of 3PL can be basically divided into

two viewpoints: one is the broad understanding and the other is the narrow understanding. In the broad view, it is believed that 3PL is an external supplier providing any logistics service by and large (Stank, 1996), while those services are provided by companies themselves (Lieb et al, 1996). Based on such a definition, any delivery or warehouse provider based on exchanges could be regarded as a 3PL provider.

According to the narrow view, it is understood that 3PL is a long-term relationship with common interests, containing many types of logistics activities and based on contract (Leahy, 1995) (Mirphy et al, 1998) (Knemeyer et al, 2004). That is to say, in comparison with basic logistics services, 3PL provides more customized services.

Although lacking any single or universally agreed upon definition, third-party logistics (3PL) in this study is understood here as all the logistics services that are provided to other companies, which is a quite broad definition (Coyle et al, 2003; Laarhoven et al, 2000). The service buyer seeks to not only save on the cost of logistics, but also to use the 3PL as a means to expand and differentiate the market domestically and internationally. The 3PL provider is then the firm that provides the services for the services buyers, and these two actors are bonded by mutual contract. In that sense, the 3PL provider is often referred to by researchers as a 'middleman' in the logistics channel (Cui et al, 2009).

2. Performance of 3PL

The competence and performance of 3PL have always been an area of concern for researchers. Among them, Borwersox and Daugherty (1995), the logistics research group at Michigan State University, Eckert and Fawcett (1996), and Clinton and Closs (1997) have all performed research on the evaluation scale, competitive edge, and company performance of the 3PL.

In Daugherty and Stank's research, it was pointed out that what is different from other functions are that logistics activities will influence the overall performance of a company while decreasing the cost. Many companies even regard logistics ability as a means of making differentiation.

Memon et al. (1998) use matrices to propose factors relevant to logistics performance and make evaluations. The 9 factors include the price, whether it is in accordance with the requirement of contract, whether it is innovative, the stability of the finances, whether it has met the requirements of quality and performance standards, whether the delivery is on-time, the promise of senior executives, the rate of errors, and the competence dealing with unexpected problems, among which the later four factors are highly correlated with each other.

This research has found that logistics ability has contributed a lot to cooperative strategies and cooperative performance, and logistics is even regarded as a core competitiveness in many cases.

3. The Characteristics of 3PL

Lieb (1993), who provided a definition of 3PL earlier, remarks that logistics functions that were previously fulfilled within an organization are now fulfilled by external companies. Coyle et al. (1996) believe that 3PL is characterized by external suppliers providing some or all of the logistics functions. According to the views of Coyle, 3PL companies have the following characteristics:

- a. Integration of activities with more than one logistic function, usually representing the customers to carry out the services of more than two logistics functions.
- b. The 3PL provider usually will not substitute customers to perform inventory management, and warehousing is not equal to inventory management.
- c. The logistics equipment used by the 3PL provider in providing services to customers are usually controlled by the 3PL provider, even though these assets do not belong to the 3PL provider.
- d. It has all-around competences of logistics services.
- e. It provides added value.

In 2000, Simchi-levi et al. remarked that 3PL carried out some or all functions of a company's materials management and product distribution through an external company.

4. The five develop phases of 3PL

According to Rao (1993), in providing the *type of services*, 3PL development can be divided into five main phases.

Single services - The 3PL can provide only transportation or warehousing services.

Separated services - The 3PL can provide transportation or warehousing services.

Integrated services - The 3PL can provide an integrated transportation or warehousing services.

Combined services - The 3PL can provide additional services on equipment, storage, transportation, handling, storage management, storage, management and information, and transportation function.

Complex combined services - The 3PL can provide the services of a different network, for example, storage, processing, equipment, planning, and traffic transport functions

Consequently, according to the above classification, the five phases of the 3PL evolution are shown in Table 1.

According the service types provided by 3PL, the levels controlled and executed the levels of companies' strategic importance, Chrisoula and Douglas (1998) divide 3PL into such five periods as introduction period, understanding period, demand period, integration period, and differentiation period.

Introductory Period - The concept of 3PL is at its infancy state, and only when 3PL providers have a skilled cost or transportation advantage will companies consider it.

Awareness Period - The concept of 3PL has become popular, companies begin to consider using anti-party logistics companies as alternatives for inventory status and cost light-casting to strengthen companies' competitiveness and increase profit. However, 3PL also arouses business circles' concern about the lack of logistics control.

Necessity Period - The concept of 3PL has been recognized and adopted by many business circles. Important changes in the market and legal system increase the complexities of distribution, which result in the necessity of a 3PL provider who is adept in distribution.

Integration period - The concept of 3PL attracts an increasing number of companies. Factors such as internationalization and the increased complexities of distribution channels force companies to turn to 3PL.

Differentiation period - The concept of 3PL has been described as a differentiator of the directions of companies' core competitiveness. The trend of internationalization and the increasingly important partnerships and alliances make companies consider 3PL as a necessary function to increase competitiveness to support companies' missions.

Phase Period	Phase Name	Characteristic
Early 1900s-Late 1950s	Introductory Period	Single Services
Late 1950s-Mid 1960s	Awareness Period	Separate Services
Mid 1960s-Late 1970s	Necessity Period	Integrated Services
Late 1970s-Late 1980s	Integration Period	Combined Services
Late 1980s-Late 1990s	Differentiation Period	Complex Combined Services

Table 1: The Five Develop Phases of 3PL (Chrisoula and Douglas,1998)

2.4.2 Critical resources for the 3PL provider

The concept of RBV has been described as a business model for logistics by many authors. Different articles have laid different emphasis on the resources that the logistic company could grasp, such as the application of Information Technology, GIS (Geographic Information Systems), human resources, governmental investment, etc. Resources have been categorized in different styles by different researchers, some of which are quite theoretical and related to economics knowledge (e.g. Innis and La Londe, 1994; Olavarrieta and Ellinger, 1997; Wong & Karia, 2008).

After summarizing several pieces of literature that pertain to the RBV, logistics services, and 3PL providers, (e.g. Wu et al, 2005;Wright et al, 1994;Wong & Karia, 2008; Chiu, 1995; Karia & Razak, 2007), four major types of resources are discussed

here from a *business model* point of view. Described below are several major resources that are critical for a 3PL provider:

Physical resources - The physical resources for 3PL providers include freight vehicles, warehouses, inventories, aircrafts, hubs, bases, etc. The physical resources are important aspects for the logistics company and it is also a big part for the company to exploit new resources, such as by adding more vehicles, warehouses, to strengthen the ability of competition. The maintenance of physical resources could be costly, and the firm shall balance the capital investment on the physical resources to make sure of taking everything in control (Wong & Karia, 2008). The advantages brought by physical resources are obvious, such as the expansion of firms' sites, numbers of vehicles, adding branch offices. All enhance the performance of the 3PL provider.

Technological resources - Many LSPs (logistics service providers) have recognized the importance of updating IT ability to create higher efficiency and profits, such as installing an Electronic Data Interchange (EDI), GPS (Global Positioning System), or GIS (Geographic Information System). These resources have made the logistics flow traceable and controllable (Chiu, 1995). The application of IT resources can enable navigation, control, evaluation, and prediction of the logistics flow. Wu et al. (2005) have remarked that the IT-enabled supply chain is quite hard to copy by other organizations, since the IT system requires time to build and it is firm-specific, i.e. every firm would adapt the same software in a different way with different levels of priorities (Wu et al, 2005).

Human resources - Human beings are always the center of any industry, and this holds for 3PL as well. Researchers have indicated that the highly skilled workforce is one of the most critical resources within the firm since human resources is the direct implementer of the firm's business. Their performance directly influences the quality of services, cost, and customer relationships (Wright et al, 1994; Wu et al, 2005).

Relationship resources - It has been discussed in recent literature whether the 3PL provider shall include relationships as a critical resource. The answer is yes (Chiu, 1995; Karia & Razak, 2007). This is because the 3PL itself contains many direct or indirect relationships between business partners and customers, especially when it

comes to the relationship between service provider and partner. For the 3PL provider, maintaining a healthy, sustainable, and cooperative relationship helps to identify the buyers' needs, save on costs, enhance business opportunities, and improve service quality. This idea interchange process also enhances commitment and customer loyalty, building up the long-term relationship. This relationship makes the 3PL firm hard to replace by competitors (Wong & Karia, 2008).

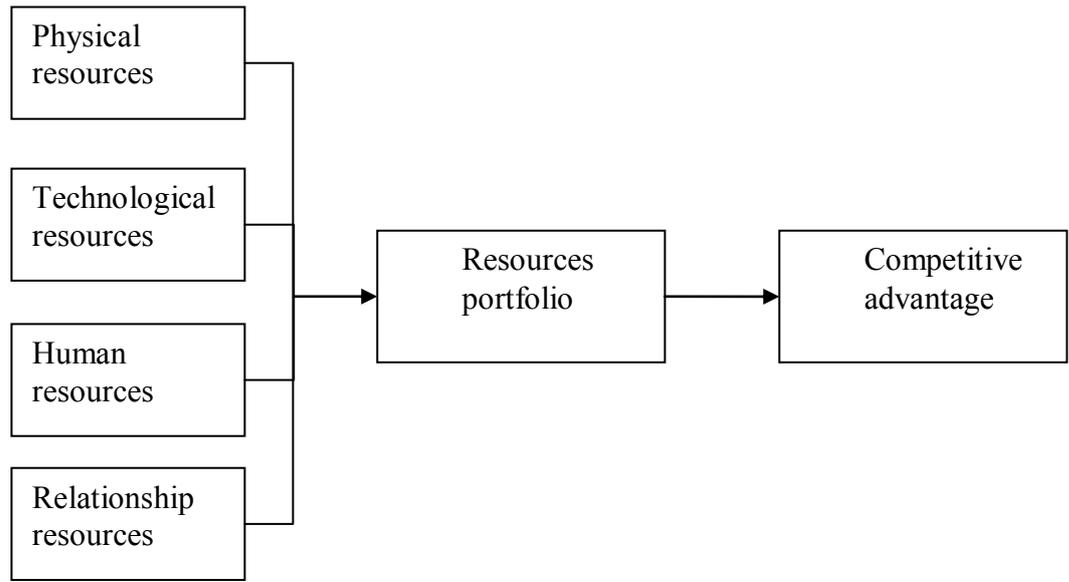


Figure 4, Resources for a 3PL provider (Wong and Karia, 2008)

indicators resources	Valuable	Rare	Inimitable	Non-substitutable
Physical resources	☆☆	☆☆	☆	☆☆
Technological resources	☆☆	☆☆☆	☆☆☆	☆☆
Human resources	☆☆☆	☆☆☆☆	☆☆☆	☆☆☆☆
Relationship resources	☆☆☆	☆☆	☆☆	☆☆

indicators resources	Valuable	Rare	Inimitable	Non-substitutable
Physical resources	Trucks, warehouse can earn money for company	Only when company own high technology, it will be rare	Any other company could copy it	Foundation for 3PL providers
Technological resources	3PL provider should own basic technology to serve physical resources	High technology can be rare for a 3PL provider	Important business secret	Not all 3PL provider need high technology
Human resources	Basic resources to earn any kinds of value	Capable, responsible and loyal employee are quite rare	Team work pattern are hard for any other team who wants to copy it	Foundation for any company
Relationship resources	Source to earn money	There are many customers on the market, but when company build long-term relationship with customer, it will be rare	Company should always keep their relationship resources as important business secret	Any company cannot live with our relationship resources

Table 2 Resources with “VRIN” relevant (made by authors)

According to the material that we get, there are four different types of resources that are critical within the firm—physical, technological, human, and relationship resources. Meanwhile the four features (Valuable, rare, inimitable, non-substitutable) are listed in the first row.

The level of relevance is indicated by number of stars. From one to four stars: one star indicates ‘not relevant’; two stars indicate: slightly relevant, three stars indicate ‘relevant’, four stars indicate ‘quite relevant’

RBV theory and some logistics literature resources as the factors explain Suggestions for reasons of the third party logistics competitive advantage. The Logistics literature has identified as physical resources, human resources and relationship resource as a strategic logistics resources. The main interest is application for RBV to logistics research is that the theory be able to further define logistics resources strategic

features. Through all of the resources complementary and common development, make the whole resource integration to eventually competitive advantage.

3. Methodology

The methodology section mainly contains the process of this research. It started with research strategy. We chose the RBV theory to evaluate industrial competencies of the third party logistics firm FLB. Afterwards, from the literature review, the major databases used in this thesis are Google Scholar, Science Direct, EBSCO, and Emerald. To find the information related to our theory, we made two interviews with the top manager and human resource officer. This provided us with the primary data we analyzed in the qualitative process. Finally, the validity and reliability of the thesis are discussed. The origin of the analysis is based on the theoretical framework of RBV theory.

3.1 Research strategy

Once the research aim/purpose has been decided, the researcher should determine the best way to achieve the aim. When qualitative cases are selected, researchers should then consider which type of case study is appropriate. Choosing a specific type of case study helps achieve the purposes of the study.

Yin (2003) describes case studies in various terms. Yin classifies case studies into three types - the explanatory, the exploratory, and the descriptive. The exploratory case study is used when situations are to be explored such as when the intervention to be assessed has no distinct set of outcomes (Yin, 2003).

In our thesis, we use the exploratory case study so as to allow readers to have a better understanding of the whole thesis and better achieve our purposes. The exploratory

way is especially suitable for the qualitative study approach since more in-depth information can be obtained through the interview. At the same time, the theoretical framework can also act as a guideline from which to lead the exploratory process (Yin, 2003). In our paper, we focus on “how a 3PL company can develop its logistics competencies”.

3.2 Mode of procedure

3.2.1 Selection of methods -Qualitative Method

A scientific study can be quantitative, qualitative, or a combination of the two. The qualitative approach has the advantage of bringing rich insights into certain issues, rather than gaining general impressions or figures of the problems through the quantitative approach (Yin, 2003). The purpose of this thesis is to analyze how a TPL company can develop its logistics competencies through a resource-based view (RBV), and to develop a possible solution for the company to gain a sustainable competitive advantage. The author will need to know detailed information of existing resources at FLB, identify the most valuable, rare, and significant resources, find out how FLB bundles the resources, and determine what bundling approach should be suggested in order to fulfill the requirement of FLB’s strategy. Therefore, in order to build up this solution specific for this company, rich materials are in need.

3.2.2 Interview process

“A semi-structured interview attempts to understand themes of the lived everyday world from the subject’s own perspectives (Kvale & Brinkmann, 2009, p. 27).” The methods of case study and qualitative interviews have been criticized for being over-subjective and being not rigorous enough (Yin, 2009). To minimize this shortcoming, before the interview the interviewees have been provided with an information notice which contains the study purpose, background, key questions, and interview guides. We also attached some definitions of scientific terms to avoid misunderstandings. Two people, the top manager and the human resource manager of FLB, are invited to take part in the interview. The questions were semi-structured to ensure that the interviewees could further develop the ideas since they could express more information but still

follow the guidelines (Kvale & Brinkmann, 2009). It is hoped that the answers from two different perspectives would be complementary, and might lead to more integrated findings.

The interviews were implemented in a face-to-face form. Before the official start of the interview, the interviewers gave a brief introduction of themselves and the purpose of the study, in order to warm up the interview and lead the interviewees into the conversation. The interviewees were asked for their agreements about the use of recorders. During the interview, the voices were recorded by two electronic recorders in case the possible loss of data. The interviewees were asked to share as much information as possible regarding to the topic. One of the interviewers was in charge of asking the questions, and another one was in main charge of taking notes, to write down the important points that were stressed in the interview. The two interviews were taken in sequences. One is 45 minutes (with the general manager) and another one is around 30 minutes (with the human resources managers).

3.3 Validity and Reliability

3.3.1 Validity

The concept of validity is quite important especially for the qualitative study. Validity indicates the strength of the study's conclusions, that is, whether the research truly reached its purpose (Daymon and Holloway, 2002). There are two aspects within validity - internal and external. Internal validity means the importance of casual relationships interaction in the research, and external validity means the findings and conclusions in the research are generalizable beyond the actual case (Yin, 2003).

No matter whether the study is in the form of quantitative, qualitative, or both, it is the researchers' duty to ensure the study is as credible as possible. Hence, the awareness of keeping up the validity and reliability through whole research process, from beginning to end, is important. In our qualitative research the results and analysis are largely dependent on our research capability. The interviewees chosen for this study are the people who know most of information about FLB, and they have shown a positive attitude towards sharing as much information as possible. The answers they

provided were complementary and consistent. The authors transcribed the audio records independently.

3.3.2 Reliability

Reliability could be defined as the consistency of the research result. What is important is whether the same result can be drawn at other times and by other researchers, and whether the responses of interviewees to different interviewers would be different (Kvale & Brinkmann, 2009, p. 263).

Even though qualitative studies have been criticized for being immeasurable when it comes to reliability compared to the quantitative study (reference), we tried our best to enhance it. For example, the interview questions were revised again and again so that the most detailed and precise description could be collected from each interviewee. The set semi-structured interviews are also helping us to get richer information and enhance reliability.

3.3.3 Limitations

As we stated before, two interviewees were invited into the research procedure, one is the general manager and the other is a human resources manager. Even though their job responsibilities are different, the same semi-structured interview questions were asked to the two interviewees. The first limitation comes from the choice of qualitative research and single case study to developed RBV theory. However, we choose the FLB company to use the RBV theory is unrepresentative and there are only two respondents as evidence of the interviews, we could not ensure that the findings are completely valid. Therefore, more researche should be carried out as to tests on the different processes of the 3PL companies and such studies could employ the same logic and procedures of this thesis. The second limitation is due to the researcher's inadequate experience in carrying out academic research.

4. Finding and analysis

4.1 Introduction of FLB

FLB is a Sweden-based company, established in 1989 with the initial purpose of launching a transportation company but now developed into a third-party logistics company providing domestic and international transportation service. The current owner and manager-director is Peter Jonson who has been working in FLB for 11 years and bought it in 2001.

Here we will divide FLB's existing resources into four parts:

1. Physical resources
2. Technology resources
3. Human resources
4. Relationship resources

4.2 Physical resources in FLB

FLB currently has one operational organization headquartered in Gävle. Due to the latest strategic change of the firm in the early 2012, the number of vehicles is an effective approach to satisfy client demands. In addition, they have one warehouse with adequate volume and equipment to maintain the company's operation on a daily basis. The physical resources of FLB are quite competitive when it comes to the market, not only domestically but also internationally. For example, the warehouse has a high standard of security to prevent stolen goods as well as fires.

More physical resource like trunks and warehouses could gain the larger capacity of transportation services without any doubt. But it also can easily result in an increase in cost. After Ericsson moved out of Gävle, FLB lost one of their major clients. It seems to be the legitimate way of decreasing tangible equipment at the time.

Under the circumstance of only 3 trucks, FLB collaborates with certain number of fourth party logistics companies for fulfilling the deficiency in resources. For the sake of keeping the competitive position, it is increasingly becoming the inevitable challenge for FLB to response to the different orders from each company with different requirement quickly, accurately and effectively.

Analyze of physical resources

Criteria	FLB's Physical resources
Value	Medium(There are three trucks are working for FLB and earning money for FLB, but it is not main revenue for FLB)
Resource scarcity	Medium(FLB own a high technology warehouse in the region of Gävle, this warehouse is leading in the region of Gävle)
Imitable	Medium(If competitors want copy FLB's physical resource such as warehouse, it will cost money)
Non-substitutable	Low(Deliver by FLB's own trucks and warehouse service just small part of their business, now FLB are trying cooperate more with 4 th part logistic company instead buying more physical resources)

Table 3: Analysis the FLB's current situations of physical resources. (Made by authors)

We now consider the following problems which we consider most important to FLB's business interests.

Cost problem

Under their current strategy, FLB sold most of their trucks and currently possess just three. Consequently, their costs were reduced but so were their physical resources. However, in the logistics process for trucks, warehouse use, and maintenance, the total artificial cost will be the same. FLB chose to co-operate more with fourth party logistics, so the fourth party logistics companies will put their burden of logistics cost calculation in service in price. So to the FLB for, and the fourth party logistics

company cooperation is the calculated the cost should be: the fourth party logistics companies face a logistics cost + the fourth party logistics company through this commercial activities earned profits for the commercial activities FLB = assumes the logistics cost.

Here we can see that in the current strategy, FLB logistics cost are not completely lower, because FLB and fourth party logistics cooperation is the fee that pays is including the fourth party logistics in the commercial activities undertaken in the logistics cost and the fourth party logistics company through this commercial activities earned profits. So here is visible. So, how the company cooperates with the fourth party logistics to reduce the logistics cost objective is FLB itself needs special attention on implement force problem.

Implementation problem:

For instance, start with when FLB accept orders to finish logistics process, they needs make a series of communication with fourth party logistics, such as price, the customer needs, customer information, contract signing and so on, so in this process, from the resource allocation point of view, saying, FLB will need to spend part of the resources in the use communicate with the fourth party logistics company. From leading time speaking, in the fourth party logistics negotiations with the amount of time spent are should calculate in leading time, so how to ensure and the fourth party logistics company diplomacy at the same time, ensure their own resources allocation is proper, ensure the goods transportation in leading time inside, will be FLB need to consider another problem.

Resource allocation problem:

1. Warehouse: FLB currently has no issue with warehouse safety (for example theft, robbery, fire prevention), product information processing power and storage products in the local of Gävle is leading. Nevertheless, in the use of advanced warehouses at the same time, high purchase cost, high maintenance cost, high artificial cost is inevitable, and after Ericsson quit from Gävle, the existence of local users that can meet the capacity of the warehouse itself will be a point of contention.

After the warehouse investment, what will the expected income and actual income be? Because FLB's company strategy is to focus on the client body, from the warehouse to the level of security for the throughput, is it not enough to meet the consumer needs or beyond the captains and the requirements of customers, local or warehouse is the throughput and the security level and Cardiff and local customer requirements, just coincide. How warehouse capacity and client need found between a break-even point, how will the advantages of itself has reasonable distribution of resources to maximize the use of resources. The most effective use of resources under the premise of satisfying the needs of the customers should be FLB care about a problem.

2. Packing Room: The FLB provides value-added service mainly includes product packaging and then packaging, quality control, assembly and removed. By interviewing the information, FLB will put the value-added service development into a main service.

But through the we carry on the field survey, first from packing room size, it covers an area of the 21 square meters, if will value-added service as the main business FLB to develop, so the size of the packing room will be the main undoing of the development of the project (such as providing value-added service necessary machine, artificial activities range and buffer stock room). So expand packing room size is FLB will be value-added service as the main development business need first work.

To sum up, in the current strategy, the physical resources optimization allocation will be a very important topic of FLB. For the issues have been raised that will be solved in the discussion part.

4.3 The technological resources

When it comes to the technological resources, both of the interviewees have admitted that the information technology with respect to logistics is not widely applied yet. While according to the general manager, he has realized not only technological application have cost-effective value for company but Information technology is the fundamental requirement to sustain the highest level positioning for any logistics company with the background of globalization. For FLB, besides the conventional

software such as GPS has been utilized for supporting the transportation services, so far they also have applied the warehouse management system. For instance, the software that is currently used by FLB's warehouse is called 'Effect', with which the goods in ware houses could be scanned, tracked, and safety-guaranteed.

Analysis of Technology resource

Criteria	FLB’s Technology resources
Value	Low(FLB is lacking of transportation technology such GPS etc, beside warehouse technology FLB didn’t earn value from technology resources)
Resource scarcity	High(FLB mastery high warehouse technology in the region of Gävle, this warehouse is leading in the region of Gävle)
Imitable	Medium(FLB own high technology for warehouse but lack of other technology)
Non-substitutable	Medium(FLB is lacking of transportation technology but they mastery high warehouse technology)

Table 4: Analysis the FLB’s current situation of technology resources. (Made by authors)

Logistics information technology as the modern information technology is an important component of the essence of the information technology category, because its use in the logistics field so that the form and content have some characteristics, it can be divided into four levels:

1. Logistics information technology. Refers to device, component manufacturing technology, it is the entire information technology foundation.
2. Logistics information technology systems. Namely equipment and systems used in the logistics information, transmission, processing and control. It is based on logistics information technology. Logistics information acquisition technology, logistics

information processing technology, logistics information control technology and logistics information transmission technology are its main content.

3. Logistics information technology application. Manage information system (MIS), optimizing technology and computer integrated manufacturing system technology (CIMS) technology and design various logistics automation equipment and logistics information management system. The foremost example: automated sorting and transmission equipment, warehouse management system (WMS), transportation management system (TMS), distribution optimization system, global positioning system (GPS), geographic information system (GIS).

4. Logistics information security technology. Aimed at the package of logistics information security technology, mainly including the password of technology, firewall technology, virus prevention and control technology, identification technology, access control technology, backup and restore technology and database security technology.

According to the general manager, in order to sustain market position and develop further, FLB is considering upgrading their IT system to meet more needs of services coming from clients and business partners. For instance, EDI, a broadly used data exchange system, is essential when the company wants to communicate and cooperate among a large numbers of logistics partners because enormous information flow needs to be managed immediately and accurately. The company is still striving for the development of IT support. The typical manager claimed that their indirect international customer with worldwide reputation, like Amazon, they merely use EDI to communicate, they cannot communicate with email. So in order to keep those customers, they constantly have to improve.

So what is EDI? EDI (electronic data interchange) is, plainly stated, an enterprise internal application system between the computer and the public information network, with electronic style to deliver business documents of the process (EDI, 2012). EDI was initially an American enterprise application in the enterprise of business activity between order, then application range from the order to other business expanding business, such as inventory management business, deliver goods delivery information and payment information transmitting business and so on

In recent years, because logistics is widely used in EDI, it became also known as logistics EDI. The so-called logistics EDI refers to the owner, the carrier, and other related between the unit, through the EDI systems of logistics data exchange, and, on this basis, implementation of logistics operation activities of the method. In the logistics EDI, main participation units have the following: the owner (such as manufacturers, traders, wholesalers, retailers and so on), the actual delivery of the goods transportation enterprise (railway enterprise, water transportation enterprise, aviation enterprise, and road transportation enterprise), assist unit (relevant government department, financial enterprise) and other logistics units (such as warehouse management business, distribution center, etc.).

Nonetheless, in the interview with the material, FLB found enterprise in today's market, with only the current logistics information technology will not the promise of competitiveness in the market, so development or investment new logistics information technology will be the inevitable trend, the following are some of the main logistics information technology.

2. EOS technology, EOS refers to the electronic order system, it is between wholesalers, retail happened order enters data into the computer, computer communication network connection instantly by the way of data transfer to the head office, wholesalers, suppliers or manufacturer.

EOS technology application for the basic process of about: primarily in the retail terminal wand reader get ready to purchase goods of the bar code (combined with the characteristics of FLB provide service, can change a method of consumers' acquisition bar code and site), and in the terminal input order material. And then the phone through the modem to suppliers in the computer and the supply out subpoenas delivery of the chamber of commerce, and according to subpoena and open picking orders, the implementation of sorts for the goods, nevertheless based on delivery of a summons to conduct goods delivery. Second, the delivery of material will become a summons client account payable material and supplies accounts receivable material. Finally, for the consumer to the goods inspected, he can buy goods sales.

EOS technology, customers for the supply of choice, the vendor for our products show this link, there will be a lot of time be saved and be used to produce transportation and quality control. Nevertheless, another way, combined with FLB current strategy and the local customers and Cardiff FLB cooperation with the characteristics of the foreign customers. EOS is the feasibility of the technology is a problem that FLB need to consider.

Logistics equipment tracking and controls application. At present, logistics equipment tracking principally refers to the logistics carriers such as trucks, shipbuilding and five road activity involved in the items located tracking. Logistics equipment tracking method has a variety of, can use traditional communication methods such as the telephone of passive tracking, also can use RFID means periodically tracking. Now days the most popular two tracking system is the global positioning system (GPS) technology tracking and geographic information system (GIS) technology tracking. GPS clock, and other functions, because is combined satellite and wireless technology navigation system, so it has to all-weather and the global land, sea, and air targets provide continual real-time three-dimensional localization. However, the geographical information system (GIS) technology, it is to point to see computer science, geography, surveying and mapping remote sensing science, environmental science, city science, space science, information science and scientific management for the integration of science, because it is data collection, input, the editor, storage, management, spatial analysis, inquires the, output and practical function, can predict users of the system, monitoring, planning and management and decision to provide the scientific basis of the properties, geographic information system (GIS) technology will FLB to the introduction of the goods tracking, transport carrier tracking, transportation route planning is playing a very important role.

3. Logistics management information system applications. Logistics management 3. Logistics management information system applications. Logistics management information systems can also be called logistics information system (LIS), is by the personnel, the computer hardware, software, network communication equipment and other office equipment composition interpersonal interaction system, and its main function is of logistics information collection, storage and transmission, processing collate, maintenance and output, for logistics managers and other address

management personnel to provide strategy, tactics and operational decisions support, in order to achieve the organization's strategic competition optimal, improve the efficiency of the logistics operation and benefits. Combined with FLB existing strategies for, because the logistics management information system of the main purpose is to improve the technology of logistics operation efficiency and benefit, and it can be for logistics information collection, storage and transmission, processing collate, maintenance and output for effective information finishing. So saving the cost, resources optimization or in the process of collecting logistics service data to improve customer needs for the master would be a good choice.

Speaking of cost controlling and resource optimization, having enjoying the convenience and benefits from IT information technology, while FLB has to concern the rate of investment and revenue.

4.4 The human resources

Through the FLB interview, the managers of FLB see the human resources management as core competitiveness for the company's future. FLB combined with the current situation, the main customers in lose Ericsson, after falling profits for the company and other reasons, from many aspects to cost savings, but it is also leading to a company in such as the physical resource, technology resources less competitive. From the point of view of resource based view, gave up on the physical resource, the technical resources, human resources and relationships of resources human resource to be elected separately enterprise core competitiveness of resources construction, Is this kind of practice feasible?

First has to clear a proposition. That is human resources to become the source of enterprise core competitive ability of the feasibility and human resources for construction enterprise core competitive ability of the importance. If single from this perspective, if this energy-saving for human resources becomes the source of enterprise core competitive ability of the feasibility and human resources for the construction enterprise the importance of core competence in the two problems is the answer definite answer, so will prove the FLB to human resources for this practice is achievable. So this section would be first of FLB existing human resources situation

to make a brief introduction, and the core competitiveness will be the standard opinion to analyze enterprise human resources and the core competitiveness of the relationship. Finding out the human resources becomes a source of enterprise core competitive ability and determine the feasibility of human resources for the importance of the core competitiveness of the enterprise.

Through the FLB existing human resources situation as we see, Due to the economic downsizing the company, there are 17 employees now working in FLB. While each person has his/her specific responsibility and all the employees are trying best together to keep the company working well. 9 Warehouse personnel, 3 truck drivers, 2 customers services and support personnel, one human resource managers, one for sales, and one as accountant.

Skills: for the blue collars workers such as drivers and warehouse workers, there are no specific requirement for the college education. One needs to have specific driving lenience, apart from the skills. The most important thing is that the worker themselves have good personality, sense of teamwork, responsibility.

Training: the training differs from year to year according to the different needs. In year 2012, FLB is planning to give everyone formal logistics course which contains the theoretical knowledge about the logistics.

Analyze of Human resource

Criteria	FLB's Human resources
Value	High (FLB hired 17 responsible employees and they are working in different positions to gain value for FLB, also through interview, managers have admitted that human resources create most value for FLB)
Resource scarcity	High (Each employee who works for FLB are loyal and responsible and they are capable of their work, this is very hard for other company who want copy this work team)
Imitable	High (Each employee have their own ability that contribute for FLB and they work as a group that is difficult for other company)

	who want copy it.)
Non-substitutable	High (Human resources provide basic and the most important support to other three FLB's resources, through interview with FLB's managers they admitted human resources is the most important resources for FLB)

Table 5: Analysis the FLB's current situation of human resources. (Made by authors)

4.5 Relationship resources

Logistics supplier relationship resources are a very important component of success. For FLB or any other logistics company, it is the establishment of cooperation with customers which is most important. Winning a long-term contract is one of the essential factors is a close relationship with customers. The customer's intimate relationship with FLB is rewarded through the extension of the contract or in the increase in reputation. And as FLB itself, it should be from the client need to angle the customer makes tailored service, and the service into the knowledge and energy. In addition, FLB because there are many and the fourth party logistics business cooperation, therefore resource relations between affiliated enterprise established in, and the relationship of the transverse resources for, not only can make FLB better close to the customer, and to make FLB in a small amount of financial input to acquire material, information, or other resources.

Analysis of Relationship resource

Criteria	FLB's Relationship resources
Value	High(As a 3PL company, customer net is the cornerstone for their business, it is main revenue for FLB)
Resource scarcity	High(FLB build their own relationship with their customers, between FLB and their customer, this kind of relationship not

	only just sign contract but also trust)
Imitable	Medium(Customer could choose between different suppliers and competitors always trying to steal customers)
Non-substitutable	High(Main revenue resource for FLB, without customers, FLB will lost their main revenue, customer is who paying for FLB)

Table 6: Analysis the FLB's current situation of relationship resources. (Made by authors)

So far, people in a customer relationship with these important economic resources often stay in the understanding of the marketing field. But Robert Whelan before said: "With the customer relationship is the most valuable asset of the enterprise. We should be like the assessment and management of other financial assets or physical assets to the assessment and management of it." Will the assets of the enterprise customer relationship as is rationality, because the consumer relationship itself has the characteristics of assets. Financial management will assess defined as: In the past transactions or events and formed in owned or controlled by a business resource, this resource is expected to bring enterprise economic benefits. And consumer resources are accord with this definition. There are following reasons:

First, consumer resources come from the past transactions or events. Customer relationship with customers in the past is an enterprise or currently trading up.

Second, it can be owned or controlled by the enterprise. Client relationship is once formed. The enterprise can control them and use even transfer.

Third, it can be directly or indirectly for economic benefits to the enterprise. The consumer is the enterprise product direct buyers, are the enterprise profits of the direct access.

The customers, in narrow terms, is to refer to the purchase of the enterprise products and services to the consumer, is the enterprise important profit source, which is the key link of enterprise income. Resources will bring to the enterprise value, but the

value and can be divided into have continuity and do not have continuity. FLB one-time transaction the value of the enterprise customers is does not have the continuity that can be considered a short-term resource. And with FLB has long cooperation, carry on the multiple trading client for the enterprise is to bring the long and steady profits, there is enterprise's long-term resources, namely the relationship FLB resources it is long-term resources. FLB of the core competitive capacity of enterprises create speaking, long-term resources more value, so can say, with the customer establishment has continuity of the relationship between value far outweigh the establish resources do not have continuous relationship resources.

However, in the traditional "product-market" concept force, enterprise often pays attention to tangible assets and ignore the customer, the customer as enterprise value creation is only a terminal service object, only from the marketing level to treat, the purpose is to promote the product sales, maintain sales, but not the customer resources as the value creation active participants, and as an important asset for the enterprise to operate and management. Such a short-sighted not only can't make the enterprise resources get reasonably effective configuration, but also it still can cause enterprise resource waste, away from the maximization of the enterprise value goal. How the FLB can solve this problem effectively? The answer is customer relationship resources asset-like. Customer relationship resources asset-like is from philosophy will be the customer relationship as an important enterprise asset, flat and ceaseless efforts operation to keep the value. For this goal, the following is FLB should try to do:

First: a clear target market. The customer is very huge market, but not a person would become the enterprise customers, so enterprise should first accord to its own advantage and disadvantage sure of your customers. In other words is bright but their product positioning, as you understand that the enterprise product features. Excellent product positioning help setting up the enterprise image and product image, is the enterprise brand thorough popular feeling.

Second: will be clients as win-win partners, not enterprise sell products or services. Will sell enterprise clients as the object to earn a profit often has the mindset, so could damage the enterprise to the client of the image and relations with customers damage. And clients as win-win partners will be the enterprise, must pay attention to the

development of the relationship with customers. Do consider the customer everywhere, customers also can become the survival of enterprise development important supporters.

Third: to make customer relationship assets keep increasing. Enterprise all customers are not necessarily "God", also is divided into the 369, profitable customers, lose customers. To make customer relationship assets keep increasing. The enterprise must distinguish treatment, to strengthen the relationship between customers increasing investment profit. For low earnings customers reduce costs, no longer continue to maintain customer losses.

In summary, after collect and analysis these four kinds resources of FLB, we can make a new table (Table 7) to compare with Table 2, then make suggestions to FLB to improve their competence.

indicators resources	Valuable	Rare	Inimitable	Non-substitutable
Physical resources	☆☆	☆☆	☆	☆
Technological resources	☆	☆☆☆	☆☆	☆☆
Human resources	☆☆☆	☆☆☆	☆☆☆	☆☆☆
Relationship resources	☆☆☆	☆☆	☆☆	☆☆

Table 7: Current situation of FLB (Made by authors)

5. Discussion

5.1 Analyze of human resource in depth

This section will prove theoretically that human resources have become the source of enterprise core competitive ability. So, how to find the core competitiveness of their own enterprise? The answer is only in the company of the discovery and existing or potential competitors don't realize or not synchronous implementation value creation of strategy, competitive advantage will exist. According to the resource based view point of view, and merely creates a unique, other companies can't emulate the competitive advantage, to be called the core competitive power. So that, if the enterprise has a single or has certain competitive power, doesn't mean it is an enterprise with core competitiveness, because the opponent may mimic the competitiveness. So what should represent resources to become a core competitiveness of the enterprise? From the point of view of just now, this kind of competition must have the following four standards (Barney, 1991)

1. The value of resources of revenue - The core competitiveness represents resources to the company to play a constructive role. (Barney, 1991; Mahoney and Prahalad, 1992).
2. Resource scarcity - That is the resources to existing or potential rivals. It is difficult to obtain. (Barney, 1991).
3. Imitable - This resource is the characteristics that are unique to for the enterprise, is the other competitors have no way to completely replicate. (ibid.)
- 4.. Non-substitutable - This resource function is not sad rivals with all the resources to replace or replaced. (ibid).

Criteria	Definition
Value	It can help enterprises to eliminate the threat or successful chance, than shown as the company's core products and service to bring value added, and to better meet the customer needs,

	increase customer satisfaction, thus occupies a bigger share of the market.
Resource scarcity	The core competitive force of the enterprise can't be many other enterprises occupies, this is a scarce resource.
Imitable	Historic: a unique and valuable organizational culture and brand Fuzziness: competitive reasons and application is unclear Social complexity: interpersonal relationship, the knowledge structure and managers, suppliers and customers of relationship.
Non-substitutable	Don't have strategic equivalence of resources, the more recessive ability, the harder it is to find it enterprise of substitution ability, rival the harder it is to imitate it and produce the core value

Table 8: The criteria of enterprise's core competence. (Barney, 1991)

Speaking of analyzing the relationship between human resources and core competencies of enterprises from the perspective of core competency standards, it can be conducted from two aspects, namely, the mobility of human resources and the correlation between human resources and sources of core competencies.

5.1.1 The mobility of human resources

First of all, human beings are creatures who have senses of independence and cannot be imitated. Therefore, human beings are in a sense irreplaceable. Besides, people are mobile in society. Given the mobility of human resources, if an enterprise wants to gain competitive advantage over its rivals in human resources, it just needs to hire its rivals' employees rather than imitate their human resources. However, it is not the case in reality, because human beings are far from being completely highly mobile. There are several reasons for it.

a. Human resources are not completely mobile

Human resources are not completely mobile because they don't possess the cost conditions for complete mobility. Where actual transaction cost exists when one employment status is converted into another, the change in employment status means the employee needs to adapt to the new environment. However, human beings depend a lot on the environment, and relevant costs for all decisions on alternative working

states are very high, so only when converted working states are much better than their present states will employees consider job mobility. For example, A Company can give an employee 20,000 koruna every month plus a comfortable accommodation; if B Company wants to enhance its human resource competitiveness by hiring the employee from A Company and is willing to pay 30,000 koruna every month without a guarantee in the accommodation environment, then the demand for job mobility on the part of the employee will be low because the replacement cost is very high.

b. Fuzzy causality and social complexity

The reasons for human resource flow are varied. As a result, its analysis has a certain fuzziness in causality. People are not on their own in society and are vulnerable to the impact of surrounding environments. Social complexity has a great effect on people's judgment. Seen from those two premises, when it comes to a certain individual, it is likely that the competitive edge of an enterprise formed by a single person may not be obvious and the selectivity is poor. The effect of hiring an entire team is stronger than that of hiring an individual, but the performance of a team depends on the coordination of an enterprise's internal environment and the interaction between it and other teams. Viewed from an extreme angle, only when a company merger takes place can an entire team be hired. Even so, the exertion of the role of human resources is also closely related with material resources and corporate culture. From what has been discussed above, it is not hard to find that fuzzy causality and social complexity further illustrate the inimitability of human resources.

However, it is just because of the influence of such factors as fuzzy causality, social complexity, unique social environment, as well as its incomplete mobility that human resources can create unique and greater values. Due to this (human resource advantages), enterprises can possess better competitive advantages.

5.1.2 The correlation between human resources and sources of core competencies

For an enterprise, a certain resource needs to possess four characteristics, including *value profitability*, scarcity, incomplete imitateness, and inadequate substitutability to become the source of an enterprise's core competency. In that case, does human resources accord with those four standards to become the source of an enterprise's core competency? Further analysis will be carried out in this part.

a. Human resource has to provide value for an enterprise to become the source of its core competency.

With the increasing complexity of the modern market and the enhancement of variability, enterprises depend more and more on human resources if they want to remain competitive in the market. Talents are the driving forces and sources of enterprises' continuous development. Generally speaking, enterprises which gather outstanding talents have indomitable vitalities to stay competitive and are able to survive in fierce market competitions. As the most important internal resource of an enterprise, human resource has special qualities, strong creativities, flexibilities, learning abilities, cognitive abilities and cohesive capacities, thus becoming unique scarce resource for enterprises. In order to retain high-end talents, enterprises need to have advanced management models, relatively comfortable environments and reasonable salary systems to enhance employee satisfaction and motivate them to create value for enterprises. See Figure 5.

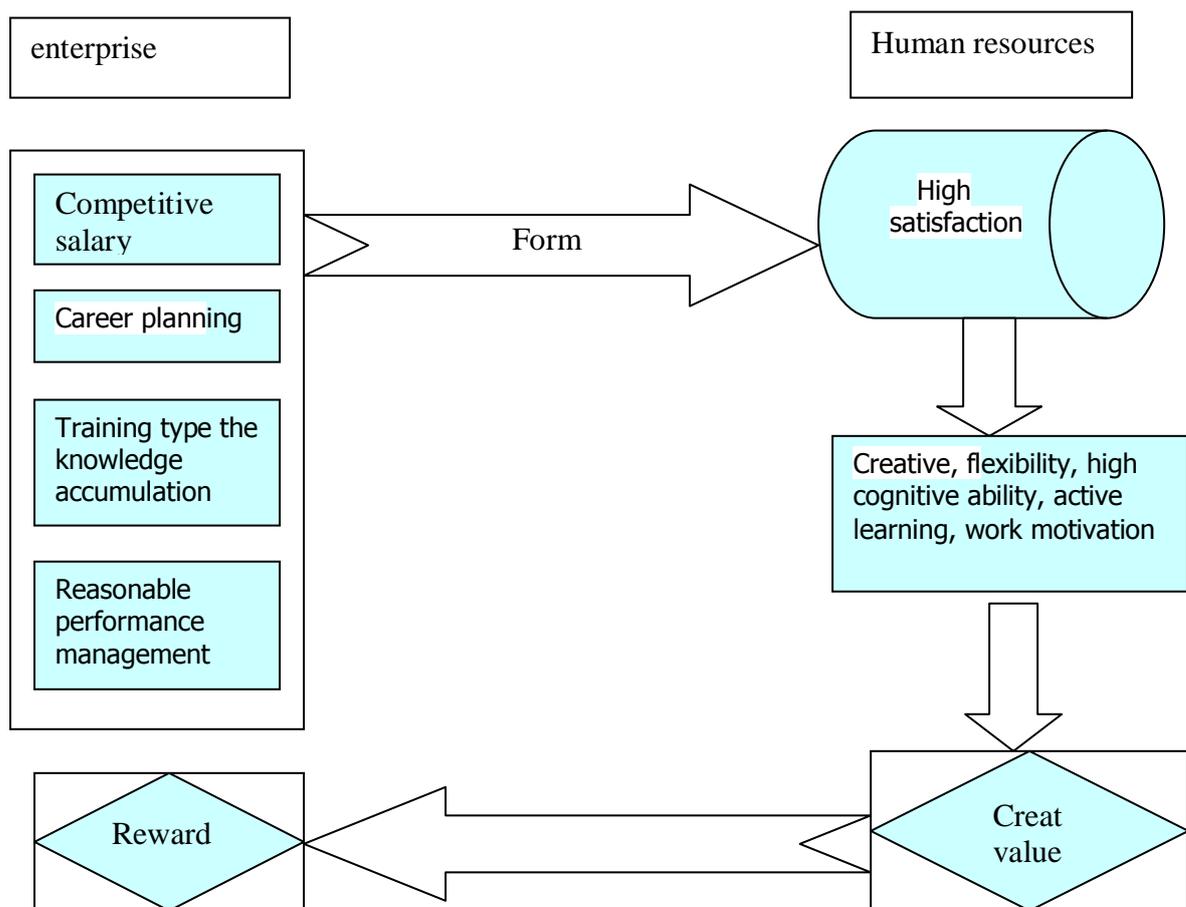


Figure 5. The flow chart of value providing of human resource (Made by authors)

b. Human resource has to be scarce to become the source of an enterprise's core competency.

The unemployed are quite common around us. We can often read a lot of reports about them from television, newspaper and other media. Labor surplus is obvious. It seems to give us a false impression, are human resources not scarce? Actually, that is not the case. It is another way of showing the scarcity of human resources because the reason why this phenomenon appears is that key human resources which can create huge value and profits for enterprises are in short supply, while common talents who are relatively poor educated and make small contributions to enterprises are oversupplied. In the past, most enterprises provide relatively simple and less demanding jobs, greatly reducing the scarcity of human resources. But with the development of science and technology, talents who can create huge value and profits for enterprises are required to be competent for complex jobs and possess a lot of professional knowledge.

The quality of talent depends on their cognitive and learning abilities which are normally distributed in human resources. It shows that senior talent is limited and those who have enormous effects on strategy formulation and core technologies of enterprises are rare. Excellent human resource has become the scarcest resource around the world. According to the 2009 Manpower Need Survey conducted by "Chinese Talents", the number of technological talent shortage in the United States was 650,000 in 2006; it reached 890,000 by 2009. The number of information talent shortage in Europe was 1.74 million in 2002; it amounted to 2.27 million by the end of 2009. In addition, the number of technological talent shortage in Japan totaled 3.18 million in 2009. The outbreak of information technology revolution leads to the increase in demands for high-tech talents and results in the shortage of them. An enterprise which has high-level talents (whose cognitive abilities are higher than average level) will possess more valuable human resources than its competitors. Thus, it can be assumed that under circumstances when human resources are limited, enterprises which have high-level human resource advantages acquire resources and gain more competitive edges at the expense of other enterprises' losses.

c. Human resource has to be inimitable to become the source of an enterprise's core competency.

If human resource wants to become the source of an enterprise's core competency, its high-level human resource advantages have to be inimitable. In Silicon Valley and IBM in the United States, a large number of Chinese people constitute their core technical teams and management authorities. However, given the development status of China's electronic industry, it is hard for China to imitate Silicon Valley or IBM. So, it's safe to say enterprises' special abilities to acquire and use human resources have something to do with specific historical conditions and environments. The reasons are as follows.

Time and geographical location can affect the imitateness of human resources to a certain degree. An enterprise with high-level workforce does not always remain ahead of its competitors in all geographical locations and at all times, because its competitors may also obtain competent workforce in other geographical locations or at other times. There are many such examples. For example, the sales of many well-known multinational enterprises in a specific region may be no match for those of local enterprises. That is because local enterprises may have workforce who are more familiar with local characteristics.

Each enterprise has its own history. In the process, an enterprise will develop and slowly form its own corporate culture. It is a process where the fusion of human resources and corporate culture forms teamwork culture, on the basis of which employees accomplish the goals. The rivals of an enterprise can steal all its talents, but they cannot imitate its cultural atmosphere or teams who work together in the culture.

The complex competitive advantage of social relation network cannot be imitated. People have to be subject to constraints such as economy, law, morality, etc. in society. Due to the effects of social complexity on individuals, the competitive edge of an enterprise's human resources can be brought into full play only in specific corporate culture or against certain company background. Theoretically speaking, if an enterprise can imitate the unique historical events, collaborative teams, enterprise personalities, internal processes and social relation networks of its rivals, the advantages produced by human resources can be imitated, too. However, the truth does not conform to the theory, because many resources can only take effect under specific conditions and different organizational environments also lead to the inimitability of human resources.

5.1.3 Human resource has to be irreplaceable to become the source of an

enterprise's core competency

There are many kinds of resources, including technology, funds, land, patents, talent, and so on. In that way, can other resources replace human resources to create the competitive advantages of enterprises? If the proposition is not tenable, human resources will not be qualified for becoming the source of an enterprise's core competency and the previous argument on the possibility for human resources to become the source of an enterprise's core competency makes no sense. Therefore, a point needs to be clarified first, that is, human resources, as one of the important resources of an enterprise, cannot be thoroughly replaced by technology, land or other resources, nor can it be completely divested by enterprises.

There is no denying that with the constant development of science and technology in today's society new innovative technologies will continuously replace old ones. The leap of technology leads to crisis awareness of enterprises' development, but what is the root of technological innovation? The answer is human resource. If an enterprise can obtain employees with high cognitive abilities and attach importance to training and updating of technical expertise, its technical advantages won't lose. Besides, human resource can optimize and transform funds, patents, markets and other resources (for instance, transform those resources into profits of enterprises). As a result, the contribution rate of human resource to other resources can account for the non-substitutability of human resources to some extent.

However, it is possible for technology, funds, and other resources to replace human resources in a short time, but the replacement cannot be long, nor can they become the source of an enterprise's core competency. Let's take Company A and Company B for example. Company A has a certain human resource advantages over Company B. If Company B develops a new technology, greatly improves its productivity and gradually surpasses Company A in the market. If technology can be imitated, then Company A can either purchase the technology from Company B, or make use of its human resource advantages to develop more advanced technology based on Company B's technology. In this way, Company A can reestablish its resource advantages. It follows that if a certain resource wants to replace human resource to be the core competency, it needs to have value benefit, scarcity, inimitability, and non-substitutability.

From what has been analyzed in the above four points, it can be concluded that human resources are in full compliance with the four standards for becoming the source of an enterprise's core competency and that human resources and enterprise's core competencies are closely associated. Therefore, it is strongly feasible to establish enterprise's core competencies from the perspective of human resources. See Figure 6.

After proving the strong feasibility for human resources to become the source of an enterprise's core competency, it is quite necessary to discuss the importance of human resources for an enterprise's core competency, which is a complex system and explores the enterprise's comprehensive abilities, such as product manufacturing capacity, product marketing ability, comprehensive management ability, and cost control. The enhancement of those abilities is inseparable from the enterprise's development and management of human resources because those are manipulated by human beings. It is fair to say that human resources are the basis for other resources to play their roles; without human resources, there can be no such thing as an enterprise's core competency, just like a river without sources and a tree without roots. This paper intends to illustrate the importance of human resource for an enterprise's core competency from the following three points.

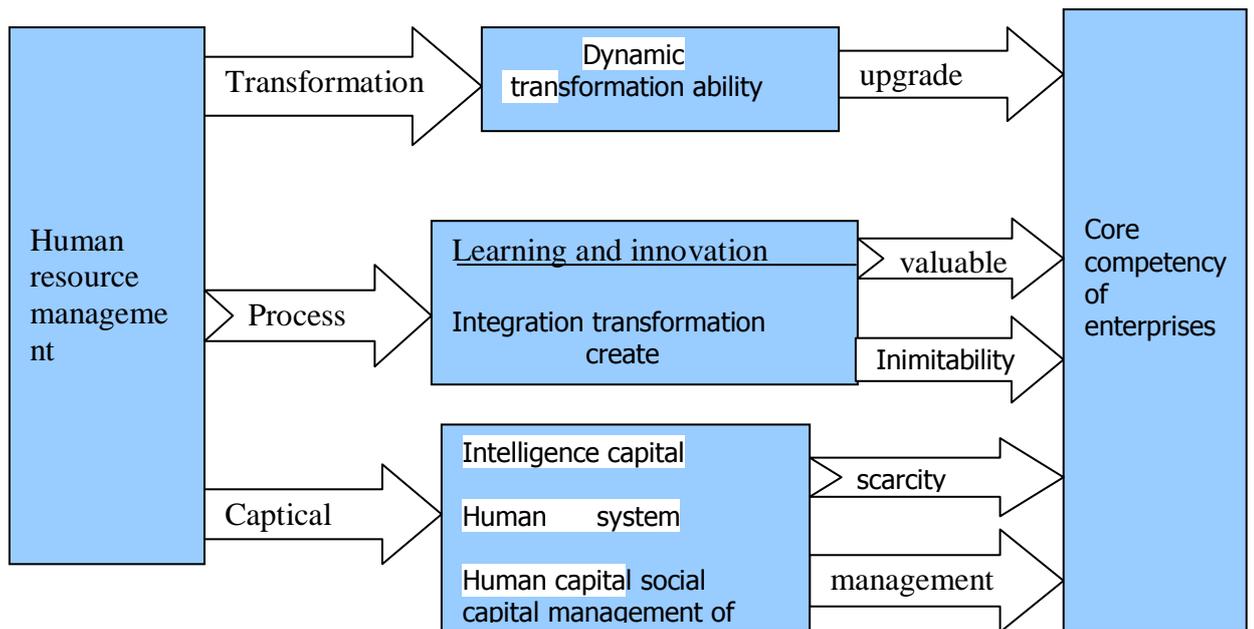


Figure 6.The relationship between human resource management and core competence. (Made by authors)

1. The core competency of an enterprise depends on the condition of human resources.

After all, an enterprise’s creativity and productive force depend on the condition of human resources, which play a principal and dynamic role in its creativity and productive force. Excellent human resources can greatly promote the development of an enterprise, while human resources who are poorly educated or lack senses of responsibility will hinder the development and growth of an enterprise to a great extent. Technological resources, land resources, financial resources, and other resources are all passively affected by human resources. It is the essential factor which plays a leading role in various resource factors of an enterprise. The relationship between other resources and human resources is expressed as passive and active, an auxiliary and a leading relationship. For example, the abilities and levels of financial personnel in an enterprise determine their cost control to a large extent. The abilities of technical personnel in an enterprise determine to a large extent the level of its innovation and manufacturing technique. The abilities of marketing personnel in an enterprise can determine its sales and benefits. The

levels of managerial staff can greatly affect its production efficiency and responsiveness while the abilities of workers in an enterprise decide its output and product quality. It can be concluded that the overlying of the staff's overall abilities ultimately decides an enterprise's competitive position and reflects the level of its core competency. In other words, the condition of an enterprise's human resources determines the strength or weakness of its core competency or constitutes the basis for judging the strength or weakness of its core competency. It is best exemplified by China's Haier Group, which developed into a transnational group among the top 500 global companies from a small refrigerator factory in just 20 years. Its growth was definitely not accidental. One of the important factors in its success lied in that Haier had been attaching great importance to the cultivation of talents and the management of human resources. Great efforts were made to provide them with good working environments. Besides, Haier University was established to improve the quality of its employees. Their efforts were rewarded at last - human resource advantages created a huge benefit and good reputation for Haier.

2. The development process of an enterprise's core competency is a process of human resource management.

The formation of an enterprise's core competency can be classified into three stages: the first stage is mining and consciously structuring various components of an enterprise's core competency, each of which exists independently in this stage. The second stage is integrating those components to enhance cohesive forces and interaction forces. The third stage is market development phase under the joint actions of various components. If an enterprise wants to obtain core competency, those three stages are indispensable; and if it intends to gain the largest competitive advantage, it needs to develop core technology in the shortest time and rapidly occupy market. All these jobs have to be completed by a number of high-quality talents. The formation process of an enterprise's core competency relies on the integration, matching and complementation of its talents' abilities. An enterprise's human resource management needs to improve its employees' cultural qualities, moral levels, technical abilities and teamwork spirits through recruitment, training, allocation, reward and punishment, payment, etc., mobilize the enthusiasm of employees to the greatest extent and improve work efficiency while taking the enterprise's development strategy into consideration to make the most of existing

human resources. Many renowned international enterprises do well in this respect. Take Panasonic, a famous Japanese enterprise, for example. Its slogans like “Enterprises are like people” and “To build Panasonic products, cultivate Panasonic people first” fully justify the above statement. Carnegie, the steel king of America, once said, “Take away all my plants, equipment, markets, and funds. As long as I have my employees, four years later, I will be a steel king again.” Watson, who founded IBM and is listed as one of the top ten famous people in the business world of America, said, “As an entrepreneur, it is a matter of course to consider profits, but they cannot be taken too seriously. Enterprises should put employees first all along, respect them and help them build self-esteem, faith and courage. In this way, half of the success is at hand.”

3. The enhancement of an enterprise’s core competency is the ultimate purpose of human resource management.

Against the backdrop of economic globalization and with the deepening of market development, enterprises are confronted with intensified market competitions. They all strive to survive, speed up development, and maintain leading concepts. Consequently, how to satisfy enterprises’ concepts arouses great attention from the academic circle. According to managers and management experts from various enterprises who study the theory of core competency and successful enterprises, fully mobilizing and integrating other resources on the basis of human resource management is an important way of enhancing the core competencies of enterprises. The work group of an enterprise’s human resource management department is all its members. Its working goal is to release employees’ brainpower and increase their work efficiencies to create more value for enterprise. Specific human resource development and management work consists of three parts: first, carrying out heuristic training of employees’ innovation abilities, judging abilities, analytical abilities and comprehensive abilities. Second, improving their practical operation abilities, scientific and technological levels, cultural qualities, and knowledge application abilities. Third, fostering corporate cultures and spirits, mobilizing their working enthusiasms, and developing professional dedication. Those three steps are complementary to each other. It also manifests the interchange characteristic of enterprises’ human resource management.

The ultimate goal of enterprise management is to make a profit. If an enterprise wants to gain the largest profit, it has to maintain its competitive advantage all along, around which the enterprise's all activities are launched. Enterprises' human resource management is no exception. For enterprises which successfully develop and manage human resources, they are rewarded by discovering their own core competencies. A number of enterprises invest a lot of money and energy every year in training and educating their employees, establishing independent institutes to conduct centralized training of employees selected by branches at regular intervals and promoting school-enterprise cooperation between themselves and high-level schools to improve the educational levels of their employees. Only in this way can the core competencies of enterprises be maintained and strengthened. Such practices adopted by many enterprises further prove that enterprises have to increase their input in human resource development and management if they want to enhance their core competencies, because the final output value will be huge.

Finally, through a detailed analysis of the feasibility for human resource to become the source of an enterprise's core competency, the paper arrives at a conclusion that it is strongly feasible for human resource to become the source of an enterprise's core competency. Then, analysis of the importance of human resource for an enterprise's core competency is conducted in detail, from which a conclusion that human resource is the root and source of an enterprise's core competency is drawn.

Through the interview with and understanding of FLB, and taking the present situation of third party logistics market in Sweden into consideration, it is obvious that after losing Ericsson, its main customer, FLB suffered a decline in turnover and shrinkage in profit. For the sake of saving costs, its management authorities cannot but give up their competitive advantage in such areas as physical and technical resources (the warehouse of FLB is excluded, but it has strong limitations in its geographical location). Seen from the perspective of human resources, although there are only 17 people in FLB now, they all shoulder important responsibilities and have strong cognitive and learning abilities, as well as strong senses of responsibility at work. It can be inferred from those factors that it is right for the management authorities of FLB to suggest considering human resource as the source of its core competency in future development. It should also be noted that how FLB manages its

existing human resource to make it the source of its core competency is what FLB should take into serious account when deciding to regard human resource as the root which constitutes its core competency.

5.2 Other Suggestions

Resource integration is a simple way to understand how to use a company's resources more efficiently. Integration means to optimize the resources, that is, sometimes advance, sometimes retreat, sometimes give and sometimes take to optimize the whole resource. As a 3PL enterprise, if FLB wants to strengthen to realize the market needs and obtain an advantageous position in the fierce competition, it shall achieve this goal through the large scale of 3PL resource integration. 3PL resource integration not only re-optimize and allocate the original logistics resource of the enterprises and societies, but also make the operation characteristics of the enterprises have fundamental changes to achieve the fundamental changes in the enterprises management and operation. the following three points are the resource integrations which being needed by the current FLB resource in recent market.

1. Logistics internality

As a 3PL enterprise, FLB aims to provide services to the clients in nature. FLB designs the logistics program for the clients and provide a logistics supply chain for the society, which is a complex system project. The logistics management pursues for the whole optimization, as a result of which, the related logistics function elements shall be integrated through meticulously planning the logistics centers and routes, developing the programs and designing the logistics supply chain to form the complete supply chain better and provide the multifunctional and integrative services for the clients.

2. Effectively use and allocate the logistics resource

According to the current FLB conditions, the phenomenon of repeat allocation in the logistics resource and low utilization rate in the logistics devices shall be avoided especially. Although each department has paid attention to improve its efficiency, there is no reasonable division between the departments and their market scopes

overlap, which stops each department from giving full play to their advantages to the largest extent and low efficiency in the whole logistics supply chain. Therefore, conducting the whole planning based on the holistic thinking and arranging each combination reasonably is an effective approach. Only through adopting the logistics solution program of centralization, large scale, socialization, pacification and personalization, relying on the idea that the cost corresponds to the benefit and searching for the logistics solution program with least gross cost, can the whole logistics cost be reduced on a large scale and the logistics resource operation efficiency be improved.

3. Operation integration

3PL operation integration embodies that 3PL system tends to be organized and ordered. In the FLB logistics activities, different divisions are responsible for different function element which may result in the degradation in the whole system due to the responsibility allocation problem or communication problem. Therefore, all links of the logistics activities shall be connected, each function element shall be organized as a whole and the systematization and rationalization of the logistics shall be achieved from the whole logistics instead of a single department, which aims to find out the best combination when considering the relationship between these departments rather than pursuing the optimization of a single department. This can not only reduce the obstacles between the departments and accelerated the products flow rate, but also shorten the delivery time to minimize the gross logistics cost of the enterprises. In addition, this will promote the enterprises to establish better cooperation with the member enterprises of the logistics supply chain at the strategic height. The enterprises increase their own work efficiency and reduce the cost to provide the holistic and high quality service for the clients to improve its competitiveness.

As an open and non-independent operation system, 3PL is restricted by many factors of the surrounding environment, which lead to that the 3PL resource integration shall consider the changes in the internal and external environment. Then the integrated enterprises resource can adapt to the need and development of the external environment.

FLB's present strategy is based on customer needs. This makes the customer relationship critical to enterprise survival and the development of scarce resources. So FLB for the enterprise customer resources as an important asset for the enterprise to the effective use and explore the enterprise how to in the fierce competition in the market survival and development is of great significance. But not all clients are FLB should choose and invest their resources? The answer is no. From the customer perspective, the following characteristics are FLB in choice and customers to establish relations need to consider the customer needs to have characteristics.

Profitability: in such established cooperative relations with customers to help generate income after.

Image ability: Enterprise and such customer relations of cooperation can improve the image of the enterprise, such as the famous enterprise customer cooperation, attend famous engineering can promote the enterprise image. In this case, the need for profits can be reduced.

Stability: This kind of customer long-term, stable, large quantities of but can maintain the stability of the enterprise; make enterprise to keep the break-even point above. Even if such customer seemingly without profit, but shared a lot of enterprise fixed fee.

Collaborative: This kind of customers not only make a profit for the enterprise, and enterprise cooperation and enhance the own superiority, has become a common interest, who formed-WIN WIN situation.

Finally, we can figure out. Customer relationship resources have become key resources of the enterprise's development, is the enterprise long-term stable profit source. Customer relationship resources to the competition, especially for high earnings customer relationship resources of the competition, FLB should be the main direction of an enterprise strategy formulation. And in the future of the economic environment, relative to the enterprise's tangible assets and intangible assets to the enterprise competitive contribution award play a larger role. Customer relationship as an enterprise's important intangible asset, and its importance is understandable. High quality customer relationship resources are an important guarantee of enterprise profit. It is also a way to show FLB core competitiveness of an important factor.

6. Conclusion

6.1 Overall conclusion

The purpose of this thesis is to analyze how a 3PL company could develop its logistics competencies with RBV (Resource based view) theory, after summarizing several literatures that regarding to RBV, logistics services and 3PL provider,(e.g. Wu et al, 2005. Wright et al, 1994. Wong & Karia, 2008. Chiu, 1995. Karia & Razak, 2007). Four major types of resources are discussed in this thesis. Which are Physical resources, Technological resources, Human resources and Relationship resources. For a 3PL company the Physical resources shall contain freight vehicles, warehouse etc, Physical resources can be a very important aspect for the logistics company, but on the other hand, the maintenance of physical resources could be costly, managers should control the investment of Physical resources to keep the balance between expenses and revenues. Technological resources, in the purpose to create higher efficiency and profits, many LSP (Logistics service provider) have recognized the importance of updating the IT (Information technology) ability, the way to updating IT ability could be installing hardware Electronic Data Interchange (EDI), GPS (Global Positioning System) etc. for Human resources, the performance of Human resources directly influences the quality of services, cost, customer relationship. Arrange professional training of workforce, offer motivation to employees would inspire potential company's competitive advantages. And Human is always the center of any industries, so does 3PL. finally for Relationship resources, 3PL contain much direct or indirect relationship between business partners and customers. Therefore, 3PL provider shall take relationship resources as one of the critical resource. To identify the buyer's needs, save cost, enhance the business opportunities, and improve the service quality, 3PL need to maintain a healthy and sustainable cooperative relationship with customers. And for FLB, after Ericsson move out from Gävle, FLB have lost their major customer, therefore FLB has to sold many of their Physical resources, now only three trucks and one warehouse left. Also, FLB didn't invest that much at technological resources side. This could be a weak link for FLB. During the interview that we had with FLB's managers, they have admitted that human resources are the most important one for FLB, they also planning develop human resources as the cornerstone for the other three resources. Therefore, this thesis has developed two

models based on RBV theory for FLB o develop their core competence base on Human resource.

The dates at finding and analysis part have shown that human resources of FLB are creating value for FLB. And even through only 17 employees who are working for FLB, but they are capable for their position, FLB also providing their employees enough salary and clearly career planning, therefore, each employees are loyal to FLB. According to model one, see figure 5, FLB and human resources of FLB are both fulfill the condition, which means human resources can create value for FLB.

According to model two, see figure 6, human resources of FLB now have the characteristics to become FLB's core competence, but FLB needs to invest their management capital, social capital, also crate training and management process for human resources, then human resources can be upgraded as the core competence of FLB.

So in summary, model one (Figure-5) and model two (Figure-6) can be very helpful for FLB to build their core competence base on human resources. But also FLB needs to invest many capitals also crate training and management process to upgrade human resources human resources as their core competence.

6.2 Further studies

The target of this thesis is to analyze how a 3PL company could develop its logistics competencies by use RBV (Resource Based View) theory. The case company have been choose in this thesis FLB is a small 3PL provider.

According to FLB's current situation and two interview we had with managers from FLB that we know, Human resources is going to play an very important role for FLB regard to their future strategy, therefore, two model have been build based on Barney's theory, this two models can be used for a small 3PL provider (our case is FLB) to improve their core competence base on Human resources.

But also our study are not enough to show the whole activities in a logistic system, more research base on a bigger company or an international company with complex market situation to prove if the model that have been made in this thesis are suitable is needed.

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Appendix interview questions:

Interviewees:

1. Peter Jonsson: Head of department. Contact number: 46 26 65 80 41.
Email: peter.jonsson@flb.se
2. Ylva Söderlund: HR, Contact number:46 26 65 8042. Email:
ylva.soderlund@flb.se

Preliminary questions:

1. Could you please introduce yourself?
2. How long have you been working at FLB?
3. What is your job title and major responsibility of FLB?
4. Can you give a brief introduction of FLB and the services it provides?

Regarding to the physical resources

1. How about the size of FLB?
2. How many vehicles, warehouses, inventories, hubs do you have
3. Could the physical resources be one reason for your good performance on the

market? How?

4. Do you have any plan to upgrade or add more physical equipment?

Regarding to the **technological resources**

1. Do you apply the Information Technology (IT) software or hardware within your companies/ during your services?
2. Do you find IT to be a good approach to manage the company? Did it raise the efficiency/profits of the company?
3. Do you think the advance of IT application could result in the outperformance of FLB? How?
4. Do you have any plan to upgrade or add more technology support?

Regarding to the **human resources**

1. How many employees does FLB have?
2. How about the levels education or skills that the employees?
3. Do you arrange some training activities to upgrade the employees' working capacities?
4. Do you think the advance of human resources could result in the outperformance of FLB? How?
5. Do you have any plan to upgrade or add more technology support?

Regarding to the relationship resources

1. How many business partners does the FLB have? Who are your customer groups?
2. Does FLB pay special attention to maintain the relationships that build between the customers or between the business partners?
3. Do you think the advance of human resources could result in the outperformance of FLB?
4. Does FLB plan to expand its relationship network? How?

Following question:

1. Do you think these resources (the physical, technological, human, relationship) are the major resources for FLB's success in the market?
2. How do you bundle these resources together?
3. Do you think there are other resources that are important for FLB's competencies' development?