

ANALYSIS OF COLLABORATION AMONG 3PL SERVICE PROVIDERS IN  
TERMS OF RELATIONSHIP MARKETING ORIENTATION AND  
ORGANIZATIONAL PERFORMANCE:  
CASE OF TURKISH MARKET

A THESIS SUBMITTED TO  
THE GRADUATE SCHOOL OF SOCIAL SCIENCES  
OF  
IZMIR UNIVERSITY OF ECONOMICS

BY

ÖZGE AKINCI

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF ART/MASTER OF SCIENCE/DOCTOR OF PHILOSOPHY  
IN  
THE GRADUATE SCHOOL OF SOCIAL SCIENCES

FEBRUARY 2013

## ABSTRACT

ANALYSIS OF COLLABORATION AMONG 3PL SERVICE PROVIDERS IN  
TERMS OF RELATIONSHIP MARKETING ORIENTATION AND  
ORGANIZATIONAL PERFORMANCE:  
CASE OF TURKISH MARKET

AKINCI, Özge

Department of Logistics Management

Supervisors: Assoc. Prof. Dr. Öznur YURT

Asst. Prof. Dr. Özgür ÖZPEYNİRCİ

February 2013, 113 pages

Competitive pressures force supply chain members to generate collaborative relationships. There are an extensive literature on the relationship between, and collaboration between supply chain partners. However, there is still a lack of research on the collaborative relationship between third party logistics (3PL) service providers. This study investigates collaboration alternatives within 3PL service providers. I conducted a 40-item questionnaire in order to investigate how relationship-marketing variables affect the performance of collaborator 3PL service providers. The survey results indicate some significant relationships between the variables, while also indicating some insignificant relationships, which I expected them to be significant.

Keywords: Third party logistics service providers, horizontal collaboration, relationship marketing orientation, and organizational performance.

## ÖZET

### 3. PARTİ LOJİSTİK SERVİS SAĞLAYICILARI ARASINDAKİ İŞBİRLİKLERİNİN İLİŞKİSEL PAZARLAMA VE ÖRGÜTSEL PERFORMANS AÇISINDAN İNCELENMESİ: TÜRKİYE PAZARI ÖRNEĞİ

AKINCI, Özge

Lojistik Yönetimi Bölümü

Tez Yöneticileri: Doç. Dr. Öznur YURT,

Yrd. Doç. Dr. Özgür ÖZPEYNİRCİ

Şubat 2013, 113 sayfa

Rekabet baskısı tedarik zinciri üyelerinin işbirliği içinde olmalarını zorunlu hale getirmiştir. Tedarik zinciri ortakları arasındaki ilişki ve işbirliği açısından geniş bir literatür bulunmaktadır. Buna rağmen, 3. parti lojistik şirketleri arasındaki ortaklığı ile ilgili az araştırma bulunmaktadır. Bu çalışma, 3. parti lojistik şirketleri arasındaki işbirliği alternatiflerini incelemektedir. İlişkisel pazarlama değişkenlerinin işbirliği içindeki 3. parti lojistik firmalarının performanslarına nasıl etki ettiğini araştırmak amacıyla 40 maddeden oluşan bir anket uygulanmıştır. Anket sonuçları, bazı değişkenler arasında anlamlı ilişkiler gösterirken, anlamlı olması beklenen bazı değişkenler arasındaki ilişkilerin beklendiği gibi olmadığı görülmüştür.

Anahtar Kelimeler: 3. parti lojistik hizmet sağlayıcı şirketler, yatay işbirliği, ilişkisel pazarlama, örgütsel performans veya örgüt performansı.

## TABLE OF CONTENTS

ABSTRACT .....	iii
ÖZET .....	iv
TABLE OF CONTENTS .....	v
LIST OF TABLES .....	vii
LIST OF FIGURES .....	viii
CHAPTER	
1. INTRODUCTION .....	1
2. LITERATURE REVIEW .....	3
2.1 Supply Chain Management and Logistics .....	3
2.2 Third Party Logistics Service Providers .....	6
2.3 Types of Relationships among Businesses .....	12
2.3.1 Arm's Length Relationships .....	13
2.3.2 Vertical and Horizontal Collaboration .....	14
2.3.3 Joint Ventures .....	19
2.3.4 Mergers and Acquisitions .....	20
2.3.5 Alliances .....	23
2.3.6 Full Integration .....	24
2.4 Collaboration in Supply Chain .....	26
2.4.1 Levels of Collaboration in Supply Chain .....	33
2.4.2 Classification of Collaboration in Supply Chain .....	36
2.4.3 Benefits of Collaboration in Supply Chain .....	37
2.4.4 Challenges of Collaboration in Supply Chain .....	38
2.5 Collaboration Applications among 3PL service providers .....	42
2.5.1 Horizontal Collaboration among 3PL service providers in the World .....	42
2.5.2 Horizontal Collaboration among 3PL service providers in Turkey .....	47

3. RESEARCH METHODOLOGY .....	50
3.1 Purpose and Scope of the Research .....	50
3.2 Research Model .....	55
3.3 The Content of the Questionnaire and the Variables Used .....	57
3.4 Sampling and Data Collecting Procedures .....	60
3.5 Hypotheses of the Research .....	61
4. ANALYSIS AND FINDINGS .....	64
4.1 Descriptive Analysis .....	64
4.2 Reliability Analysis .....	65
4.4 Correlation Analysis .....	68
4.4.1 Bonding Hypotheses .....	69
4.4.2 Communication Hypotheses .....	70
4.4.3 Shared Value Hypotheses .....	73
4.4.4 Empathy Hypotheses .....	73
4.4.5 Reciprocity Hypotheses .....	75
4.4.6 Trust Hypotheses .....	76
4.5 Regression Analysis .....	77
4.6 Summary of Results .....	85
5. DISCUSSIONS AND CONCLUSIONS .....	81
LIMITATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH ...	85
REFERENCES .....	87
ONLINE SOURCES .....	95
APPENDIX	
THE QUESTIONNAIRE .....	101

## LIST OF TABLES

1. Horizontal Collaboration in Turkey .....	48
2. Descriptive Statistics .....	65
3. Reliability Analysis .....	66
4. Main Correlation Analysis .....	68
5. Correlation Analysis of Bonding .....	69
6. Correlation Analysis of Communication .....	70
7. Correlation Analysis of Shared Value .....	72
8. Correlation Analysis of Empathy .....	73
9. Correlation Analysis of Reciprocity .....	75
10. Correlation Analysis of Trust .....	76
11. Variables Entered .....	78
12. Model Summary .....	78
11. ANOVA of Regression .....	79

## LIST OF FIGURES

1. Supply Chain Collaboration .....	13
2. Horizontal Collaboration and the Level of Integration .....	17
3. Levels of Collaboration .....	34
4. Research Model .....	56

## **CHAPTER 1**

### **INTRODUCTION**

Turkey is a crucial trade and transport corridor between East and West. Turkey has a vision of becoming a logistics hub in the region. The importance of third party logistics (3PL) service providers is increasing parallel with the worldwide competition. 3PL service providers' services in Turkey have potential for further development. This vision will further enhance the use of the 3PL service providers.

Due to the target of core competence in supply chain enterprises, they tend to outsource supporting activities such as logistics to 3PL service providers. Previously, 3PL service providers provide only transportation and warehousing services. However, because of competition between enterprises in the supply chain, as well as with the increase in competition among 3PL service providers, they start to expand into different service areas. In other words, in order to survive in the logistics market, such companies need to provide more customized services, integrating into the supply chains. These services may include fleet management, order handling, complaints management, and assembly services. However, a 3PL service provider may not be able to provide all of such special services relying on its own resources and knowledge. Consequently, 3PL service providers are seeking cooperation opportunities with other 3PL service providers, establishing vertical and horizontal alliances.

I claim 3PL service providers may need to cooperate for several reasons, but I list only two of them.



- To overcome scale-based inefficiencies (economies of scale issues), and
- To provide a full list of services.

Researchers examine cooperation between 3PL service providers and other parties of the supply chain (supplier, manufacturer, retailer, and customers), however, there seems to be a lack of research on the collaborative relationship between 3PL service providers. In the simplest sense, a supply chain refers to a business network where firms engage in close relationships with their suppliers and customers. Unlike the traditional view, firms build horizontal collaboration with competitors to share information, and work together to enhance the organizational performance.

In line with the above-mentioned statement, firms form horizontal collaborations for the achievement of common objectives through the collaborative effort of the parties. The primary objective of this research is to investigate organizational performance of 3PL service providers before and after horizontal collaboration among other 3PL service providers, from the perspective of marketing orientation. Another important objective of the study is to investigate the effects of marketing variables on 3PL service providers and their relationship with their customers.

Chapter 2 presents a detailed review of literature on concepts of supply chain management and logistics, 3PL service providers, types of relationships among businesses, interorganizational relationships, collaboration applications, and collaboration in supply chain. Chapter 3 introduces the model and methodology used in the thesis. Then, Chapter 4 presents the findings and analysis of the thesis. Finally, I summarize the study briefly in the conclusion part of the thesis, followed by a short discussion and opportunities for further research.

## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter primarily aims providing a detailed literature review and the necessary background for the thesis. The chapter starts with a description of supply chain and logistics management in an overall review. This section will determine management strategies for 3PL service providers' success in supply chain. Later in the chapter, I examine third party logistics providers, defining classifications, and elements, which generate efficient collaborations. In addition, I classify 3PL service providers' services as transportation, warehousing, and other customized services. After defining different types of relationships among businesses, I analyze levels, classification, benefits, and challenges for 3PL service providers of two forms of collaboration. Furthermore, I examine relationships between 3PL service providers and analyze the methods responsible for successful collaboration and information sharing. Finally, the last chapter will determine collaboration application in supply chain through analyzing worldwide and Turkish market.

#### **2.1 Supply Chain Management and Logistics**

Supply chain management (SCM) is a strategic coordination of the business functions and tactics across businesses in the supply chain in order to improve the long-term performance of the individual organizations and the supply chain as a whole (Li et al., 2006). Li et al. (2006) define SCM as coordination between trading partners to improve the performance of an individual organization and to improve the

performance of the whole supply chain. Effective logistics and SCM is the key to the success of organizations. Furthermore, high quality and efficient corporation by SCM provide benefit for relationships with partners and improve supply chain competence (Cepinskis and Masteika, 2010). Cepinskis and Masteika (2010) study the SCM and complexity of managing supply chains. The authors argue that today's business environment require a focus on SCM concepts, globalization of supply chains, customer and supplier relationship management, and partnerships of various types. As companies face difficulties in managing complex supply chains, both the importance of logistics and the expectations from logistics services are increasing. Huemer (2012) emphasizes the value chain model, which is a powerfull structure in supply relationships. This traditional SCM builds on a number of principles that have significant impacts on the understanding of logistics and SCM.

Li et al. (2006) define SCM practices as the set of activities in an organization in order to provide effective management in supply chain. These practices are multi-dimensional, and include both downstream and upstream sides of the supply chain. From the view of network conception of SCM, Chen and Paulraj (2004) consider firms as links in a networked supply chain. Therefore, the performance of a firm is equally dependent on cooperation with business partners effective and efficient.

Schoenherr (2009) classify global logistics and SCM into groups, primarily deal with (i) internal logistics and supply chain management factors (human resource issues and practices of logistics and SCM), (ii) logistics (third-party logistics and logistics design/infrastructure), (iii) logistics and SCM enablers (information technology and buyer-supplier relationships), (iv) the environment (risk/uncertainty, reforms and political developments, and examples as to how environmental variables can impact

the management of supply chains), and (v) external pressures (competitiveness, green logistics and SCM and reverse logistics).

In addition to the statements above, regarding SCM and logistics managements' definitions and relationships, Cruijssen (2007), Lieb and Lieb (2012) state the current trends in the logistics sector as:

- Globalization and increased competition
- Focusing customer expectations
- Increasing costs of road network usage
- Information and communication technology
- Management of environment
- Increasing market share through mergers and acquisitions
- Building collaborative relationships in supply chain
- Expanding services in Eastern Europe
- Offering value added services in certain industries
- Growth opportunities in China and India

3PL service providers are strategic entities in the supply chain. Due to the above trends in the logistics sector, 3PL service providers try to adapt the changing in logistics concept.

## 2.2 Third Party Logistics Service Providers

With the increased specialization and outsourcing tendency, the outsourcing of logistics activities also increased. Thereby, the need for, and the importance of 3PL service providers specializing in logistics activities has increased. Consequently, 3PL service providers become one of the major entities of the supply chain. Jung, Chen, and Jeong (2005) identify 3PL service providers as an emerging group of dependent companies, which perform all or part of a firm's product distribution function. They collect inbound and outbound shipments from manufacturers and consolidate shipments at their distribution centers. 3PL service providers move the consolidated shipments via the alternative transportation routes to the customer zones. In addition, 3PL service providers provide many other logistics services. In contrast, a freight forwarder is a company that organizes shipments for individuals or corporations, to transporting large orders from the manufacturer or producer to market or final point of distribution. For these reasons, I can categorize 3PL service provider according to their focus on the main logistics services. Vasiliauskas and Jakubauskas (2007) describe four categories of 3PL service providers:

- **Standard 3PL service providers:** This is the most basic form of a 3PL service provider. They perform activities such as pick and pack, warehousing, and distribution – the most basic functions of logistics.
- **Service developers:** This type of 3PL service provider offer their customers advanced value-added services such as tracking and tracing, cross-docking, specific packaging, or providing a unique security system.
- **The customer adapters:** This type of 3PL service provider emerges due to customer demand. They dramatically improve logistics, but do not develop a specifically new service.

- **The customer developers:** This is the highest level of 3PL service providers that take on the entire logistics function for customers. Customer developers perform extensive and detailed tasks for a limited number of customers.

In the meantime, Fabbe-Costes and Jahre (2008) classify 3PL service providers firstly according to their origins, i.e. their function before entering into the logistics services industry. Secondly, resources and/or capabilities they possess, e.g. whatever their assets are physical or, in the case of non asset-based companies, non-physical. The third classification is type of services they provide i.e. which activities they undertake on behalf of their client. The nature of the relation is final classification i.e. function based logistics providers have long-term commitments and the management of multiple functions and/or supply chain processes.

In a competitive environment, 3PL service providers can ensure survival through customer orientation and satisfaction, the achievement of economies of scale and improving in performance of delivery. Thus, they attempt to maintain their market share and their position in the market. With the help of these, they attempt to gain market share respond to defend their position in the market (Čepinskis and Masteika, 2010). This will emphasize integration capability and improve organizational learning capability. This will result in contributing to the acquisition and maintenance of long-term superior service and financial performance (Shang, 2009). Furthermore, Chapman, Soosay, and Kandampully (2002) claim that 3PL service providers must focus on innovative strategies to improve their competitiveness. Continuous technological advancement is one of the most important assets that 3PL service providers need to integrate. Xu and Xu (2011) also describe developing third party logistics providers, which focus on producing and manufacturing. These providers aim to enhance their core business and merger the logistics resources. Thus, providing

logistics services for their partners, and developing their social logistics services using their extensive logistics management experience and resource advantages.

According to Xu and Xu (2011), third party logistics services have three dimensions: converting, developing, and international logistics services. 3PL service providers convert logistics services from traditional logistics enterprises into modern ones, using their own resources to expand services into the more comprehensive logistics functions. In order to achieve this, 3PL service providers use their own resources to expand their functions, rather than remain with the traditional function of transportation and storage. Another option for converting third party logistics is generating the express delivery services. 3PL service providers also develop their social logistics services by means of their original logistics management experiences and resource advantages. For example, international logistics service providers (i.e. UPS, FedEx, or DHL) can provide overall logistics services because of their advanced information technology, extensive funds, expertise, experience, and management methods.

Research refers to a number of common theories: Transaction cost economics, resource dependency, network theory, and social exchange theory. Transaction cost economics theorizes that a firm chooses a particular relationship structure in order to minimize transaction costs (Golicic and Mentzer, 2005). Another explanation of this relationship is “arm’s-length”, which is characterized by little or no investment in assets, and minimum information exchange. (Hoyt and Huq, 2000) Minimizing costs is also beneficial for closer relationships (Golicic and Mentzer, 2005). Resource dependence theory depends on the organizations' uncertainty about their supply of resources and capabilities. Firms build long-term relationships. This is a win-win situation, which leads to sustainable competitive advantage (Hoyt and Huq, 2000). If

resources are important to the firm, they tend to build closer relationships. According to network theory, networks are component of organizations linked by a variety of different relationships. Organizations must interact with a network of external actors to acquire what is necessary for survival and growth (Golicic and Mentzer, 2005).

We can categorize 3PL service providers' services in two aspects:

- Main services: Transportation and warehousing
- Other customized services

Due to the target of explaining transportation, which is one of the main services, Feng and Yuan (2007) define transportation service as a major component of order lead-time from an order placement until the delivery of goods to the end-customer. While enterprises engage in multinational operation, firms develop the door-to-door mode of transportation in order to reply the consumers' demand for products. Because of cooperative arrangements, 3PL service providers have to build a common transportation network acting under a single name as a joint venture.

Traditional international transportation by consolidated freight takes 8 to 14 days. The integrated global 3PL service provider can act as a virtual distributor to form an alliance with global supply chain participants in order to compress the delivery cycle time to two to four days (Tyan, Wang, and Du, 2003). Less-than-truckload (LTL) companies enter the 3PL arena. LTL companies design and manage integrated logistics systems through new subsidiaries, and alliances with European logistics companies to provide international door-to-door service. Several truckload companies form inter-modal partnerships with railroads. Most high-tech companies select global door-to-door 3PL service providers such as FedEx, UPS and DHL to streamline distributions and to reduce delivery cycle times (Rao and Young, 1994). The typical



benefits of a global door-to-door service are shorter delivery cycle times, more reliable transit times, less complex custom clearance procedures, and real-time global tracking and tracing systems. While the unit transportation cost is higher than that of a traditional consolidated airfreight service, the total logistics cost is lower because of inventory and cycle time reduction throughout the global supply chain. Researchers determine the success of such integrated 3PL service providers by its global transportation network, warehousing network, and information network (Tyan, Wang, and Du, 2003).

Stefansson (2006) mentions an interaction between distribution and transportation structures. A decentralized distribution system meets localized the customer demand. The transport distances are short and relatively inexpensive. With the change from a decentralized distribution system to a centralized one, the transport distances will increase. New innovative transportation networks form as pure “hub-and-spoke systems”. 3PL service providers manage this transportation system by an organizational structure in which the single depots cover an area and are connected by at least one transshipment centre, or hub. In addition, direct transports can reduce costs and decrease mean distances between depots (Zapfel and Wasner, 2002).

Being involved with logistics activities other than transportation requires extreme information sharing and the use of modern technologies. Aktaş and Ülengin (2005) claim that 3PL service providers' services should not solely base on transportation but also on other logistics activities, such as warehousing. Stefansson (2006) mentions that 3PL service providers provide diverse services in addition to transportation services. 3PL service providers store the products (raw material, parts, goods-in-process, finished goods), in warehouses and transfer information. The activities perform in warehouses and distribution centers (DCs) are different. The role of a DC

is narrower, restricted to receives and ship, while warehouse activities include receive, store, ship, and pick. On the other hand, 3PL service providers keep all products in warehouses while DCs only hold fast-moving products in much smaller quantity.

Terminals are facilities where 3PL service providers shift load units between links in a transportation network. Examples are ports, crossing points of transport modes (e.g. between road and rail), and facilities specialized in fast throughput of load units, which makes cross docking possible. Examples of terminal activities are transshipments, coordination, and cross docking. 3PL service providers' cross-dock the goods at terminals or consolidate services at DCs, store or integrated-logistics value-added services at warehouses and DCs (Stefansson, 2006).

Chapman, Soosay, Kandampully (2002) claim that in recent years, in consequence of increasing globalization and competition, 3PL service providers expand their services in order to cover warehousing and transportation activities, purchasing, distribution, inventory management, packaging, manufacturing, and even customer service. Bing and Zhongying (2009) also classify third-party logistics activities, which are transportation, warehousing, inventory management, and information related activities i.e. tracking and tracing, value added activities, i.e. secondary assembly and installation of products, or even SCM.

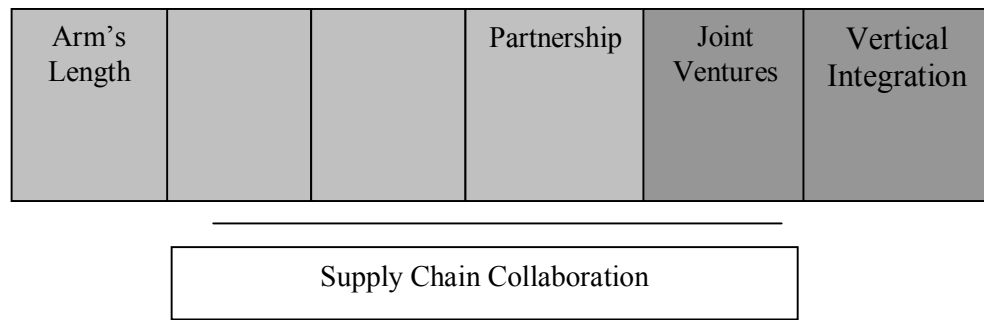
In order to analyse SCM, Gunasekaran and Ngai (2003) define a number of management strategies for a small 3PL service provider. Firstly, 3PL service providers have to make long-term decisions through strategic planning. These decisions should include corporate strategy such as the nature of the logistics business (e.g. transportation, warehousing, materials handling, demand forecasting, etc.), the location of distribution centers, outsourcing, business sizes, and the budget. Secondly,

3PL service providers should plan, coordinate, and control materials flow along the logistics supply chain using by inventory management. The major decisions are the volume and timing of orders and deliveries, and the consolidation of items. Thirdly, 3PL service providers should utilize available capacity, schedule transportation equipment, and maintain transportation facilities. Another factor is capacity planning which 3PL service providers use to make long-term decisions concerning for example the number and the capacity of warehouses or distribution centers, transportation vehicles, material handling equipment, and the number of workers. Finally, 3PL service providers collect data on performance and utilize resources, and make the required changes to logistics operations using information technology.

Ji and Feng (2011) analyze the strategic services of 3PL service providers in three types. One focuses on niche markets, providing long-term and sustainable service. Another is using new technology to explore potential demand of logistics service; the final type provider making unique strategic service according to resource, including land, policy, work force, raw material, etc.

### **2.3 Types of Relationships among Businesses**

Over the years, researchers introduce different classifications to describe the different interorganizational relationship formats. Historically, characterize interorganizational relationship can be categorized with a range of relationships, from arms-length transactions (market governance) to vertical integration (hierarchical governance) with cooperative relationships (hybrid governance) (Golicic and Mentzer, 2005), (Patricia, 2011).



**Figure 1:** Supply Chain Collaboration (Golicic and Mentzer, 2005)

### 2.3.1 Arm's-Length Relationships

Arm's length relationships are transactional and have no degree of collaboration. Arm's length relationship is similar to a zero-sum game, in that if one of the partners wins, the other partner loses. In long-term businesses relationships, if partners do not share any joint ventures, the relation is similar to arm's-length relationship. The main driver for the cooperation is information sharing, joint goals and risks. In addition, collaborators should serve to differentiate services according to their customers' demand (Kampstra, Ashayeri, and Gattorna, 2006).

Supply chain collaboration is different from joint ventures or strategic alliances, which necessitates a degree of shared ownership across the parties. Neither is supply chain collaboration similar to vertical integration. There is common ownership of supply chain members (Kampstra, Ashayeri, and Gattorna, 2006). Arm's-length transactions involve discrete transactions. In contrast, firms acts as one firm through integration (Golicic, Foggin, and Mentzer, 2003).

Jeffrey and Singh (1998) mention about features of arm's-length market relationships:

- Nonspecific asset investments
- Minimal information exchange
- Separable technological and functional systems within each firm
- Low transaction costs and minimal investment in governance mechanisms

### **2.3.2 Vertical and Horizontal Collaboration**

Horizontal collaboration is cooperation between (potential) competitors or parties at the same level in the market (Zhang, Yu, and Liu, 2008). Horizontal collaboration is related with competitors internally, and non-competitors externally (Braziotis and Tannock, 2011). On the other hand, Audy et al. (2010) propose that horizontal collaboration occurs with business units outside the supply chain, such as a competitor company, with whom the core company can share warehousing capacity, or a non-competitor company, with whom the core company can share production capacity. In addition, Audy et al. (2010) mention a third dimension of collaboration, which is the combining of both vertical and horizontal collaboration. This has also been differentiated, and designated as lateral, diagonal, or synergistic collaboration.

Roberts, Roberts, and Ward (2005) describe vertical integration as a single ownership of more than one part of the organization's supply chain. 3PL service providers decide to cooperate with each other to gain more control and margin, or incomes and focus, respectively. Vertical integration is a relationship type level in which collaborators eliminate the government of market from cooperation (Solakivi, Töyli, and Ojala, 2013). Researchers mention about supply chain integration as a desirable goal. In

addition, many practitioners refer real advantages of close collaboration. However, many managers still focus on the short-term gains of price negotiations and arm's-length relationships (Childerhouse and Towill, 2011).

According to the report of Cruijssen, Dullaert, and Fleuren (2007) there may be some horizontal mergers in transportation industry. The shipping lines, terminal operators, logistics providers, rail companies or other inland carriers may involve in these mergers. Shipping lines and logistics companies seek services that are more global by building horizontal mergers, acquisitions, and alliances. Vertical integration can involve any combination of the businesses listed but the impacts of shipping lines, which acquires terminals may be very different from that of an inland carrier, which acquires logistics (Cruijssen, Dullaert, and Fleuren, 2007).

3PL service providers provide integrated services; the main point is their ability to cooperate both vertically with supply chain partners, and horizontally with other 3PL service providers (Fabbe-Costes, and Jahre, 2008). Zhang, Yu, and Liu (2008) define vertical collaboration as collaboration between parties that succeed each other in a particular generation process, and therefore have different activities. Braziotis and Tannock (2011) mention that vertical collaboration is related with customers internally, and suppliers externally. On the other hand, Audy et al. (2010) refer that vertical collaboration occurs with business units belonging to the same supply chain, such as downstream with a supplier of the core company, or upstream with a customer of the core company. Sharing information to reduce the bullwhip effect is an example of vertical collaboration.

After leaving traditional organizational model, 3PL service providers pass to new organizational network patterns by building alliances with global firms and forming horizontal cooperation. Because of the agreement between large firms and small and medium-sized companies, large cooperations have domination financially or technologically. Both sides act as a team and a strategic centre. The small and medium sized companies have the opportunity to shape their horizontal networks with other firms by generating multi-directional network (Lemoine and Dagnæs, 2003).

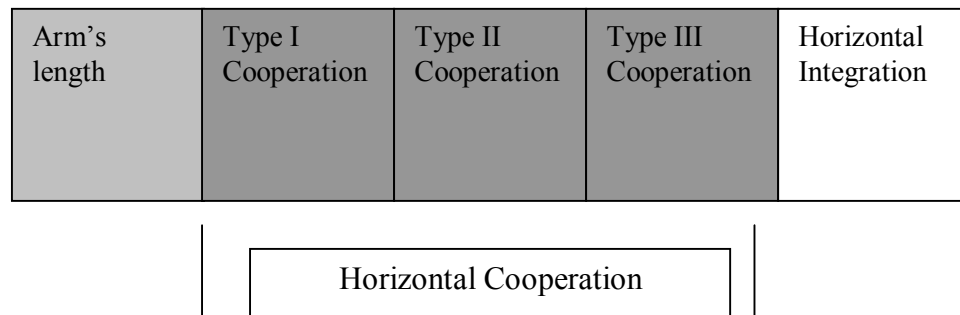
Carbone and Stone (2005) define aims of horizontal alliances as follows:

- To develop the geographical network, in terms of a specific business (i.e. support for European network)
- To go into the new markets, in terms of services (i.e. new competencies)
- To enter in to new markets in other countries.

3PL service providers can build horizontal alliances in order to specialise services, such as refrigerated and express transportation. However, such alliances only expand the route of the transportation temporarily. In contrast, merger and acquisitions build strong network in a specific business area. For example, Deutsche Post AG (DP) acquired with Danzas Holding AG in order to access networks in Northern and Western Europe. In an effort to manage new customer's operations, 3PL service providers need to create alliances with transport operators, logistics specialists, and complementary service providers. For this reason, 3PL service providers acquire integrated logistics firms to be able to compete with new competencies in the market. In this way, 3PL service providers seek global solutions in the supply chain by managing multiple resource and capabilities, technology (Carbone and Stone, 2005).

Carbone and Stone (2005) define strategies for horizontal integration.

- Full acquisition (e.g. merger and acquisitions, joint ventures). The main aim is service provision, growth financially, geographical coverage
- Some market leaders such as DP and TPG offer services in all market segments globally
- Focus on a limited number of activities (e.g. customer-focus strategy)
- Focus on a specific region in Europe.



**Figure 2:** Horizontal cooperation and the level of integration (Crujssen, Dullaert, and Fleuren, 2007).

As illustrated by figure 4, Crujssen, Dullaert, and Fleuren (2007) divide horizontal cooperation into three types. Partners coordinate their activities through to a limited degree in short-term time horizon in Type I cooperation. This cooperation consists only of one activity, or partners divide the activities between them. In Type II, the participants (of the cooperation) coordinate and integrate activities in a long-time horizon. This cooperation involves multiple divisions. Type III cooperation consists of participants who integrate their activities and each company accepts partners' success as their own success. Researches call this type of cooperation strategic alliances. Partners make an agreement for three years or more. Crujssen, Dullaert, and Fleuren (2007) divide horizontal cooperation into two: Noncompetitive and competitive.



Noncompetitive horizontal cooperation refers to 3PL service providers, which serve different industries, such as tank transport, express services, and removal services. In contrast, competitive horizontal cooperation occurs when partners serve the same industry.

The most common usage in horizontal collaboration appears in the multinational enterprises, which can provide firm-specific knowledge in terms of technology and management. On the other hand, the local partners can provide location-specific knowledge such as host-country markets, infrastructure, and political trends. Therefore, sharing information in a joint venture reduces uncertainty and cost in the long-term (Beamish and Banks, 1987). When a multinational enterprise decides to invest in another company, they need "nation-specific" knowledge. Local firms have information about their country's economy, politics, customs etc. Getting information is time-consuming and costly for multinational enterprises. Therefore, multinational enterprises access this information by enabling cooperation and joint ventures (Beamish and Banks, 1987). As an example of horizontal collaboration among multinational and local 3PL service providers, DP acquire AEI, the largest US-based international freight forwarder to become a world leader in the air shipping. Similarly, Dutch TPG acquire TNT and 3PL Tecnologista (Yung, 2001). 3PL service providers use marketing strategies, for example national and European brands to generate differentiated services. In order to use European brands, 3PL service providers build joint venture, acquisition, and merger while operating national brands. For instance, DP (German-based 3PL service provider) acquires TNT (Global 3PL service provider). Those firms change their company's name in order to make awareness in the global market. For example, DP renamed Danzas Holding AG as DHL in 2003 (Carbone and Stone, 2005).

### **2.3.3 Joint Ventures**

Patricia (2011) describes the third type of relationship through ownership system, where one of the parties has ownership control. Joint ventures are one of the examples of this type of relationship. The main goal is the vertical integration of the operations of one party within the operations of another. Building strategic alliances between collaborating firms is the most advanced form of inter-firm cooperation. Firms can combine their individual strengths and work together in order to decrease non-value adding activities. Hence, they can improve performance and gain mutual benefits for both partners. In other words, I can define this in industry and academic life as developing a “win-win” relationship (Stone, 2001).

Building an alliance enables a firm to focus on its core skills and competencies while acquiring the components or capabilities it lacks from the marketplace (Chan et al., 1997). Fortune 500 companies in the developed countries, especially multinational enterprises, prefer joint ventures. Multinational enterprises use internalization theory by serving foreign market rather than engaging arm’s-length transactions (Beamish and Banks, 1987). In 1992, many 3PL service providers enter joint venture agreements with small, family businesses with national or regional geographical coverage, e.g. in 1994, TDG bought a 60% share of a family hauler, Amaral Transport, in Portugal. The aim of these joint ventures is to reduce the risk of market entry (Stone, 2001).

### **2.3.4 Mergers and Acquisitions**

Mergers refer to a combination of two or more enterprises and become one entity. In contrast, acquisitions refer to make an offer to buy the shares of other company. Acquisition results when one company purchase the controlling interest in the share capital of another existing company (Achtenhagen, 2006).

Darkow, Kaup, and Schiereck (2008) define the criteria for success while building merger and acquisitions. In terms of size of a transaction, larger ones are usually more complex, integration costs are higher and not easy to integrate into global networks. In addition, the latest research shows that relatively small transactions are more successful than larger ones. Cross-border deals are more successful than national transactions. More focused operations and the acquisition of private targets leads to significantly higher returns.

Mergers and acquisitions are successful transactions for both target and acquirer shareholders. Target shareholders gain benefit in generating an excess return. For the acquirers' shareholders, synergies or benefits will increase with merger and acquisition. On the one hand, acquirers can gain access to geographical markets, increase growth synergies, and realize cost synergies by acquiring competitors in the same logistics segment or the same geographical area (Darkow, Kaup, and Schiereck, 2008). Mergers, acquisitions, and horizontal alliances with other 3PL service providers help 3PL service providers to develop operations' scale and scope. In consequence, 3PL service providers offer sophisticated logistics solutions on a global scale. Their aim is to build long-term relationships based on trust and commitment. Because of successful collaboration, 3PL service providers gain significant benefits,

such as decreased inventory, increased quality, cost reductions, decreased lead-times, and improved delivery, increased flexibility (Hofenk et al., 2011).

In contrast, research by Chan et al. (1997) analyzing the academic literature regarding the benefit of corporate acquisitions finding that acquiring firms do not gain any benefit from the acquisitions. Similarly, they find that domestic acquisitions are value-decreasing transactions to the acquiring companies. He reports a positive gain only when an acquisition is in a country where the acquiring firm does not have a prior presence.

As well as benefits of building merger and acquisitions, 3PL service providers expose to potential pitfalls. Darkow, Kaup, and Schiereck (2008) summarize the potential pitfalls of merger and acquisitions as follows:

- Underestimation of costs
- Unrealized benefits
- Lack of proper integration
- Lack of proper transition planning
- Cultural differences
- Long distances between headquarters
- Integration costs

Because of globalization, offering globally integrated networks become more important for 3PL service providers. Therefore, 3PL service providers acquire foreign competitors in order to expand their services to new geographical markets by building mergers and acquisitions. Foreign acquisitions by United States firms have increased significantly since the 1980s. *“According to the Department of Commerce, the value*

*of foreign acquisitions in 1979 was about \$1.5 billion. In 1997, the value had increased to more than \$150 billion.”* Companies make strategic investments through foreign acquisitions in order to access to new markets and new technologies (Chan et al., 1997).

I can state the reasons for mergers and acquisitions among 3PL service providers:

- Increasing market share and access to new markets
- Increasing service offerings
- Increasing economies of scale
- Increasing in growth and return on investment ([www.wclconsulting.com](http://www.wclconsulting.com)).

Yung (2001) that state aims of merger and acquisitions between 3PL service providers is to achieve the following objectives:

- Increasing efficiency by wider geographic coverage and control of major traffic flows
- Improve economies of scope by commercial entry into new market segments
- Make investments in physical infrastructure
- Increase value-added services through the acquisition of specialist capabilities.

### 2.3.5 Alliances

Alliances are becoming increasingly common in many industries. Logistics providers' strategic alliances refer to two or more logistics enterprises which sign long-term mutually beneficial agreement for both sides by reducing transaction costs and market risks, and enhancing the use of resources (Xu and Xu, 2011).

Alliances include different types of relationships, whether vertical or horizontal, partnerships or strategic alliances. In the network approach, relationships or dyadic alliances are often long term. Firms would rather continue the existing relationships than start new ones because establishing a relationship takes time and effort. Basic coordination activities are adaptation of routines and rules, forming task projects together, creating common technical standards, job division and changing logistics flows (Hertz, 2001).

Alliances range from simple agreements with no equity, to formal arrangements with equal ownership and share managerial control over joint activities. Partners do not share investment equally and do not create a new organizational entity as a joint venture in non-equity alliances (Chan et al., 1997).

Common goals of building strategic alliances are financial, such as growth, market share and profitability (Ratten, 2004). By building alliances, firms aim to reduce the risk, cost and time of market penetration and extension (Hertz, 2001). Ratten (2004) also mention benefits of the logistics alliances such as transferring financial risk, improving service quality and productivity, and reducing costs. The objectives of 3PL service providers forming alliances are increasing cooperation between supply chain organizations and better coordination their activities and resources. By providing

direct access to local or regional networks at a low capital investment, forming alliances between networks is also an effective way of meeting competition from multinational firms (Hertz, 2001).

Gadde and Hulthén (2009) classify 3PL service providers in terms of the alliance that they build with other 3PL service providers. General providers utilize the same resources when serving different kinds of shippers. Specialized 3PL service providers design resources for a specific type of goods, for example, frozen food, chemicals or valuable items. Dedicated 3PL service providers select resources specially to fulfill each user's exact needs.

### **2.3.6 Full Integration**

Full integration is a process of coordinating activities, resources and organizations (Hertz, 2001). Fabbe-Costes and Jahre (2008) study 21 companies, which have supply chain integration. They find that 20 companies act as operational integrators, because they try to provide integrated solutions to their customers. These companies define three different types of operational integration. Service integration is the first type, in which 3PL service providers provide services as integrated. The second type is internal integration that 3PL service providers present itself as an integrated company. External integration is another type that 3PL service providers build integration with external partners. The last type is customer integration that 3PL service providers discuss their contributions in terms of financial value and growth to improve their customers' performance.

Wang, Ru, and Zhu (2009) define four principles of full integration. Firstly, strategic principle requires adaptation to the whole development, and achievement the overall optimization. Secondly, logistics system integration should emphasize both efficiency and effect. Thirdly, 3PL service providers should consider giving full information in order to improve operational efficiency, enhance information sharing, and reduce the incompatibility of different links during logistics integration. Fourthly, the modern logistics systems should integrate both the concrete system (transportation facilities, warehousing facilities etc.) and the abstract system that gives guidance and service to the concrete system.

Wang, Ru, and Zhu (2009) emphasize that the main purpose of full integration is development of socio-economic, reducing the overall logistics cost, improving the quality and efficiency of logistics service, and finally improve the competence power of each enterprise and product. Shang (2009) highlighte that top managers of forwarders-based 3PL service providers should encourage integration with supply chain partners. This integration will improve organizational learning capability, contribute to the acquisition, and maintain long-term superior service and financial performance.

There are two basic ways to increase full integration of supply chain networks (SCN): Either narrow the network or shorten it. A narrow network has advantages such as increased collaborative innovation, being rigid and strong, having dense flows of information, higher confidentiality, but also a shared destiny. This assumes that a narrow network shows a higher degree of integration. The shortening of a SCN means reducing costs, lead-time, and risks. It gives a better forecast of inventory process in the chain (Hertz, 2001). Logistics integration must based on the fully development of 3PL service provider by employing professional people (Wang, Ru, and Zhu, 2009).



## **2.4 Collaboration in Supply Chain**

Previous studies on supply chain collaboration focus mainly on the collaboration among different parties including the suppliers, manufacturers, wholesalers/distributors, and retailers. In fact, the parties at the downstream of the supply chain should include not only customers, but also 3PL service providers.

By the rising competition on a global scale, new entities involve into the market and trade barriers reduce. In addition, customer expectations considerably increase including a demand of faster response times and more convenient and diversified offerings. Consumers of today have the opportunity to compare prices, quality, services, and other details via the Internet (Čepinskis and Masteika, 2010). Thus, in order to gain stronger position in the market, 3PL service provider can enhance the collaborative relationship between supply chain partners, and the exploitation of this competitive edge can promote company success.

A single member of the supply chain alone cannot do much to resolve the supply chain problems. This is why collaboration among partners in a supply chain has become a topic of great interest for many and an essential element of company strategy for others (Feng and Yuan, 2007). Furthermore, the logistics operations are costly activities that involve multiple actors in order to move and store the goods in the supply chain. Thus, they provide many opportunities for collaboration (Audy et al., 2010).

In recent years, aggressive competition in freight service markets in the European Union (EU) has increased. In order to compete against big carrier companies and foreign competitors, 3PL service providers are starting to form cooperation or strategic alliances with other third-party logistics providers to offer transport logistics services over a region (nation-wide, EU-wide or even worldwide), e.g. parcel distribution (Zapfel and Wasner, 2002). Research suggests that a global 3PL service provider coordinating with a local 3PL service provider is the most successful operating model for 3PL service providers operating with or within an emerging market. If global firm or local firm does not have local knowledge in emerging markets, the combination of global and local 3PL service providers is the best collaboration opportunity. Especially, a strong account manager who knows the local area is important for a logistics provider in order to solve the problems via right network (Garner, 2013).

Kampstra, Ashayeri, and Gattorna (2006) propose three main roles for defining the collaboration process and determining future measures: collaboration leader, collaboration coordinator, and collaboration members.

- The collaboration leader is not the first entity that creates collaboration ideas, but he gives approval for the start of the collaboration. The collaboration leader's role is to perform a wide range of activities, evaluating the strategic partners, shaping the collaborative strategy, coordinating meetings, linking relationships, and monitoring performance generally
- The collaboration coordinators choose and coordinate collaboration activities
- Collaboration members apply the tasks of collaborators and collaboration leaders.

Due to the target of analyzing expectations of CEOs of 3PL service providers regarding logistics market in one year, Lieb and Lieb (2012) make interviews with them. Their various expectations include:

- Increase in the number of mergers and acquisitions
- More collaboration in supply chain
- More effort to control costs of 3PL operations
- 3PL service providers consolidating with large 3PL service providers will be more successful than others
- Increasing competition between large and niche players
- Increase focus on operational success and customer satisfaction

In order to achieve improved relationships, 3PL service providers should increase their understanding of supply chains better while working together with their partners. Collaboration is the way for organizations in the supply chain to optimize results. However, integrating goals and activities with other organizations is more important than optimizing their resources for the benefit of the whole supply chain. Therefore, all entities in the supply chain must work together. However, for the financially independent entities, being involved in a collaborative relationship and achieving in cooperation with chain members is a complex issue (Kampstra, Ashayeri, and Gattorna, 2006).

The global marketplace converts every industry to a truly customer-oriented, service-focused enterprise. Innovation in the service sector is divided into two aspects: Technological innovation or non-technological (“soft”) innovation. Technological innovation, and often leads to new products or services, in contrast, “soft” innovation focuses on organizational processes. 3PL service providers must focus on innovative

strategies to improve their competitiveness. Continuous technological advancement is one of the most important assets that 3PL service providers need to integrate (Chapman, Soosay, and Kandampully, 2002). Collaborations may share costly infrastructure, such as pipelines, terminals, warehouses, or transportation modes i.e. integrating trains, ships, and trucks in general transportation organizations. EDI is an example of sharing documents between organizations in a standardized electronic form (Audy et al., 2010).

In order to drive inefficiencies out of the transport planning and execution process, supply chain trading partners and service providers cooperate with each other Feng and Yuan (2007) point out the need to incorporate Collaborative Transportation Management (CTM) with Collaborative Planning, Forecasting and Replenishment (CPFR) among trading partners in the supply chain. This system supports “capacity planning and scheduling, order generation load tender, delivery execution, and carrier payment” aspects (Mason, Lalwani, and Boughton, 2007). CTM mainly involves converting order forecasts development via CPFR into shipment forecasts, and insuring their accurate fulfillment. 3PL service providers use CTM method to reduce transportation costs, increase asset utilization, improve services, and enhance customer satisfaction and greater revenues. Only a few global 3PL service providers (UPS, DHL, and FedEx) are able to develop CTM (Feng and Yuan, 2007). Mason, Lalwani, and Boughton (2007) describe about automatic identification and data capture (AIDC), which is technology assisting in capturing real-time information on the movement of goods through the supply chains. Radio frequency identification (RFID) is an AIDC method, which has had considerable impact on the collaboration strategies in transport optimization.

In the transport industry, 3PL service providers install a number of devices or systems on vehicles and trailers provide an opportunity for better transport management and collaboration for transport optimization. 3PL service providers use telemetric system, which includes the installation of management software on the computer system, and they design this to assist in managing vehicles, drivers, reporting, delivery, and other operational functions. UPS and TNT gain great benefits in the improvement of overall freight system efficiency (Mason, Lalwani, and Boughton, 2007). The Skylark system is one of the information technologies that supports on time delivery and enables better fleet asset utilization. For instance, 3PL service providers can identify which vehicles are due to travel with no load, or can localize any vehicles. The more companies that join the network, the greater the potential in load consolidation and empty running reduction (Mason, Lalwani, and Boughton, 2007). Chapman, Soosay, and Kandampully (2002) refer another information technology “the Minitel Internet tracking system” which is developed by Carlberson. With this system, customers are able to receive up-to-date information on their individual consignments. Today’s innovative 3PL service providers allow customers to receive access rate and quick information using this system. Audy et al. (2010) list a number of barriers that 3PL service providers face while building information technologies. These are the cost and complexity of implementing advanced technologies, the complicate process exchanging data, and connectivity problems across the organization, managers not being ready to share their knowledge with their partners, information security, and confidentiality.

There are plenty of researches, which mention the importance of relationship marketing orientation while building collaboration. Relationship marketing orientation measures which a company engages in to develop a long-term relationship with its competitors. Sin et al. (2005) develop and validate six subscales—bonding,

communication, shared value, empathy, reciprocity, and trust—and find that relationship marketing orientation result in significant impact on the determination of the firms' performance. Relationships include trust, commitment, mutual dependence, organizational compatibility, vision, leadership, and top management support. If enterprises reach the higher the levels of these, their integrated relationship is closer (Golicic, Foggin, and Mentzer, 2003). 3PL service providers offer sophisticated logistics solutions on a global scale by forming mergers, acquisitions, and horizontal alliances. Their aim is to build long-term relationships based on trust and commitment. Because of successful collaboration, 3PL service providers gain significant benefits, such as decreased inventory, increased quality, cost reductions, decreased lead-times, and improved delivery, increased flexibility (Hofenk et.al, 2011). All parties in a successful marketing relationship seek win-win solutions, a long term, and trusting relationship, and an invitation to address problems openly. In this relationship, companies encourage innovation, they attach importance to needs and concerns of the others, and they try to improve performance (Copare, 1994).

Information sharing is necessary to shape contractual agreements, and expectations about working together (Golicic, Foggin, and Mentzer, 2003). Collaboration engages partners in joint planning and technology sharing (Chu and Yang, 2010). Engaging in logistics activities other than transportation requires extreme information sharing and tracing modern technologies (Aktaş and Ülengin, 2005). Ratten (2004) refer to two types of knowledge important in logistics alliances: firm specific and market-specific. Firm-specific knowledge includes the knowledge of an organization that helps to get information about logistics alliance partners. In contrast, firm-specific knowledge includes expertise of a firm that helps to provide information about maintaining alliance relationship with the other firm. Learning orientation is another useful way to enter into and maintain logistics alliances. There are three major dimensions of

learning orientation. Firstly, commitment to learning helps firms to accept changes and ideas from its logistics alliance partners. Secondly, open mindedness is a firm's ability to see new market opportunities. Thirdly, shared vision will help a firm to achieve optimal market position (Ratten, 2004).

Commitment of the organizations is sufficient amount of information and authority to implement team's decisions. 3PL service providers have to consider some tasks in order to attain high commitment level. Firstly, 3PL service providers take a trust-based liaison type of a role in their coordinating tasks. Secondly, in order to smooth away cultural or organizational differences, 3PL service providers use various organizational support mechanisms, which facilitate communication. Thirdly, I can see lateral organizational capability as an important competitive factor for service providers in the future (Huiskonen and Pirttila, 2002).

Communication indicates the ability to provide timely and trustworthy information. According to Taleghani, Gilaninia, and Mousavian (2011), there is a new view of communications as an interactive dialogue between the company and its collaborating company. Communication in relationship marketing means keeping in touch with the collaborating company, providing timely and trustworthy information, and communicating proactively if any problem occurs. If the collaborator companies communicate proactively, they can have a stronger and more trusting relationship (Ndubisi, 2006).

On the other hand, Rosenfield (1999) states nine mistakes that regarding marketing relationship:

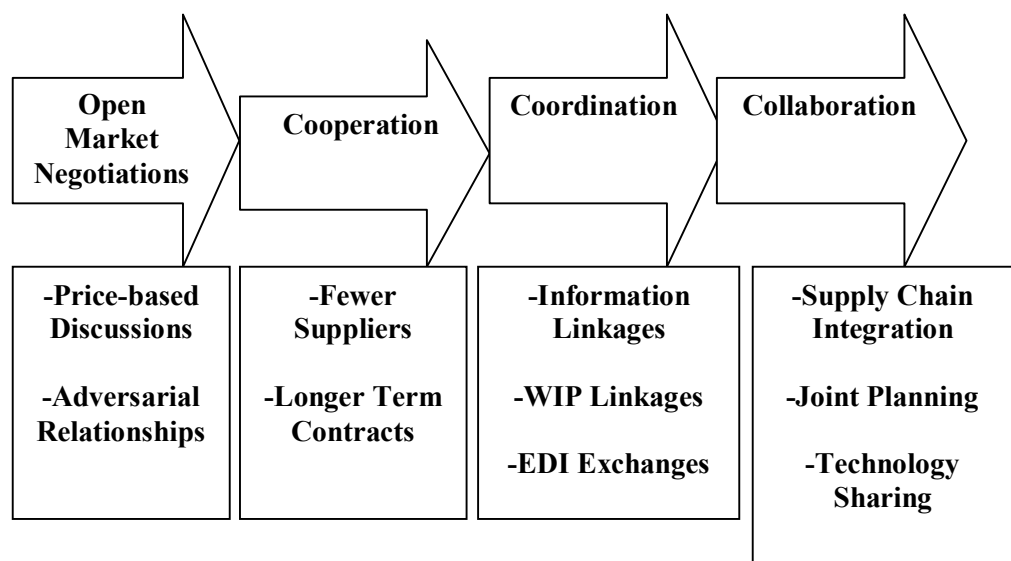
- Assuming customers want a relationship
- Assuming customers are willing to work
- Assuming customers will be fair
- Assuming customer satisfaction is enough
- Being careful about tier inflation
- Avoiding good marketing followed by poor product
- Accidental disenfranchisement
- Changing the rules
- Obtaining cannibalization rather than incremental results
- Confuse necessity with loyalty

#### **2.4.1 Levels of Collaboration in Supply Chain**

Researchers classified different levels of collaboration in supply chain (e.g. Mason, Lalwani, and Boughton, 2007; Zhang, Yu, and Liu, 2008; Shang, 2009). Zhang, Yu, and Liu (2008) define three levels of collaboration: Cooperation, coordination, and synergy. Cooperation is a strategy in which partners collaborate at an operational level with a short-term horizon, a low level of trust and no shared goals and information. Coordination is another partnership in which partners collaborate by planning together with a midterm horizon, a moderate level of trust and shared goals and information. As a third partnership, synergy has a long-term horizon, a high level of trust and common goals. On the other hand, Shang (2009) indicates that cooperation focuses on



‘the need to integrate functional silos and view these units as mutually depended parts charged with meeting the end-users’ requirements (e.g. raw material tracking, customer supplier linkages). Coordination focuses on specified workflow and data exchange that are needed to make seamless linkages. Mason, Lalwani, and Boughton (2007) explain the key transaction from open market negotiation to collaboration. Mohr and Spekman et al (1994) define levels of collaboration as I illustrate in Figure 3. Open market negotiations are the first level that firms make price-based discussions, and build adversarial relationships. The second level is cooperation that fewer suppliers build long-term contracts. The third level is coordination that firms use information linkages, WIP linkages, and EDI exchanges for technological improvement. Finally, firms share technology, plan jointly, and integrate in the supply chain.



**Figure 3:** Levels of Collaboration (Mohr and Spekman, 1994)

From the other point of view, Kampstra, Ashayeri, and Gattorna (2006) define levels of the collaboration. First level of collaboration is “Communication” The aim of this level is to improve productivity and enable information sharing. Communication is beneficial for helping the collaboration members to develop decision-making and

improve delivery rates, reduce the number of inventories, etc. The second level of collaboration is “Coordination.” which is based on the intra- and inter-entity processes. The main concern is dealing with both physical and policy constraints. This process involves additional investments in the IT infrastructure. The next level is “Intensive collaboration.” This level involves the collaboration of members in order to improve strategic management decision-making, and develop innovation in the supply chain. Intensive collaboration generates relationships among collaborative entities and other areas of the enterprise. The fourth level of collaboration is “Partnerships” The main purpose of this is to improve knowledge sharing between members and decrease R&D time.

Huiskonen and Pirttila (2002) divide coordination tasks into two basic categories: Managing daily operational activities, and improving processes. For the coordination of daily operations, informal coordination, which takes place naturally, is the most important task. In operational activities, communication directly between the two organizations is the main concern and employees have to make quick decisions without consulting supervisors. On the other hand, the improvement of processes and capabilities requires more pre-planning and formal coordination and team members need full information. As a result, closer relationships and high level of integration between the organizations are the main points needed to generate successful coordination. Co-location of workers, joint training and other social events, consistent reward and measurement systems, and integrated information and communication systems are main supportive organizational tasks of informal coordination (Huiskonen and Pirttila, 2002).

## 2.4.2 Classification of Collaboration in Supply Chain

There are different classifications of collaboration. For example, Audy et al. (2010) refer to forms of collaboration. First, one is a simple form in which 3PL service providers exchange only transactional information i.e. order, payments, delivery confirmations. The second type refers to jointly planned operations which involve sharing strategic information i.e. customer demand, forecasts, operational capacities. Thirdly, co-evaluation relationship, which is more complex, form i.e. consortium, joint venture. Anderson, Håkansson, and Johanson (1994) define three types of firms, which cooperate with other firms. The "Deconstructed" firms focus on the traditional value-adding functions. This type of firms relies on coordinated relationships with other firms to provide value chain activities needed for a market offering. Another development is the "value-adding partnership" which is a set of independent companies that work closely together to manage the flow of goods and services along the value-added chain. By building this type of partnership, 3PL service providers enable groupings of smaller firms to compete favorably against larger, integrated firms. The final type is "virtual corporation", which aims to exploit specific market opportunities.

Another classification by Audy et al. (2010) define collaboration forms in terms of information sharing. Strategic collaboration is a long-term business contract in which 3PL service providers share demand and capacity information. Collaboration at an operational level involves low commitment and less information sharing. Larger collaborations increase coordination problems, increase transactional costs, and cooperation costs. In game theory, I define as non-supper additive environment.

Kampstra, Ashayeri, and Gattorna (2006) describe different approaches regarding supply chain collaboration:

- Dyadic approach: Organizations focus in their early attempts on the channel members
- Channel integrator: This channel leader plays the key role to arrange the overall strategy and to implicate the channel members to this strategy
- Vertical integration, adopts ownership of other channel members. One cannot consider vertical integration as collaboration

Besides levels and classifications of collaboration, stating benefits and challenges of collaboration in supply chain will broaden the vision of the research.

### **2.4.3 Benefits of Collaboration in Supply Chain**

Generally, collaborations are beneficial for both parties. Audy et al. (2010) mention some benefits of collaboration such as reducing the cost of executing logistics activities and the negative impacts of the bullwhip effect, increasing service level, capacities, and efficiency, and finally gaining market share. In addition, benefits of collaboration can be determined in two aspects: quantitative (e.g. cost reduction) and qualitative (e.g. learning new logistics skills). Quantitative collaboration benefits are mainly gained by using operational research (OR) models, which are sometimes shared (e.g. cost reduction), and sometimes not (e.g. delivery time reduction). However, qualitative benefits are non-shareable. In contrast, Mason, Lalwani, and Boughton (2007) point out that there should be mutuality of benefits and should not be equally shared to minimize total cost, maximize customer value.

Vertical integration will be beneficial for 3PL service providers to gain comparative advantages over their competitors. Shipping lines enable 3PL service providers to control non-maritime costs and reinforce their situation as logistics operators. Thereby, 3PL service providers gain a comparative advantage. Therefore, vertical integration is necessary. (OECD/International Transport Forum, 2010)

#### **2.4.4 Challenges of Collaboration in Supply Chain**

Besides the benefits of the collaboration, in today's business area, 3PL service providers need to overcome many challenges and need to change their organization structure to satisfy the needs of the supply chain. In addition, competition among 3PL service providers has become intense. The result of globalization, consolidation helps 3PL service providers to overcome their larger 3PL rivals and win a greater share of the market. Especially for smaller companies, consolidation may be crucial for their survival (Vasiliauskas and Jakubauskas, 2007).

Through collaboration between enterprises in supply chain, there are some risks such as loss of investment, time, delay, or abandonment of business plans (Matopoulos et al., 2007). The general problems of firms that have built corporative relationship include delayed and inaccurate information, incomplete services, slow and inefficient operations, and a high product damage rate. Consequently, firms have to manage high operating costs, a rate of high inaccuracy, and a lack of flexibility in responding to changing demand requirements (Gunasekaran and Ngai, 2003). Decreasing the number of competitors in the supply chain is the major threat to competition, especially mergers between firms which states in the same geographical market

eliminate new entrances to the market (Özdemir and Darby, 2009). In addition, contracting horizontal logistics alliances are expensive and 3PL service providers may not have sufficient local knowledge in terms of social, cultural, political, legal, and economic in the foreign market (Carbone and Stone, 2005).

Beside the above challenges, Aktaş and Ülengin (2005) define factors that affect 3PL service providers' efficiency during transportation. Customers demand services from 3PL service providers, such as receiving damage-free goods, full information through electronic interfaces, customized services to meet specific and/or unique needs, maintaining transit times, satisfactory insurance coverage, reliable and quality service. In addition, Cruijssen (2007) find that challenges for 3PL service providers consist of lower load factors, increased empty running, reduced profitability, and increase in the number of bankruptcies. Horizontally and vertically integrated transport chains create problems in terms of competition for customers, because 3PL service providers can build monopolies. In addition, integration of the transport chain involves different actors, such as the financial, technical, and human resources. Promoting the extension of services geographically or increasing the volume of operations refers horizontal integration. In contrast, extension in strategies in terms of business and services relates to vertical integration. One firm cannot be successful in every aspect of service, so they have to choose one of them and customize their services (OECD/International Transport Forum, 2010).

Researches mention about main challenges that face small and middle-sized 3PL service providers. Zhou, Zhang, and Su (2009) state plenty of challenges such as over-simple service, out-of-date logistics technology, low information level, and lack of high-level service quality. In order to minimize those risks, middle and small scale logistics enterprises should establish long term cooperation with manufacturing

enterprises or distribution enterprises; carry out one to one marketing strategy; provide professional services; or become the fixed logistics service provider of manufacturing enterprises or distribution enterprises by signing contracts and providing customer satisfaction. In addition, Vasiliauskas and Jakubauskas (2007) research the main challenges that face small and middle-sized 3PL service providers. Maintaining profits under price pressures from customers and consistently delivering innovative technology to customers are the biggest challenges according to 91% of 3PL service providers. The next highest ranked factors are customer relationships and consistently delivering the latest innovative technology to customers. Globalization of the 3PL market and the need to deliver services in new geographic regions are current serious challenges for 3PL service providers. Geographic regions are great challenge by 81% of international security initiatives, competing with giant global 3PL service providers (Garner, 2013).

Because of customers' increasing demand in terms of services from their 3PL service providers, there is increasing pressure of competition increase between players in the industry to satisfy the customer, which decreases prices. Most of 3PL service providers do not have sufficient expertise or knowledge in advanced SCM techniques and technologies because of their traditional scope. If 3PL service providers actually want to be successful in providing integrated SCM services, they need to position themselves not only in relation to traditional divisions such as freight forwarding, but also focus on whole supply chain (Roberts, Roberts, and Ward, 2005).

For this purpose, 3PL service providers seek to enlarge their networks in order to reduce costs for unit of product, acquire new customers, and avoid new entries of potential competitors. Because of underestimated cultural differences and overestimated economic situations, acquisition can be risky. In contrast, 3PL service

providers do not need to assume additional investments if they operate flexibility and choose the ideal collaborators (Carbone and Stone, 2005). Thus, 3PL service providers try to expand their scope of growth beyond their traditional borders. The first criteria for expansion are market size and growth potential. Thus, specialists recommend being aware of local laws and governmental regulations. In addition, 3PL service providers should take into consideration basic infrastructure such as airports, highways and shipping ports, local transportation and local logistics marketplace, freight pricing, productivity, efficient customs clearance, and quality trucking services (Roberts, Roberts, and Ward, 2005).

Shippers or freight forwarders demand creative ideas from 3PL service providers to overcome local barriers, for example, road congestion, cross-border trucking, or labor stoppages. In addition, shippers demand integrated solutions for warehouse and transportation services in an emerging market. For that reason, they must engage the services of multiple 3PL service providers. Local 3PL service providers' efforts must be strategic, not tactical. However, these local 3PL service providers tend to take a short-term approach based solely on profits, therefore, local customers prefer global 3PL service providers (Garner, 2013). In addition, Cruijssen (2007) refer customer expectations for service quality from 3PL service providers as information quality, ordering procedures, ordering release quantities, timeliness, order accuracy, order quality, order condition, order discrepancy handling, and personnel contact quality.

As I discuss about levels, classifications, benefits, and challenges of collaboration in supply chain, I will state horizontal collaboration applications among 3PL service providers in the world. After that, I will analyze Turkish market and mention about horizontal collaboration applications among 3PL service providers in Turkey.



## **2.5 Collaboration Applications among 3PL Service Providers**

By increased globalization, collaborations increased after 1980s, too. In this section, we analyze horizontal collaboration in all over the world, and in Turkey.

### **2.5.1 Horizontal Collaboration among 3PL Service Providers in the World**

As described above, horizontal collaboration means integrating logistics activities between at the same level enterprises in the supply chain. According to 3PL service providers, this integration will be between 3PL service providers. 3PL service providers acquired two other 3PL service providers, four transportation companies, and a freight customs broker in 2009. Based upon the results of the interviews with CEOs of global service providers, they expect further alliances between 3PL service providers, carriers and intermediaries and large 3PL service providers (Lieb and Lieb, 2011).

There is an increasing interest in collaborating with other companies, even competitors, to achieve logistics cost and service improvements. According to research, 80% of 3PL service providers expressed an interest in collaboration in 2011. This year, this figure falls to 67%. Lengley and Capgemini (2012) think that ongoing favorable economic conditions made this less of priority.

FedEx Freight is a global less-than-truckload (LTL) provider. The company expands its services through an acquisition of long-haul LTL carrier Watkins Motor Lines, which changed its name to FedEx National LTL. They will handle the operation as a separate network within the FedEx Freight division (Trunick, 2006). The president and CEO of FedEx Freight, Doug Duncan states that firm focuses on fast-cycle

logistics by delivering the goods the next day or the day after. Nevertheless, customers still demand more solution from FedEx Freight, especially concerning cost. They try to find a solution to provide long-haul services. Duncan explains that they had to separate the network because they have forced to travel to 600 miles to make next-day deliveries, and up to 1,600 miles for second-day delivery, through their hub-and-spoke network every night. This operation makes it a high cost network. However, Watkins has a very lean terminal network, with about 167 facilities and they can load large quantities of freight directly. This operation is less expensive for the long-haul business. On the other hand, Watkins does not serve every point in the country. However, they use broad network system of FedEx Freight by their partnership (Trunick, 2006).

DHL build an acquisition with Airborne Express Sensitive for express airline operations as separate, U.S. organizations. After that, DHL expand its global logistics capability by acquiring Exel – a British company. U.S.-based Aeroground Inc. provides ground services at many key international cargo airports in North America (Trunick, 2006).

Due to increasing competition in the market, 3PL service providers need to differentiate and customize services and provide one-stop solutions by offering value-added services and global reach. For these reasons, Apollo Management and the merged entity CEVA Logistics buy TNT Logistics and Eagle Global Logistics. Other examples are DHL's acquisition of Blue Dart, FedEx's acquisition of Prakash Cargo, TNT's acquisition of Elbee Services and UTi Worldwide's acquisition of Indair Carriers. Global 3PL service providers' aim is to satisfy the needs of their overseas customers and extend their network (Mitra, 2010).

In the United Kingdom, 3PL service providers by NFC Exel Logistics made 14 acquisitions between 1990 and 1994 to support distribution networks within Germany, France, the Netherlands, and Spain (Stone, 2001).

Schenker-BTL established European Land Transport by forming a merger and later an acquisition of the Swedish transportation and logistics group BTL AB. BTL began its activities in 1891, and became one of the largest transport and logistics groups in Scandinavia and in Europe. Schenker-BTL offers a wide range of services, such as Europe-wide distribution, express delivery and worldwide trade fair service and forwarding (Lemoine and Dagnæs, 2003).

Lieb and Lieb (2011) refer to horizontal alliances which were established in order to offer specialized services such as refrigerated transport, express delivery etc.

- French Nexia, former Exel Froid Logistics, and Dachser made an agreement to set up a European network for bulk and refrigerated transport for food in 2001.
- EB Trans and Giraud International agreed that EB Trans took control of Giraud Vrac Liquid (VL) to reinforce their position in the transportation of hazardous goods in Europe. 27% of Giraud VL went to Giraud International with 27% of its assets going to Giraud International in 2001.
- Gefco, Kuehne, and Nagel set up an European alliance for freight road transport, covering Germany, Belgium, Italy, Holland, Portugal and the UK operating under the brand name, Gefco-KN in 1999.
- Calberson, Gel Logistik (Germany), Schiphol Express (Benelux countries), Target (UK), and Seur (Spain) set up a partnership, Net Express Europe, to provide a transport network in 1999.

Lieb and Lieb (2011) refer to horizontal alliances, which were established in order to reach new geographic markets:

- Gefco formed a joint venture with the Chinese DTW to act as the first private logistics service provider for the automotive industry in China in 2003.
- Exel and the Turkish EFES formed a joint venture, Exel Uluslararası, specialising in automotive and telecommunication logistics in Eastern Europe in 2002.
- The German-Japanese alliance between Schenker and Seino Transportation enabled Schenker to consolidate its position as freight forwarder in the Far East in 2000.
- T&B set up a joint venture with Hutchison Ahampoa to distribute Procter and Gamble products to over 300 cities in China, extending T&B's global coverage in 2000.
- TPG agreed a joint venture with Turkish group, Koç, to expand in Turkey using an import-export platform for the automotive industry, the Russian Federation and the Balkans in 2000.
- DHL, a subsidiary of Deutsche Post World Net entered into a merger with the US based express parcel delivery provider Airborne, Inc

Other examples of mergers and acquisitions in recent years:

- Deutsche Post acquired DHL Express. Deutsche Post renamed as Exel brand in North America (<http://www.highbeam.com/doc/1G1-66889216.html>)

- Maersk Line acquired P&O Nedlloyd in 2000. As a result, Maersks' strength in Kuwait has increased (<http://www.maerskline.com/link/?page=lhp&path=/asia/kuwait/general/introduction>).
- Schenker Arkas generated SKYBRIDGE project, combining air and sea transport. Schenker acquired with BAX Global in Dubai. Therefore, Schenker Arkas provide alternative for shipments with tonnage or weighing less than a ton by transfers in Dubai to the Far East and North America ([http://www.schenkerarkas.com.tr/en-gb/document\\_9227.html](http://www.schenkerarkas.com.tr/en-gb/document_9227.html)).
- PWC Logistics acquired GeoLogistics in under the name of PWC Logistics. This acquisition result in profits of approximately US\$3 billion and 10.000 new employees in 100 countries globally. PWC Logistics expanded their capabilities and services over the regions through this acquisition. In addition, GeoLogistics gained opportunity to access to Middle Eastern markets.
- Platinum acquired Hays Logistics in 2004 and re-launched the company under the name of ACR Logistics.
- Deutsche Post and Danzas Holding AG build a joint venture under the name of Nedlloyd. The acquisition enhanced the European network of both companies. Nedllyod handle Deutsche Post's parcel business and Danzas's logistics business and integrate them into their own organizations.
- Danzas Holding AG acquired ASG to enter the market in Sweden.
- Danish DFDS purchased its closest national competitor, Dantransport.
- In 1991, Stinnes acquired with Schenker and in 1999, Schenker took over the Swedish transportation and logistics company, BTL AB (<http://www.fundinguniverse.com/company-histories/Stinnes-AG->

Company-History.html ).

### **2.5.2 Horizontal Collaboration among 3PL Service Providers in Turkey**

Turkey is at the epicenter of transport corridors connecting Europe to the Caucasus and Asia, as well as to the Middle East. This is important for Turkey's foreign trade relations and economic development, and important for regional and interregional economic cooperation. There is still a high percentage of firms which do not outsource their logistics activities, and collaborate with other 3PL service providers in Turkey. However, these companies have potential and vision in order to develop Turkey regarding logistics. Hence, 3PL service providers will be enhanced, too.

Through global integration, the boundaries between countries and cultures are disappearing, and many developing countries, including Turkey are becoming attractive centers for international firms. There are different reasons, such as geographical location, low charges, and great potential for market extensions. Aktaş and Ülengin (2005) state that outsourcing is still solely based on transportation in Turkey. According to them, many Turkish firms understand logistics services simply as taking the transportation order from the manufacturer and delivering the goods to final destination points. 3PL logistics providers in Turkey do not consider the warehouse design, location of the warehouse or of inventory management.

After research on internet, I prepared a list of collaborating 3PL service providers in Turkey as Table 1.

**Table 1:** Horizontal collaboration in Turkey<sup>1</sup>

<b>3PL SERVICE PROVIDER</b>	<b>PARTNER</b>	<b>3PL SERVICE PROVIDER</b>	<b>PARTNER</b>
ARKAS LINE	HJLK CORPORATION	İNCİ LOJİSTİK	CHINA GLOBAL LOGISTICS NETWORK
	SCHMIDT		ADVANCED PROFESSIONAL LOGISTICS NETWORK
	TARROS SPA		JF HILLEBRAND
	YANG MING MARINE CORPORATION	KARINCA LOJİSTİK	VAN DIEREN
	ROMTRANS		KINTETSU WORLD EXPRESS
ALİŞAN GROUP	INTERBULK	KLĞ LOJİSTİK	LG LOJİSTİK
BALNAK LOJİSTİK	RHENUS	MARS LOJİSTİK	NEPTUN TRANSPORT
	İZMİR LOJİSTİK	NETLOG LOJİSTİK	FARMAKİM İLAÇ LOJİSTİK
BARSAN LOJİSTİK	TRANSEMEX	OMSAN LOJİSTİK	VANTEC WORLD TRANSPORT
BORUSAN LOJİSTİK	BALNAK	RAN LOJİSTİK	GEODİS ZÜST AMBROSETTI SPA
CEVA LOJİSTİK	HEINZ CO.		GEODİS CALBERSON
DEMİRAKÇA LOJİSTİK	JAN DE RIJK		RH FREIGHT SERVICES
DEMİRAL LOJİSTİK	TORNADO LOJİSTİK		DEUTSCHE TRANSPORT COMPAGNIE
DHL LOJİSTİK	DEUTSCHE POST WORLDNET	SARAS LOJİSTİK	ALLAGIER GRUPPE

<sup>1</sup>Online sources are given in the references part.

**Table 1 (continued):** Horizontal collaboration in Turkey

<b>3PL SERVICE PROVIDER</b>	<b>PARTNER</b>	<b>3PL SERVICE PROVIDER</b>	<b>PARTNER</b>
DSV LOJİSTİK	EXEL	IGL LOJİSTİK	WORLD CARGO ALLIANCE
	SWIFT FREIGHT GROUP		MİLİTZER & MUNCH
EKOL LOJİSTİK	DFDS		GEBRUDER WEISS TRANSPORT AND LOGISTICS
	ABX	ALLGAIER TRANSLOG	
	STS ULUS.NAK.	SEYYAH LOJİSTİK	BAYTRANS
FILLO	ARAS LOJİSTİK	SOLMAZ LOJİSTİK	3L-LEEMARK
GALATA LOJİSTİK	VOS	SÜRAT LOJİSTİK	IRAQ LOGISTICS
HİLAL TRANS	TRANSFESA BENELUX	ULUSOY LOJİSTİK	ZIEGLER
	GAT LOJİSTİK	ÜNİMAR LOJİSTİK	CWT GLOBELINK
HOROZ LOJİSTİK	SDV	ÜNSPED LOJİSTİK	UPS
		YURTIÇI LOJİSTİK	TİBBETT & BRİTTEN GROUP



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

The primary objective of this research is to investigate if there is a relationship between relationship marketing orientation and organizational performance of 3PL service providers. This research also aims to investigate if organizational performance of 3PL service providers, which are in horizontal collaboration with the other 3PL service providers, can be predicted by relationship marketing orientation. For these purposes, I conduct the research based on the existing scales in the relationship marketing literature the scales on organizational performance. This chapter explains how I conducted this research in details as the research methodology, and hypotheses of the research.

#### **3.1 Purpose and Scope of the Research**

As mentioned in the literature review, application and investigation of horizontal collaboration in logistics is scarce. However, I reach organizational performance measurements and relationship marketing scales in the literature. Researchers defined these scales in general types by considering organizational theory, marketing, and logistics literature. Although, these definitions have a vertical perspective that researchers analyze buyer-supplier, supplier-manufacturer relationships. That is why; I present an overview of organizational performance and relationship marketing

measurement variables that may trigger potential partners. In addition, I adapt these variables to horizontal collaboration between 3PL service providers.

As mentioned before, main purpose of this thesis is to investigate organizational performance of the 3PL service providers, which built horizontal collaboration with other 3PL service providers. Another important objective of the study is to investigate relationship marketing variables and its effects to collaborator 3PL service providers with their competitors. For this purpose, I determine main variables as:

- Relationship marketing orientation
- Organizational performance

For the measurement of the relationship marketing orientation, I borrowed the scale used by Sin et al (2005) in their article “Market Orientation, Relationship Marketing Orientation, and Business Performance: The Moderating Effects of Economic Ideology and Industry Type” originally. Relationship marketing orientation includes six behavioral components as bonding, empathy, reciprocity, shared value, communication, and trust. The five-item Likert scale consist of answer choices as “1” denoting “strongly disagree” and “5” denoting “strongly agree”. I use 19 original items have six dimensions of bonding (three items), communication (three items), shared value (four items), empathy (four items), reciprocity (three items), and trust (two items). I apply these items to the questionnaire originally after the translation to Turkish. Translated questions are given in Appendix 1. Relationship marketing orientation variables and items are determined as below:

### **Bonding**

1. We both try very hard to establish a long-term relationship.
2. We work in close cooperation.
3. We keep in touch constantly.

### **Communication**

4. We communicate and express our opinions to each other frequently.
5. We can show our discontent towards each other through communication.
6. We can communicate honestly.

### **Shared value**

7. We share the same worldview.
8. We share the same opinion about most things.
9. We share the same feelings toward things around us.
10. We share the same values.

### **Empathy**

11. We always see things from each other's view.
12. We know how each other feels.
13. We understand each other's values and goals.
14. We care about each other's feelings.

### **Reciprocity**

15. My company regards “never forget a good turn” as our business motto.
16. We keep our promises to each other in any situation.
17. If our customers gave assistance when my company had difficulties, then I would repay their kindness.

### **Trust**

18. They are trustworthy on important things.
19. My company trusts them.

For the measurement operational performance, researchers define organizational performance variables, namely financial performance, customer performance, business process, and learning and growth. I combine the questionnaire from Lok et al. (2005) and Anderson et al. (1998). In addition, I modify some questions from Trudel (1997). I measure the items by using a Likert-type five-point scale with “1” being Strongly Disagree and “5” being Strongly Agree in order to examine the level to which respondents agreed or disagreed with the following items. I use 21 original items to measure organizational performance below:

### **Financial performance**

20. Our average cost per unit of product or service has decreased of the last two years.
21. Our overall sales revenue has growth over the last two years.

22. Our asset utilization has increased of the last two years.
23. Our sales revenue from existing customers has increased over the last two years.
24. Our organization's profitability has increased over the last two years.
25. Our sales revenue from new customers has increased over the last two years.

### **Customer performance**

26. Customer satisfaction with our company's overall logistics performance increased over the last two years.
27. Customer retention/loyalty has increased over the last two years.
28. In depth relationship built between our organization and customers over the last two years.
29. Our customer has high confidence in the capability of our organization to satisfy his/her requirements over the last two years.
30. Our organization attracts a number of new customers in established or new markets in the last two years.

### **Business process**

31. The quality of services has improved over the last two years.
32. Logistics cost performance has improved over the last two years.
33. Effectiveness and efficiency of transaction processes has improved over the last two years.
34. Order processing time has shortened over the last two years.
35. Delivery performance has improved over the last two years.

### **Learning and growth**

36. The productivity of our employees has increased over the last two years.
37. Training investment per employment has increased over the last two years.
38. IT spend per employee has increased over the last two years.
39. Staff turnover has decreased over the last two years.
40. Absenteeism has decreased over the last two years.

The questionnaire consists of 40 questions by borrowing above-mentioned scales from the literature. As mentioned before, the primary objective of this research is to investigate the relationship between relationship-marketing orientation and organizational performance after the horizontal collaboration between 3PL service providers. I apply the questionnaire to operational specialists of the 3PL service providers, which have been involved to the horizontal collaboration efforts of their firms.

I use five-item Likert scale for the measurement where “1” denotes “strongly disagree” and “5” denotes “strongly agree”.

### **3.2 Research Model**

The research model is shown in Figure 4. I investigate the associations between the relationship marketing orientation and the organizational performance. I describe the relationship marketing orientation with six criteria; bonding, communication, shared value, empathy and reciprocity and trust. On the other hand, the organizational

performance has four criteria; financial performance, customer performance, business performance and learning and growth. I provide the content of the questionnaire and discuss each criterion in the next section.

From this point of view, I define research questions as below:

1. Is there a relationship between relationship marketing orientation scales and organizational performance scales?
2. Can organizational performance be predicted by the relationship marketing orientation variables?

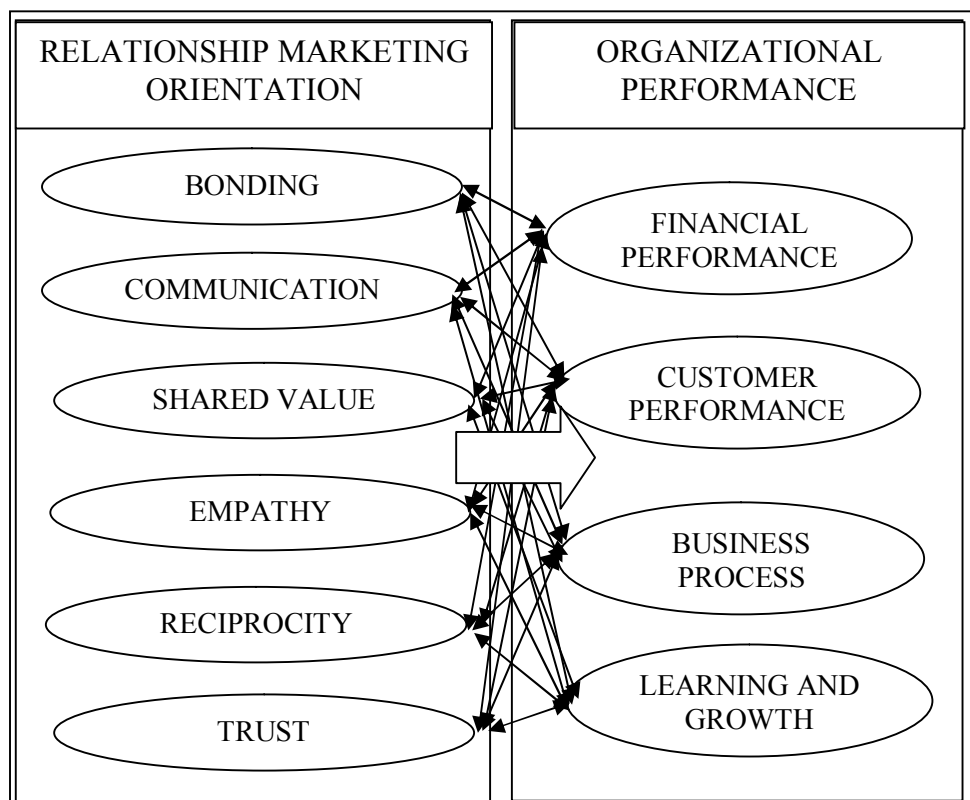


Figure 4: Research Model

### **3.3 The Content of the Questionnaire and the Variables Used**

Although in part 3.1, I gave the questions used in the research, details are provided below. Collaboration between firms is becoming a more common way for sustainable competitive advantage (Chen and Hsiao, 2008). Because of successful collaboration, 3PL service providers gain significant benefits, such as decreased inventory, increased quality, cost reductions, decreased lead-times, and improved delivery, increased flexibility (Hofenk et al., 2011). In the 3PL literature, researchers define several key success factors to influence performance. According to Chen and Hsiao (2008) trust, communication, shared values, and long-term commitment are critical factors in order to build the strategic partnership. They make a survey from the view of 3PL service providers and 3PL service providers' IT application in Taiwan. Their research findings confirm that there is a positive correlation between strategic partnership and firm performance. In addition, Panaydies and So (2005) state that integration with business partners through relationship orientation can affect the quality of the logistics service and the firm performance of the 3PL service providers. Nault and Tyagi (2001) make a research about transfer and sharing ownership variables of interorganizational relationships. As a result, these variables increase membership and decrease investment. Asawasakulsorn (2009) make a research about relationships between trust and commitment in potential partners: Shippers and carriers. The results show positive relationships. Mothilal et al., (2012) make a research about relationships between key success factors and financial and operational performance of 3PL service providers in India. They define some key success factors such as breadth of services, industry focus, and relationship with 3PL service providers and investment in information systems, skilled logistics professionals, and supply chain integration. Stank et al. (1999) examine the effect of relationships between internal and external supply chain collaboration on logistical service performance. They find that there is a positive



relationship between internal collaboration and service performance. On the other hand, there is a negative relationship between external collaboration and service performance.

Karia and Wong (2012) find gaps in the literature.

- Empirical supports for the constructs and measurements for the total 3PL service providers' logistics resources and their competitive performance
- Theoretical foundation explains performance implications of 3PL service providers' resources
- Understand the total effects of 3PL service providers' logistics resources on logistics performance. They examine the impacts of resources on 3PL service providers' logistics performance

Karia and Wong (2012) define relational resources as coordination and collaboration, share information, trust and commitment, communication (formal and informal), mutual relationship, and long-term relationship (partnership). Karia and Wong (2012) claim that relational resources company independently and positively with 3PL service providers' logistics performance. They determine organizational resources as the most significant resources in order to improve customer service innovation and cost effectiveness.

Makukha and Gray (2004) define some characteristics for a strategic partnership. The first scale is long-term commitment. Secondly, co-operative continuous improvement on cost reduction or service differentiation, full integration at the strategic level with joint planning teams. Thirdly, they treat 3PL service providers as a part of a shipper has extended enterprise. Finally, a 3PL service provider designs, develops, and

executes a shipper's logistics strategy and systems. Mohr and Spekman (1994) define important attributes of partnerships as commitment, coordination, interdependence, and trust. These attributes implies that both partners behave with the response of their mutual dependence and they have to work for the survival of the relationship. If one of the partners acts opportunistically, the relationship will suffer and both will face consequential damages. They make research from the view of manufacturers.

Researchers analyze the relation between relationship marketing orientation and organizational performance. However, they generate their researches from the view of strategic partnerships between 3PL service providers-shippers, and manufacturer-shipper perspective. I want to analyze this relation based on horizontal collaboration between 3PL service providers.

The first part of the questionnaire measures relationship marketing orientation; bonding, communication, shared value, empathy, reciprocity, and trust. The second part measures organizational performance of 3PL service providers, from the sub-titles of financial performance, customer performance, business process, and learning and growth.

I translate the items in the questionnaire from English to Turkish by the researchers and double-check by a translator and interpreter to ensure that the meanings do not distorted.

### **3.4 Sampling and Data Collecting Procedures**

When conducting research, it is usually impossible to study the entire population that you are interested. If you were to survey the entire population, it would be extremely timely and costly. As a result, researchers use samples as a way to gather data.

I determine the sample of the survey as the 3PL service providers in Turkey, which collaborated horizontally with other 3PL service providers in Turkey and other countries. I use non-probability sampling method, which is a sampling technique where the samples are gathered in a process that does not give all the individuals in the population equal chances of being selected. It is a research technique widely used in the social sciences as a way to gather information about a population without having to measure the entire population. This type of sampling demonstrates a particular trait exists in the population. I choose this sampling method, because randomization is impossible like when the population is almost limitless. In addition, research does not aim to generate results that will be used to create generalizations pertaining to the entire population.

Purposive sampling is a group of different non-probability sampling techniques. Usually, researchers investigate quite small sample. The aim of purposive sampling is not to randomly select units from a population to create a sample with the intention of generalising (i.e., statistical inferences) from that sample to the population of interest. The main goal of purposive sampling is to focus on particular characteristics of a population that are of interest, which will best enable you to answer your research questions. The sample is not representative of the population, but this is not a weakness for the research (<http://dissertation.laerd.com/purposive-sampling.php>).

I choose respondents of 3PL service providers via an internet survey in terms of horizontal collaborations between 3PL service providers. I apply the questionnaire to 30 companies, which I select them from the list I presented in Table 1. 5. The companies are international 3PL service providers. Six companies do not have a branch in İzmir. They are located in İstanbul. Seven companies are small and medium sized companies. I choose the respondents who are working more than 2 years in the company, know and involve the horizontal collaboration. All respondents are operational specialist. I do not apply the questionnaire to CEOs or administrator, because they only make the agreements and not involve or know the operational problems in detail. I reach the respondents through phone calls or e-mail.

### **3.5. Hypotheses of the Research**

I try to identify the relationship between relationship marketing orientation and organizational performance in terms of horizontal collaboration between 3PL service providers. I test 25 hypotheses in this research as follows:

**Hypothesis 1** *There is a relationship between **bonding among horizontally collaborated 3PL's** and **3PL's financial performance**.*

**Hypothesis 2** *There is a relationship between **bonding among horizontally collaborated 3PL's** and **3PL's customer performance**.*

**Hypothesis 3** *There is a relationship between **bonding among horizontally collaborated 3PL's** and **3PL's business process**.*

**Hypothesis 4** *There is a relationship between **3PL's bonding among horizontally collaborated 3PL's** and **3PL's learning and growth**.*

**Hypothesis 5** *There is a relationship between communication among horizontally collaborated 3PL's and 3PL's financial performance.*

**Hypothesis 6** *There is a relationship between communication among horizontally collaborated 3PL's and 3PL's customer performance.*

**Hypothesis 7** *There is a relationship between communication among horizontally collaborated 3PL's and 3PL's business process.*

**Hypothesis 8** *There is a relationship between communication among horizontally collaborated 3PL's and 3PL's learning and growth.*

**Hypothesis 9** *There is a relationship between shared value among horizontally collaborated 3PL's and 3PL's financial performance.*

**Hypothesis 10** *There is a relationship between shared value among horizontally collaborated 3PL's and 3PL's customer performance.*

**Hypothesis 11** *There is a relationship between shared value among horizontally collaborated 3PL's and 3PL's business process.*

**Hypothesis 12** *There is a relationship between shared value among horizontally collaborated 3PL's and 3PL's learning and growth.*

**Hypothesis 13** *There is a relationship between empathy among horizontally collaborated 3PL's and 3PL's financial performance.*

**Hypothesis 14** *There is a relationship between empathy among horizontally collaborated 3PL's and 3PL's customer performance.*

**Hypothesis 15** *There is a relationship between empathy among horizontally collaborated 3PL's and 3PL's business process.*

**Hypothesis 16** *There is a relationship between empathy among horizontally collaborated 3PL's and 3PL's learning and growth.*

**Hypothesis 17** *There is a relationship between reciprocity among horizontally collaborated 3PL's and 3PL's financial performance.*

**Hypothesis 18** *There is a relationship between reciprocity among horizontally collaborated 3PL's and 3PL's customer performance.*

**Hypothesis 19** *There is a relationship between reciprocity among horizontally collaborated 3PL's and 3PL's business process.*

**Hypothesis 20** *There is a relationship between reciprocity among horizontally collaborated 3PL's and 3PL's learning and growth.*

**Hypothesis 21** *There is a relationship between trust among horizontally collaborated 3PL's and 3PL's financial performance.*

**Hypothesis 22** *There is a relationship between trust among horizontally collaborated 3PL's and 3PL's customer performance.*

**Hypothesis 23** *There is a relationship between trust among horizontally collaborated 3PL's and 3PL's business process.*

**Hypothesis 24** *There is a relationship between trust among horizontally collaborated 3PL's and 3PL's learning and growth.*

**Hypothesis 25** *There is a relationship between 3PL's organizational performance and relationship marketing orientation.*

In order to test these hypotheses, I conduct descriptive analysis, reliability analysis, correlation analysis, and the multiple regression analysis. I use the statistical analysis software SPSS 20.0 for all abovementioned analysis. I present the findings of the questionnaire, along with the reliability of the scales in the following chapter.

## **CHAPTER 4**

### **ANALYSIS AND FINDINGS**

In the previous chapter, I conduct the research in order to describe relationship marketing and organizational performance scales in detail. This chapter aims at presenting the findings of this research, providing the necessary basis for making a comparison between what the literature suggests on the issue and what the questionnaire reveals concerning the region the applied questionnaire.

#### **4.1 Descriptive Analysis**

To start with, I obtain the descriptive statistics to understand the minimum, maximum, and standard deviation for the variables. 30 3PL service providers answered to the questionnaire, and all components are operational specialists. Table 2 describes descriptive statistics (minimum, maximum, mean, and standard deviation values).

**Table 2: Descriptive Statistics**

	N	Min.	Max.	Mean	Std. Deviation
<b>BONDING</b>	30	2.33	5.00	4.2000	0.78589
<b>COMMUNICATION</b>	30	3.00	5.00	4.2778	0.67853
<b>SHARED VALUE</b>	30	1.25	5.00	3.0250	1.08149
<b>EMPATHY</b>	30	2.00	4.50	3.6167	0.63901
<b>RECIPROCITY</b>	30	2.33	5.00	4.1556	0.81524
<b>TRUST</b>	30	3.00	5.00	4.1833	0.82507
<b>RELATIONSHIP MARKETING ORIENTATION</b>	30	2.61	4.75	3.9097	0.63060
<b>FINANCIAL PERFORMANCE</b>	30	2.00	4.33	3.4167	0.71082
<b>CUSTOMER PERFORMANCE</b>	30	2.20	4.60	3.6267	0.70414
<b>BUSINESS PROCESS</b>	30	1.80	4.80	3.5333	0.81424
<b>ORGANIZATIONAL PERFORMANCE</b>	30	2.00	4.31	3.5256	0.69084
<b>LEARNING AND GROWTH</b>	30	1.60	4.00	2.9733	0.59361

#### 4.2 Reliability Analysis

Next, I conduct reliability analysis in order to be able to be sure about the reliability levels of the scales used to measure the variables in the questionnaire. I find Cronbach's Alpha values for the variables in Table 3.



**Table 3: Reliability Analysis**

	<b>Cronbach's Alpha</b>
<b>BONDING</b>	0.873
<b>COMMUNICATION</b>	0.694
<b>SHARED VALUE</b>	0.926
<b>EMPATHY</b>	0.794
<b>RECIPROCITY</b>	0.826
<b>TRUST</b>	0.966
<b>FINANCIAL PERFORMANCE</b>	0.951
<b>CUSTOMER PERFORMANCE</b>	0.867
<b>BUSINESS PROCESS</b>	0.900
<b>LEARNING AND GROWTH</b>	0.481

A reliability value greater than or equal to 0.70 is acceptable. In our case, all variables but communication and learning and growth have Cronbach's alpha values above 0.70. I should mention statements below:

- The Cronbach's alpha value for communication should increase if I eliminate 6<sup>th</sup> question
- The Cronbach's alpha value for shared value should increase if I eliminate 10<sup>th</sup> question
- The Cronbach's alpha value for empathy should increase if I eliminate 11<sup>th</sup> question
- The Cronbach's alpha value for reciprocity should increase if I eliminate 16<sup>th</sup> question

- The Cronbach's alpha value for customer performance should increase if I eliminate 29<sup>th</sup> question
- The Cronbach's alpha value for business process should increase if I eliminate 34<sup>th</sup> question
- The Cronbach's alpha value for learning and growth should increase if I eliminate 38<sup>th</sup> and 40<sup>th</sup> question

I can achieve higher reliability levels by making the above-mentioned revisions. If I accept to be significant, making only three eliminations (elimination of 6<sup>th</sup>, 38<sup>th</sup> and 40<sup>th</sup> question), (Cronbach's alpha value is greater than or equal to 0.70). I have to eliminate these three questions, because the existence of these three questions decreases the reliability of the research. The research is not reliable while these three questions are in the research, so, the new Cronbach's alpha value for learning and growth is 0.811 and for communication is 0.802. I state eliminated questions below:

6. We can communicate honestly.
38. IT spend per employee has increased over the last two years.
40. Absenteeism has decreased over the last two years.

I should mention about the reasons of communication and learning and growth variables' Cronbach's alpha values are above 0.70. I get results, as respondents are not successful about communication with other 3PL service providers honestly. Therefore, I eliminated 6<sup>th</sup> question. The reason may be cultural differences between countries that all respondents are located in Turkey. In contrast, their partners located abroad. In addition, respondents are all operational specialist and they may not be aware of IT spends per employee and absenteeism. For this reason, 38<sup>th</sup> and 40<sup>th</sup> questions are eliminated.

### 4.3 Correlation Analysis

The relationship between relationship marketing orientation (as measured by the questionnaire that Sin et al (2005)) and organizational performance (as measured by the questionnaire that Lok et al. (2005), Anderson et al. (1998), and Trudel (1997). I investigate this by using Pearson correlation coefficient.

**Table 4:** Main Correlation Analysis

		<b>ORGANIZATIONAL PERFORMANCE</b>	<b>RELATIONSHIP MARKETING ORIENTATION</b>
<b>ORGANIZATIONAL PERFORMANCE</b>	Pearson Correlation	1	0.411
	Sig. (2-tailed)		0.024
	N	30	30
<b>RELATIONSHIP MARKETING ORIENTATION</b>	Pearson Correlation	0.411	1
	Sig. (2-tailed)	0.024	
	N	30	30

Correlation is significant at the 0.05 level (2-tailed).

As I illustrate main correlation analysis in table 4, there is significant relationship between organizational performance and relationship marketing orientation. Therefore, hypothesis 25 is supported.

#### 4.3.1 Bonding Hypotheses

**Table 5:** Correlation Analysis of Bonding

Criteria	Statistics	Value
<b>FINANCIAL PERFORMANCE</b>	Pearson Correlation	0.449
	Sig. (2-tailed)	<b>0.013</b>
	N	30
<b>CUSTOMER PERFORMANCE</b>	Pearson Correlation	0.592
	Sig. (2-tailed)	<b>0.001</b>
	N	30
<b>BUSINESS PROCESS</b>	Pearson Correlation	0.463
	Sig. (2-tailed)	<b>0.010</b>
	N	30
<b>LEARNING AND GROWTH</b>	Pearson Correlation	0.273
	Sig. (2-tailed)	0.145
	N	30

Correlation is significant at the 0.05 level (2-tailed)

I present findings related to the bonding hypotheses in Table 5. The significance levels of those hypotheses, which were accepted, are bolded in the table. The details of the findings related to the hypothesis are presented below:

**Hypothesis 1** The correlation coefficient between **bonding** and **financial performance** is significant ( $p=0.013$ ). Therefore, **Hypothesis 1 is supported.**

**Hypothesis 2** The correlation coefficient between **bonding** and **customer performance** is significant ( $p=0.001$ ). Therefore, **Hypothesis 2 is supported.**

**Hypothesis 3** The correlation coefficient between **bonding** and **business process** is significant ( $p=0.010$ ). Therefore, **Hypothesis 3 is supported**.

**Hypothesis 4** The correlation coefficient between **bonding** and **learning and growth** is not significant ( $p=0.145$ ) and ( $r=0.273$ ). Therefore, **Hypothesis 4 is not supported**.

The significance levels for financial performance, customer performance, and business process are less than 0.05. This means correlations between bonding and financial, customer performance, and business process are significant. However, the significance level for learning and growth is more than 0.05. This means, correlation between bonding and learning and growth is not significant.

#### 4.3.2 Communication Hypotheses

**Table 6:** Correlation Analysis of Communication

<b>Criteria</b>	<b>Statistics</b>	<b>Value</b>
<b>FINANCIAL PERFORMANCE</b>	Pearson Correlation	0.498
	Sig. (2-tailed)	<b>0.005</b>
	N	30
<b>CUSTOMER PERFORMANCE</b>	Pearson Correlation	0.634
	Sig. (2-tailed)	<b>0.000</b>
	N	30
<b>BUSINESS PROCESS</b>	Pearson Correlation	0.48
	Sig. (2-tailed)	<b>0.007</b>
	N	30
<b>LEARNING AND GROWTH</b>	Pearson Correlation	0.027
	Sig. (2-tailed)	0.887
	N	30

Correlation is significant at the 0.05 level (2-tailed)

I present findings related to the communication hypotheses in Table 6. The significance levels of those hypotheses, which were accepted, are bolded in the table. The details of the findings related to the hypothesis are presented below:

**Hypothesis 5** The correlation coefficient between **communication** and **financial performance** is significant ( $p=0.005$ ). Therefore, **Hypothesis 5 is supported.**

**Hypothesis 6** The correlation coefficient between **communication** and **customer performance** is significant ( $p=0.000$ ). Therefore, **Hypothesis 6 is supported.**

**Hypothesis 7** The correlation coefficient between **communication** and **business process** is significant ( $p=0.007$ ). Therefore, **Hypothesis 7 is supported.**

**Hypothesis 8** The correlation coefficient between **communication** and **learning and growth** is not significant ( $p=0.887$ ). Therefore, **Hypothesis 8 is not supported.**

The significance level for financial performance, customer performance, and business process is less than 0.05. This means correlations between communication and financial performance, customer performance, and business process are significant. However, the significance level for learning and growth is more than 0.05. This means, correlation between communication and learning and growth is not significant.

### 4.3.3 Shared Value Hypotheses

**Table 7:** Correlation Analysis of Shared Value

		<b>SHARED VALUE</b>
<b>FINANCIAL PERFORMANCE</b>	Pearson Correlation	0.070
	Sig. (2-tailed)	0.713
	N	30
<b>CUSTOMER PERFORMANCE</b>	Pearson Correlation	0.244
	Sig. (2-tailed)	0.195
	N	30
<b>BUSINESS PROCESS</b>	Pearson Correlation	0.051
	Sig. (2-tailed)	0.789
	N	30
<b>LEARNING AND GROWTH</b>	Pearson Correlation	-0.094
	Sig. (2-tailed)	0.621
	N	30

Correlation is significant at the 0.05 level (2-tailed)

I present findings related to the shared value hypotheses in Table 7. The details of the findings related to the hypothesis are presented below:

**Hypothesis 9** The correlation coefficient between **shared value** and **financial performance** is not significant ( $p=0.713$ ). Therefore, **Hypothesis 9 is not supported.**

**Hypothesis 10** The correlation coefficient between **shared value** and **customer performance** is not significant ( $p=0.195$ ). Therefore, **Hypothesis 10 is not supported.**

**Hypothesis 11** The correlation coefficient between **shared value** and **business process** is not significant ( $p=0.789$ ). Therefore, **Hypothesis 11 is not supported.**

**Hypothesis 12** The correlation coefficient between **shared value** and **learning and growth** is not significant ( $p=0.621$ ). Therefore, **Hypothesis 12 is not supported.**

The significance levels for financial performance, business process, and learning and growth are more than 0.05. This means correlations between shared value and financial performance, business process, and learning and growth are not significant. On the other hand, correlation between shared value and customer performance is significant.

#### 4.3.4 Empathy Hypotheses

**Table 8:** Correlation Analysis of Empathy

		<b>EMPATHY</b>
<b>FINANCIAL PERFORMANCE</b>	Pearson Correlation	0.301
	Sig. (2-tailed)	0.107
	N	30
<b>CUSTOMER PERFORMANCE</b>	Pearson Correlation	0.434
	Sig. (2-tailed)	<b>0.017</b>
	N	30
<b>BUSINESS PROCESS</b>	Pearson Correlation	0.214
	Sig. (2-tailed)	0.256
	N	30
<b>LEARNING AND GROWTH</b>	Pearson Correlation	0.176
	Sig. (2-tailed)	0.352
	N	30

Correlation is significant at the 0.05 level (2-tailed)



I present findings related to the empathy hypotheses in Table 8. The significance levels of those hypotheses, which were accepted, are bolded in the table. The details of the findings related to the hypothesis are presented below:

**Hypothesis 13** The correlation coefficient between **empathy** and **financial performance** is not significant ( $p=0.107$ ). Therefore, **Hypothesis 13 is not supported.**

**Hypothesis 14** The correlation coefficient between **empathy** and **customer performance** is significant ( $p=0.017$ ). Therefore, **Hypothesis 13 is supported.**

**Hypothesis 15** The correlation coefficient between **empathy** and **business process** is not significant ( $p=0.256$ ). Therefore, **Hypothesis 15 is not supported.**

**Hypothesis 16** The correlation coefficient between **empathy** and **learning and growth** is not significant ( $p=0.256$ ). Therefore, **Hypothesis 16 is not supported.**

The significance level for customer performance is less than 0.05. This means correlation between empathy and customer performance is significant. However, the significance levels for learning and growth, business process and financial performance are more than 0.05. Therefore, correlations between empathy and financial performance, business process, and learning and growth are not significant.

#### 4.3.5 Reciprocity Hypotheses

**Table 9:** Correlation Analysis for Reciprocity

		<b>RECIPROCITY</b>
<b>FINANCIAL PERFORMANCE</b>	Pearson Correlation	0.136
	Sig. (2-tailed)	0.475
	N	30
<b>CUSTOMER PERFORMANCE</b>	Pearson Correlation	0.309
	Sig. (2-tailed)	0.097
	N	30
<b>BUSINESS PROCESS</b>	Pearson Correlation	0.224
	Sig. (2-tailed)	0.234
	N	30
<b>LEARNING AND GROWTH</b>	Pearson Correlation	0.086
	Sig. (2-tailed)	0.651
	N	30

Correlation is significant at the 0.05 level (2-tailed)

I present findings related to the reciprocity hypotheses in Table 9. The details of the findings related to the hypothesis are presented below:

**Hypothesis 17** The correlation coefficient between **reciprocity** and **financial performance** is not significant ( $p=0.475$ ). Therefore, **Hypothesis 17 is not supported.**

**Hypothesis 18** The correlation coefficient between **reciprocity** and **customer performance** is not significant ( $p=0.097$ ). Therefore, **Hypothesis 18 is not supported.**

**Hypothesis 19** The correlation coefficient between **reciprocity** and **business process** is not significant ( $p=0.234$ ). Therefore, **Hypothesis 19 is not supported.**

**Hypothesis 20** The correlation coefficient between **reciprocity** and **learning and growth** is not significant ( $p=0.651$ ). Therefore, **Hypothesis 20 is not supported.**

The significance levels for financial performance, customer performance, business process and learning and growth are more than 0.05. This means correlations between reciprocity and financial, customer performance, business process, and learning and growth are not significant.

#### 4.3.6 Trust Hypotheses

**Table 10:** Correlation Analysis of Trust

		<b>TRUST</b>
<b>FINANCIAL PERFORMANCE</b>	Pearson Correlation	0.414
	Sig. (2-tailed)	<b>0.023</b>
	N	30
<b>CUSTOMER PERFORMANCE</b>	Pearson Correlation	0.615
	Sig. (2-tailed)	<b>0.000</b>
	N	30
<b>BUSINESS PROCESS</b>	Pearson Correlation	0.609
	Sig. (2-tailed)	<b>0.000</b>
	N	30
<b>LEARNING AND GROWTH</b>	Pearson Correlation	0.382
	Sig. (2-tailed)	<b>0.037</b>
	N	30

Correlation is significant at the 0.05 level (2-tailed)

I present findings related to the trust hypotheses in Table 10. The significance levels of those hypotheses, which were accepted, are bolded in the table. The details of the findings related to the hypothesis are presented below:

**Hypothesis 21** The correlation coefficient between **trust** and **financial performance** is significant ( $p=0.023$ ). Therefore, **Hypothesis 21 is supported.**

**Hypothesis 22** The correlation coefficient between **trust** and **customer performance** is significant ( $p=0.000$ ). Therefore, **Hypothesis 21 is supported.**

**Hypothesis 23** The correlation coefficient between **trust** and **business process** is significant ( $p=0.000$ ). Therefore, **Hypothesis 23 is supported.**

**Hypothesis 24** The correlation coefficient between **trust** and **learning and growth** is significant ( $p=0.037$ ). Therefore, **Hypothesis 24 is supported.**

The significance levels for financial performance, customer performance, business process and learning and growth are less than 0.05. This means correlations between trust and financial performance, customer performance, business process, and learning and growth are significant.

#### **4.4 Regression Analysis**

After having analyzed correlations between several variables, also conduct a regression analysis by enter method so find out if I can predict the variable “Organizational Performance” by “relationship marketing orientation” variables which are bonding, communication, shared value, empathy, reciprocity, and trust.

**Table 11: Variables Entered**

<b>Model</b>	<b>Variables Entered</b>	<b>Variables Removed</b>	<b>Method</b>
1	TRUST, SHARED VALUE, RECIPROCITY, EMPATHY, BONDING, COMMUNICATION		Enter

To test the related hypothesis, I use multiple regression with enter method. I present the results of the regression analysis in the Tables 18-20.

**Table 12: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	0.822 <sup>a</sup>	0.675	0.591	0.44206
a. Predictors: (Constant), TRUST, SHARED_VALUE, RECIPROCITY, EMPATHY, BONDING, COMMUNICATION				

I present model summary above through analyzing R Square value in table 12. R square value in the sample tends to be a rather optimistic overestimation of the true value in the population when a small sample is involved. Our model accounts for 67.5% of the variance in performance.

**Table 13: ANOVA of Regression**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.346	6	1.558	7.971	0.000 <sup>b</sup>
	Residual	4.495	23	0.195		
	Total	13.841	29			
Dependent Variable: PERFORMANCE						
b. Predictors: (Constant), TRUST, SHARED_VALUE, RECIPROCITY, EMPATHY, BONDING, COMMUNICATION						

**Table 14: Coefficients of Regression**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
	1	(Constant)	1.238			0.550
	<b>BONDING</b>	0.897	0.260	1.021	3.453	0.002
	<b>COMMUNICATION</b>	0.332	0.303	0.326	1.098	0.284
	<b>SHARED VALUE</b>	0.432	0.116	-0.677	-3.714	0.001
	<b>EMPATHY</b>	0.296	0.214	0.274	1.384	0.180
	<b>RECIPROCITY</b>	-0.916	0.219	-1.081	-4.187	0.000
	<b>TRUST</b>	0.273	0.161	0.325	1.696	0.103
Dependent Variable: PERFORMANCE						

Regression is significant at the 0.05 level (2-tailed)

Based on the result shown on Table 11,12,13,14, I formulate the regression equation as follows:

$$\text{Organizational Performance} = 1.238 + 0.897 (\text{bonding}) + 0.432 (\text{shared value}) - 0.916(\text{reciprocity})$$

Results show that, organizational performance can be predicted by bonding, shared value, and reciprocity. Since I am interested in comparing the contribution of each of the six independent variables to the explanation of our dependent variable “Performance”, I consider the Beta values in the coefficients table presented in Table 14. Looking at the unstandardized coefficients column, bonding can be said to make the strongest unique contribution (0.897) by explaining the dependent variable, when the variance explained by all other variables in the model is controlled for. Similarly, shared value has also a strong contribution (0.432). On the other hand, there is a negative relationship between reciprocity and performance variables. Therefore, coefficient of reciprocity is negative but relatively strong predictor.

## **CHAPTER 5**

### **DISCUSSIONS AND CONCLUSIONS**

The major motivation of this thesis is to examine if the relationship marketing orientation between two 3PLs, which have collaboration at least two years, has an effects on the organizational performance of the respondent 3PL. Although there is plenty of research that investigates the relationship between relationship marketing scales and organizational performance, this thesis distinguishes from previous studies by two aspects. Firstly, to the best of my knowledge, this is the first study that investigates the above-mentioned relationship from the view of collaborator 3PL service providers. Secondly, supporting the argument of Sin et al. (2005) that the conjecture and perspective of marketing theories may be different through countries, the questionnaire applied to 3PL service providers in Turkey reports interesting results (Sin et al., 2005).

Based on the results of the research, this study has several managerial implications for 3PL service providers in Turkey. The results will help 3PL service providers in Turkey to understand how to improve their organizational performance, and understand relationship marketing orientation briefly. This thesis aims to answer two research questions: (i) “Is there a relationship between relationship marketing orientation scales and organizational performance scales?” and (ii) “Can organizational performance is predicted by the relationship marketing orientation variables?” According to the results of the questionnaire, if two 3PL service providers collaborate for at least two years, there is a significant relationship between organizational performance and relationship marketing orientation. I can state that



3PL service providers should focus on to improve the relationship with their collaborator.

The results show that relationship marketing orientation variables have a strong relationships with each of four performance variables but not all factors are significant constructs to each organizational performance variable. The survey results imply that there are significant relationship between relationship marketing orientation scales; bonding, communication, and trust and organizational performance scales; financial performance, customer performance, and business process. In addition, trust affects learning and growth positively. There is no significant relationship neither between bonding and learning growth nor between communication and learning and growth. Only trust has a significant relationship with learning and growth. In other words, relationship marketing orientation scales do not affect productivity of the employees of collaborator 3PL service providers except trustworthy relationships. Learning and growth indicate employees' performance in an organization. Therefore, trust is related to learning and growth directly. Trustworthy relationships encourage learning and growth of operational specialists.

Furthermore, the results of correlation analysis demonstrate that customer performance is the strongest organizational performance variable. To clarify, bonding, communication, empathy, and trust affect customer performance positively. 3PL service providers provide service to their customers, which is their main driver to increase organizational performance. When they will achieve higher customer level, they will get higher returns.

Interestingly, there is not any relationship between shared value, reciprocity, and organizational performance scales. This was a surprising result since previous studies, on manufacturer and suppliers show positive relationship. The cultural differences

between countries might be the reason of these results. The respondent 3PL service providers mostly build horizontal collaborations with 3PL service providers in other countries. In my opinion, 3PL service providers that respond the questionnaire cannot share the same goals, opinions, feelings, etc. because of cultural and organizational differences between countries and the companies.

There is a significant relationship between bonding and financial performance, customer performance, and business process through correlation analysis. Similarly, I get results through regression analysis that bonding is the strongest unique contribution to predict the dependent variable "Performance". These results show that 3PL service providers should try to establish long-term and close collaboration with other 3PL service providers for building successful collaboration. In addition, there is a significant relationship between communication and financial performance, customer performance, and business process through correlation analysis. In contrast, I get results through regression analysis that communication is strongest unique contribution to performance variable. Communication is other significant variable of the relationship marketing orientation that effect organizational performance positively, because communication results in close collaboration.

The results demonstrate that empathy only affects customer performance. Thus, taking joint action to the organizational issues result in increasing customer satisfaction. In contrast, understanding each other and seeing things from each other's views do not affect financial performance, business process, and learning and growth. Because of this result might be traditional view of the organizations in Turkey. In other words, 3PL service providers do not have broad vision to analyze the reasons and results by collaborative relationship.

The results also show that there is a significant relationship between trust and four organizational performance variables through correlation analysis. As well as considered in other researches, trust is the main driver of relationship marketing orientation. In contrast, I cannot get the same results through regression analysis that trust has not a strong contribution to predict the organizational performance.

The results of correlation analysis illustrate that there is not any relationship between reciprocity and organizational performance variables. On the other hand, regression analysis shows that reciprocity has strong contribution to organizational performance negatively. Although we got such an interesting result, main correlation analysis shows significant relationship between relationship marketing orientation and organizational performance.

In conclusion, these findings reveal there is a significant relationship between relationship-marketing orientation of 3PL service providers', which have horizontal collaboration with other 3PL service providers, and their organizational performance. These findings suggest that 3PL service providers in Turkey should be paying attention to relationship marketing orientation if they hope to improve organizational performance.

## **LIMITATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH**

The research conducted for this thesis has some important limitations. One of the most important limitations of the research is associated with the sample size. As already mentioned in the research methodology part, sample is limited by 30 respondents. The results would be expected to be more reliable if the sample size was larger. On the other hand, I define two limitations as 3PL service providers build horizontal collaboration, and these 3PL service providers collaborate with other 3PL service providers at least 2 years. For this reason, I determined respondent's through internet survey, and I use non-probability as a sampling technique. In conclusion, sample size is small and I have to use non-probability sampling technique.

Another important constraint of the research is about our research technique. The cross-sectional design used for this study provided only a static snapshot of the phenomenon being studied and the quantitative methodology did not allow for understanding the reasons for the unusual relationship between relationship marketing orientation and organizational performance. In addition, we could not achieve significant information about the reasons of different significances of the factors to individual performance variables.

Another limitation of the study was that informants who provided the data for analysis were from only operational specialists. I recommend making a research with CEOs, too. In addition, a combination of both qualitative and quantitative research using multiple informant sources is recommended for future studies of this nature. Using a case study approach to gather in-depth information on a single entity may remedy the

limitations of a single source of data may allow understanding of individual cases and help to explain the relationship marketing orientations' effect to organizational performance.

Results can be verified and generalized by the further research that will be conducted in different geographical regions with different and larger sample.

## REFERENCES

- Aktaş, E., and Ülengin F. 2005. "Outsourcing Logistics Activities in Turkey". *Journal of Enterprise Information Management*. 18 (3), 316-329.
- Anderson, James C., Håkansson Håkan, and Johanson Jan. 1994. "Dyadic Business Relationships within a Business Network". *Journal of Marketing*. 58 (4),1-1.
- Anderson, Ronald. D., Jerman Roger. E., and Crum Michael. R. 1998. "Quality management influences on Logistics performance". *Logistics and Transportation Revision*. 34 (2), 137-148.
- Asawasakulsorn, A. 2009. "Transportation collaboration: Partner selection criteria and inter-organizational system (IOS) design issues for supporting trust". *International Journal of Business and Information*. Vol.4, No.2. Pages?
- Audy, Jean F., Lehoux Nadia, Amours Sophie D., and Rönnqvist Mikael 2010. "A framework for an efficient implementation of logistics collaborations". *International Transactions in Operational Research*. 1 (25), 1-9.
- Beamish, Paul W. and Banks John C. 1987. "Equity Joint Ventures and the Theory of the Multinational Enterprise". *Journal of International Business Studies*. 18 (2), 1-16.
- Bing, Wu and Zhongying Liu 2009. "Decision-Making in Optimizing the Contract of Third Party Logistic". *IEEE Symposium on Advanced Management of Information for Globalized Enterprises*. 9 (444), 444-445.
- Braziotis, Christos and Tannock James 2011. "Building the Extended Enterprise: Key Collaboration Factors". *The International Journal of Logistics Management*. 22 (3), 349-372.
- Carbone, Valentina and Stone Marilyn A. 2005. "Growth and Relational Strategies Used by the European Logistics Service Providers: Rationale and Outcomes". *Transportation Research Part. E* 41, pp 495–510.

- Cepinskis, Jonas and Masteika Ignas. May 13-14, 2010. "Impact of Logistics Processes on Competitiveness of Companies". *6<sup>th</sup> International Scientific Conference Business and Management*. pp.856-861.
- Chan, Su H., Kensinger John W., Keown Arthur J., and Martin John D. 1997. "Do Strategic Alliances Create Value?". *Journal of Financial Economics*. 46 (2), 199-221.
- Chapman, Ross L., Soosay Claudine, and Kandampully Jay. 2002. "Innovation in Logistic Services and the New Nusiness Model: A Conceptual Framework", *Managing Service Quality*. 12 (6), 358-371.
- Chen, Chao H. and Hsiao Ya Y. 2008. "The Effect of the Application of Information Technology and Strategic Partnership". *Journal of the Chinese Institute of Industrial Engineers*. 25 (5), 368-378.
- Chen, Injazz J. and Paulraj Antony 2004. "Towards a Theory of Supply Chain Management: the Constructs and Measurements". *Journal of Operations Management*. 22 (2), 119-150.
- Childerhouse P. and Towill D. 2011. "Arcs of sSupply Chain Integration". *International Journal of Production Research*. 49 (24), 7441.
- Chu, Zhaofang and Yang Chao. 2010. "Logistics Integration with Third Party Logistics Providers". *Information Management, Innovation Management and Industrial Engineering (ICIII), 2010 International Conference*. 2, 7-10 (26-28 Nov. 2010).
- Copare, Philip B. 1994. "Partnering – A New Philosophy in Business", *Transactions of AACE International, 1994*, 4-HF3.1.
- Cruijssen, Frans, Dullaert Wout., and Fleuren Hein. 2007. "Horizontal Cooperation in Transport and Logistics: A Literature Review". *Transportation Journal (American Society Of Transportation & Logistics Inc)*. 46 (3), 22-39.

Daugherty, Patricia J., Myers Matthew. B., and Richey Glenn R. 2002. "Information Support for Reverse Logistics: The Influence of Relationship Commitment". *Journal of Business Logistics*. 23 (1), 85-106.

Darkow, Inga L., Kaup Christoph., and Schiereck Dirk. 2008. "Determinants of Merger and Acquisition Success in Global Logistics". *International Journal Of Logistics: Research and Applications*, 11 (5), 333-345.

Jeffrey, Dyer H. and Singh Harbir 1998. "The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage". *Academy of Management.the Academy of Management Review*, 23 (4), 660-679.

Fabbe-Costes, Nathalie and Jahre Marianne 2008. "Supply Chain Integration and Performance: A Review of the Evidence", *International Journal of Logistics Management*. 19 (2), 130-154.

Feng, Cheng-Min and Yuan Chien-Yun 2007. "Application of Collaborative Transportation Management to Global Logistics: An Interview Case Study. *International Journal of Management*, 24(4), 623-636,822.

Gadde, Lars E. and Hulthén Kajsa 2009. "Improving logistics outsourcing through increasing buyer-provider interaction". *Industrial Marketing Management*. 38 (6), 633-640.

Ganesan, Shankar 1994. "Determinants of Long-term Orientation in Buyer-seller Relationships". *Journal of Marketing*. 58 (2), 1-1.

Golicic, Susan L., Foggin James H., and Mentzer, John T. 2003. "Relationship Magnitude and Its Role in Interorganizational Relationship Structure". *Journal of Business Logistics*. 24 (1), 57-76.

Golicic, Susan L. and Mentzer John T. 2005. "Exploring the Drivers of Interorganizational Relationship Magnitude", *Journal Business Logistics*. 26 (2), 47-71.



Gunasekaran, A. and E, W. T. N. 2003. "The Successful Management of a Small Logistics Company". *International Journal of Physical Distribution and Logistics Management*. 33 (9), 825-842.

Hertz, Susanne 2001. "Dynamics of Alliances in Highly Integrated Supply Chain Networks". *International Journal Of Logistics: Research & Applications*. 4 (2), 237-256.

Hofenk, Dianne and et al. 2011. "The Influence of Contractual and Relational Factors on the Effectiveness of Third Party Logistics Relationships". *Journal of Purchasing and Supply Management*. 17 (3), 167–175.

Hoyt, James and Huq Faizul 2000. "From Arms-length to Collaborative Relationships in the Supply Chain an Evolutionary Process". *International Journal of Physical Distribution & Logistics Management*. 30 (9), 750-764.

Huemer, Lars, 2012. "Unchained From the Chain: Supply Management From A Logistics Service Provider Perspective". *Journal of Business Research*. 65 (2), 258-264.

Huiskonen, Janne and Pirttilä Timo 2002. "Lateral Coordination in a Logistics Outsourcing Relationship". *International Journal Of Production Economics*, 78 (2), 177-185.

Izquierdo, Carmen C. and Cillán, Jesus G. 2004. "The Interaction of Dependence and Trust in Long-Term Industrial Relationships". *European Journal of Marketing* 38 (8), 974–94.

Juga, Jari, Pekkarinen Saara, and Kilpala Heli 2008. "Strategic Positioning of Logistics Service Providers". *International Journal of Logistics: Research and Applications* 11 (6), 443–455.

Jung, Hosang S., Chen Frank F., and Jeong Bongju 2005. "A Production-Distribution Coordinating Model for Third Party Logistics Partnership". *International Conference on Automation Science and Engineering (CASE)*, pp. 99-104, (August 1-2, 2005).

Kampstra, Paul R., Ashayeri John, and Gattorna John. L. 2006. "Realities of Supply Chain Collaboration". *The International Journal of Logistics Management*. 17 (3), 312-330.

Karia, Noorliza and Wong Chee Y. (2012). "The Impact of Logistics Resources on the Performance of Malaysian Logistics Service Providers, Production Planning & Control: The Management of Operations".

Lemoine, W. and Dagnæs Lars 2003. "Globalisation Strategies and Business Organisation of a Network of Logistics Service Providers". *International Journal of Physical Distribution & Logistics Management*. 33 (3), 209-228.

Li, Suhong and et al. 2006. "The impact of supply chain management practices on competitive advantage and organizational performance", *Omega*, Vol.34, No. 2, pp. 107-124.

Lieb, Robert C. and Lieb Kristine J. 2011. "The European Third Party Logistics Industry In 2009: The Provider CEO Perspective". *Supply Chain Forum: International Journal*, 12 (3), 36-42.

Lieb, Robert C. and Lieb Kristine J. 2012. "The North American Third-Party Logistics Industry in 2011: The Provider CEO Perspective". *Transportation Journal (Pennsylvania State University Press)*. 51 (3), 353-367.

Lok, Peter and et al. 2005. "An Integrative Framework for Measuring the Extent to Which Organizational Variables Influence the Success of Process Improvement Programmes". *Journal of Management Studies*. 42 (7), 1357-1381.

Makukha, Konstantin and Gray Richard 2004. "Logistics Partnerships Between Shippers and Logistics Service Providers: The Relevance of Strategy, International Journal of Logistics Research and Applications". *A Leading Journal of Supply Chain Management*. 7 (4), 361-377.

Mason, Robert., Lalwani Chandra., and Boughton Roger 2007. "Combining Vertical and Horizontal Collaboration for Transport Optimisation". *Supply Chain Management*. 12 (3), 187-199.

- Matopoulos, Arismat and et al. 2007. "A Conceptual Framework for Supply Chain Collaboration: Empirical Evidence From the Agri-food Industry", *Supply Chain Management*. 12 (3), 177-186.
- Mitra, Subrata 2010. "A Comparative Study of North American and Indian Third-Party Logistics (3PL) Service Providers". *Computer and Automation Engineering (ICCAE), 2010 The 2nd International Conference on* , 5, 247-250, 26-28 Feb. 2010
- Mohr, Jakki and Spekman Robert 1994. "Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques". *Strategic Management Journal*. 15 (2), 135-152.
- Morgan, Robert M. and Hunt, Shelby D. 1994. "The Commitment-Trust Theory of Relationship Marketing." *Journal of Marketing*, 58 (3), 20–38.
- Mothilal, S. 2012. "Key Success Factors and Their Performance Implications in the Indian Third-party Logistics (3PL) Industry". *International Journal of Production Research*. 50 (9), 2407-2422.
- Nault, Barrie R. and Tyagi Rajeev K. 2001. "Implementable Mechanisms to Coordinate Horizontal Alliances." *Management Science*, 47 (6), 787–799.
- Ndubisi, Nelson O., 2006. "Effect of Gender on Customer Loyalty: A Relationship Marketing Approach". *Marketing Intelligence and Planning*, 24 (1), 48-61.
- OECD/International Transport Forum 2010. *Integration and Competition between Transport and Logistics Businesses*, ITF Round Tables, No. 146, OECD Publishing.
- Özdemir, Dilek and Darby James 2009. "One Less Barrier to Foreign Direct Investment in Turkey? Linkages Between Manufacturing and Logistics Operations in Istanbul and the Marmara Region", *European Urban and Regional Studies*, 16 (1), 87-99.
- Panayides, Photis M. and So Meko 2005. "Logistics Service Provider-Client Relationships". *Transportation Research Part E*. 41 (3), 179-200.

- Patricia, Daugherty J. 2011. "Review of Logistics and Supply Chain Relationship Literature and Suggested Research Agenda". *International Journal of Physical Distribution & Logistics Management*. 41 (1), 16-31.
- Ratten, Vanessa 2004. "The Role of Learning and Information Dissemination in Logistics Alliances". *Asia Pacific Journal of Marketing and Logistic*. 16 (4), 65-81.
- Rao, Kant and Young Richard R. 1994. "Global Supply Chains: Factors Influencing Outsourcing of Logistics Functions". *International Journal of Physical Distribution & Logistics Management*. 24 (6), 11-11.
- Roberts, Adrienne, Roberts Dan, and Ward Andrew 2005. "FedEx Dares to Keep the Status quo Corporate Strategy: Other Global Delivery Groups are Expanding Fast into Logistics Services. Why is FedEx not Joining Them, Ask Andrew Ward and Dan Roberts. *Financial Times*. (Oct 20, 2005).
- Rosenfield, James R. 1999. "Whatever Happened to Relationship Marketing? Nine Big Mistakes". *Direct Marketing*. 62 (1), 30-34.
- Schoenherr, Tobias 2009. "Logistics and Supply Chain Management Applications within a Global Context: An overview". *Journal of Business Logistic*. 30 (2), 1-25.
- Shang, Kuo C. 2009. "Integration and Organisational Learning Capabilities in Third-party Logistics Providers". *Service Industries Journal*. 29 (3), 331-343.
- Sin, Leo Y. M. and et al. 2005. "Market Orientation, Relationship Marketing Orientation, and Business Performance: The Moderating Effects of Economic Ideology and Industry Type". *Journal of International Marketing*. 13 (1), 36-57.
- Solakivi, Tomi, Töyli Juuso, and Ojala Lauri (2013). "Logistics outsourcing, its motives and the level of logistics costs in manufacturing and trading companies operating in Finland". *Production Planning & Control*, 24(4/5), 388-398.
-

Stank, Theodone P., Dougherty Patricia J., and Ellinger Alexander E. 1999. "Marketing/Logistics Integration and Firm Performance". *International Journal of Logistics Management*, 10 (1), 11–24.

Stefansson, Gunnar 2006. "Collaborative Logistics Management and the Role of Third-party Service Providers". *International Journal of Physical Distribution & Logistics Management*. 36 (2), 76-92.

Stone, Marilyn A. 2001. "European Expansion of UK Third-party Logistics Service Providers, International Journal of Research and Applications", *A Leading Journal of Supply Chain Management*. 4 (1), 97-115.

Taleghani, Mohammad, Gilaninia Shahram, and Mousavian Seyyed J. 2011. "The Role of Relationship Marketing in Customer Orientation Process in the Banking Industry with Focus on Loyalty (Case Study: Banking Industry of Iran)". *International Journal of Business and Social Science*. 2 (19), 155-166.

Trudel, John D. 1997. "The Balanced Scorecard: Translating Strategy into Action". *Journal of Management Consulting*. 9(4), 74-75.

Trunick, Perry A. 2006. "Growth and change drive the global 3PL market". *Logistics Today*, 47(7), 1-14.

Tyan, Jonah C., Wang Fu-Kwun, and Du Timon. C. 2003. "An Evaluation of Freight Consolidation Policies in Global Third Party Logistics". *The International Journal of Management Science*. 55 (62), 55-57.

Yung, Kenneth K. 2001. "Foreign Acquisitions and Managerial Discretion". *Review of Quantitative Finance and Accounting*. 16 (1), 53-53.

Wang, Rui J., Ru Yi H., and Zhu Xiao X. 2009. "The Quantitative Analyses a Based on Logistics Integration Degree", *Proceedings of the Eighth International Conference on Machine Learning and Cybernetics, Baoding*. 12 (15), 2730-2733.

Xu, Li, Xu Yifan 2011. "Improvement of the Third Party Logistics' International Competition with Supply Chain Management". *E-Business and E-Government (ICEE), 2011 International Conference on*, 1-4, (May 6-8, 2011).

Vasiliauskas, Aidas V. and Jakubauskas Grazvydas 2007. "Principle and Benefits of Third Party Logistics Approach When Managing Logistics Supply Chain". *Transport*. 22 (2), 68-72.

Zapfel, Günther, and Wasner Michael 2002. "Planning and Optimization of Hub-and-Spoke Transportation Networks of Cooperative Third-party Logistics Providers". *International Journal of Production Economics*. 78 (2), 207-220.

Zhang, Chenyan, Yu Hongyan, and Liu Zhongying 2008. "Logistics Collaboration Supported by Electronic Logistics Marketplaces". *IEEE Symposium on Advanced Management of Information for Globalized Enterprise*. (Sept. 28-29, 2008).

Zhou, Xiangfeng, Zhang Cheng, and Su Jie 2009. "Research on Middle and Small Scale Logistics Enterprises' Development Patterns under Supply Chain", *Management and Service Science, 2009. MASS '09. International Conference on*, 1-5, Sept. (20-22, 2009).

---

## ONLINE SOURCES

Aras Holding is a site that presents the full text of many essential works in the literature of collaborations between Aras and Fillo  
(<http://www.arasholding.com.tr/icerik.asp?id=31>).

Arkas is a site that presents the full text of many essential works in the literature of collaborations between Arkas and collaborators  
([http://www.arkas.com.tr/haber\\_detayi.html?newsId=296](http://www.arkas.com.tr/haber_detayi.html?newsId=296)).

Achtenhagen, L. (2006). Strategic Alliances, Mergers and Acquisitions Lecture notes. Retrieved 2006-11-19 from  
<http://jibsnet.hj.se/documents/files/2636293122824962003.ppt>

Bugün Ekonomi is a site that presents the full text of much essential information about economy

(<http://ekonomi.bugun.com.tr/inci-lojistik-avrupa-nin-37838-haberi.aspx>).

Bulk Distributor is a site that presents the full text of many essential works in the literature of bulk and semi-bulk logistics

(<http://bulk-distributor.com/2012/06/new-interbulk-representation-in-turkey/>).

Decesare, Jon and Matsikas Dean “Scouting the Path to 3PL Merger & Acquisition Success”, from [www.wclconsulting.com](http://www.wclconsulting.com).

Demirakça is a site that presents the information about collaboration between Demirakça logistics and Jan De Rijk

(<http://www.demirakca.com/ger/default.asp>).

Demirnakliyat is a site that presents the information about collaboration between Demiral logistics and Tornado logistics

(<http://www.demirnakliyat.com.tr/index.php?page=dyr&did=5&action=request&lang=eng>).

Deniz Haber is a site that presents the full text of many essential works in the literature of collaborations between Arkas and collaborators

(<http://www.denizhaber.com/HABER/15307/2/denizhaber-denizcilik-deniz-haber-turk-denizciligi-bosporus-turk-bogazlari-istanbul-bogazi-canakkale-bogazi-dto-turkish-maritime-pilotage-marine-environment-deniz-kirliligi-balikcilik.html>).

"Deutsche Post. (acquires DHL International), (Brief Article), (Statistical Data Included)." Europe. Delegation of the European Commission. 2000. Retrieved January 23, 2013 from HighBeam Research, from <http://www.highbeam.com/doc/1G1-66889216.html>

Dissertation laerd is a site that presents the full text of many essential works in the literature of sampling methods

(<http://dissertation.laerd.com/purposive-sampling.php>).

Dsv is a site that presents the information about collaboration between Dsv lojistik and collaborators

([http://www.dsv.com/~media/COM/Files/moves/2008/DSV-moves-august2008\\_ENG.pdf](http://www.dsv.com/~media/COM/Files/moves/2008/DSV-moves-august2008_ENG.pdf)).

Farmakim lojistik is a site that presents the information about collaboration between Farmakim logistics and Netlog logistics

(<http://www.farmakimlojistik.com.tr/>).

Finans Global is a site that presents the full text of many essential works in the literature of collaborations between Arkas and collaborators

(<http://www.finansglobal.com/sirketler/arkas-guney-koreli-hjlk-ile-ortak-lojistik-sirketi-kuruyor/#ixzz1op4u6025>).

Galpi is a site that presents the information about collaboration between Galata logistics and Vos

<http://www.galpi.com.tr/Corporate/NewDetails.aspx?ID=15>

Garner, Haley (18-20 June 2013). Tackle The Future of Logistics: Use Innovation and Forward-Thinking Strategy to Deliver Value to Your Customers. Eye for Transport, USA., from <http://events.eyefortransport.com/3pl/>

Hilal Trans is a site that presents the information about collaboration between Hilal Trans and collaborators

(<http://www.hilaltrans.com/static/>).

*International Directory of Company Histories*, 59. St. James Press, 2004, from [http://www.fundinguniverse.com/company-histories/Stinnes-AG-Company\\_History.html](http://www.fundinguniverse.com/company-histories/Stinnes-AG-Company_History.html).

Igl is a site that presents the information about collaboration between Igl Logistics and collaborators

(<http://www.igl.com.tr/>).

Kargo Haber is a site that presents the full text of much essential information about transportation and logistics

(<http://www.kargohaber.com/read.asp?id=452>).



Karid is a site that presents the full text of much essential information about transportation and logistics in Turkey  
(<http://www.karid.org.tr/tr/article.asp?ID=51>).

Keyborsa is a site that presents the full text of many essential works in the literature of collaborations between Ran logistics and collaborators  
(<http://forum.keyborsa.com/archive/index.php/t-4424.html>).

Klg Turkey is a site that presents the information about collaboration between Klg logistics and Lg Logistics  
(<http://www.klg-turkey.com/european-logistics-by-klg/klg-logistics-case-studies>).

Logisticsmgmt is a site that presents the full text of much essential information about transportation and logistics  
([http://www.logisticsmgmt.com/article/h.j.\\_heinz\\_co.\\_and\\_ceva\\_logistics\\_engage\\_in\\_transformational\\_ocean\\_freight\\_/](http://www.logisticsmgmt.com/article/h.j._heinz_co._and_ceva_logistics_engage_in_transformational_ocean_freight_/)).

Lojistik Hattı is a site that presents the full text of much essential information about logistics in Turkey  
(<http://www.lojistikhatti.com/haber/kategori/denizyolu>).

Lojistürk is a site that presents the full text of much essential information about logistics in Turkey  
(<http://www.lojisturk.net/lojistik/turkiye-lojistikte-onemli-bir-yer-olacak-1315488286h.html>).

Maerskline is a site that presents the full text of many essential works in the literature of collaborations between Maersk Line shipping and collaborators  
(<http://www.maerskline.com/link/page=lhp&path=/asia/kuwait/general/introduction>).

Mars Logistics is a site that presents the full text of many essential works in the literature of collaborations between Mars logistics and Neptün transport  
([http://www.marslogistics.com/marslojistikduyuru-156-mars\\_logistics\\_ve\\_danimarka\\_hattinin\\_en\\_guclusu\\_neptun\\_transport\\_birarada\\_yukleriniz\\_direkt\\_danimarka\\_da.aspx](http://www.marslogistics.com/marslojistikduyuru-156-mars_logistics_ve_danimarka_hattinin_en_guclusu_neptun_transport_birarada_yukleriniz_direkt_danimarka_da.aspx)).

Omsan is a site that presents the full text of many essential works in the literature of collaborations between Omsan Logistics and collaborators  
(<http://www.omsan.com.tr/sayfa.php?id=9-intermodal-tasimacilik>).

Patronlar Dünyası is a site that presents the full text of many essential works in the literature of collaborations between Arkas and collaborators  
(<http://www.patronlardunyasi.com/haber/Arkas-Almanlarla-ortaklik-yapti/58964>).

Schenkerarkas is a site that presents the full text of many essential works in the literature of collaborations between Schenker Arkas and collaborators  
([http://www.schenkerarkas.com.tr/en-gb/document\\_9227.html](http://www.schenkerarkas.com.tr/en-gb/document_9227.html)).

Sdvhoroz is a site that presents the information about collaboration between Sdv and Horoz logistics ([http://www.sdvhoroz.com.tr/default\\_tr.asp](http://www.sdvhoroz.com.tr/default_tr.asp)).

Seyyah is a site that presents the information about collaboration between Seyyah logistics and Baytrans  
(<http://www.seyyah.com.tr/sgrup.html>).

Transport Journal is a site that presents the full text of much essential information about transportation and logistics  
([http://www.transportjournal.com/index.php?id=425&tx\\_ttnews%5BpS%5D=1238023517&tx\\_ttnews%5Btt\\_news%5D=12790&tx\\_ttnews%5BbackPid%5D=505&cHash=a35490936d](http://www.transportjournal.com/index.php?id=425&tx_ttnews%5BpS%5D=1238023517&tx_ttnews%5Btt_news%5D=12790&tx_ttnews%5BbackPid%5D=505&cHash=a35490936d)).

Ulaşımonline is a site that presents the full text of much essential information about transportation and logistics in Turkey  
(<http://www.ulasimonline.com/LOJISTIK/44133/saras-lojistikten-dev-isbirligi-anlasmasi-.html>).

Ulusoy Ziegler is a site that presents the information about collaboration between Ulusoy logistics and Ziegler  
(<http://www.ulusoyziegler.com/>).

Unimar is a site that presents the information about collaboration between Ünimar logistics and Cwt Globelink  
(<http://www.unimar.com.tc/haber.aspx?ID=19>).

Utikad is a site that presents the full text of much essential information about transportation and logistics in Turkey  
(<http://www.utikad.org.tr/haberler/default.asp?id=3073>).

Yurtiçi Kargo is a site that presents the information about collaboration between Yurtiçi logistics and Tibbett & Britten Logistics  
(<http://www.yurticikargo.com/hakkimizda/Sayfalar/tasima-grubu.aspx>).

## APPENDIX

### THE QUESTIONNAIRE

Bu anket İzmir Ekonomi Üniversitesi Lojistik Yönetimi Yüksek Lisans Programı'nda yürütülmekte olan bir tez çalışmasının bir parçası olarak uygulanmaktadır. Anketin amacı, 3. parti lojistik firmalarının (3PL) aralarındaki işbirliğini araştırmaktır ve uygulanması yaklaşık 10 dakika sürmektedir. Değerli katkınız için teşekkür ederiz.

Lütfen anketteki tüm soruları işbirliği yapmış olduğunuz 3.parti lojistik firmalarından şirketinizin en çok fayda sağladığını düşündüğünüz tek bir 3. parti lojistik firmalarını düşünerek cevaplandırınız.

Bazı sorularda işbirliği yaptığınız sürenin son 2 yılını düşünerek cevap vermeniz istenecektir.

Şirketinizin adı? .....

Şirketinizdeki pozisyonunuz? .....

İşbirliği yaptığınız 3PL firmaları arasından seçtiğiniz ve bu anket sorularını cevaplarken temel aldığınız 3. parti lojistik firma/ firmalarının adı nedir? .....

Eğer işbirliği içinde bulunduğunuz birden fazla firma var ise, size göre en faydalı olan işbirliğini düşünerek cevap veriniz.

İşbirliğiniz ne zaman başlamıştı?

İşbirliğiniz devam ediyor mu?

....Evet .....Hayır

Eğer işbirliğiniz sona ermiş ise ne zaman sona erdi?

	1: Kesinlikle katılmıyorum	2: Katılmıyorum	3: Ne katılıyorum ne katılmıyorum	4: Katılıyorum	5: Tamamen katılıyorum
<b>RELATIONSHIP MARKETING ORIENTATION</b>					
<b>1. BONDING</b>					
1. 3PL firması ile uzun süreli bir ilişki kurmak için ikimiz de gayret ettik.					
2. 3PL firması ile yakın bir işbirliği içinde çalışırız.					
3. 3PL firması ile temas halindeyiz.					
<b>2. COMMUNICATION</b>					
4. 3PL firması ile haberleşir ve birbirimizin fikrini alırız.					
5. 3PL firması ile iletişimimiz sayesinde memnuniyetsizliğimizi birbirimize iletebiliriz.					
6. 3PL firması ile dürüstçe iletişim kurabiliriz.					
<b>3. SHARED VALUE</b>					
7. Yöneticilerimiz/ çalışanlarımız 3PL firması ile aynı dünya görüşünü paylaşır.					
8. 3PL firması ile çoğu konuda aynı fikri paylaşırız.					

9. 3PL firması ile etrafımızdaki olaylar konusunda aynı duyguları paylaşıyoruz.					
10. 3PL firması ile aynı değerleri paylaşıyoruz.					
4. EMPATHY					
11. 3PL firması ile her zaman olayları birbirimizin bakış açısıyla görürüz.					
12. 3PL firması ile birbirimizin değerlerini ve amaçlarını biliriz.					
13. 3PL firması ile birbirimizin değerlerini ve amaçlarını anlarız.					
14. 3PL firması ile birbirimizin duygularını önemseriz.					
5. RECIPROCITY					
15. Benim şirketim “Asla sana yapılan bir iyiliği unutma” sözünü iş hayatında değerlerinden biri olarak kabul etmektedir.					
16. 3PL firması ile her durumda birbirimize verdiğimiz sözü tutarız.					
17. 3PL firması, zorluk yaşadığımızda bize yardımcı olurlarsa, onların iyiliklerini karşılıksız bırakmayız.					
6. TRUST					

18. 3PL firması önemli olaylarda güvenilirlerdir.					
19. Benim firmam, 3PL firmasına güvenir.					
ORGANIZATIONAL PERFORMANCE					
1. FINANCIAL PERFORMANCE					
20. İşbirliğimizin sürdürdüğü son iki yılda ürün veya hizmet başına düşen ortalama maliyetimiz azalmıştır.					
21. İşbirliğimizin sürdürdüğü son iki yılda genel satış gelirlerimiz artmıştır.					
22. Kaynaklardan elde ettiğimiz fayda işbirliğimizin sürdürdüğü son iki yılda artmıştır.					
23. İşbirliğimizin sürdürdüğü son iki yılda mevcut müşterilerimizden elde ettiğimiz satış gelirlerimiz artmıştır.					
24. İşbirliğimizin sürdürdüğü son iki yılda kurumumuzun karlılığı artmıştır.					
25. İşbirliğimizin sürdürdüğü son iki yılda yeni müşterilerimizden elde ettiğimiz satış gelirlerimiz artmıştır.					
2. CUSTOMER PERFORMANCE					
26. İşbirliğimizin sürdürdüğü son iki yılda şirketimizin genel lojistik performansımıza dayalı olarak, müşteri memnuniyeti artmıştır.					

27. İşbirliğimizin sürdürdüğü son iki yılda müşteri sadakati artmıştır.					
28. Kurumumuz ve müşteriler arasında derin ilişkiler kurulmuştur.					
29. Müşterimiz onun gereksinimlerini karşılayacağımıza dair firmamıza çok güvenir.					
30. İşbirliğimizin sürdürdüğü son iki yılda şirketimiz gelişmiş veya yeni pazarlarda hedeflenen miktarda yeni müşteriyi çekmiştir.					
3. BUSINESS PROCESS					
31. İşbirliğimizin sürdürdüğü son iki yılda hizmet kalitemiz iyileşmiştir.					
32. İşbirliğimizin sürdürdüğü son iki yılda birim ürün/ hizmet başına düşen lojistik maliyetimiz azalmıştır.					
33. İşbirliğimizin sürdürdüğü son iki yılda gelişim sürecinin etkinliği ve verimliliği artmıştır.					
34. İşbirliğimizin sürdürdüğü son iki yılda sipariş döngü süresi kısalmıştır.					
35. İşbirliğimizin sürdürdüğü son iki yılda teslimat performansımız iyileşmiştir.					
4. LEARNING AND GROWTH					



36. İşbirliğimizin sürdürdüğü son iki yılda çalışanlarımızın verimliliği artmıştır.					
37. İşbirliğimizin sürdürdüğü son iki yılda çalışan başına eğitim yatırımlarımız artmıştır.					
38. İşbirliğimizin sürdürdüğü son iki yılda çalışan başına IT harcamamız artmıştır.					
39. İşbirliğimizin sürdürdüğü son iki yılda çalışan değişim oranı azalmıştır.					
40. İşbirliğimizin sürdürdüğü son iki yılda çalışanların devamsızlığı azalmıştır.					