

DOKUZ EYLUL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF MARITIME BUSINESS ADMINISTRATION
MARITIME BUSINESS ADMINISTRATION PROGRAM
DOCTORAL THESIS
Doctor of Philosophy (PhD)

SERVICE FAILURES AND RECOVERY
STRATEGIES IMPLEMENTED BY THIRD PARTY
LOGISTICS SERVICE PROVIDERS

N. Gülfem GİDENER ÖZAYDIN

Supervisor
Prof. Dr. D. Ali DEVECİ

İZMİR-2015

DECLARATION

I hereby declare that this doctoral thesis titled as “**Service Failures and Recovery Strategies Implemented by the Third Party Logistics Service Providers**” has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honor.

Date

23.12.2015

Nazlı Glfem GİDENER ÖZAYDIN

Signature

ÖZET

Doktora Tezi

Hizmet Hataları ve Üçüncü Taraf Lojistik İşletmeler Tarafından Kullanılan Telafl Yöntemleri

N. Gülfem GİDENER ÖZAYDIN

Dokuz Eylül Üniversitesi

Sosyal Bilimler Enstitüsü

Denizcilik İşletmeleri Yönetimi Anabilim Dalı

Denizcilik İşletmeleri Yönetimi Programı

Çoğu şirket gibi üçüncü taraf lojistik hizmet sağlayıcılarının da en önemli hedeflerinden birihizmet kalitesinin ve müşteriye elde tutma oranlarının artmasıdır. Genellikle müşteri sadakati arttıkça maliyetlerin düşmesi ve elde edilen kazancın artması beklenir. Ancak, işletmeler arası pazarlarda da müşteriler tedarikçilerini değiştirirler ve bu değişikliğin altında yatan en önemli sebep hizmet hataları, problemler ve etkisiz telafilerdir. Bu sebeple, hizmet sağlayıcıların müşterilerinin başına gelen hizmet hatalarını detaylı şekilde incelemesi, kısa sürede bu hataların telafisinin yapılacağını garantisini vermesi ve şirketin hizmet kalitesini sürdürebilmek, müşteriler ile uzun dönemli ilişkiler kurabilmek ve yüksek müşteriye elde tutma oranları elde edebilmek için gelecekte bu hatanın tekrar yaşanmasını önlemek amacıyla hatanın altında yatan nedenleri anlaması büyük önem taşımaktadır.

Bu çalışmanın asıl hedefi hizmet hataları ve telafileri hakkında farklı boyutların incelenmesi, bu hataların ve telafilerin hizmet sağlayıcılar ve müşterileri arasındaki ilişkiye etkilerinin ortaya konulmasıdır. Aynı zamanda, hizmet hatalarının iki taraflı incelenmesi ile tarafların bakış açıları arasındaki farkların ve benzerliklerin ortaya konularak konuyla ilgili daha derin bilgilere ulaşılması ve lojistik hizmet sağlayıcı profesyoneller için gelecekte kullanılmak adına yararlı bilgilerin temin edilmesi hedeflenmektedir. Araştırmanın bulgularına göre üçüncü taraf lojistik hizmetlerde yaşanan hatalar müşteri hizmetleri ve operasyon, dokümantasyon, pazarlama ve satış, finans ve

muhasabe ve liman operasyonları olarak sınıflandırılmıştır. Aynı şekilde, üçüncü taraf lojistik hizmet sağlayıcılar tarafından uygulanan telafi stratejileri ise, karma, sembolik ve faydacı olarak sınıflandırılmıştır. Ek olarak, yaşanan hizmet hatası ve telafi sonrası üçüncü taraf lojistik hizmet sağlayıcılar ve müşterileri arasındaki ilişkilerde görülen değişiklikler de gelişme, zayıflama, kopma ve etkilenmeme olarak sınıflandırılmıştır.

Yapılan çalışma ışığında ortaya çıkan veriler gösteriyor ki üçüncü taraf lojistik hizmet sağlayıcılar ve müşterilerinin yaşanan hatalara da, uygulanan telafi yöntemlerine de, bunların aralarındaki, iş ilişkilerine etkileri de farklılık göstermekte. Üçüncü taraf lojistik hizmet müşterilerinden toplanan veriyle ilgili literatüre bağlı olarak kurulan hipotezlerden hata büyüklüğü, müşterinin telafiden duyduğu memnuniyet, telafinin ne kadar kısa sürede gerçekleştirildiği, üçüncü taraf hizmet sağlayıcı işletmenin müşteri için iş hacmi açısından önemi ve üçüncü taraf lojistik hizmet sağlayıcı işletme ile müşteri arasındaki geçmiş ilişkinin uzunluğu ile hata ve telafi sonrası iki taraf arasındaki ilişkiler arasında anlamlı ilişkiler ortaya çıkmıştır. Ek olarak, üçüncü taraf lojistik hizmet sağlayıcı işletmenin müşteri için önemi ile uygulanan telafi yöntemi arasında da anlamlı bir ilişki bulunmuştur. Üçüncü taraf lojistik hizmet sağlayıcı işletmelerden toplanan verilerle literatüre dayanarak kurulan hipotezlerden üçüncü taraf hizmet sağlayıcı işletmeye göre müşterilerinin uygulanan telafiden duyduğu memnuniyet, hatanın ne kadar kısa sürede telafi edildiği ile hata ve telafi sonrası iki taraf arasındaki ilişkiler arasında anlamlı ilişkiler ortaya çıkmıştır. Yani, yaşanan hata ve uygulanan telafi stratejisi sonrası iki taraf arasındaki ilişkiye etki edecek olan unsurlar müşterinin telafiden duyduğu memnuniyet ve hatanın kısa sürede telafi edilmesi olarak belirlenmiştir.

Anahtar Kelimeler: İşletmeler arası hizmetler, üçüncü taraf lojistik hizmet sağlayıcılar, hizmet hatası, hizmet telafisi, işletmeler arası ilişkiler, kritik olay tekniği

ABSTRACT
Doctoral Thesis
Doctor of Philosophy(PhD)
Service Failures and Recovery Strategies Implemented By the Third Party
Logistics Service Providers
N. Gülfem GİDENER ÖZAYDIN

Dokuz Eylül University
Graduate School of Social Sciences
Department of Maritime Business Administration
Maritime Business Administration Program

Improving service quality and customer retention rates are amongst the most significant goals for third party logistics service providers as well as for most companies. Typically, as customer loyalty increases, costs decline and profits rise. However, business customers do switch suppliers; one of the main reasons being service failures, problems and ineffective service recoveries. This is why it is vital for service providers to observe the service failures experienced by customers thoroughly, to guarantee recovery strategies for these failures in a short period of time, to find out the reasons underlying the failure and to prevent these failures from reoccurring in the future in order to sustain the service quality of the firm, form long- lasting relationships with their customers and eventually achieve high customer retention.

The primary objective of this study is to explore the different dimensions regarding the service failure and recovery and to figure out what kind of an impact they have on the business relationship between the service providers and their customers. It is also aimed to investigate the both sides of the service failure incidents and to portray the differences and similarities between the two sides to get a better understanding of the concept, and to provide useful information for logistics service provider professionals for future use.

According to the findings the service failures in third party logistics service providers are classified as customer service and operation,

documentation, marketing and sales, finance and accounting and port operations. Moreover, the recovery strategies utilized by third party logistics service providers are classified as mixed, symbolic and utilitarian recoveries. Finally, relationships between the third party logistics service providers and their customers posterior to service failure and recovery are classified as improved, weakened, adjourned and not influenced.

The findings indicate that third party logistics service providers' and customers' perspectives show differences in failure, recovery and relationship posterior to failure and recovery.

The hypotheses formed parallel to the literature with the data collected from third party logistics service customers show that failure magnitude, customers' satisfaction from the recovery, time it took for recovery, third party logistics service providers' importance to the customer by transaction volume, the length of the past relationship between the third party logistics service providers and their customers and the relationship posterior to service failure and recovery have a significant relationship. Moreover, third party logistics service providers' importance to the customer and the implemented recovery strategy show a significant relationship as well.

The hypotheses formed parallel to the literature with the data collected from third party logistics service providers show significant relationships only in between the customers' satisfaction from the implemented recovery strategy, time it took for the recovery and the relationship posterior to service failure and recovery. Therefore it can be concluded that only recovery responsiveness and customers' satisfaction from the recovery impacts the future relationship between parties.

Keywords: Business-to-Business Services, Third Party Logistics Service Providers, Service Failure, Service Recovery, Business-to-Business Relationships, Critical Incident Technique

**SERVICE FAILURES AND RECOVERY STRATEGIES IMPLEMENTED
BY THIRD PARTY LOGISTICS SERVICE PROVIDERS**

CONTENTS

THESIS APPROVAL PAGE	ii
DECLARATION	iii
ÖZET	iv
ABSTRACT	vi
CONTENTS	viii
ABBREVIATIONS	xii
LIST OF TABLES	xiii
LIST OF FIGURES	xvii
LIST OF APPENDICES	xviii

INTRODUCTION	1
--------------	---

CHAPTER 1

LOGISTICS SERVICES WITHIN THE BUSINESS-TO-BUSINESS

SERVICE MARKET CONTEXT

1.1. BUSINESS-TO-BUSINESS SERVICE MARKET	3
1.1.1. Business-to-Business Service Market Characteristics	4
1.1.2. Business-to-Business Service Relationships	7
1.1.3. Outsourcing as a Business-to-Business Service	8
1.1.4. Outsourcing in the Logistics Industry	9
1.2. LOGISTICS SERVICES AND THIRD PARTY LOGISTICS SERVICE PROVIDERS	11
1.2.1. Logistics Services and Logistics Services Classification	11
1.2.2. Logistics Service Providers and Their Classification	12
1.2.3. Third Party Logistics Service Providers and Their Classification	13
1.2.4. Business Relationships between Third Party Logistics Service Providers and Their Customers	14
1.2.5. Customer Retention in Logistics Service Markets	16

1.3. LOGISTICS SERVICE QUALITY	17
1.3.1. Logistics Service Quality Importance	17
1.3.2. Logistics Service Quality Determinants	19

CHAPTER 2

SERVICE FAILURE AND RECOVERY STRATEGIES IN LOGISTICS SERVICE MARKET

2.1. THE CONCEPT OF SERVICE FAILURE & SERVICE RECOVERY	21
2.2. SERVICE FAILURE IN LOGISTICS SERVICES	23
2.2.1. Service Failure Types	25
2.2.2. Service Failure Magnitude	26
2.2.3. Service Failure Frequency	27
2.3. SERVICE RECOVERY IN LOGISTICS SERVICE MARKET	29
2.3.1. Service Recovery	30
2.3.1.1. Symbolic Service Recovery	32
2.3.1.2. Utilitarian Service Recovery	32
2.3.1.3. Mixed Service Recovery	33
2.3.1.4. Recovery Response Time	34
2.3.1.5. Outcomes Posterior to Service Failure and Recovery	35
2.4. THEORETICAL BACKGROUND ON SERVICE FAILURE AND RECOVERY STRATEGIES	37
2.4.1. Equity Theory	37
2.4.2. Relationship Marketing Theory	40
2.4.3. Dependence Structure	41
2.4.4. Attribution Theory	42

CHAPTER 3

METHODOLOGY

3.1. SCOPE AND THE PURPOSE OF THE RESEARCH	44
3.2. ANALYTIC MODEL OF THE RESEARCH	45
3.3. METHODOLOGICAL ISSUES IN STUDYING SERVICE FAILURE AND RECOVERY	47
3.4. CRITICAL INCIDENT TECHNIQUE	48
3.4.1. Questionnaire Design	55
3.4.2. Sampling	57
3.4.3. Data Collection	62
3.4.4. Data Analysis	63
3.4.5 Reliability	65

CHAPTER 4

FINDINGS AND RESULTS OF THE RESEARCH

4.1. DESCRIPTIVE STATISTICS	66
4.1.1. Customer Perspective	67
4.1.2. 3PL Perspective	73
4.2. QUALITATIVE FINDINGS	79
4.2.1. Cause of the Incident (Service Failure)	79
4.2.2. Course of the Service Failure: Recovery Strategies by 3PL Companies	83
4.2.3. Result of the Service Failure and Recovery Strategies	85
4.3. HYPOTHESIS TESTS	86
4.3.1. Customer Perspective	86
4.3.1.1. Chi- square Tests	86
4.3.1.2. ANOVA Tests	90
4.3.2. 3PL Perspective	96
4.3.2.1. Chi- square Tests	96
4.3.2.2. ANOVA Tests	102

CONCLUSION	109
REFERENCES	117
APPENDICES	

ABBREVIATIONS

3PL	Third Party Logistics Service Providers
B2B	Business to Business
B2C	Business to Consumer
SCM	Supply Chain Management
CIT	Critical Incident Technique
CI's	Critical Incidents
WOM	Word of Mouth
LSP	Logistics Service Provider

LIST OF TABLES

Table 1. Business-to-Business Markets Vs. Consumer Markets	6
Table 2. Service Failure Categorization In Literature	28
Table 3: Service Recovery Categorization In Literature	34
Table 4. Critical Incident Research In Service Failure and Recovery	55
Table 5. 3PL Customer Respondent Profile Descriptive Statistics	58
Table 6. 3PL Customer Company Profile Descriptive Statistics	59
Table 7. 3PL Respondents' Profile Descriptive Statistics	60
Table 8. 3PL Company Profile Descriptive Statistics	61
Table 9. Failure Type Frequencies	67
Table 10. General Overview of Service Failures: Customer Perspective	68
Table 11. Descriptive Statistics of Incidents: Customer Perspective	68
Table 12. Failure Categories: Customer Perspective	69
Table 13. Failure Category Classification: Customer Perspective	70
Table 14. Failure Source Classification: Customer Perspective	71
Table 15. Recovery Classification: Customer Perspective	72
Table 16. Customer Reaction Classification: Customer Perspective	72
Table 17. Relationship Posterior To Service Failure and Recovery: Customer Perspective	73
Table 18. General Overview of The Failure Types: 3PL Perspective	74
Table 19. Descriptive Statistics of Incidents: 3PL Perspective	74
Table 20. Failure Categorization: 3PL Perspective	75
Table 21. Failure Category Classification: 3PL Perspective	76
Table 22. Failure Source Codes: 3PL Perspective	77
Table 23. Recovery Classification: 3PL Perspective	77
Table 24. Relationship Posterior To Service Failure and Recovery: 3PL Perspective	78
Table 25. Customer Reaction Classification: 3PL Perspective	78
Table 26. Failure Category Classification: Both Perspectives	80
Table 27. Failure Source Classifications of all the CI's collected	82

Table 28. Customer Reaction Classification: Both Perspectives	85
Table 29. Failure Type and The Relationship With The 3PL: Cross - Tabulation and Chi- Square Test	87
Table 30. Failure Category and The Relationship With The 3PL: Cross - Tabulation and Chi- Square Test	88
Table 31. Recovery Classification and The Relationship With The 3PL: Cross -Tabulation and Chi- Square Test	88
Table 32. Recovery Classification and The 3PL Firm Size: Cross - Tabulation and Chi- Square Test	89
Table 33. Number Of Suppliers The Logistics Service Customers Work With and Relationship With The 3PL: Cross - Tabulation and Chi- Square Test	89
Table 34. Failure Magnitude and The Relationship With The 3PL Descriptive Statistics	91
Table 35. Post- Hoc Test Results for Failure Magnitude and The Relationship With The 3PL	91
Table 36. Failure Frequency and The Relationship With The 3PL Descriptive Statistics	92
Table 37. Customer's Satisfaction From The Recovery and The Relationship With The 3PL Descriptive Statistics	92
Table 38. Post- Hoc Test Results for Customer's Satisfaction From The Recovery and The Relationship With The 3PL	93
Table 39. Recovery Responsiveness and The Relationship With The 3PL Descriptive Statistics	93
Table 40. The Importance of The 3PL To The Customer By Means of Transaction Volume and Recovery Classification Descriptive Statistics	94
Table 41. The Importance of The 3PL To The Customer By Means of Transaction Volume and The Relationship With The 3PL Descriptive Statistics	94
Table 42. The Length of the Past Relationship With The 3PL and The Relationship With The 3PL Descriptive Statistics	95

Table 43. Post- Hoc Test Results for The Length of the Past Relationship With The 3PL and The Relationship With The 3PL Descriptive Statistics	96
Table 44. Failure Type and The Relationship With The 3PL Customer: Cross – Tabulation and Chi- Square Test	97
Table 45. Failure Category and The Relationship With The 3PL Customer: Cross – Tabulation and Chi- Square Test	97
Table 46. Recovery Classification and The Relationship With The 3PL Customer: Cross – Tabulation and Chi- Square Test	98
Table 47. Recovery Classification and The 3PL Foreign Partner Existence: Cross – Tabulation and Chi- Square Test	99
Table 48. Recovery Classification and The 3PL Respondent Education Level: Cross – Tabulation and Chi- Square Test	100
Table 49. 3PLs' Firm Size and Recovery Classification: Cross – Tabulation and Chi- Square Test	100
Table 50. Recovery Classification and The 3PL Firm Age: Cross – Tabulation and Chi- Square Test	101
Table 51. Relationship With The 3PL Customers and Failure Frequency Descriptive Statistics	102
Table 52. Relationship With The 3PL Customers and Failure Magnitude Descriptive Statistics	103
Table 53. Relationship With The 3PL Customers and The Length of the Past Relationship With The Customer Descriptive Statistics	103
Table 54. Relationship With The Customer and The Customer's Importance For The 3PL By Means of Transaction Volume Descriptive Statistics	104
Table 55. Recovery Classification and The Customer's Importance For The 3PL By Means of Transaction Volume Descriptive Statistics	105
Table 56. The 3PLs' Perception of Their Customer's Satisfaction With The Recovery Descriptive Statistics	105
Table 57. Post-Hoc Test Results The 3PLs' Perception of Their Customer's Satisfaction With The Recovery	106

Table 58. Recovery Responsiveness of 3PLs' To Recover Descriptive Statistics	107
Table 59. Hypothesis Testing Results	108

LIST OF FIGURES

Figure 1. Three Dyadic Relationships Between Buyer, Seller and 3PLs.	14
Figure 2. Service Switching Behavior	21
Figure 3. Service Recovery Framework for LSP's.	23
Figure 4. Relationship Focused Recovery	31
Figure 5. Analytical Model of the Research	47
Figure 6. Total Failure Type Percentages	67
Figure 7. Failure Category Classification Map: Both Perspectives	81
Figure 8. Failure Source Percentages Bar Chart: Both Perspectives	82
Figure 9. Failure Source Classification Map: Both Perspectives	83
Figure 10 . Recovery Classification: Both Perspectives	83
Figure 11. Recovery Classification Map: Both Perspectives	84
Figure 12. Customer Reaction Classification Map: Both Perspectives	85

LIST OF APPENDICES

APPENDIX I: Pre-Test Service Failure Critical Incident Questions	App 1
APPENDIX II: Critical Incident Data Collection Form for Logistics Service Providers	App 3
APPENDIX III: Critical Incident Data Collection Form for Customers	App 6

INTRODUCTION

Improving service quality, keeping customers satisfied and retention of customers are amongst the most significant goals of the third party logistics service providers just like any other service company. Exploring causes of service failures and implementing effective service recovery strategies to correct the failures encountered by the customers play an important role in the quality of third party logistics services.

The main purpose of the study is to collect, analyze and classify customers' and service providers' experiences regarding service failures and recovery strategies implemented by the third party logistics service providers in order to assess the subsequent business- to- business relationships as a result of the failures and recoveries in the third party logistics industry.

It is found that the research on failures and recovery strategies in the service literature mainly focuses on the consumer services. However, studies on service failures and recovery strategies especially in business- to- business service markets are very limited. This study analyzes the service failures and recovery methods in business- to- business markets focusing on the third party logistics industry since business- to- business relations are of the utmost importance in this industry due to the increasing trend of outsourcing of logistics activities.

This study consists of four chapters. In the first chapter, third party logistics service providers, their logistics services and business relationships in third party logistics services are given in the context of business-to-business services. Outsourcing of logistics services as business- to- business services is also explained in this chapter. In addition to this importance of quality in logistics and determinants of logistics service quality are explained in this chapter.

The second chapter of the study focuses on the concept of the service failures and service recovery strategies. Different aspects of service failures including the type, magnitude and frequency are reviewed in the service and logistics literatures. The concept of service recovery strategies and its various types such as symbolic, utilitarian and mixed recovery strategies are defined in this chapter. This chapter also

includes the theoretical background of the service failures and recoveries in business-to-business services.

In the third chapter, the specific purpose and methodology of the research is explained. The Critical Incident Technique, which is used in this study to analyze service third party logistics service failures, recovery strategies and the results to business-to-business relations is also included in this chapter.

The findings of the study are given in the fourth chapter. In the conclusion, results of the study is given and discussed with regard to the relevant literature. In addition, theoretical and practical implications, further research suggestions and limitations are also provided.

CHAPTER 1

LOGISTICS SERVICES WITHIN THE BUSINESS-TO-BUSINESS (B2B) SERVICE MARKET CONTEXT

1.1. BUSINESS-TO-BUSINESS SERVICE MARKET

The definition of the market in the marketing perspective is the consumer group consisting of existing and potential consumers. Moreover, these consumers are driven by a specific need and desire and also have the will and power to make the purchase (Arslan, 2012). The specific characteristics of services namely; intangibility, heterogeneity, inseparability and perishability, lack of inventory, difficulty in measuring and controlling quality, high degree of risk, customization of the offering, personalization of the buyer-seller relationships differentiate services from goods (Payne, 1993; Gonçalves, 1998). The basic characteristics of services make them fundamentally different from goods hence, they should be examined accordingly (Grönroos, 1982). Service companies are the ones that the perceived value of the offering to the buyer is determined more by the service rendered than the physical product (Gonçalves, 1998). Even more, service consumers are included in the production process of a company and are both influenced by the process and influence the process by their existence simultaneously (Grönroos, 1982).

However, service markets are no exception to the recent rise of competition; the competitiveness among service companies has escalated (Payne, 1993). The service market is growing steadily in industrialized countries and even though they engage with intangible, non physical products they practice physical distribution activities and decisions (Ballou, 2004: 21). In addition, it is considered to make up to 70-85% of the GDP of developed nations (Johnston& Michel, 2008). Service industry tends to grow and develop parallel to the changes in the world caused by technological advancements, mobilization of knowledge, globalization and ever increasing competition which makes it harder for businesses to survive (Özgüven, 2008). Since services are generated through interpersonal interactions, involvement of the customer in the service production process and inability to standardize employee actions cause service quality management problems (Ozturk, 2000).

Business-to-business (B2B) markets are basically producer markets (Arslan, 2012: 16). Among the reasons why B2B markets are important, is the growth of co-dependence between businesses in the global arena as the time passes (Bingham and Raffield, 1995:5).

1.1.1. Business-to-Business Service Market Characteristics

The demand in business-to-business markets is derived, fluctuating, inelastic and not too depended on price (Arslan, 2012:2). Furthermore, business-to-business markets have some distinct characteristics that should be highlighted in order to fully grasp their significance (Flores& Primo, 2008). These are: existence of few number of buyers looking for large quantities of purchase, clustering, derived, inelastic and fluctuating demand, rational and highly informed buyers making direct purchase, the common use of personal sale, reciprocal commerce and the occurrence of group purchase rather than individual (Arslan, 2012: 19-30). Many business-to-business transactions are made by multi-step processes and are more complex than consumer service purchases which are purchased by a single individual (Gonçalves, 1998).

Business markets include all organizations that purchase goods and service in order to use in the process of creating their own products and services (Vitale et al., 2011:3). Business-to-business markets are different from consumer markets in that the end customer is either the owner or the employee of the organization buying products and service for their organization rather than individual use; products or services are sold by one organization to another (Wright, 2004: 2).

One of the most important components for understanding business markets is to accept its variations from the consumer markets and acknowledge this difference to avoid making false assumptions and end up losing customers (Wright, 2004: 5). The challenges and opportunities presented by business markets differentiate from the ones presented by consumer markets, furthermore, the concepts of relationship, value and buyer decision making also vary between consumer and business markets (Vitale et al., 2011:3). The major B2B market types are: raw material suppliers, service suppliers, producers of manufacturers, retailers, intermediaries or resellers, not-for-profit, government. Third party

logistics service providers fall under the service suppliers category (Wright, 2004).

One of the most dominant characteristics of business-to-business markets is the imperative to break down trade barriers, open all markets to the full force of unfettered competition and increase productivity through this free market paradigm (Wright, 2004: 15). The differences between business-to-business markets and consumer markets are represented in Table 1. The differences between these markets are evaluated in terms of market structure, product, buyer behavior, buyer-seller relationship expectations, distribution channels, promotion, price and demand.

There are relatively few buyers who are geographically concentrated in the business-to-business markets and the market has oligopolistic competition whereas consumer markets are geographically dispersed, have monopolistic competition and there are many buyers.

The products offered in business-to-business markets are technically more complex than consumer markets and the service, delivery and availability is much more significant on the other hand, consumer markets sell products for personal use. The buyers in business-to-business markets are more professional and are focused on the task at hand. Buyer- seller relationship expectations include technical expertise, interpersonal relationships, vast information share, and long-term relationships from the sellers in business-to-business markets and encourage loyalty whereas consumer markets are mostly short-term relationships that encourage switching, little information exchange and non personal relationships. The distribution channels are shorter and direct in business-to-business markets in contrast to consumer markets where there are multiple indirect relationships involved. Personal selling and dialogue are underlined brand awareness in low whereas consumer markets focus on advertising and brand awareness is high. The pricing strategies in business-to- business markets are complex and depending on the purchase type competitive bidding might be utilized and consumer market prices are predetermined and listed prices. The demand in business-to-business markets is inelastic, volatile and discontinuous which makes doing business much harder; consumer markets have direct, elastic and less volatile demand.

Table 1. Business-to-Business Markets vs. Consumer Markets

B2B MARKETS	CONSUMER MARKET
Market Structure	
Geographically concentrated Relatively few buyers Oligopolistic Competition	Geographically dispersed Mass markets, many buyers Monopolistic competition
Products	
Can be technically complex Customized to user preference Service, delivery and availability very important Purchased for other than personal use	Standardized Service, delivery, and availability only somewhat important Purchased for personal use
Buyer Behavior	
Professionally trained purchasing personnel Functional involvement at many levels Task motives predominate	Individual purchasing Family involvement, influence Social/psychological motives predominate
Buyer-seller Relationship Expectations	
Technical expertise an asset Interpersonal relationship between buyers and sellers Significant info exchanged between participants on a personal level Stable, long-term relationship encourage Loyalty	Less technical expertise Nonperson relationships Little information exchanged between participants on a personal level Changing, short-term relationships encourage switching
Channels	
Shorter, more direct Organization involvement as part	Indirect, multiple relationships Little/no customer supply chain involvement
Promotion	
Emphasis on personnel selling, dialogue Most communications invisible to the consumer Consumer seldom aware of business-to-business brands and companies	Emphasis on advertising, monologue Companies compete for visibility and awareness by consumer market
Price	
Complex purchasing process or competitive bidding, depending on purchase type	Usually list or predetermined prices
Demand	
Derived Inelastic (short-run) Volatile (leveraged) Discontinuous	Direct Elastic Less Volatile

Source: Vitale, et al., 2011: 9.

The perceived risk of purchasing and using services is just as unique due to their specific characteristics. Among these risks are: functional, financial,

temporal, physical, psychological, social and sensory. The functional risks are attributed to the risk of unsatisfactory performance outcomes. The financial risks are related with monetary loss and unexpected costs that may arise further along the way. The temporal risks are the possible consequences of delays and wasting time. Physical risks are personal injury or in logistics services case, damage to the possessions. Psychological and social risks involve personal fears and emotions related to the service and what others around the service recipient will think and conclude about them after learning the service transaction. Sensory risks are unwanted effects on any of the five senses and any unpleasantness one may be put in due to the service transaction (Lovelock and Wirtz, 2011).

1.1.2. Business-to-Business Service Relationships

Maintaining customer relationships is vital in services marketing context (Chou et al., 2009). This is due profit derived from increased purchases, profits from reduced operating costs, profits from referrals to other buyers, profit from price premium (Lovelock and Wirtz, 2011).

Due to the changes in ways of doing business in business-to-business context, the sustainable competitive advantage required loyal customers, which in turn, highlighted the importance of building long-lasting relationships with the customers and creating loyalty (Caceres and Paparoidamis, 2005). The fact that customers are not inherently loyal to any firm complicates things even more (Lovelock and Wirtz, 2011). This is even more crucial in third party logistics services since, the customers' main concern is on the price of the service above all, regarding the basic services. In the case of premium, high quality or significant services customers may still look for a long-term partner they know and trust however, some of the most basic services by the third party logistics service providers are almost standardized which in turn underlines the importance of freight.

Moreover, trust is the one most vital component in any and all relationships, especially formal ones. No business transaction can overcome the problems caused by the lack of trust in either party. The possibility for forming a cooperative and interdependent, close, long-lasting relationship is nonexistent if there is a glimpse of

lack of trust between parties. Also the growth of service sector further in the economy and increasing competition made business-to-business marketing a necessity (Arslan, 2012: 11). In addition, building long-term interactive relationships has been identified as the most important benefit for industrial service buyers and sellers, and these long-term relationships are more successful than transactional agreements that do not include trust and communication (Webster, 1992; Knemeyer and Murphy, 2004).

Keeping in mind that services are most often produced with some kind of presence of the customer (service encounter), service firms need to show extra attention to customer needs and expectations. Due to the unique characteristics of services, hiding the inability to meet the expectations or the occurrence of the failure from the customers is almost impossible. Moreover, “the situation-specific” and “immediate” nature of service delivery and service failure requires relatively speedy and effective attempts to recover from poor service delivery to avoid the possible harmful outcomes (Boshoff, 1999).

1.1.3. Outsourcing as a Business-to-Business Service

Outsourcing is getting more and more popular in recent years since companies focus on their core business and outsource others in an attempt to perform better as a business and also to add greater value to their customers (Flores and Primo, 2008). Outsourcing is the purchasing to transfer the management and delivery of a process which used to be carried out by the company itself to a third party in order to avoid investment costs (Mangan et al., 2008: 28; Vitale et al., 2011; Wright, 2004).

The reasons for outsourcing may be financial, flexibility related, strategic and technological (Mangan et al., 2008; Bask, 2001). Some companies prefer outsourcing because of cost reasons, in such a case the third party may carry the mentioned process with less cost which means reducing the costs of the overall process for the company. Another reason for outsourcing is the increased flexibility it provides to the company's resources. Third reason is the strategic one, the outsourcing practices may enable the company to focus on its core competences. The final and fourth reason is technology related, the company itself may not

possess the required technology and by outsourcing they gain access to utilizing the technology for the undertaking of the outsourced process (Mangan et al., 2008).

Further, outsourcing logistics activities add value and enhance the overall performance of the company (Bask, 2001). The challenge is to ensure each element offered by the intermediary to fit in with the overall service to create a stable and seamless service experience (Lovelock and Wirtz, 2011). In the case that the quality of the outsourced service does not match the overall service quality of the company, it impacts the customer's perception on the whole company and the whole service experience. Meaning, one mistake has the potential to overshadow the whole operation.

The third party will be able to manage the entire business process on its own and among these business processes there are: accounting, procurement, marketing and customer service, human resources, manufacturing and logistics (Wright, 2004: 289). Therefore, it is clear that logistics services provided by third party logistics service providers (3PL's) are in fact B2B services that generated from outsourcing activities and eventually outsourcing became the service provided by 3PL's.

1.1.4. Outsourcing in the Logistics Industry

Recently, there is a growing trend of outsourcing logistics activities in industrial sectors and this has led to the forge of large companies that offer sophisticated logistics solutions on a global scale. These companies seek to play a strategic role within the supply chains whilst improving and expanding their scale and scope of offerings (Selviaridis and Spring, 2007). As mentioned before, many organizations find it cost-effective to outsource some tasks and often these tasks are related with supplementary service elements (Lovelock and Wirtz, 2011). Many businesses are outsourcing logistics activities such as transportation, warehousing, stuffing and counseling to third party logistics service providers (Ofiaç, 2011).

Even more, third party logistics itself has been referred to as "logistics outsourcing" or "contract logistics" (Knemeyer and Murphy, 2004; Panayides and So, 2005). Among the most commonly outsourced logistics activities are: outbound activity control, inbound control, carrier negotiation and contracting, freight consolidation, transportation planning and management, freight bill payment, route

and network optimization and freight forwarding (Knemeyer and Murphy, 2004).

The general functions of logistics have shifted and this is due to the need to deliver better customer service, to improve supply-chain management and the large capital investments related with logistics functions (Abdur Razzaque and Sheng, 1998). Correlatively the most effective and efficient way for companies to handle their logistics capabilities is through providing the service within itself, own a logistics subsidiary, set up or buy a logistics firm (Candler, 1994) or outsource the logistics function (Razzaque and Sheng, 1998). The logistics activities that were previously handled within the company such as transportation, distribution, warehousing, inventory management, order processing and materials handling have relatively lost importance for companies that want to focus on their core business in order to develop sustainable competitive advantage and provide high quality customer service. Moreover, competitors can often replicate or improve each other's offerings with ease therefore, gaining competitive advantage through differentiation is so rare and such a challenge (Razzaque and Sheng, 1998). Even more, through specialization and economies of scale, logistics service providers are able to offer their services cheaper than it would have cost companies to provide the same service from within.

The close relationship between logistics and customer service has positive impact on a company's ability to fully reach its competitive advantage through outsourcing (Razzaque and Sheng, 1998). However, the decision of outsourcing logistics activities relies on multiple variables such as: centrality of the logistics function, risk and control issues, service tradeoffs, information technologies, special requirements of the product, process or the network and relationship with the logistics service provider (Rao and Young, 1994). Therefore, if the logistics function is too risky to lose control over, the required technology exists within the company or the company is more than able to carry out the logistics activities on its own within the same cost range, the outsourcing may not be the best choice.

Behind the reasons why outsourcing logistics activities has gained such importance is the lack of specific knowledge of customs and infrastructure of destination countries, lack of expertise, improving customer service, consolidation, simplifying the logistics processes, the complexities and costs of just in time

delivery environment and avoid the time, the versatility of third party logistics service providers and money consumption on developing and implementing new technologies (Razzaque and Sheng, 1998; Bask, 2001). On the other hand, losing control to a third party, losing important information, difficulties in getting the management's support on the issue, difficulty in assessing savings gained through the outsourcing activities especially for the shipper who is not aware of internal logistics costs are the obstacles and problems in logistics outsourcing (Razzaque and Sheng, 1998; Selviaridis & Spring, 2007).

1.2. LOGISTICS SERVICES AND THIRD PARTY LOGISTICS SERVICE PROVIDERS

Considering the shift in the general way of doing business both in the customers' end and the suppliers' end the logistics process became increasingly complex. Consequently the overall importance of logistics services increase and now they are seen as a key factor for differentiation (Flores and Primo, 2008). The general definition of "third party logistics" underlines the importance of relationships between seller, buyer and the third party logistics service provider. Also, it indicates that third party logistics service providers serve two separate parties of the supply chain. However, the practice makes it clear that most third party logistics service providers relationships are bound by dyadic relationships between the seller or the buyer and the third party logistics service providers and ignore the relationship between the buyer and the seller (Bask, 2001).

The aforesaid third party logistics service providers has also been defined as a middleman in the supply chain that forms a temporary or a long lasting relationship with another party in the supply chain (Shapiro and Heskett, 1985).

1.2.1. Logistics Services and Their Classification

Physical distribution quality can be considered as a differentiation factor and, in this way, as a source of competitive advantage (Saura et al., 2008). Therefore choosing the right logistics service provider and the right services is crucial. Most logistics service purchases are contract based (Bask, 2001) which

makes the choice even more significant and crucial since contracts are generally long-term commitments.

The logistics services provided by third party logistics service providers are: transportation, warehousing, inventory management, order processing, information systems and packaging. In detail, transportation category entails: shipping, forwarding, consolidation and deconsolidation, contract delivery, freight bill payment and audit, household goods relocation, load tendering and brokering. Warehousing stands for: storage, receiving, assembly, return goods, marking and labeling and kitting. Forecasting, location analysis, network consulting, slotting and layout design are included in the inventory management category. Order processing is pretty self-explanatory and stands for order entry and fulfillment. Information systems services are EDI, VANS, routing, scheduling, artificial intelligence and expert systems. Finally packaging stands for design and recycling services provided by the third party logistics service providers (Sink et al., 1996).

1.2.2. Logistics Service Providers and Their Classification

There are five broad categories for the categorization of the companies operating in this sector and they are as follows: Hauliers or trucking companies, freight forwarders, NVOCC (non-vessel-owning common carrier), couriers, integrators. Hauliers or trucking companies engage in carrying freights on trucks; shipping companies carry freights on ships; railway operators carry freight on trains; freight forwarders arrange customs clearance, act as shippers' agents and even have their own warehouses and vehicles.

NVOCC refers to companies consolidating smaller amounts of shipments of various shippers and load a full container load under their own name and undertake responsibility; couriers are express cargo carriers. Finally, integrators are providers of end-to-end service. It must be noted that there are substantial overlaps between the aforementioned categories as companies act as one or more simultaneously (Mangan et al., 2008).

As some of the freight companies have shifted the way they conduct their businesses through providing broader range of services with an integrated perspective these companies have emerged a new term: third party logistics service

providers. These companies engage in transportation, warehousing, pick and pack, light manufacturing, vendor managed inventory, customs clearance, trade financing, reverse logistics practices, critical parts distribution and inventory management. Furthermore, as the outsourcing activities proved useful an even more recent term emerged: Fourth party logistics (4PL).

This term generally refers to either assembling and managing the resources, capabilities and the technology of the company with the service providers to create a completely integrated supply chain, or, the outsourcing of certain activities by the 3PL's to other 3PL's (Mangan et al., 2008).

1.2.3. Third Party Logistics Service Providers and Their Classification

Third party logistics service providers are supportive supply chain members that can concentrate on core competencies, logistics management, improve performance, and provide global solutions, control costs, improve customer satisfaction and flexibility (Bask, 2001). Third party logistics can be defined as the supply of logistics operations between businesses by an independent third party organization. Third party logistics service providers have emerged through freight companies starting to provide broader and more integrated range of services (Mangan et al., 2008: 63). The logistics service providers carry a set of unique characteristics considering they are in contact with at least two links of a supply chain and they carry out a crucial part in the logistics process (Flores and Primo, 2008).

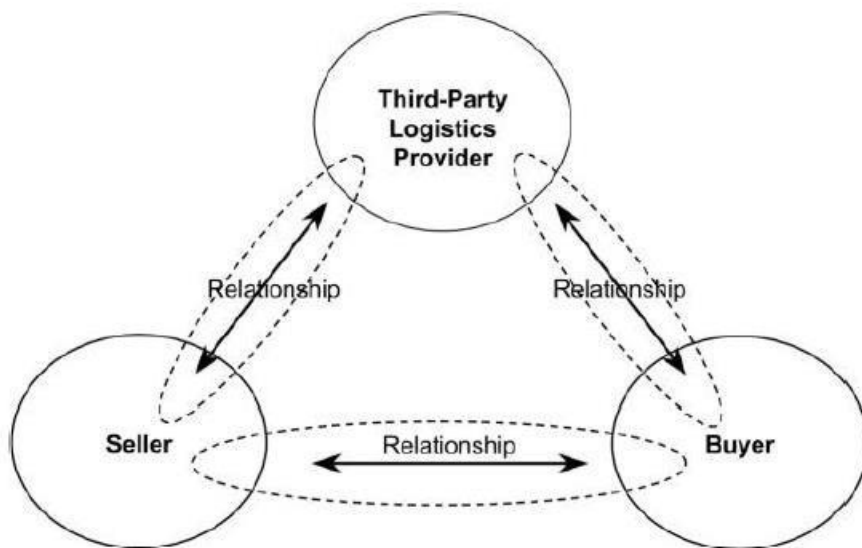
Third party logistics service providers (henceforth 3PL's) carry out one or more of the logistics activities related with the flow of goods, information and funds that could be performed by the firm itself (Chopra and Meindl, 2012: 448). These activities may include direct transportation, warehousing, information technology, reverse logistics which is crucial in the ever-changing business circumstances of today since there is a shift towards green businesses, special skills and handling services such as hazardous materials and bulk, international services including customs, vendor managed inventory, critical parts distribution, tracking, light manufacturing, rate negotiation, fleet management, shipment consolidation and port services and other 3PL services such as brokering, freight forwarding, consulting,

order taking etc. (Lieb and Miller, 2002; Mangan et al., 2008: 63-64). Freight forwarders are just like travel agents, except they arrange transportation for freight rather than people (Mangan et al., 2008: 62).

1.2.4. Relationships between Third Party Logistics Service Providers and Their Customers

Business-to-business relationship quality depends on perceived service quality, trust among business partners, commitment and satisfaction (Rauyruen & Miller, 2005). The relationships are so important for 3PL's that they are named after them. The triad of double relationships between seller, buyer and the outsourced logistics service provider laid the foundation for the term 3PL. Aforementioned relationships include the ones between the seller and the buyer, the seller and the 3PL and the buyer and the 3PL (Bask, 2001).

Figure 1. Three Dyadic Relationships between Buyer, seller and 3PLs.



Source: Bask, 2001.

The whole idea behind the importance of service failures and recovery strategies is their impact on the relationship between the company and its customer. After all, critical incidents may cause destabilization of long-term relationships causing customers to reconsider the relationship moving away from the business-as-

usual mindset (van Doorn and Verhoef, 2008). Long-term relationships evolve through continuous improvement, developing trust and sharing risks and these long term relationships are advantageous for both the shippers and the third party logistics service providers (Qureshi et al., 2007).

In order to achieve success in the competitive environment businesses exist in, effectively managing the relationship with the customers is vital. As in any business transaction reciprocal relationships are highly significant in industrial purchases as well. Hence the ultimate goal is to form intimate, long-lasting relationships that are built on absolute trust (Arslan, 2012: 33). It was also previously presented in the literature that functional quality plays a significant role in the customers' perception of the received service quality even more than the technical quality. This means that how the service is provided is even more important for the customers than the actual service in order to determine service quality; the buyer seller interactions can be a powerful marketing function in creating good functional quality and affecting customers' service quality perceptions (Grönroos, 1984).

The likeliness of emotional bonding is higher when the parties directly deal with one another due to the rise in the reciprocal appreciation for the other party's needs and capabilities which consequently leads to higher levels of cooperation and relationship orientation. Aforementioned integrative relationship enables parties to form closer economic and structural bonds as well as emotional bonds and favors interdependence and cooperation over independence and competition (Sheth and Parvatiyar, 1995).

Hence, it is expressed that the rise of relationship orientation is accelerated via direct marketing between producers and consumers and there are a total of five environmental and organizational developments that enabled the direct relationship between parties. These five developments are as follows (Sheth and Parvatiyar, 1995):

- (i) rapid technological advancements, especially in information technology,
- (ii) the implementation of total quality programs,
- (iii) the escalation of the service economy,
- (iv) organizational development processes that specifically lead to the

empowerment of individuals and teams and
(v) increase in competitive intensity which increases the importance of customer retention practices.

Relationships are crucial in any business relationship however; business-to-business relationships are one step further, which led to the emergence of networks and networking activities in the logistics sector in the recent years. The emergence of the aforementioned networks had a huge impact on the sector and even the way business is conducted.

Many of the major providers have pursued large-scale consolidation in recent years whereas some of the providers have ceased operations. On the other hand most large providers have broadened their service offerings, both in terms of the variety of the specific services offered, and in terms of the geographies they serve (Lieb & Miller, 2002).

1.2.5. Customer Retention in Logistics Services Market

The importance of developing individual relationships with business customers were highlighted, since it makes it possible for a service provider company to secure a loyal customer base and create an opportunity to reach high-level profits. However, creating a loyal business-to-business customer base is not restricted to maintaining the customers over time but also nurturing the relationship to encourage future purchases (Rauyruen and Miller, 2007).

Customer retention practices have become mandatory for companies due to the increase in competitive intensity in the post-industrialization period. Previous studies have highlighted that retaining customers is less expensive and arguably a more sustainable competitive advantage than acquiring new customers (Rosenberg and Czepiel, 1984).

In the past, service companies had been pre-occupied with attracting new customers however; they have since realized their mistake and now focus on developing specific programs in order to increase customer loyalty (Payne, 1993). Furthermore, companies are concerned with creating loyal customers, rather than merely making a one-time sale and creating short-term relationships with customers

(Cannie and Caplin, 1991). Among the reasons why customer retention is so crucial for service companies are: retained business, amortization of sales and marketing costs over a longer time period, increased profits overtime, the less cost of repeat customers, positive word of mouth, the increased willingness of satisfied customers to pay a premium price (Payne, 1993).

Considering the nature of the relationships in the industrial markets the supply side is also significant. Relatively, developing closer relationships with a small number of suppliers is more beneficial for companies (Hayes et al., 1988; Spekman, 1988). However, developing and sustaining loyalty, especially in B2B markets is a challenge (Caceres and Paparoidamis, 2005).

As it was previously discussed in the literature, the service evaluation in a failure and recovery setting is influenced by the customer loyalty (Bolton 1998). Therefore, it becomes clear that the importance of long-lasting relationships between parties engaging in business in the industrial markets is undeniable. In addition, the supply chain gets stronger simultaneously with the relationships in between partners. Consequently, parties within the same supply chain tend to cooperate and form long- lasting relationships. Three significant factors are underlined for forming these long- lasting relationships and these are: value creation, meeting expectancies and building trust (Cron & DeCarlo, 2006). Therefore the careful examination of service failures and providing effective recovery strategies are highly significant for developing and improving relationships.

1.3. LOGISTICS SERVICE QUALITY

1.3.1. Logistics Service Quality Importance

The importance of the service quality provided can be observed most severely through its absence. The negative effects of low quality service are: additional costs related with providing the customer with the same service or recovering from the service failure, lost customers, negative word of mouth and the decrease in overall employee morale (Ozturk, 2000). The service quality is more complex than of a product since the customer is so involved and has a perception on

many aspects of the service production process and the service provider company. The functional quality which refers to how the service is provided is just as important as the technical quality which refers to what was provided (Grönroos, 1982). It is vital for service providers to observe the service failures experienced by customers thoroughly, to guarantee recovery strategies for these failures in a short period of time, to find out the reasons underlying the failure and to prevent these failures from reoccurring in the future in order to sustain the service quality of the firm (Ozturk, 2000).

Nonetheless there are gaps in service design and delivery that disable service provider company's to comprehend their customers' needs and expectations. These aforementioned gaps are: The knowledge gap, the policy gap, the delivery gap, the communications gap, the perceptions gap and the service quality gap (Lovelock & Wirtz, 2011). The concept of gaps was first introduced to the literature by Parasuraman et al. (1985) to point out why service supplying businesses might be failing. Although the initial gap model focused on a consumer market point of view, the fact that business-to-business markets also involve individuals should not be ignored. The knowledge gap stands for the difference between management's perception of customer needs and expectations. The policy gap is the difference between management's perception of customers' expectation and the established service quality standards. Delivery gap refers to the promised service delivery and the actual performance of the service delivery. The communications gap refers to the difference between what the service provider company thinks it's communicating with its customers and what the customers are actually getting out of it. The perceptions gap underlines what was delivered to the customer and how the customers evaluated received service. And finally, service quality gap is the difference between the expected service quality of customers with the perception of the quality of the service received (Lovelock and Wirtz, 2011).

The level and the quality of the service customers receive have a huge impact on the company's ability to retain customers or even attracting new ones, therefore, any failure in logistics customer service and its effects on the overall perceptions of the customer should not be overlooked (Oflač et al., 2012). Thus, the quality of the logistics services are highly significant in the sense that it will decide

the third party logistics service provider's ability to reach high customer retention rates and receiving positive word of mouth through satisfied customers. Even though, the significance of the subject is rather clear, much of the service quality literature is focused on end-customers rather than on business customers (Caceres and Paparoidamis, 2005) and there is a gap in the literature.

1.3.2. Logistics Service Quality Determinants

Although Parasuraman et al., (1985, 1991, 1994) has advised the utilization of tangibles, reliability, responsiveness, assurance and empathy in measuring service quality this method is mostly appropriate in consumer markets. However, logistics services are sold to companies and occur in a B2B setting (Kersten and Koch, 2009). Thus, they require other dimensions that meet the specific needs and requirements of the B2B markets.

The measurement of potential, process and outcome quality of logistics services there has to be directly measurable indicators. These are employees, assets and organization for service potential, responsiveness, complaint handling, communication, employee kindness for service process, and delivery correctness, short lead times, and condition of the goods for service outcome quality of logistics services (Kersten and Koch, 2009). Bienstock et al., (1996) found out that the most important determinants of physical distribution are related with the timeliness and the availability of the service.

The logistics service quality has been examined through reliability, timely responsiveness, accuracy in documentation, accuracy in information, service fulfillment, problem solving ability and empathy dimensions as well (Stewart, 1995; Beamon, 1999; Gunasekaran et al., 2001, Mentzer et al., 2001; Panayides and So, 2005). Furthermore, logistics service quality has also been examined from two different perspectives: objective and subjective quality (Saura et al., 2008). The first one is focused on the delivery and the process of the transport and the second one is focused on the customer's perspective (Garvin, 1984; Parasuraman et al, 1988).

Another point of view is the technical quality: the service delivery and the functional quality: the way customer is treated during service delivery of the service

interaction (Grönroos, 1982).

The contact person's attitude towards the customer, knowledge and experience related to the subject, providing accurate information, utilization of easy order procedures, satisfactory problem solving skills, short delivery time, accuracy delivery, quick recovery in case of a service failure and efficient reverse logistics (Kersten and Koch, 2009) have also been utilized in a recent study on logistics service quality and relationship management.

Even so, the strength of the tie between the logistics service provider and its customer has an impact on the economic outcomes of the company. This is due to the service is being provided in a coordinated manner and eventually leading to higher levels of logistics service quality. The service quality, productivity and exchange processes are directly affected by the information exchange, accuracy, flexibility and solidarity due to the strength of the relationship between the logistics service provider and its customer (Panayides and So, 2005). Finally, it is clear that third party logistics service providers should enhance the perceived quality of customers in order to achieve higher customer satisfaction rates and ensure an increase in their market share (Qureshi et al., 2007).

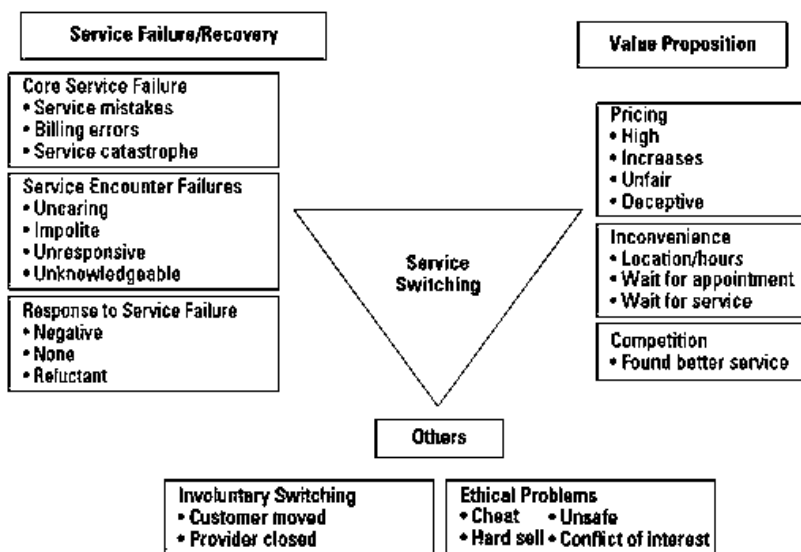
CHAPTER 2

SERVICE FAILURE AND RECOVERY STRATEGIES IN LOGISTICS SERVICE MARKET

2.1 THE CONCEPT OF SERVICE FAILURE AND SERVICE RECOVERY

As the way of conducting business alters continuously in time, the requirements for the both ends of a business transaction vary. Since, the distance between companies are decreasing and partnership like relationships are being formed, it is getting clear that understanding what lies beneath the failures of service provider companies is gaining importance (Flores and Primo, 2008). The service switching is affected by service failure and recovery and the value propositions. The service failure and recovery dimension consists of core service failures, supplementary service failures and unfavorable response to service failure such as negative, none or reluctant. The value propositions include pricing, inconvenience and competition. Moreover, involuntary switching and ethical problems should also be considered. The relationship between service failures and recovery, value propositions and service switching is given in the figure below.

Figure 2. Service Switching Behavior



Source: Lovelock& Wirtz, 2011

Furthermore, switching in business services customers is dependent on switching costs, interpersonal relationships, attractiveness of the alternatives, service recovery and inertia (White and Yanamandram, 2007).

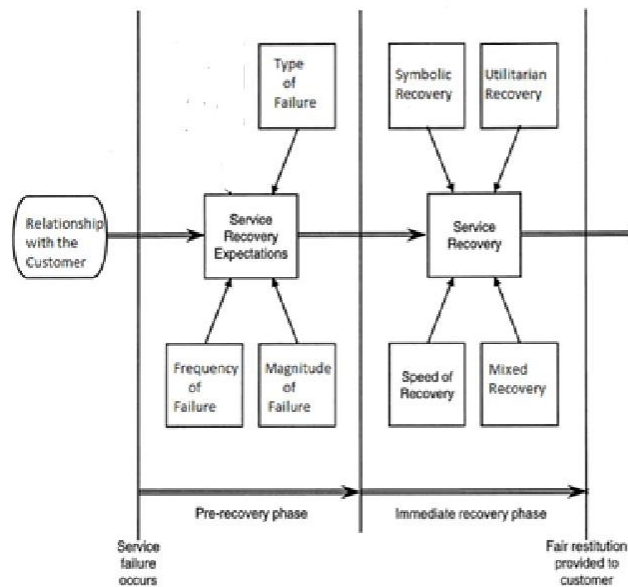
Service failures and recoveries have been investigated thoroughly in the service literature both in B2C and B2B contexts. There are some similarities and some variance in between the B2C and B2B service literature to be noted. First of all both literature considers the type (Murray and Schlacter, 1990; Bolton and Drew, 1992; Bitner et al., 1990; Zeithaml et al., 1996; Bolton, 1998; Smith et al., 1999), severity (Weun et al., 2004; Craighead et al., 2004; Tax et al., 1998; Blodgett et al., 1997; Hoffman et al., 1995; Richins, 1987; Gilly and Gelb, 1982) the magnitude of the service failure (Smith et al., 1999; Zhu et al., 2004; Bolton, 1998; Bolton & Drew, 1992; Murray & Schlacter, 1990; Zeithaml et al., 1996). Second, both contexts mostly categorize the service recovery in utilitarian and symbolic manners (Smith et al 1999; Bagozzi, 1975; Zhu et al., 2004). The utilitarian service recovery aims to recover through economic outcomes for the customer whereas symbolic recovery aims to recover through emotional support such as: assistance, apology and empathy.

Figure 3 represents the general overview of the service recovery framework utilized in this thesis. The main focus is on the relationship between the logistics service providers and customers posterior to service failure and recovery respectively. The factors affecting the service failure are type, magnitude and frequency. Likewise, recovery is categorized into symbolic, utilitarian and mixed. In addition the timeliness of the recovery is also a factor influencing the recovery's effectiveness hence, the relationship in question.

Figure 3, has been adapted from Miller et al., 2000. The original figure considers severity of the failure, perceived service quality, customer loyalty and service guarantee in the pre recovery phase. The immediate recovery phase includes the psychological and tangible recoveries, the speed of recovery and from line empowerment. And finally, the follow-up recovery phase includes the psychological and tangible recoveries as well. After all, loyalty, satisfaction and retention are the desired outcomes. The difference between the first and second recoveries is that the psychological recovery in the recovery phase includes apology and empathy and the

second one includes apology and showing interest. The difference between the two tangible recoveries is the amount of the recovery. The first tangible recovery includes fair fix and value addition whereas the latter one only includes a small token. This research did not consider the front line empowerment due to the fact that our research is conducted in a B2B services setting rather than B2C and the type, frequency and magnitude of the failure are considered in the pre-recovery phase. Also, the recovery classification this research has utilized is utilitarian for tangible recoveries and symbolic for psychological recoveries with the addition of mixed recoveries and no recovery at all. However, the basic concepts of service recovery expectations and the desired outcomes are the same in both studies.

Figure 3. Service Recovery Framework for LSP's.



Source: adapted from Miller et al., 2000

2.2. SERVICE FAILURES IN LOGISTICS SERVICES

The management of service failures is complicated due to; the simultaneity of production and consumption (Michel, 2001) and the challenge of carrying out satisfactory recovery. The first implies that, when service failures actually occur, the presence of customers makes it almost impossible to recover from the failure

without letting customers know something went wrong. Even more, considering the high level of human involvement in many services and the simultaneity of production and consumption, the occurrence of service failures are almost inevitable (Boshoff & Leong, 1998).

The standards customers evaluate the quality of the service they receive are service expectations and either through satisfying or exceeding those expectations service providers may keep their customers satisfied (Swanson and Hsu, 2009).

It must be noted that both B2C and B2B contexts are similar in customer expectations and perceptions related with the failure that in a sense that it's still an individual making the decisions on the customers end whether it is for themselves or for the company they work for (Chou et al., 2009). However, it must be noted that within the B2B services perspective critical incidents have a higher impact since they usually create major economic consequences (van Doorn and Verhoef, 2008). In addition, the differences between B2C and B2B service environments in failure recovery perspective are: B2B failure could have greater chance of damage since it can affect both the company and the customers of the buying company, the involvement of multiple customers on the buyer company's side, the perception of failure and the recovery is greatly affected by the relationship between the buyer company and the supplier company (e.g. interdependence levels between companies and their suppliers) and finally the operational features and legal limits in B2B transactions affect customer satisfaction (e.g. long term contracts between parties) (Flores and Primo, 2008).

Accepting that failures are undesirable yet inevitable, whenever a failure occurs the speed and the way companies recover influence customer responses immensely (Swanson and Hsu, 2009; Smith et al., 1999; Chou et al., 2009), and the way the company responds holds the potential to either restore customer satisfaction while reinforcing loyalty or to aggravate the situation and lose the customer (Smith et al., 1999). In addition, the applied recovery should match the service failure and the expectation of the customer to avoid any mismatches and lost opportunities for customer satisfaction, loyalty and retention (Craighead et al., 2004).

Service failure management should be an integral part of customer service rather than a reactive ad hoc process (Brinsmead, 2007). The service failure

recovery is an irreplaceable part of the service provided, most importantly to maintain the excellence and it is a fundamental asset of the company and the chance it presents for restoring or even improving the relationship between the service provider and the customer (Flores and Primo, 2008; Hart et al., 1989; Swanson and Hsu, 2009; Ok et al., 2005).

2.2.1. Service Failure Types

There are 2 different forms of failure which are core and supplementary failures also known as outcome failure and process failure. The occurrence of an outcome failure is worse for the company since it is a core failure and implicates a higher risk of losing the customer when compared to a process failure. The outcome failure motivates the service provider to put more effort into the recovery than process failure (Chou et al., 2009; Bitner et al., 1990; Hoffman et al., 1995; Keaveney, 1995; Mohr& Bitner, 1995; Grönroos, 1988; Parasuraman et al. 1985; Smith et al., 1999).

The outcome failure is where the customer does not receive the service paid for, whereas the process failure refers to a disruption whilst receiving the aforementioned service (Smith et al., 1999). Moreover literature suggests that the recovery strategy to be implemented must be compatible with the experienced service failure due to mental accounting, prospect theory, equity theory, resource exchange in compliance with social exchange and perceived justice requirements (Smith et al., 1999; Weun et al., 2004).

Social exchange theory focuses on distributive justice since it is related with the allocation of costs and benefits within the relationship to achieve balance (Smith et al., 1999). Resource exchange theory, mental accounting principles and prospect theory underline the importance of the categorization of the service failures and recoveries and if they match one another (Smith et al., 1999). Aforementioned theories all support the idea that customers value the exchanges that include similar resources greater than the alternative.

Consequently, if the service failure created an economic loss for the customer the related recovery must include economic resource exchange. Moreover, the compensation and recovery speed are considered as economic resources and are

to be expected when a core service failure occurs. On the other hand apology and company initiation are considered to be social resources and are expected when a process service failure occurs (Smith et al., 1999).

2.2.2. Service Failure Magnitude

The service failure considers, service failure magnitude, service failure severity and sometimes service failure criticality as sister terms. They are in a sense interchangeable and all refers to the perception of the customer on the service failure and how the customer evaluates the failure.

The service failure severity is the perception of the customer on the intensity of the problem, in other words how intense the problem is for the customer in terms of money, time and inconvenience (Weun et al, 2004; Craighead et al., 2004). The criticality of the service refers to the importance of the service to the customer (Ostrom and Iacobucci, 1995), the perceived importance of successful service delivery (Webster and Sundaram, 1998). The magnitude of the service failure is strongly related with the size of loss for the customer, and as the size of loss get larger the more dissatisfied the customer will be since the exchange will appear more inequitable (Smith et al., 1999).

The influence of service failure severity on satisfaction, trust, loyalty, customer retention, commitment and negative word-of-mouth and the evaluation of the service provider post-failure have been pointed out (Weun et al., 2004; Craighead et al., 2004). The severity of the service failure directly influences the required recovery (Levesque and McDougall, 2000). The service literature has underlined the strong negative impact of failure magnitude of the service failure on customer's future relationship with the service provider (Bell and Zemke, 1987; Berry and Parasuraman, 1991). The more intense (severe) the problem is perceived; the greater will be the loss in customer's point of view (Weun et al., 2004). It has also been argued that even though after receiving adequate service recovery the perceived loss still will be greater due to prospect theory and mental accounting principles (Kahneman and Tversky, 1979; Smith et al., 1999; Thaler, 1985; Weun et al., 2004).

In addition, customers expect different recoveries depending on the severity of the experienced service failure and the applied recovery should match the service failure at hand (Smith et al., 1999; Levesque and McDougall, 2000; Craighead et al., 2004; Bradley and Sparks, 2012). When a service failure occurs, the level of required recovery to restore perceived justice will be determined by the magnitude of the failure. Moreover the smaller the magnitude of the service failure the greater chance of recovery impacting the customer's evaluation positively (Smith et al., 1999).

Severe service failures have been identified to decrease the likelihood that a customer will desire to continue the relationship with the service provider (Keaveney, 1995; Craighead et al., 2004). However, customers are also more likely to purchase high-criticality services from a high-end service provider and are willing to pay more for it (Levesque and McDougall, 2000). In addition, Zeithaml et al (1993), suggests that customer' zone of tolerance for service failures has an accordion like movement and when the service failure is experienced the zone of tolerance will be narrowed due to an expectation increase which will most likely result in dissatisfaction (Gilly &Gelb, 1982; Hoffman et al., 1995).

2.2.3. Service Failure Frequency

The service failure frequency is both related with the failure itself, the familiarity level of the customer to the failure and the prior experience with the service provider since B2B relationships tend to be long-term relationships. Prior experience with the company may influence the customer's evaluations of the service failure (Smith et al., 1999). The customers' prior experience with the service provider company affects the recovery requirements (Bolton, 1998; Bolton and Drew, 1991, 1992; Tax et al., 1996; Zeithaml et al., 1996; Zhu et al., 2004; Primo et al., 2007). Also, in the logistics service context the literature presents that, customers who experienced multiple service failures are less satisfied than customers who only experienced one failure (van Doorn and Verhoef, 2008). Moreover, first- time customers may increase failure occurrence probability as well (Michel, 2001), this is due to the customer's involvement in service supply process and the customer's inexperience since it's their first time.

Table 2. Service Failure Categorization in Literature

Author(s)	Outcome Failure	Process Failure	Fail. Type	Fail. Magn.	Fail. Severity	Fail. Freq.	Alternative Categorization
Gilly and Gelb, 1982					•		
Richins 1987					•		
Bell and Zemke, 1987							Annoyed, Victimized
Grönroos, 1988	•	•					
Murray and Schlacter, 1990			•	•			
Parasuraman et al., 1991	•	•					
Berry and Parasuraman, 1991					•		
Bolton and Drew, 1992			•	•			
Zeithaml, 1993					•		
Bitner et al., 1994			•	•			
Hoffman et al., 1995					•		
Ostrom and Iacobucci, 1995					•		
Keaveney, 1995,	•	•					
Zeithaml et al., 1996			•	•			
Sing and Wilkes, 1996					•		
Blodgett et al., 1997					•		
Tax et al., 1998					•		
Bolton 1998			•	•			
Smith et al., 1999	•	•	•	•	•		
Miller et al., 1999					•		
McCollough et al., 2000						•	•
Levesque and McDougall, 2000	•				•		Criticality
Michel, 2001	•	•		•		•	
Weun et al., 2004					•		
Craighead et al., 2004			•		•		
Zhu et al., 2004				•			
McQuilken and Bedhall, 2008					•		
McQuilken, 2009					•		
Swanson and Hsu, 2009	•		•	•			Implicit or explicit customer request failure, Noticed by the customer or the service provider
Johnston and Michel, 2008		•					Operational failures
Bradley and Sparks, 2012					•		
Ozgen and Duman Kurt, 2012					•		

2.3. SERVICE RECOVERY IN LOGISTICS SERVICE MARKET

The dedication to the service quality is of essence when reaching for superior service recovery (Bell and Zemke, 1987). Service recovery is important in the logistics industry due to the industry's trend toward proactive approach to service failure (Brinsmead, 2007). The service recovery research has been developing non-stop over the past 20 years with the rise of service economies and customer-focused strategies utilized by a growing number of companies (Johnston and Michel, 2008). Recently, the service management literature has focused on diverse aspects of service recovery (Craighead et al., 2004). Service literature represents that both service failure and service recovery strongly influence customer relationships (van Doorn and Verhoef, 2008). On the other hand, service providers attempt to decrease the negative emotions through effective recovery (Ozgen and Duman Kurt, 2012). Although service failure and service recovery are both crucial for the relationship between the company and its customer, the fact that customers are more dissatisfied with the company's failure to recover rather than the actual service failure must be stressed (Bitner et al, 1990; Berry and Parasuraman, 1991).

The most important factor for the service provider to consider when faced with a failure is to consider that the majority of the customers do not express how dissatisfied they actually are (Boshoff, 1997). Therefore it is crucial for the service providers not to limit their recovery efforts to post-complaint instances but rather follow up on every failure in some manner. On the other hand, it must be noted that unreported service failures may also prolong relationships since people who do not report failures may be more tolerant (van Doorn and Verhoef, 2008). The service recovery is significant since, poor customer retention creates financial implications. Moreover, this financial implication due to customer retention increases over time (Brinsmead, 2007).

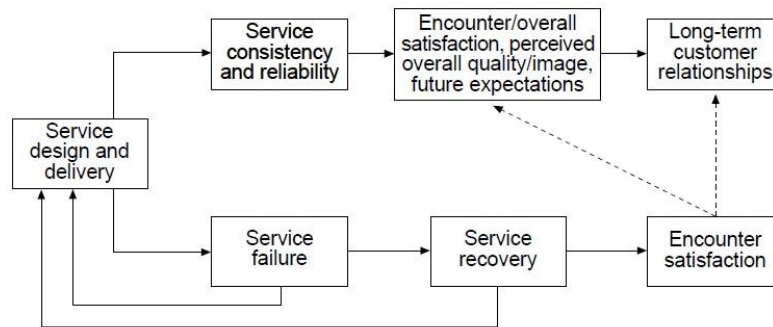
In addition, service failures are not bound to create permanent negative outcomes if an effective recovery is carried out (Hart et al., 1990; Craighead et al., 2004). The selection of the aforementioned effective recovery strategy and the outcomes of the implemented recovery are highly affected by failure type (Chou et al., 2009; Craighead et al., 2004).

2.3.1. Service Recovery

The service recovery is basically what the service providers do in response to a service failure (Grönroos, 1988; Weun et al., 2004). It is the process where aggrieved customers are once again satisfied with the company, after a service has failed their expectations (Zemke and Bell, 1990). The importance of service recovery for post-failure customer satisfaction is well established (Bitner et al., 1990; Smith et al., 1999; Tax et al., 1998, Keaveney, 1995). Since service failures and failed recoveries are the foremost reason behind customer switching behavior in service organizations (Keaveney, 1995), the importance of the issue is obvious. Moreover, service recovery is crucial in the sense that satisfaction is a significant determinant of key outcome variables related with relationship such as trust, commitment, word-of-mouth and long-term relationship (Bitner et al., 1990; Hart et al., 1990; Michel, 2001; Weun et al., 2004; Ok et al., 2005).

After a service failure and service recovery is experienced the service design and delivery should be edited, posterior to recovery satisfaction is aimed. Satisfaction is significant due to its affect on long-term customer relationships and customers' overall perceptions of the service provider. At the same time through editing and ruling out the conditions that led to service failure and recovery the service consistency and reliability can be achieved which in turn leads to customers' overall perceptions of the service provider, future expectations from the service provider and long-term customer relationships. The relationships between service failure, service recovery, service delivery, service consistency, satisfaction, customer's perception and future expectations and long term relationships with the customer is given in the Figure 4.

Figure 4. Relationship Focused Recovery



Source: Brown et al., 1996

Service recovery is both a means to enhance customer satisfaction at the transaction-specific level and a relationship tool; hence it is extremely important and plays unique role in the service sector (Brown et al., 1996). The required service recovery is dependent on the type of the service, problem severity and criticality (Levesque and McDougall, 2000).

Customer retention and loyalty, thus repeat customers hold crucial importance for service companies and the most effective way to ensure they stay that way is to provide a service that meets or exceeds the customer's expectations every single time. However, service delivery and its unique characteristics make it, at times, impossible to operate without fail. Even though, service failure holds the potential for destroying loyalty, an effective recovery may enable to maintain or even increase loyalty after all (Miller et al., 2000).

On the other hand, the service recovery paradox which addresses the "question of whether customers who experience a failure followed by superior recovery might rate their satisfaction high or even higher than they would have had no failure occurred" which was partially supported by McCollough and Bharadwaj (1992) and McCollough et al. (2000) should be considered (Weun et al., 2004). Also, the increase in the overall service satisfaction in the occurrence of a critical incident should also be taken into consideration (van Doorn and Verhoef, 2008). After all, critical incidents may revive the customer relationship and enhance the customer loyalty if handled appropriately (van Doorn and Verhoef, 2008).

Furthermore, an effective recovery can only be undertaken matching it to the specific failure situation at hand (Craighead et al., 2004) and depends both on the company and the customer efforts (Boshoff, 1997). Moreover, the effectiveness of the recovery is correlated with the concept of exchange (Levesque& McDougall, 2000). Also, customers' expectations for service recovery directly correlate with the customers' degree of organizational commitment (Kelley and Davis, 1994). In addition, service failure (severity), compensation, explanations, the justice perceptions and attributions also play an important part in customers' perceptions on recovery (Bradley and Sparks, 2012).

Although the service recovery has also been classified under process and outcome categories in B2C environments (Goodwin and Ross, 1989; Hoffman et al., 1995; Weun et al., 2004; Spreng et al., 1995; Goodwin& Ross, 1992; Smith et al., 1999; Mittal and Lassar, 1998; Webster and Sundaram, 1998; Zhu et al., 2004), the specific characteristics of B2B services require another approach. Therefore it has been decided focusing on the type of the service recovery is most beneficial under B2B circumstances.

2.3.1.1. Symbolic Service Recovery

Symbolic service recovery stands for the recovery that does not yield an economic outcome for the customer. The symbolic service recovery includes symbolic exchange such as an apology. However, it has been underlined that process service failures require a symbolic service recovery since its in kind with the experienced service failure (Smith et al., 1999). Another approach labels the symbolic service recovery also as a process recovery (Zhu et al., 2004).

2.3.1.2. Utilitarian Service Recovery

Utilitarian service recovery yields an economic outcome for the customer after the service failure such as compensation, discount etc. Utilitarian service recovery is required when there has been an outcome (core) service failure. Since the outcome service failure creates an economic loss for the customer it needs a recovery which yields an economic gain in order to balance the relationship (Smith

et al., 1999).

As mentioned above, another approach considers the utilitarian service recovery to be an outcome recovery matching to its failure counterpart (Zhu et al., 2004).

2.3.1.3. Mixed Service Recovery

The term mixed service recovery represents the use of two or more of the above mentioned service recoveries. These recoveries may be one symbolic and one utilitarian or two symbolic and one utilitarian etc. The main point is that both recovery types are utilized within one recovery effort simultaneously and the choice depends on the type of the service failure at hand (Chou et al., 2009).

Customer perceptions of buyer-seller relationships with the service provider effect their recovery strategy expectations excessively, which may shed a light on how some customers are satisfied and others are not when face with a similar recovery following the failure (Chou et al., 2009). If the service provider evaluates their relationship with the customer as good than they are willing to put more effort into maintaining it, hence, the recovery attempt as well (Chou et al., 2009). The service recovery efforts of a firm is perceived as high if they implement 2 or more recovery strategies hence a “mixed recovery strategy”. Meaning, the firm could use a utilitarian strategy (e.g. replacing the product/service) with an additional symbolic strategy (e.g. apology, quality guarantee) (Chou et al., 2009).

Table 3: Service Recovery Categorization in Literature

Author(s)	Outcome Recovery	Process Recovery	Symbolic Recovery	Utilitarian Recovery	Mixed Recovery	Alternative Categorization
Bagozzi, 1975			•	•		
Bell and Zemke, 1987	•	•	•			Speed of Recovery, Empathy, Follow Up
Grönroos 1988,	•	•				
Bitner, 1990			•	•		
Brown et al., 1996			•			No Recovery
Boshoff, 1997			•	•	•	
Boshoff and Leong, 1998			•	•	•	Empowerment
Smith et al., 1999			•	•		
Miller et al 2000			•	•	•	Speed of Recovery, No Recovery
Boshoff, 1999			•	•		Time, Empathy, Atonement, Accept Responsibility, Reliability, Feedback, Empowerment, Approachability, Staff Attitude, Explanation.
Levesque and McDougall, 2000			•	•	•	
Weun et al., 2004	•	•				
Zhu et al., 2004	•	•	•	•		
Craighead et al., 2004	•	•				Sincerity, Value Addition, Attempt, Authority, Recovery Speed, Failure Detection Speed
Johnston and Michel, 2008		•	•	•		Customer and Employee Recovery, Empathy, Own and Fix The Problem, Assurance
Michel et al., 2009	•	•				Employee Recovery
Swanson and Hsu, 2009			•	•	•	
Bradley and Sparks, 2012			•	•		Explanation, Justification, Excuse

2.3.1.4. Recovery Response Time

Besides choosing and matching the appropriate recovery to its failure counterpart, the response time of the service provider company also plays an important role in post-failure outcome. A recent study on recovery dimensions has shown that in customers' eyes the speed of recovery is the first item on the agenda in the recovery context (Battaglia et al., 2012). As it was pointed out, the shorter it

takes to address the issue at hand; the less damage will be inflicted upon customer satisfaction and loyalty (Craighead et al., 2004; Hart, et al., 1990). Likewise, it was highlighted that the speedy responses have a greater chance to influence the customers' justice evaluations when the experienced service failure is less severe (Smith et al., 1999; Battaglia et al., 2012).

The impact of the inability to attain timeliness and delays in service recovery is evident in the literature (Hart *et al.*, 1990; Spreng et al., 1995; Tax and Brown, 1998; Zemke& Bell, 1990; Taylor, 1994; Rio- Lanza et al., 2009; Battaglia et al., 2012). The short recovery response time refers to the ability to contain the problem quickly which will ease the customer's mind on the issue, considering the failure impacts the customer's operations (Battaglia et al., 2012). Also, considering the importance of timeliness for physical distribution service quality (Bienstock et al., 1996), it becomes clear that the sooner the recovery is implemented, the better outcomes it will yield for the service provider.

Therefore, the sooner recovery takes place; the higher level of improvement in customer satisfaction is expected posterior to service recovery (Boshoff, 1997). Moreover, the importance of finding out about the failure and implementing a recovery as soon as possible has been stressed in both B2C and B2B contexts (Bell and Zemke, 1987; Boshoff, 1999; Miller et al., 2000; Craighead et al., 2004) which is why it was decided to include the recovery responsiveness to this research as well.

2.3.1.5. Outcomes Posterior to Service Failure and Recovery

According to the service quality literature the expected outcomes of service recovery on the customer are(improved) customer satisfaction and (improved) service quality perceptions followed by positive behavioral intentions namely repeat purchases and loyalty (Boshoff, 1997). Even more, recovery procedures have an impact on customer satisfaction and customer satisfaction has an impact on customer retention, whereas, customer retention has an impact on financial performance which leads to the assumption that customer satisfaction has an indirect impact on financial performance (Johnston and Michel, 2008).

Therefore, considering the importance of long-term customers from an

economic point of view the overall strategy of the company should focus on delivering superior service and creating customer value. To put it another way, the initial cost of acquiring new customers may be high due to generation cost, as they stay with the company, the aforementioned cost spreads over time and each transaction becomes more profitable. Also, customers who prefer to stay are willing to spend more for service excellence. Customer loyalty also means positive feelings towards the company which means positive word of mouth (Boshoff, 1997).

It was also underlined that the change in customer relationships and satisfaction posterior to service failures varies with customers past experience with the company (Hess et al., 2003). Consequences regarding the effectiveness of recovery efforts can be accounted by the quality of recovery efforts just as much as the various relationship levels between the customer and the service provider companies (Olsen and Johnson 2003). Customers with a strong relationship with the service provider company have higher expectations for future interactions and show greater tolerance when failures occur since they believe that inequities caused by a service provider's unsatisfactory performance, namely a service failure, will equalize across future transactions. This buffering effect is based on the entire history of the customer and the service provider (Olsen and Johnson 2003).

The proposed four outcomes posterior to service failures and recovery are improved relationships, weakened relationships, adjourned relationships and relationships that are not influenced by the service failure and recovery (Edvardsson, 1992).

- Improved relationships posterior to service failures and recovery :

After a service failure and recovery is experienced the customer may be inclined to improve the relationship with the service provider under certain circumstances. It is proposed that a good recovery and even a failure occurrence may increase the overall satisfaction of the customer if handled properly (Weun, 2004; van Doorn et al., 2008). The customer may be impressed by the punctuality and effectiveness of the service provider whilst dealing with a failure, how the service provider handled the failure and the recovery or just the outcome of the recovery. Hence, the customer will be willing to not only continue the existing

relationship but enhance it due to an emerging trust for the business companion.

- Relationships not influenced by service failures and recovery:

Some failures and/recoveries do not have an impact on the relationship between the two parties. This may be due to the long term relationship in between, the dependence structure or the power each party has over the other, the working agreement may be on a long term contract for all shipments of the customer, the insignificance of the failure or the service provider to the customer.

- Weakened relationships service failures and recovery:

Another outcome of a service failure and recovery may be the weakened relationship between the service provider and its customer due to loss of trust and the experienced cognitive dissonance. However, the service provider company and its customer may be working on a long term contract basis which does not let the business relationship die out and give the service provider new opportunities to win the customer back.

- Adjourned relationships service failures and recovery:

The worst case scenario posterior to service failures and recovery is an adjourned business relationship between the service provider and the customer. This may be due to the failure's magnitude, frequency, prior experience with the service provider company, the ineffectiveness of the recovery, the recovery responsiveness, the experienced cognitive dissonance, the attribution of fault on the service provider company and the insignificance of the service provider for the customer.

2.4. THEORETICAL BACKGROUND ON B2B SERVICE FAILURE AND RECOVERY STRATEGIES

2.4.1. Equity Theory

The fairness perceptions of recovery efforts are examined under: distributive, procedural, and interactional justice dimensions (Blodgett et al., 1997; McColl-Kennedy and Sparks, 2003; Kwon and Jang, 2012). Distributive justice

focuses on the perceived fairness of actual or tangible outcomes relative to inputs (Blodgett et al., 1997; Ok et al., 2005). Procedural justice focuses on the perceived fairness of policies, procedures and criteria used whilst reaching the recovery effort (Blodgett et al., 1997, Tax et al., 1998 and Ok et al., 2005). Interactional justice focuses on perceived fairness of how the consumers are treated during the recovery process (Tax et al., 1998, McColl-Kennedy and Sparks, 2003 and Ok et al., 2005; Kwon and Jang, 2012). Justice theory has been widely used to evaluate the service recovery in a “transaction-specific manner” (Olsen and Johnson, 2003).

Equity theory highlights the concept of fairness perception, which has been used to explain how consumers respond to recovery efforts (e.g., Goodwin and Ross, 1992, Ha and Jang, 2009, Smith et al., 1999). Equity theory’s relevancy with marketing is the similarities between its underlying assumption and the concept of reciprocity in market exchange relationships (Bagozzi, 1975; Olsen and Johnson, 2003). Equity stands for the change in the dynamic interpersonal relationships between business partners in accordance with interaction accumulation over time (Olsen and Johnson, 2003).

Equity theory refers to the unsatisfied customer who is victim, damaged by the service provider, looking for amends (Weun et al., 2004). The current equity theory utilized in this thesis is based on Adams’ equity theory (1963) which focused on social inequalities in the workplace, specify the circumstances in which inequity will appear and how to reduce the effects, utilizes Festinger’s (1957) theory of cognitive dissonance (Yildirim, 2015). As it was mentioned before, service breakdowns cannot be prevented due to the human factor involvement. However, when a service breakdown occurs and the customers feel themselves denied of “fairness” the expectation of adequate recovery for the unfair experience arises (Chebat and Slusarczyk, 2005.)

Customers’ perceptions of equity depend on various factors which are categorized as distributive justice (Homans, 1961), procedural justice (Thibault and Walker, 1975; Lind and Tyler, 1988) and interactional justice (Bies and Moag, 1986; Bies and Shapiro, 1987) and these dimensions that represent customer’s various complaint actions and expectations in accordance with social psychology (Blodgett et al. 1999; Weun et al., 2004; Chou et al., 2009).

Previous research has highlighted the importance of interactional justice and distributive justice in influencing customer satisfaction after a service recovery, and they have been found to be critical in customers' evaluations of service recovery and satisfaction (Weun et al., 2004). Additionally, the positive perceptions of distributive, procedural and interactional justice significantly enhance the customer satisfaction (Smith et al., 1999).

Equity Theory is applicable to any field as long as there is an exchange in which one or both parties perceive the unfairness of the exchange high and has been utilized in marketing as well due to its reciprocity concept in relationships (Adams, 1963; Bagozzi, 1975; Maxham III, 2001; Olsen and Johnson 2003). Moreover the equity theory has also been employed in service failure and service recovery research (Blodgett et al., 1993; Tax et al., 1988; Maxham III, 2001; Weun et al., 2004; Rio- Lanza et al., 2009; Lin et al., 2011; Yildirim, 2015).

Within the service recovery context, the distributive justice in the perceived fairness of the tangible outcome of the service recovery (i.e. compensation, discount) whereas the interactional justice refers to the way customer is treated during the service recovery (i.e. responsiveness, timeliness) and interactional justice refers to "how" recovery is executed (i.e. empathy, apology) (Tax et al., 1998; Smith et al., 1999; McCollough et al., 2000; Weun et al., 2004; Nikbin et al., 2010). Also within the recovery perspective the role of emotions should not be left out since the unfair incident creates both economic and emotional losses for the customers and the justice in service recovery incidents is perceived as how the service failures are handled (Seiders and Berry, 1998; Chebat and Slusarsczyk, 2005; Lin et al., 2011). Hence, acknowledging the complexity and interplay of factors are required due to their effects on customer's perception of recovery, and, justice theories provide the required theoretical framework (Sparks and McColl-Kennedy, 2001; McColl- Kennedy and Sparks, 2003). To wrap up, this theory attempts to measure perceptions of fairness of a recovery and presents the required theoretical basis for explaining perceptions of recovery justice (Kwon and Jang, 2012; Yildirim, 2015).

2.4.2. Relationship Marketing Theory

Relationship marketing has emerged over the years as an emerging area of marketing that focuses on building long-term relationships with customers and other related parties (Caceres and Paparoidamis, 2005). The relationship marketing has attracted more and more attention due to the rise of strategic network competition instead of traditional and hierarchical competition (Hunt et al., 2006). The purpose of the relationship marketing theory is basically to present the required systematized structures to explain the relationship marketing phenomena (Hunt et al., 2006).

The relationship marketing theory underlines that relationships are not limited with goods and services that customers and buyers exchange. Relationship marketing is an exciting concept in the marketing literature and trust and commitments are seen as its major components (Dwyer et al., 1987; Morgan and Hunt, 1994). Relationship marketing is focused on attracting, improving and retaining customer relationships, and attempts to involve and integrate customers, suppliers and other partners of the network into the marketing activities (Berry and Parasuraman, 2001; Sheth and Parvatiyar, 1995).

As the level of customer satisfaction increases, the likeliness of achieving loyalty increases as well, for both product and service industries (Grönroos, 1993). However, services are especially compatible with relationship marketing due to their unique features such as intangibility, heterogeneity and most importantly interaction intensity (Grönroos, 1995; Czepiel and Gilmore, 1987). As mentioned before mutual value creation, trust and commitment are key variables in relationship marketing success (Grönroos, 1993; Morgan and Hunt, 1994). Moreover, relationship marketing highlights the importance of building long-term, profitable and mutually satisfying relationships and it has been previously underlines that this approach is particularly useful in service markets (Czepiel, 1990).

Trust is by which extent the customer is willing to rely on a service provider with confidence and commitment is customer's desire to pursue the relationship with the service provider (Moorman et al., 1993). As it has been highlighted before, the relationship between good service recovery, customer relationships and increased customer satisfaction cannot be denied (Hart et al., 1990). To sum up,

relationship marketing in the third party logistics service sector will bring direct benefits such as reduction of the costs of transaction associated with the exchanges that would occur with any new or short-term transaction (Panayides and So, 2005). Therefore, forming long-term relationships with customers that are built on mutual trust, co-operation and information share is expected to be the first objective of any company operating in 3PL market.

2.4.3. Dependence Structure

Dependence structure refers to an uneven power arrangement between two firms and implicates power imbalance in the relationship that affect mutual relationship perceptions. The structure mainly emphasizes one firm's dependence to the other in order to achieve its goals. Furthermore, in the event of a service failure encounter the service provider is commonly constrained by an explicit contract on resolving the service failure especially in B2B relationships. The service provider may not be willing to put much extra effort on the recovery strategy in the event of an existing formal contract since the likelihood of losing the customer is extremely low (Chou et al., 2009).

On the other hand, it was underlined that small firms do not always position themselves defensively and learn to collaborate with larger partners and show a proactive attitude towards relationship management. This is because they understand the importance of developing and sustaining social ties. Therefore, they communicate more frequently and more openly with their customers and perform in person visits to gather feedback. Moreover, it was found that both firms appropriate the joint value generation regardless of the size which is called dual value appropriation. In addition, the knowledge and the flexibility to apply it new projects gave smaller firms more power and influence over the relationship. The long-term relationships help firms reduce the uncertainty and the small numbers of partners are favorable. Finally, the size difference may act as a communication barrier in some cases but not all; some committed champions overcome this problem by adding fluidity to the relationship. As the larger company does not feel threatened by the smaller one the knowledge exchange is more likely to occur and trust and

commitment are present (Perez& Cambra- Fierro, 2014).

2.4.4. Attribution Theory

Attribution is due to the need to understand one's surroundings and to have control over them (Heider, 1976). After Heider (1976), Kelley (1967, 1972) and Weiner (1972, 1974) enhanced the general concept of attribution and its dimensions and use of attribution theory was widened (Oflaç, 2011). In time, attribution theory turned into a broad approach exploring the consumers' cause and effect relationships in failure perceptions. In compliance with the cognitive consistency theory, various expectation levels yielded different attribution of causes in logistics service failures. It was underlined that a high expectation towards the brand can act as a buffer and prevents the attribution of failure to the brand (Oflaç, 2011).

The theory of cognitive dissonance focuses on creating knowledge about important psychological processes of individuals. It focuses on the relationships among "elements of knowledge that people have about their behaviors, attitudes, perceptions, beliefs, feelings, or environments" (Telci et al., 2011). The reasoning behind Festinger's (1957) cognitive dissonance theory is that if an individual's has two cognitions that are inconsistent one will experience dissonance because of the inconsistency and will try to reduce it. In marketing field, the theory of cognitive dissonance attracted the attention from scholars in a short period of time.

In addition, individuals attribute favorable outcomes to self and unfavorable outcomes to external or situational outcomes. Thus, in the event of a failure, external attribution is expected (Folkes, 1988; Oflaç, 2011). The attributions of the customer upon facing a service failure, is known to play an important role on the customers' perceptions on the recovery efforts (Bradley and Sparks, 2012).

The concept of exchange does not focus on why a consumer does something, but rather when things "go wrong" and the equality principle is violated (Bagozzi, 1975). It has been shown that consumers incline to blame others for unsatisfactory experiences with products (Folkes, 1988; Richins, 1985; Weiner, 1985). Underlying the reasons behind product failure and attributing blame are subject to attribution theory. This theory suggests that the perceived cause will

influence the dissatisfied consumer's response to a service failure (Boshoff & Leong, 1998).

Causes of failure are influenced by "perceptions of stability, *locus* of the attribution and controllability". Controllability and stability attributions are particularly relevant in a services context (Folkes 1984). Self-perception theory differentiates internal and external attributions. Internal attributions are "those that a subject deems within his/her *locus* of control" where as external attributions are "those which are beyond the person's control, in other words, factors over which no control could be exercised which were responsible for the outcome" (Boshoff & Leong, 1998).

Furthermore, the involvement of 3PL's in the failure may cause deviations in the customer response, particularly in the attribution behavior for the cause of failure (Oflač et al., 2012). This is mainly due to the fact that 3PL services have highly complex natures and include various actors of which the customer may be fully aware of considering the fact that one of the reasons customers outsource their logistics activities is their lack of expertise and experience in the sector. Therefore, the customers cannot attribute the failure to a party they have no knowledge on.

CHAPTER 3

METHODOLOGY OF THE RESEARCH

3.1. SCOPE AND PURPOSE OF THE RESEARCH

The purpose of this research is to explore the different dimensions regarding the service failure and recovery that have an impact on the relationship between the service providers and their customers. Moreover, it is also aimed to investigate the both sides of the service failure incidents and to portray the differences and similarities between logistics service providers' perception and their customers' and to provide useful information for logistics service provider professionals for future use.

Improving service quality and customer retention rates is a major goal for third party logistics service providers as well as for most companies. Typically, as customer loyalty increases, a decline in costs and a rise in profits is expected. This is valid for many B2B markets where service providers and their business customers have invested in systems that create mutual efficiencies and long term business relationships between firms are the preferred method of doing business. However, business customers do switch suppliers; one of the main reasons being service failures, problems and ineffective, late service recoveries.

The main purpose of the research is to describe, classify and analyze customers and service providers' experience of negative critical incidents (service failures, problems), recovery strategies applied and subsequent B2B relations as a result of the failures and recoveries in third party logistics industry. In addition to this comparison of service failures and recovery strategies in third party logistics industry from the viewpoint of customers and service providers were also aimed in this research.

Specifically, purpose of this research is to:

- identify and categorize failures within the third party logistics industry both from the customers' and third party logistics service providers' point of view,
- assess customers' and service providers' perceptions regarding the magnitude and frequency of each failure,

- identify and categorize recovery strategies utilized by third party logistics service providers to correct failures,
- assess the satisfaction of the customer from the applied recovery gathered from both the customers themselves and the third party logistics providers for recovery strategy,
- assess the effect of the failures and recoveries on the business relationships between the customers and third party logistics service providers,
- examine the relationship between the profiles of the customers and failure type and recovery strategies,
- examine the relationship between the profile of third party logistics service providers and the failure type and recovery strategies.

In addition, the objectives of this research were to explore the value of the critical incident technique (CIT) in exploring and analyzing third party logistics service problems, effectiveness of existing strategies in third party logistics service context with respect to their impact on the relationship between business parties. To accomplish these objectives, information was gathered from the customers and employees of the third party logistics companies by using CIT.

3.2. ANALYTIC MODEL OF THE RESEARCH

Model of this research is based on the Edvardsson's model in analyzing service failures and recovery strategies. In this model three phases are specified; cause, course and result. This model is especially used in analyzing negative critical incidents in the service literature (Edvardsson, 1988; 1992; 1998; Bejou et al. 1996). Edvardsson (1988) used this model in analyzing the service failures and recovery methods in mechanical engineering industry from the point of view of the sales company. Later he used the model in analyzing the service breakdowns in an airline both from the business passengers' point of view and employees' point of view (Edvardsson, 1992; Bejou et al. 1996). This model was also used by Edvardsson in studying causes of customer dissatisfaction in public transport.

Figure 5 describes the analytical model of this research. The service failure as a critical incident in the third party logistics service industry has a cause, a course

and a result. The author has chosen to concentrate on these three phases in this study. The model also included the profiles of the customers, third party logistics service provider companies and the relevant respondents from these companies to examine the relationships between their profiles and service failure type, recovery strategies, failure ratings and recovery rating, and subsequent business relationships between the customer company and third party logistics service provider company.

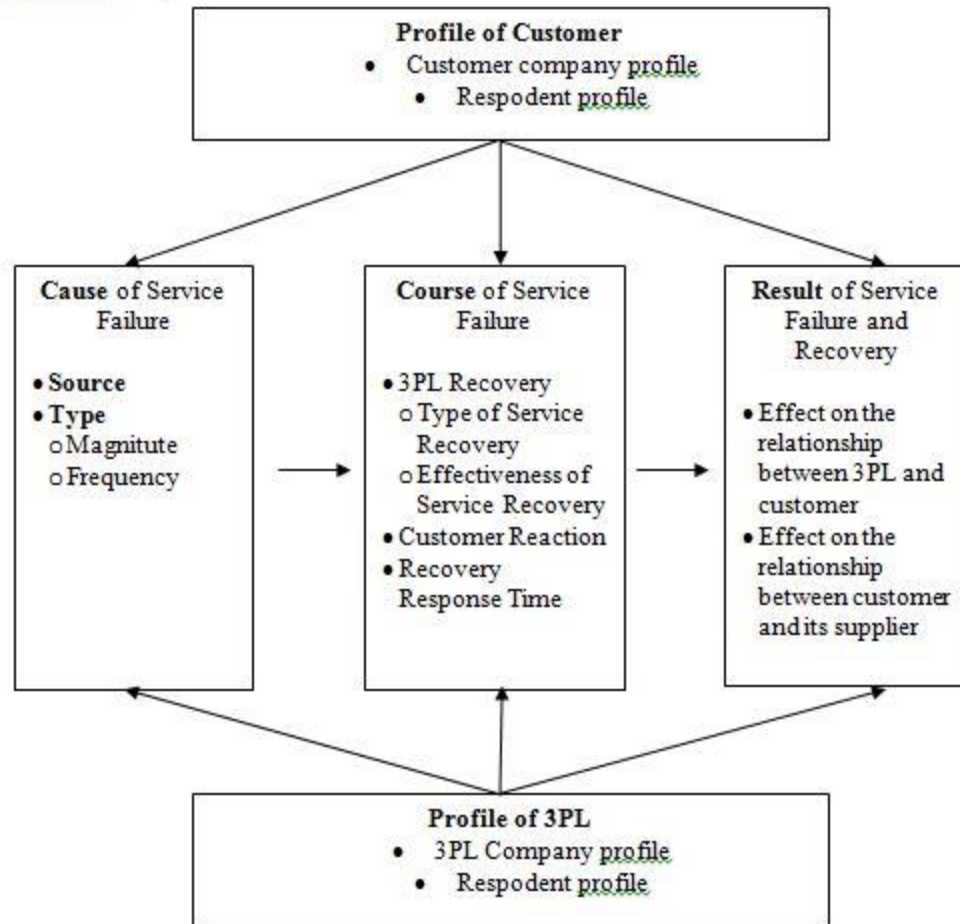
Regarding the cause of service failure, the source of cause and type of cause is distinguished. The sources of the cause are the third party logistics service provider company, customer company, carrier, haulier, railway operator, port, customs broker, government bodies, port, warehouse operator, etc. Types of causes are customer service, documentation, finance and accounting, marketing and sales, port operations. In addition to the source and type of service failure, failure magnitude and failure frequency were included in the model as well.

The course of the service failure incident is first related with reference to the activity or action of the third party logistics service provider and customer respectively. Activity of third party logistics service provider refers to the service recovery strategies including symbolic, utilitarian and mix recovery strategies used to correct the service failure.

The result of the service failure and recovery is considered as an effect on the relationship between customers and third party logistics provider, and an effect on the relationship between the customer and its suppliers and/or customers. The result of the service failure incident in terms of business relationships were classified as “improved”, “not influenced”, “weakened”, or “adjourned”.

Profile of the customer in the model is related to the customer companies’ size, age, industry, business volume, supplier performance assessment system. Profile of the third party logistics service provider company includes company size, age, shipment volume, existing foreign partners, and customer complaint system. Profile of the respondents from both customer companies and third party logistics service provider company includes respondents’ age, position, experience in the industry and education levels.

Figure 5. Analytical Model of the Research



3.3. METHODOLOGICAL ISSUES IN STUDYING SERVICE FAILURES AND RECOVERIES

Scientific research related to service failures and recovery has been conducted in general three methods. The most frequently utilized method to analyze customers' and service providers' experiences regarding service failures is CIT (Edvardsson, 1988; Bitner et al., 1990; Edvardsson, 1992; Kelley et al. 1993; Bitner et al., 1994; Johnston, 1995; Hoffman et. al., 1995; Bejou et al.1996, Edvardsson, 1998; Bejou and Palmer, 1998; Chung and Hoffman, 1998, Lockshin et al., 1998; Edvardsson and Strandivik, 1999; Rudolph et al., 2000; Michel, 2001; Forbes et. al., 2005; Lundberg, 2011). CIT is an exploratory method with exploratory inductive method characteristics. However, when it's aimed to create knowledge on an issue that has

relatively little information previously presented, CIT seems especially well suited for the task at hand.

Experimental research is another commonly used method in studying service failures and recovery especially in consumer markets. This method of research illustrates consumers with hypothetical situations and records their responses (Kelley and Davis, 1998; Smith et al., 1998). This method improves internal validity; however the external validity is thought to be compromised. The compromise in external validity is likely to occur especially in recovery situations where customers' emotions out power their cognition (Michel, 2001: 21).

The final method which is utilized commonly is written service complaints analysis. Written complaint data are real-life customers reporting actual service failures and recoveries which enable achieving large samples easily (Michel, 2001). However, it must be kept in mind that not all of the dissatisfied customers take the time to write complaint letters and complaint statistics tends to understate the frequency of dissatisfaction due to this shortcoming (Day et al., 1981; Bolting, 1989; Bearden, 1983). Additional methodological options like repertory grids (Kelley, 1995), phenomenological interviews and focus groups have mostly been ignored (Coverly et al., 2002).

After considering several research method to analyze service failures and recovery strategies in service literature, the critical incident technique (CIT) were selected as most appropriate for exploring the service failures and recoveries in third party logistics industry.

3.4. CRITICAL INCIDENT TECHNIQUE (CIT)

The Critical Incident Technique (CIT) was first brought to attention in 1954 in the Psychological Bulletin by Flanagan.

“The critical incident technique consists of a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles”.

This technique provides steps for collecting observed incidents with “high significance and meeting systematically defined criteria”. Aforementioned “criteria”

stands for “any observable human activity that is sufficiently complete in itself to permit interferences and predictions to be made about the person performing the act”, moreover, for an incident to be “critical” this incident “must occur in a situation where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects” (Flanagan, 1954). Also, the guidelines for data collection should not overlook requiring only simple types of judgments from the observer, picking qualified observers, evaluating observations by the observer in terms of an agreed upon statement of the purpose of the activity and keeping in mind simplicity of judgments is a relative matter (Flanagan, 1954). Additionally, it is expressed that the rules of conducting data collection does not have strict rules and must be modified and adapted to meet specific situation at hand.

The basic concept of what a critical incident remains rooted to Flanagan’s establishment however required modifications have been made for it to best suit this study’s needs and requirements. Nonetheless, the underlying idea of CIT being “a procedure for gathering certain important facts concerning behavior in defined situations” remains constant for any field of study (Flanagan, 1954). Even more, critical incidents are “special, problematic, sensitive or directly unpleasant” and “can arise anywhere” and “occur even in the best of companies” (Edvardsson, 1998).

Fortunately, the CIT has been used in a variety of service research topics since then, with the aim to explore service research issues and has been a useful tool for understanding these issues (Gremler, 2004; Reynolds and Harris, 2005). Although Flanagan introduced the CIT concept to the literature in 1954, its appearance in the marketing literature was not until 1975, however, the study that highlighted its importance in the service research is Bitner, Booms and Tetreault’s study in 1990 (Gremler, 2004; Bitner et al., 1990). The CIT is a service quality research method (Ozturk, 2000). Critical incidents may be collected through a range of ways however in service research the respondent is asked to tell a story about the experience they had and then, within the content analysis of the stories the general frame of reference and the development of main and subcategories are decided (Gremler, 2004).

The rediscovery and further development of CIT as a means of measuring the perceived service quality was introduced in a study by Bitner et al., 1985. Bitner et al., 1990 later used this method to distinguish the employee behaviors at hotels, restaurants and airways perceived by the relevant customers as the most satisfactory from those perceived as the least satisfactory. This approach has further widened in the recent years with the analyses of the incidents perceived by the customers and service employees (Bitner et al., 1994) as critical. As in any research method, CIT also has advantages and disadvantages to it.

The advantages of the CIT are as follows:

- respondent's perspective is captured with their own words (Edvardsson, 1992),
- it reflects the normal way service customers think (Stauss, 1993),
- unequivocal and very concrete information is produced (Stauss and Weinlich, 1997),
- provides increased knowledge and is useful for explaining or describing a phenomenon (Bitner et al., 1990),
- has a flexible set of rules (Flanagan, 1954), The CIT method does not consist of a rigid set of principles to follow, but it can be thought of as having a rather flexible set of rules that can be modified to meet the requirements of the topic being studied (Gremmler, 2004).
- allows for interaction among all possible components (Koelemeijer, 1995),
- has no need for hypothesis and provides room for generating concepts and theories (Olsen and Thomasson, 1992).
- generates an accurate and in-depth record of events (Grove and Fisk, 1997),
- provides a rich set of data (Gabbott & Hogg, 1996),
- provides a lot deeper and more detailed data than that the typical customer satisfaction related researches do (Bitner et al., 1994).
- can be easily adapted to understand experiences of others (Burns et al., 2000),
- provides a powerful and vivid insight into a phenomenon (Zeithaml & Bitner, 2003),
- suggests practical areas for improvement to managers (Stauss, 1993:

Odekerken-Schröder et al. 2000) and

- a powerful tool for assessing perceptions of customers from various cultural (Stauss and Mang, 1999) backgrounds since it is culturally neutral (Gremler, 2004).
- enables both quantitative and qualitative analyses to be carried out (Bitner et al., 1990). Given its frequent usage in a content analytic fashion, has the potential to be used as a companion research method in multi method studies (Kolbe and Burnett 1991).
- inductive nature of the method (Edvardsson, 1992) which has been proven useful when researchers attempt to understand “little known” phenomenon and in particular when developing hypotheses (Gremler, 2004).

Although the benefits of using the CIT method are considerable, the method has also received some criticism by scholars. Drawbacks and limitations of the CIT are summarized below:

- its reliability and validity (Chell, 1998), since the stories might be misinterpreted or misunderstood (Edvardsson, 1992),
- having a design that may be flawed by recall bias (Michel, 2001),
- biased through consistency factors or memory lapses (Singh and Wilkes, 1996) and
- the possibility to having a low response rate due to respondents’ not be familiar to or want to spend time on telling a complete story when describing the critical incident (Edvardsson and Ross 2001, Johnston, 1995).
- problems may also arise as result of ambiguity associated with category labels and coding rules within a particular study (Weber 1985)

As the advantages overpower the possible drawbacks of the method, the importance of CIT method in the service research is undeniable. Specifically, the useful information that is provided is more “rigorously defined than many other qualitative approaches” (Gremler, 2004). Besides, the CIT compel researchers to identify important thematic details and define their specific aim and provide vivid examples to support the findings of the study performed since it is recall-based (Smith et al., 1999; Gremler, 2004). Moreover, the technique became a tool

for reflecting customer-perceptions of quality and customer satisfaction (Edvardsson and Roos, 2001). And finally it is because CIT is “flexible enough to allow service encounters to be extensively studied in a variety of ways” that it has been widely and commonly employed in service research (Gremler, 2004). CIT may reveal new dimension to service failures in a B2B context or contribute to the existing ones (Lockshin& McDougall, 1998). Moreover, the second most popular research topic in CIT studies is service failure and recovery (Gremler, 2004; Craighead et al., 2004). Recent applications of CIT in the service literature include Bitner et al., 1990, Bitner and Hubbert, 1994, Hoffman et al., 1995; Edvardsson,1998;Johnston, 1995; Youngdahl and Kellogg, 1997; Lockshin& McDougall,1998; Dasu and Rao, 1999; Swanson and Hsu, 2009; Miller et al.,2000 and Craighead et al., 2004; Chung-Herrera et al., 2004; Kelley et al., 1993; Keaveney, 1995; Lewis &Spyrakopoulos, 2001; Reynolds &Harris, 2005.

The analysis of CIT data involves six or seven steps (Flanagan, 1954; Nyquist at al., 1985, Hoffman at al., 1995):

- (1) determine the general aims of the activity (discussed in the research purpose section),
- (2) establish guidelines for what distinguishes critical incidents from normal events,
- (3) collect the data on critical incidents,
- (4) analyze the data in order to identify patterns,
- (5) use the patterns that emerge to form categories and sub-categories,
- (6) classify the incidents in the various categories,
- (7) interpret the data and draw the conclusions.

The number of incidents that should be included in the research is open for debate. However, Flanagan (1954) suggested that “no new incidents” should occur in the last 100 collected incidents, this number has varied from 200 to 300 incidents in service quality research literature (Edvardsson, 1998).

Service researchers have found CIT to be a valuable tool, as it allows researchers to focus on a very specific phenomenon because it forces them to define the “specific aim” of their study and helps identify important thematic details, with

vivid examples to support their findings. CIT consists of a set of clearly defined procedures for collecting observations and classifying them in such a way as to make them useful in discovering practical problems (Flanagan 1954).

Furthermore, the findings of various researches have supported the use of CIT for quality measurement and analyzing the service failures and recovery strategies purposes in many countries (Stauss and Weinlich, 1997; Edvardsson, 1990, 1992, 1998; Lundberg, 2011). A new line of studies introduced CIT with focus on consequences for the relationship between customers and service providers. Strandvik and Liljander (1994) focused on the strength of customer relations and studied both positive and negative critical incidents (Edvardsson and Inger, 2001). Keaveney (1995) analyzed customer switching behavior by using CIT with a focus on negative critical incidents. Studies using CIT followed the same trends as did other research on services by highlighting customer relationships.

The CIT as a method of classification is categorized as an inductive grouping procedure (Hunt, 1983; Bitner et al., 1990). These types of methods are particularly practical when there is little documentation of the properties that are likely to be important for classifying. Unlike the other grouping procedures, CIT uses content analysis of stories, rather than quantitative solutions, in the data analysis stage of the procedure (Bitner et al., 1990). CIT takes the stories that customers have told and asks questions about the stories to classify each one within the scheme.

The specific descriptions of events and behaviors are called as critical incidents. An incident is defined as an observable human activity that is complete enough to envision. A critical incident is one that can be described in detail and shows significant deviations from what is normal or expected (Bejou et al., 1996). The results are then classified through existing or new formed categories (Flanagan, 1954). Bitner et. al., (1990) define critical incidents as “specific interactions between customers and service firm employees that are especially satisfying or especially dissatisfying”. Hence, not all service incidents are classified, only those that customer did not forget because they are especially dissatisfying to them. Exploring critical incidents enable insight into the fundamentally significant reasons underlying customers’ dissatisfactory experiences and their evaluations (Bitner at

al., 1990).

While being used in classifying the customer satisfying and dissatisfying incidents, CIT could also be used in collecting and classifying unfavorable critical incidents only. For instance, Edvardsson (1992; 1998) studied only on the service failures encountered in airway transportation and public transport services. Likewise, Hoffman et al. 1995 collected and classified the service failures and recovery strategies encountered in restaurant services. Lockshin and McDougall (1998) analyzed the problems bringing about customer dissatisfaction in wine distribution services and proposals on recovery strategies. For this study critical incidents were defined as specific interactions, encounters and experiences between the business customers and third party logistics service providers that are especially dissatisfying. Some of the critical incident technique utilizations in the service failure and recovery are listed in Table 4. It can be seen that the majority of the studies used negative incidents like this thesis.

This research considers only negative critical incidents in third party logistics services, i.e. customer encounters which do not proceed normally but create friction, irritation and dissatisfaction. In this research, shippers as customers of third party logistics service providers express their own dissatisfaction concerning a particular third party logistics service which means that CIT is based on perceptions.

For an incident to be defined as critical in this study following criteria to be meet:

- It should cover the interaction, encounter, and experience between the customer company and third party logistics service provider company
- Only negative incidents were taken into account
- The incidents which are special, problematic, sensitive, directly unpleasant to the customer companies were included
- The incident should be detailed enough to be pictured/imagined in mind
- The incident should be experienced within the past one year.

Table 4. Critical Incident Research in Service Failure and Recovery

Author(s)	Sector / Industry	CI's
Edvardsson, 1988	Mechanical Engineering	Negative
Bitner et al., 1990	Hotel, Restaurant and Airline	Both Positive & Negative
Edvardsson, 1992	Airline	Negative
Kelley et al., 1993	Retail	Both Positive & Negative
Bitner et al., 1994	Hotel, Restaurant and Airline	Both Positive & Negative
Hoffman et al., 1995	Restaurant	Both Positive & Negative
Johnston, 1995	Banking	Both Positive & Negative
Bejou et al., 1996	Airline	Negative
Lockshin & McDougall, 1998	Wine Retail	Negative
Edvardsson, 1998	Public Transport	Negative
Bejou & Palmer, 1998	Airline	Negative
Miller et al., 2000	Miscellaneous	Both Positive & Negative
Michel, 2001	Banking	Negative
Craighead et al., 2004	Food Service, Auto Repair and Retail	Both Positive & Negative
Lewis & McCann, 2004	Hotel	Negative
Chung- Herrera et al., 2004	Hospitality	Both Positive & Negative
Reynolds & Harris, 2005	Miscellaneous	Illegitimate Negative
Forbes et al., 2005	E-commerce	Negative
van Doorn & Verhoef, 2008	Logistics	Negative
Swanson & Hsu, 2009	Tourism	Both Positive & Negative
Lundberg, 2011	Hotel Restaurant	Both Positive & Negative

3.4.1. Questionnaire Design

Both the personal interview form and survey questionnaire form in this study were structured around the model of cause, course, and result of the incident (service failures and recoveries) being reported. This model is especially widely used in researching negative critical incidents such as service failures (Edvardsson, 1992, Edvardsson, 1998; Bejou and Palmer, 1998; Bejou et al., 1996). Initially, 20 in-depth interviews (10 with third party logistics service providers and 10 with customers), using the CIT to identify service failures and recovery strategies, were conducted with the third party logistics service providers and their customers. The average time each in-depth interview lasted was around 60 minutes depending on the number of incidents managers shared. In the in-depth interviews, respondents recalled personal experience of whole episode of service failure, mistake or problem, actions taken by customers, recovery actions of the service provider in the third party logistics industry. Measuring scale is a likert type 2 – item 10-point scale with anchors of “1” (min) to “10” (max) (Caceres and Paparoidamis, 2005;

Swanson and Hsu, 2009). Since service encounters are dyadic (Solomon et al., 1985) this study took into account both the logistics service providers' perspective and their customers'. The findings from these interviews, together with the evidence from the service failure and critical incident technique literature review, led to the development of a structured survey questionnaire. The detailed questions used for data collections are fully included in the Appendix.

In accordance with the CIT studies in the literature in the first part of the questionnaire customers were asked to describe in their own words a service failure that they had experienced within the last one year in their dealings with a third party logistics service provider. In addition they were asked to rate the magnitude of the failure on a ten-point scale with anchors of minor mistake=1 and major mistake=10 and state the frequency of the failure on a ten-point scale with anchors of very frequent=1 and very rare=10

In the second part of the questionnaire customers were asked to describe what was done by the third party logistics service provider to try to correct the initial service problem, how they reacted posterior to the recovery and asked to rate their satisfaction with recovery on a ten-point scale with anchors of very dissatisfied=1 and very satisfied=10 and the time it took to undertake the recovery on a ten-point scale with anchors of very short=1 and very long=10 as well.

In the third part of the questionnaire customers were asked to indicate how the relationship between them and their customer/supplier and the relationship they have with the third party logistics service provider was affected by the incident. Afterwards, they were asked to rate the importance of the third party logistics service provider in terms of business volume, how long they had been working with the logistics service provider and whether they worked based on individual transactions or long term contract. The questionnaire concluded with demographic questions of the respondents and profile questions of the companies surveyed. Similar questionnaire were developed for the third party logistics service providers in order to capture service failures and recovery strategies from the point of view of the service provider (see Appendix).

3.4.2. Sampling

Most of the previous researches in the service industry analyzed service failures from the customers' point of view. According to the Gremler (2004) who analyzed the use of CIT in service researches report that different sampling methods are employed in these researches including probability sample (30%) and convenience sample (23%), snowball technique (17%) and purposive (judgmental) (12%) sampling. The distribution of sample sizes varies considerably across the CIT studies in the literature, ranging from 9 to 3,852 and nearly half of the studies include more than 200 respondents.

This study took into account both the customers and service providers point of views in analyzing service failures and recovery strategies since business-to-business service encounters are dyadic (Solomon et al., 1985). Export and import companies (also called shippers in the logistics industry) as customers of third party logistics service providers and the third party logistics service providers themselves in Turkey constitute the population of the study. Judgmental sampling method was employed in the study and the customers (exporters, importers) of third party logistics services and third party logistics service provider companies located in Turkey was selected as sample in the study. Turkey is very active in terms of both foreign trade and logistics activities due to the strategic location and having ports and extensive hinterland. Convenience sampling process was employed in determining the sample from the population of customer companies. Critical incidents related to service failures and recoveries were collected from the managers or employees related logistics department in customer companies. Totally 115 service failure and recovery incident incidents were obtained from the export and import companies using third party logistics services.

In order to capture service providers' point of view on the service failures and recovery strategies in third party logistics services, managers or employees of third party logistics service provider companies were also included in this research. A list of 406 third party logistics companies in Turkey from Association of International Forwarding and Logistics Service Providers (UTIKAD) was examined in detail. A list of 235 third party logistics companies located in Turkey was

selected for the sample. Totally 110 service failure incidents were collected from the 70 third party logistics companies located all over Turkey.

Table 5 presents the 3PL customer profile in detail below. It is shown that the majority of the 3PL customer employees are between 25-34 years old however, all age groups are represented. Moreover, all education levels are also represented with the majority of university graduates in the sample.

Table 5. 3PL Service Customer Respondent Profile Descriptive Statistics

	Count (N)	Per. (%)	Cum. Per. (%)
3PL Customer Respondents' Age			
20-24	4	3.7	3.7
25-29	33	30.6	34.3
30-34	32	29.6	63.9
35-39	16	14.8	78.7
40-44	16	14.8	93.5
45-49	2	1.9	95.4
Older than 50	3	2.8	98.2
Total	106	98.1	100
Missing	2	1.9	
Total	108	100	
Education			
Middle School Degree	3	2.8	2.8
High School Degree	8	7.4	10.2
Bachelor's Degree	73	67.6	77.8
Master's Degree	22	20.4	98.1
Doctorate Degree	2	1.9	100
Total	108	100	

Table 6. 3PL Customer Company Profile Descriptive Statistics

	Count (N)	Per. (%)	Cum. Per. (%)
3PL Customer Company Size			
1-9 persons	11	10.2	10.2
10-49 persons	22	20.4	30.6
50-250 persons	28	25.9	56.5
More than 250 persons	47	43.5	100
Total	108	100	
Missing			100
Total	108	100	
3PL Customer Company Age			
1-5 years	14	13	13.0
6-10 years	16	14.8	27.8
11-20 years	25	23.1	50.9
21-30 years	15	13.9	64.8
More than 30 years	38	35.2	100
Total	108	100	
Supplier Evaluation System			
Yes	68	64.2	64.2
No	38	35.8	100
Total	106	98.1	
Missing	2	1.9	
Total	108	100	
Foreign Partners			
Yes	37	34.3	34.6
No	70	64.8	100
Total	107	99.1	
Missing	1	0.9	
Total	108	100	
Number of Suppliers 3PL Customer Works With			
1-3	26	24.1	24.3
4-6	33	30.6	55.1
7-9	9	8.3	63.6
More than 10	39	36.1	100
Total	107	99.1	
Missing	1	0.9	
Total	108	100	

Table 6 illustrates the descriptive statistics of 3PL customer companies within the sample. Companies of all sizes and ages are well represented. The majority of the 3PL customer companies in our sample are really big companies with more than 250 employees (43.5 %). In addition, the majority of these companies are also older than

30 years which means they have significant experience and had time to build long-term relationships. The majority of the customer companies employ a supplier evaluation system which indicates their awareness of the importance of the service quality. Most companies do not have foreign partners and they work with either more than 10 or 1-6 suppliers which really underlines the fact that various companies work with various number of suppliers. This may be due to the fact that some companies find long-lasting, integrative, cooperative relationships with suppliers useful whereas other try to search through all alternatives probably with the intention of securing the best freight rates and maintaining the upper hand in order to release themselves from dependence on their suppliers in any way. Further, considering the dependence structure theory customers may be trying to create a power imbalance in their relationships with their suppliers in order to be the deciding party of the relationship.

Table 7 presents the descriptive statistics regarding the 3PL respondents' age and education. It is clearly shown that the majority of the 3PL employees are young university graduates. The 75% of the 3PL employee respondents are younger than 35. There are no middle school or doctorate graduates as well.

Table 7. 3PL Respondents' Profile Descriptive Statistics

	Count (N)	Per. (%)	Cum. Per. (%)
Age			
20-24	13	12.0	12.0
25-29	43	39.8	51.9
30-34	25	23.1	75.0
35-39	15	13.9	88.9
40-44	8	7.4	96.3
45-49	4	3.7	100
Total	108	100	
Education			
High School Degree	4	3.7	3.7
Bachelor's Degree	83	77.6	81.3
Master's Degree	20	18.7	100
Total	108	100	

Table 8. 3PL Company Profile Descriptive Statistics

	Count (N)	Per. (%)	Cum. Per. (%)
3PL Company Size			
1-9 persons	23	21.3	21.3
10-49 persons	30	27.8	49.3
50-250 persons	33	30.6	79.9
More than 250 persons	21	19.4	99.1
Total	107	99.1	100
Missing	1	0.9	
Total	108	100	
3PL Company Age			
1-5 years	26	24.1	24.1
6-10 years	19	17.6	41.7
11-20 years	24	22.2	63.9
21-30 years	15	13.9	77.8
More than 30 years	21	19.4	97.2
Total	105	97.2	
Missing	3	2.8	100
Total	108	100	
Customer Complaint System Existence in 3PL			
Yes	57	52.8	52.8
No	51	47.2	100
Total	108	100	
Foreign Partner Existence in 3PL			
Yes	42	38.9	38.9
No	66	61.1	100
Total	108	100	

Table 8 presents that all sizes of the 3PL's are well represented by the sample; there is no significant difference between the size samples. The same can be concluded about the 3PL company age; companies of all ages are represented. Moreover, the existence of complaint systems is also very well distributed there is so little difference between the groups. Finally, the existence of foreign partners is somewhat unbalanced and the majority of the 3PL's that contributed to this study do not have a foreign partner. Among the respondents from third party logistics service providers there were no one older than 50 even though it was listed in the survey. In addition the majority of the respondents from third party logistics service providers have one to six years of experience which makes up for the 52,8 % of the overall population. Respondents with seven to ten years of experience are 19, 4 % of the general population and the maximum years of experience within the population is 26 years.

3.4.3. Data Collection

According to the Gremler (2004) who analyzed the CIT in service researches literature a variety of methods have been used for data collection in CIT studies. Using students as interviewers is the most frequently reported data collection method. In some researches authors served as interviews and/or data collectors. Collection of data on critical incidents and service failures include internet, email and mail in CIT researches (Gremler, 2004).

The data in this research gathered through in personal interviews by the author, email surveys and internet surveys. A total of 38 service failure and recovery incidents were collected by personal interviews from the third party logistics companies' managers in between August 06-14, 2015 and they were utilized in the pre-testing phase of the study. The overall personal interviews took approximately 12 hours with the average interview time of 60 minutes.

Also, each third party logistics company was requested to complete the questionnaire form by employees from three different departments including marketing and sales, operations and documentation, and accounting. Totally 110 service failures and recovery incidents were collected from the third party logistics companies. Two of these incidents were excluded from the analysis since the data did not meet the critical incident criteria determined in the study.

A total of 115 service failure and recovery incidents were collected from the 3PL customer companies. 36 of the total third party logistics service failure and recovery incidents were collected from the customer companies by personal interviews with the managers of the logistics department in the company and they were also utilized in the pre-testing phase of the study. All of the personal interviews took about 11 hours with the average interview lasting 60 minutes. The rest were collected by email and internet survey. Seven of the incidents collected from the customer companies were excluded due to the missing critical information and inability to meet the critical incident criteria determined in the study.

The number of incidents that are or should be included in a CIT is always open for debate. Flanagan (1954) recommends that "no new incidents should appear in the last 100" collected incidents. Total of 225 service failure incidents were

collected within a four month period between September-December 2015. Nine were excluded and therefore a total of 216 service failure incidents were included in the analysis; 108 service failure incidents from shipper companies and 108 service failure incidents from 3PL's. As this study is conducted in B2B setting and context the total number of incidents collected from shippers and 3PL's were deemed satisfactory.

3.4.4. Data Analysis

The data analysis is the third stage in the CIT method. A central part in the analysis and interpretation of data is the formation of categories. Once the data collection was over, the incident classification system of the CIT was used to categorize the service failure incidents in order to shape the data to a useful tool for answering the research questions. This analytical induction process consists of repeated, cautious readings and sorting of incidents into categories and sub-categories according to the similarities among incidents. Next the exact nature of similarity was identified, which formed the basis for labeling of each category of incidents. The incidents collected are sorted, combined, and resorted until all incidents in a category are more similar to each other than they are with incidents in any other category. The categories should reflect the material, primarily the causes of the critical incidents. They should emphasize central patterns or categories of incidents that have something central in common. Equally important is that the categories are mutually exclusive as regards core contents.

The first stage of the critical incident analysis in this study was the inductive delineation of the major groups that collectively could account for all the incidents and answering the main research purposes and questions in a general way. What are the events leading dissatisfying 3PL service failures and how the implemented recoveries impact the future relationship between 3PL's and their customers?

In order to establish the initial classification scheme, the author and an academicians reviewed a sample of the service failure incidents in third part logistics services. Prior classification schemes which examined critical incidents in the consumer market (Bitner et al., 1990; Kelley et al., 1993; Hoffman et al., 1995) and

were found to have limited value in classifying the service failures in third party logistics service industry since it has a B2B incident nature. The previous classification scheme resulted in three major groups including: (1) employee response to service delivery system failures, (2) employee response to customer needs and request, and (3) unprompted and unsolicited employee actions.

In this study following the approach of Edvardsson (1992), the analysis began with the careful scrutiny of the service failure incidents collected from customer companies and third party logistics service providers respectively. Service failures and recovery strategies in the study were classified into a number of categories by the author and an academician and acting independently of each other. Two successive clustering processes conducted by two coders resulted in major categories. After consensus on the main categories, the process of delineating categories within the groups was initiated. Using an iterative process, two coders read, sorted, reread, and combined the service failure incidents on category labels. Service failure incidents were classified into main and subcategories. In addition to classifying critical incidents according to the source and nature of service failures they were classified according to the magnitude of the mistakes as perceived by the respondent. The course of the service failure incidents -service recovery strategies were also classified into main and subcategories. In addition to this, satisfaction with relevant the service recovery methods is analyzed in the study. Finally, results of the service failures and recovery strategies were included in the study.

MAXQDA was used to process all the hand coded information collated. This software allows users to group all types of qualitative information in a single project (e.g. text, images, websites, and videos) as well as include the quantitative information available. It also presents patterns that emerge from the data included, provides frequency counts and tables. It allows users to code filter and recover data in a manner they require. In short, this tool allows researchers to work with the bulk of information and simplify the analysis.

3.4.5. Reliability

Reliability is a key component in analytical methods due to the possible affect of subjectivity. In CIT studies employing content analytic methods,

assessments of reliability usually focuses on judges' abilities to consistently classify incidents into same categories. The most commonly reported statistics in the reliability of CIT studies is the percentage of agreement. Reliability in such kind of researches could include discussion of both intrajudge and interjudge reliability however, intrajudge reliability concerning with how consistent a given judge is making categorical decisions over time (Weber, 1985) was employed in this study. Interjudge reliability is defined as "the degree to which two or more judges agree that a given observation should be classified in a particular way" (Perrault and Leigh, 1989). Reliability is assessed by exploring the reliability indices used and the magnitude of statistics reported. Reliability indices aim to verify the probability that various judges would have achieved similar results when classifying given critical incidents.

The author and an academician who has background in the logistics industry independently classified all the service failures collected both from the customer companies and third party logistics provider companies. The differences and discrepancies in the classifications were identified, discussed and resolved by the coders. In this study interjudge agreement on assignment of service failure incidents to the categories was 85 and 90 percent for the study of customer companies and third party logistics service provider companies, respectively.

CHAPTER 4

FINDINGS AND RESULTS OF THE RESEARCH

The primary results of the CIT studies are the categories that emerge through the classification procedure. Edvardsson's (1992) approach used in analyzing negative critical incidents was followed in this study. The analysis began with a careful scrutiny of the accounts of service failures. This revealed certain clear patterns in material, which made it possible and meaningful to classify the service failure incidents in accordance with a cause, a course and a result model. The findings and results of the research with customer companies are presented first, followed by the third party logistics service provider companies' accounts.

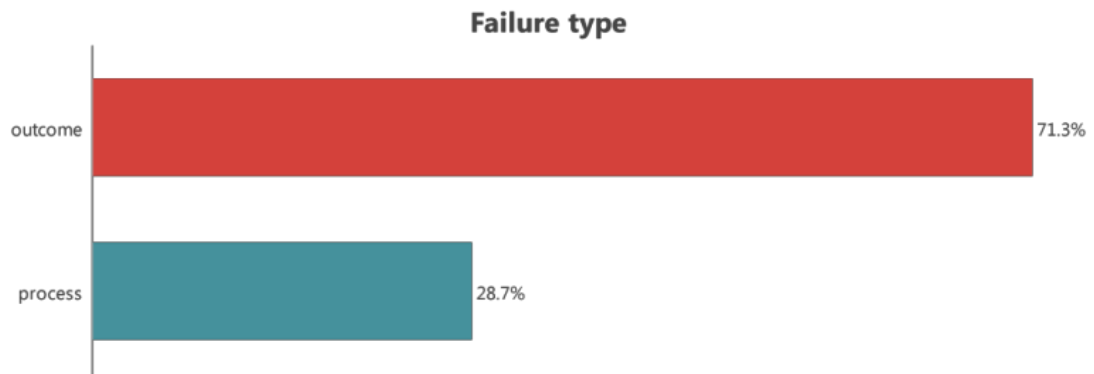
4.1. DESCRIPTIVE STATISTICS

Descriptive statistics provide the basic features of the data in a research. They provide simple summaries about the sample and the measures. With descriptive statistics you are simply describing what is or what the data shows. Descriptive Statistics are used to present quantitative descriptions in a manageable form by enabling the simplification of large amounts of data in a sensible way. Thus, each descriptive statistic reduces lots of data into a simpler summary.

The analysis showed that a total of 71, 3 % of all incidents were outcome failures and 28, 7 % were process failures. Incidents collected from customers were 13, 9 % (15) process failures and the rest 86, 1% (93) were outcome failures. Whereas, incidents collected from third party logistics service providers were 43, 5 % (47) process failures and the rest 56, 5% (61) were outcome failures. Therefore it can be seen that the majority of the incidents respondents shared are outcome failures which makes sense considering they are the most annoying to experience and are more likely to be remembered, especially by customers.

Table 9. Failure Type Frequencies

	Customers		Logistics Service Providers		
	Count (N)	Per. (%)	Count (N)	Per. (%)	Total
Process	15	13,9	47	43,5	62
Outcome	93	88,1	61	56,5	154
Total	108	100	108	100	216

Figure 6. Total Failure Type Percentages

4.1.1. Customer Perspective

The descriptive statistics of the research are presented in an orderly fashion by giving the customer's point of view first and 3PL's point of view second. The prioritization of the customer's point of view is due to the marketing research perspective of the research. After the customer and 3PL differentiation the cause, course and effect steps of the process are explained to provide a well- established view of the data.

(1). Cause of the Critical Incident (Service Failure): Customer Perspective

Table 10. General Overview of Service Failures: Customer Perspective

	Count (N)	Per. (%)	Cum. Per. (%)
Failure type			
Process Failures	15	13.9	13.9
Outcome Failures	93	86.1	100
Total	108	100	
Shipment Type			
Import Shipments	60	55.6	55.6
Export Shipments	48	44.4	100
Total	108	100	

Table 10 represents the general overview of the service failures provided by the customers' perspective under the failure type and shipment type categories. It is clear that majority of the service failures were outcome failures and most of the service failures occurred during import shipments. Table 11 represents the descriptive statistics regarding all the critical incidents collected from 3PL customers.

Table 11. Descriptive Statistics of Incidents: Customer Perspective

Incident	MIN	MAX	MEAN	STD. DEV.
Failure Magnitude	2	10	7,38	2,203
Failure Frequency	1	10	5,80	3,329
Customer's Satisfaction From Recovery	1	10	4,82	2,929
Recovery Responsiveness	1	10	5,76	2,979
3PL's Importance for Customer	1	10	6,14	2,783
The Past Relationship with the 3PL	1	5	2,84	1,210
The Working Arrangements with the 3PL	1	2	1,44	0,499

Table 12. Failures Categories: Customer Perspective

Failure Categories	Count (N)	Per. (%)	Cum. Per. (%)	Fail. Magn. *	Fail. Freq. **	Recov. Satis. * **	Recov. Respon. ****
Customer Service/ Operation	67	62	62	7.22	5.98	5.53	5.29
Documentation	12	11.1	73.1	7.16	4.91	2.83	6.08
Finance/ Accounting	5	4.6	77.8	7.4	2.8	4.4	7
Marketing/ Sales	3	2.8	80.6	8.3	3	1.6	10
Port Operations	21	19.4	100	7.85	6.8	4.23	6.14
Total	108	100					

* 1= minor

** 1=very frequent

*** 1=very dissatisfied

**** 1=very quick

10= major

10=very rare

10= very satisfied

10= very slow

Table 12 represents the descriptive statistics of failure categories. The failure categories are divided into five: customer service and operation, documentation, finance and accounting, marketing and sales and port operations. All the failure categories are presented in detail with regard to the count, percentage, cumulative percentage, failure magnitude, failure frequency, recovery satisfaction and recovery responsiveness dimensions. The most frequently observed failure category in the customer's perspective is the customer service and operation category. The second most frequent category is port operations with 19.4%. Moreover, the highest failure magnitudes are affiliated with marketing and sales failures where as the rarest failures with the lowest frequency rates are affiliated with port operations. In addition, the lowest customer satisfaction from recovery is seen in failures related with marketing and sales category; also, the highest level of customer satisfaction is observed in customer service and operation failures. The slowest recoveries are affiliated with marketing and sales failures as well. Therefore, parallel to the literature it can be concluded that slow recoveries affect the satisfaction from the recovery negatively. Likewise, the fastest recoveries are within the customer service and operation failures and the recovery satisfaction is highest in that category as

well.

Table 13. Failure Category Classification: Customer Perspective

	Count (N)	Per. (%)	Cum. Per. (%)
FAILURE CATEGORIES			
Customer service / Operation	67	62	
Carrier failure	0	0.0	0
Packaging	0	0.0	0
Customer unawareness	0	0.0	0
Operational	0	0.0	0
Logistics service provider unawareness	1	0.9	0.9
Damage	12	11.1	11.1
Delay	10	9.3	21.3
Lost shipment	4	3.7	25
Miscommunication	7	6.5	31.5
Regulatory Issues	1	0.9	32.4
Service unavailability	17	15.7	48.1
Stuffing	5	4.6	52.8
Tonnage difference	1	0.9	53.7
Transfer failure	1	0.9	54.6
Trust violation	1	0.9	55.6
Wrong delivery	7	6.5	62
Documentation	12	11.1	73.1
Marketing/ Sales	3	2.8	73.1
Customer unawareness	0	0.0	73.1
Operational	0	0.0	73.1
Misappropriation by customer	0	0.0	73.1
Extra charge	3	2.8	75.9
Finance / Accounting	5	4.6	75.9
Customer unawareness	0	0.0	75.9
Documentation	3	2.8	78.7
Invoice failure	2	1.9	80.6
Port operations	21	19.4	80.6
Operational	0	0.0	80.6
Carrier failure	0	0.0	80.6
Customer unawareness	0	0.0	80.6
Regulatory issues	0	0.0	80.6
Wrong delivery	0	0.0	80.6
Damage	6	5.6	86.1
Delay	9	8.3	94.4
Lost Shipment	2	1.9	96.3
Service unavailability	3	2.8	99.1
Stuffing	1	0.9	100
Total	108	100	

Table 13 shows that service unavailability, damage and delay are the most frequent service failures customers are faced with under the customer service and

operations category. However, damage and delay are the most frequent service failures in port operations as well. Therefore, it can be said that the most common service failures are delay, damage and service unavailability respectively.

Table 14 represents that most common failure sources are carriers and 3PL's with 87, 7 % of all the service failures collectively. However, this can be due to the unawareness of the customer regarding the other members involved in the supply chain since 3PL's are their contacts. To clarify the source categories the distinction between carriers, hauliers, network members and 3PL's might be in order. The carrier is the party 3PL's arrange the transportation with; these may be shipping lines, truck companies, airlines etc. However, hauliers are distinctly categorized as the party responsible for inland transportation activities. The network members are the 3PL customer's customer or the 3PL's agency abroad.

Table 14. Failure Source Classifications: Customer Perspective

	Count (N)	Per. (%)	Cum. Per. (%)
Failure Source			
Railway Operator	0	0	0
Lashing Company	0	0	0
Carrier	32	29.6	29.6
Customer	1	0.9	30.6
Customs Broker	1	0.9	31.5
Government Bodies	1	0.9	32.4
Haulier	5	4.6	37.0
3PL	62	57.4	94.4
Network Member	1	0.9	95.4
Port	2	1.9	97.2
Warehouse Operator	3	2.8	100.0
Total	108		

(2). Course of the Service Failure: Recovery Strategies Implemented by the 3PL

It is clear in Table 15 that symbolic recovery is the most commonly used recovery strategy by 3PL's from the customers' perspective. The symbolic recovery strategy entails: apology, assistance and correction activities by the 3PL upon the service failure. The recovery effort below is an example of the assistance activities within the symbolic service recovery.

".... They got the carrier to extend the ship's cut-off for our shipment"
Customer #29

Table 15. Recovery Classification: Customer Perspective

Recovery Classification	Frequency	Per. (%)	Cum. Per. (%)
Mixed	12	11.1	11.1
No recovery	26	24.1	35.2
Symbolic	51	47.2	82.4
Utilitarian	19	17.6	100
Total	108	100	

(3). The Result of the Service Failures and Recovery Strategies: Customer Perspective

The customer reactions to the service failure and recovery are listed in the Table 16. One of the most interesting findings here is that there are no cases where the customers' reaction was aligned with the improvement of the relationship with the 3PL. The most frequently observed customer reaction is complaint as it was expected. An example of customer complaint behavior is positioned below.

“We told the 3PL that the failure is their responsibility and we would stop working with them in case they could not fix it”

Customer #35

Table 16. Customer Reaction Classification: Customer Perspective

Customer Reaction	Count (N)	Per. (%)	Cum. Per. (%)
Improved Relationship	0	0	0
Weakened Relationship	2	1.9	1.9
Complaint	59	54.6	56.5
Correction	11	10.2	66.7
Legal Action	6	5.6	72.2
Negative WOM	2	1.9	74.1
No Reaction	10	9.3	83.3
Terminate Relationship	18	16.7	100.0
Total	108	100	

Table 17. Relationship Posterior to Service Failure and Recovery: Customer Perspective

	Frequency	Per. (%)	Cum. Per. (%)
Relationship with 3PL			
Not influenced	48	44.4	44.4
Adjourned	25	23.1	67.6
Improved	3	2.8	70.4
Weakened	32	29.6	100
Total	108	100	

Table 17 shows how the business relationship between parties was affected after the failure and recovery. The relationship posterior to service failure and recovery is mostly not influenced this can be due to number of reasons including the past relationship; contract based working arrangement, power imbalance between parties etc. One significant fact that should be underlined here is that the rarity of improved relationships according to the customers' perspective

4.1.2. 3PL Perspective

The second part of the descriptive statistics focus on the 3PL perspective of the service failures, recovery and their impact on the business relationships they have with their customers. The same cause, course and effect method is implemented here as well.

(1). Cause of the Critical Incident (Service Failure)

The cause of the service failure is investigated under the source and failure type dimensions. The failure types from the 3PL perspective are given in the Table 18 below. It is seen that the majority of the service failures are outcome failures and this time the majority of the shipments are export as oppose to customers perspective.

Table 18. General Overview of the Failure Types: 3PL Perspective

	Frequency	Per. (%)	Cum. Per. (%)
Failure type			
Process Failures	47	43,5	43,5
Outcome Failures	61	56,6	100
Total	108	100	
Shipment Type			
Import Shipments	29	26,9	26,9
Export Shipments	79	73,1	100
Total	108	100	

Table 19 provides a general overview of the failure, recovery and posterior relationships between business parties.

Table 19. Descriptive Statistics of Incidents: 3PL Perspective

Incident	MIN	MAX	MEAN	STD. DEV.
Failure Magnitude	1	10	7.48	1.897
Failure Frequency	1	10	5.84	3.273
Customers satisfaction from recovery	1	10	7.38	2.452
Recovery responsiveness	1	10	4.23	2.505
Customers importance for the 3PL	1	10	6.10	2.503
The past relationship with the customer	1	5	2.27	0.933
The working arrangement between the customer and 3PL	1	2	1.29	0.454

Table 20 identifies the finance and accounting and marketing and sales as the failure categories with the highest magnitudes. Moreover, the most common failures are also marketing and sales but they have the lowest recovery satisfaction rate this may be due to the failure's magnitude rather than its frequency. The highest level of recovery satisfaction is in finance and accounting failures where the recovery response times are the shortest, which explains the high levels of satisfaction.

Table 20. Failure Categorization: 3PL Perspective

Failure Categories	Count (N)	Per. (%)	Cum. Per. (%)	Fail. Magn. *	Fail. Freq. **	Recov. Satis. ***	Recov. Respon. ****
Customer Service/ Operation	52	48.1	48.1	7.34	6.46	7.44	4.26
Documentation	17	15.7	15.7	7.88	6.35	7	4.47
Finance/ Accounting	7	6.5	70.4	8	5.42	8.42	3.85
Marketing/ Sales	7	6.5	76.9	8	3.5	6.57	5
Port Operations	25	23.1	100	7.2	4.96	7.44	3.88
Total	108	100					

* 1= minor

** 1=very frequent

*** 1=very dissatisfied

**** 1=very quick

10= major

10=very rare

10= very satisfied

10= very slow

Table 21 represents the 3PL failure categories in full detail; how many failures were observed; documentation, delay and operational failures are the most common service failures in 3PL perspective.

Table 21. Failure Category Classification: 3PL Perspective

	Count (N)	Per. (%)	Cum. Per. (%)
FAILURE CATEGORIES			
Customer service / Operation	69	63.9	
Carrier failure	3	2.8	2.8
Packaging	2	1.9	4.7
Customer unawareness	6	5.6	10.2
Operational	12	11.1	21.3
Logistics service provider unawareness	1	0.9	22.2
Damage	5	4.6	26.9
Delay	11	10.2	37.1
Lost shipment	2	1.9	38.9
Miscommunication	3	2.8	41.7
Regulatory Issues	0	0.0	41.7
Service unavailability	1	0.9	42.6
Stuffing	1	0.9	43.5
Tonnage difference	2	1.9	45.4
Transfer failure	1	0.9	46.3
Trust violation	0	0.0	46.3
Wrong delivery	2	1.9	48.2
Documentation	17	15.7	63.9
Marketing/ Sales	7	6.5	63.9
Customer unawareness	2	1.9	65.8
Operational	2	1.9	67.6
Misappropriation by customer	1	0.9	68.5
Extra charge	2	1.9	70.4
Finance / Accounting	7	6.5	70.4
Customer unawareness	1	0.9	71.3
Documentation	5	4.6	75.9
Invoice failure	1	0.9	76.9
Port operations	35	23.1	76.9
Operational	1	0.9	77.8
Carrier failure	3	2.8	80.6
Customer unawareness	2	1.9	82.4
Regulatory issues	1	0.9	83.4
Wrong delivery	4	3.7	87.1
Damage	6	5.6	92.6
Delay	8	7.4	100
Lost Shipment	0	0.0	100
Service unavailability	0	0.0	100
Stuffing	0	0.0	100
Total	108	100	

Table 22 represents the other part of the cause dimension: source of the failure. The most common sources of failure are carriers, customers and 3PL's from the 3PL perspective. The main difference between the two perspectives is that customer's did not attribute the failure to themselves at all.

Table 22. Failure Source Classification: 3PL Perspective

	Count (N)	Per. (%)	Cum. Per. (%)
Failure Source	0	0	0
Railway operator	1	0.9	0.9
Lashing company	1	0.9	1.8
Carrier	33	30.6	32.4
Customer	31	28.7	61.1
Customs Broker	1	0.9	62.0
Government bodies	1	0.9	62.9
Haulier	5	4.6	67.6
3PL	20	18.5	86.1
Network Member	8	7.4	93.5
Port	4	3.7	97.2
Warehouse operator	3	2.8	100.0
Total	108	100	

(2). Course of the Service Failure: Recovery Strategies by the Third Party Logistics Company

Table 23. Recovery Classification: 3PL Perspective

	Frequency	Per. (%)	Cum. Per. (%)
Recovery Classification			
Mixed	10	9.3	9.3
No recovery	14	13.00	22.2
Symbolic	56	51.9	74.1
Utilitarian	28	25.9	100
Total	108	100	

As shown in Table 23 the most commonly used recovery strategy is symbolic recovery in 3PL perspective as well. The second however, is utilitarian as opposed to customer's perspective where the second most implemented recovery was no recovery at all.

(3). Result of the Service Failures and Recovery Strategies

Table 24. Relationship Posterior to Service Failure and Recovery: 3PL

Perspective

Relationship with customer	Frequency	Per. (%)	Cum. Per. (%)
Not influenced	58	53.7	53.7
Adjourned	6	5.6	59.3
Improved	25	23.1	82.4
Weakened	19	17.6	100
Total	108	100	

The major difference between customer and 3PL perspectives in relationship posterior to service failure and recovery dimension is even though the most frequent affect seems to be no affect at all, the 3PL perspective mentions a lot of improved relationships in Table 24 where as customer perspective barely mentions them at all.

Table 25. Customer Reaction Classification: 3PL Perspective

	Count (N)	Per. (%)	Cum. Per. (%)
Customer reaction			
Improved Relationship	3	2.7	2.7
Weakened Relationship	2	1.8	4.5
Complaint	51	45.5	50.0
Correction	4	3.6	53.6
Legal Action	5	4.5	58.1
Negative WOM	1	0.9	59.0
No Reaction	35	31.3	90.2
Terminate Relationship	11	9.8	100
Total	112	100	

Table 25 presents the customer reaction classifications from 3PL perspective. The customer reaction classification from the 3PL perspective has 112 codes since one customer express more than one reaction to the service failure and recovery. This is simply due to the qualitative methods utilized in the coding that enables for a much detailed analysis and can include cases where the reaction of the customer is consistent with more than one code or sub-code.

4.2. QUALITATIVE FINDINGS

The qualitative findings will only be analyzed in cause, course and effect dimensions in order to present the bigger picture of the findings from a different point of view. The most important contribution of the qualitative study is that it enables for a much detailed and versatile analysis through coding and sub-coding.

4.2.1. Cause of the Critical Incident (Service Failure)

The failure categories utilized in this thesis is represented in the figure below. The main categories are selected in accordance with the third party logistics service providers' standard departments: customer service and operations, documentation, finance and accounting, marketing and sales and port operations. The customer service and operation categories includes: carrier failure, packaging, customer unawareness, operational failures, logistics service provider unawareness, damage, delay, lost shipment, miscommunication, regulatory issues, service unavailability, stuffing, tonnage difference, transfer failure, trust violation and wrong delivery. Documentation refers to the failures due to documentation mistakes by either side of the business transaction. Finance and accounting failures include: customer unawareness, documentation and invoice failures. Failures under the marketing and sales category are: customer unawareness, operational failures, misappropriation by customer and extra charges. Failures under the port operation category are: operational failures, carrier failure, customer unawareness, regulatory issues, wrong delivery, damage, delay, lost shipment, service unavailability and stuffing. The categorization, relationship and the quantity of each failure is represented in the figures below in order to enable distinction between perspectives.

Table 26 presents the count of all the failure category codes and sub codes in full detail and from both perspectives. It can clear be seen that some sub codes are not in common; these refer to basic perspective differences between the business parties. The difference in between may be caused by attribution behavior or the customer's limited knowledge on the processes and network members present in the overall logistics activities related to the shipment.

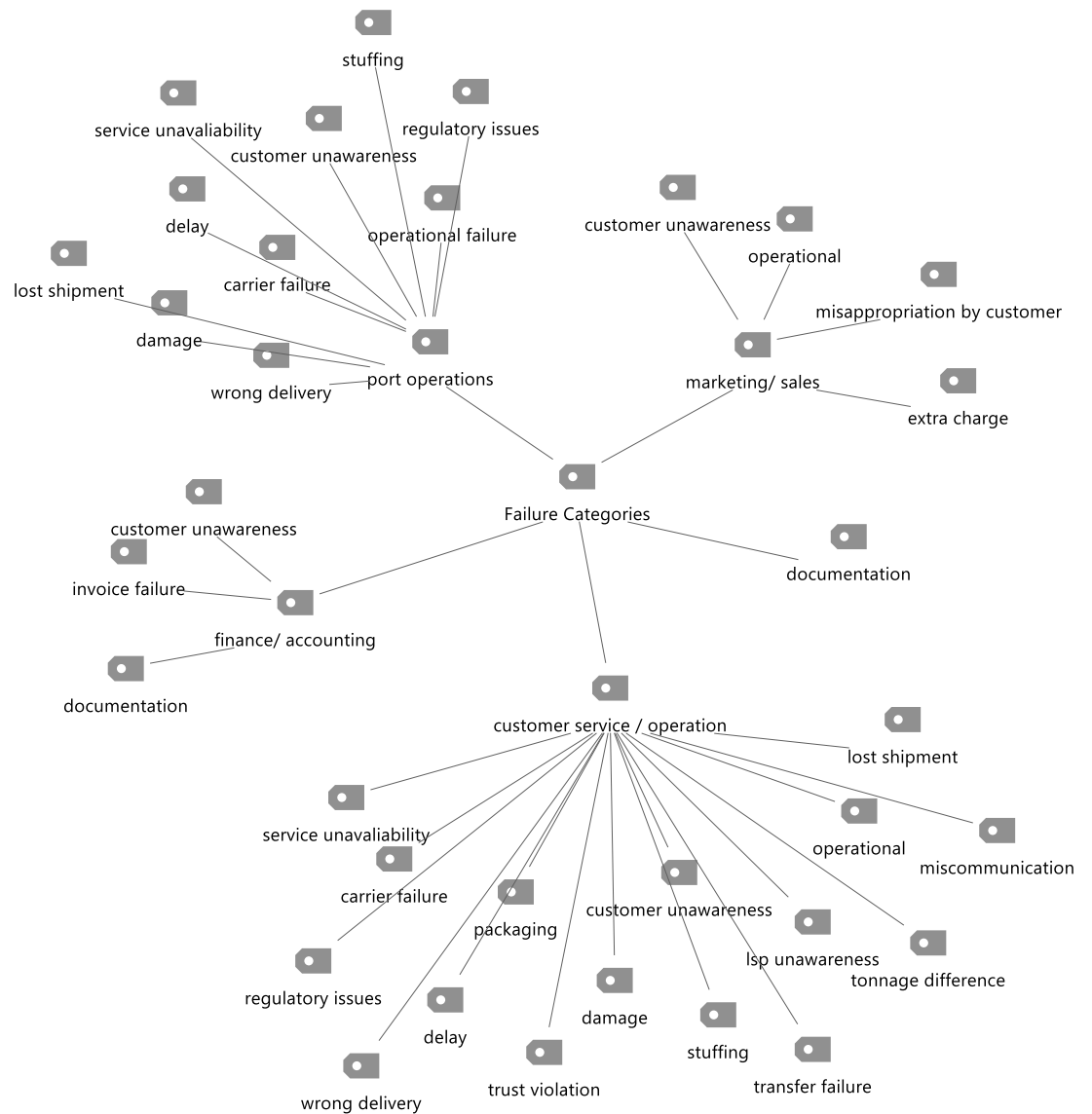
Figure 7 does not include the quantities but presents the code map. The code

map shows all the codes and the sub codes regarding the failure categories and the relationship between them.

Table 26. Failure Category Classification: Both Perspectives

	Customer	3PL	Total
FAILURE CATEGORIES			
Customer Service/ Operation	65	69	134
Carrier Failure	0	3	3
Packaging	0	2	2
Customer Unawareness	0	6	6
Operational	0	12	12
3PL Unawareness	1	1	2
Damage	12	5	17
Delay	10	11	21
Lost Shipment	4	2	6
Miscommunication	7	3	10
Regulatory Issues	1	0	1
Service Unavailability	17	1	18
Stuffing	5	1	6
Tonnage Difference	1	2	3
Transfer Failure	1	1	2
Trust Violation	1	0	1
Wrong Delivery	7	2	9
Documentation	12	17	29
Marketing/ Sales	5	7	12
Customer Unawareness	0	2	2
Operational	0	2	2
Misappropriation By Customer	0	1	1
Extra Charge	3	2	5
Finance/ Accounting	5	7	12
Customer Unawareness	0	1	1
Documentation	3	5	8
Invoice Failure	2	1	3
Port Operations	21	25	46
Operational Failure	0	1	1
Carrier Failure	0	3	3
Customer Unawareness	0	2	2
Regulatory Issues	0	1	1
Wrong Delivery	0	4	4
Damage	6	6	12
Delay	9	8	17
Lost Shipment	2	0	2
Service Unavailability	3	0	3
Stuffing	1	0	1
Total	108	108	216

Figure 7. Failure Category Classification Map: Both Perspectives



The source of the failures was also categorized. The count of every failure source of both parties is listed in Table 27. In addition, Figure 8 presents the occurrence percentages of the failure sources considering both perspectives of the business parties. The majority of the failures were caused by third party logistics service providers (%38). The second most common failure source is carriers (30, 1), followed by customers (14, 8). The rest are hauliers, network members, ports, warehouse operators, government bodies, customs brokers, lashing companies and railway operators.

Table 27. Failure Source Classification of All the CI's Collected

	3PL	Cust	Total
Railway Operator	1	0	1
Lashing Company	1	0	1
Carrier	33	32	65
Customer	31	1	32
Customs Broker	1	1	2
Government Bodies	1	1	2
Haulier	5	5	10
3PL	20	62	82
Network Member	8	1	9
Port	4	2	6
Warehouse	3	3	6
Total	108	108	216

Figure 8. Failure Source Percentages Bar Chart: Both Perspectives

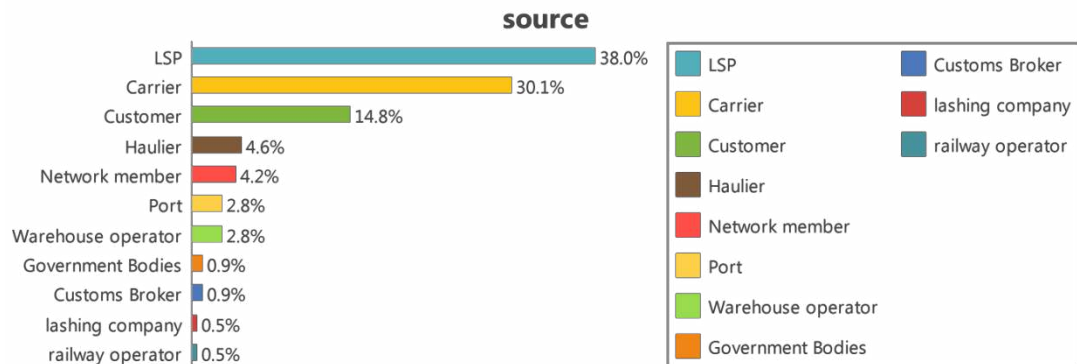
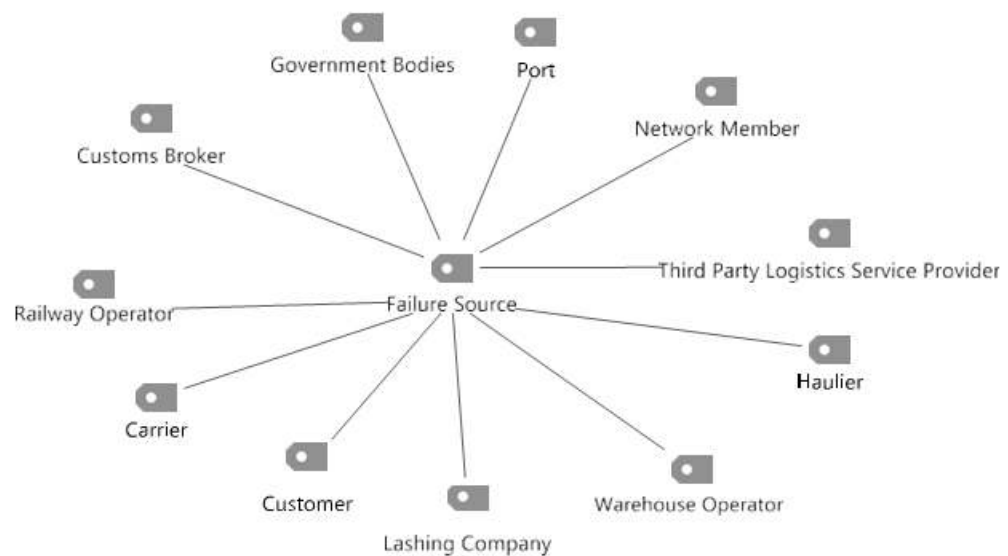


Figure 9 shows the codes and sub codes of the failure sources and the code map consisting of both perspectives.

Figure 9. Failure Source Classification Map: Both Perspectives



4.2.2. Course of the Service Failure: Recovery Strategies by 3PL

The recovery codes and sub codes are presented in Figure 10 and the related code map is in Figure 11. The order of the recovery codes is in compliance with their occurrence orders; the first recovery was a mixed recovery, the second spotted recovery was no recovery, the third new recovery category was symbolic recovery and the final recovery group was utilitarian recovery.

Figure 10. Recovery Classification: Both Perspectives

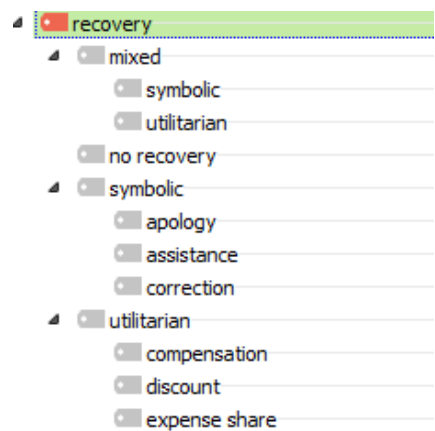
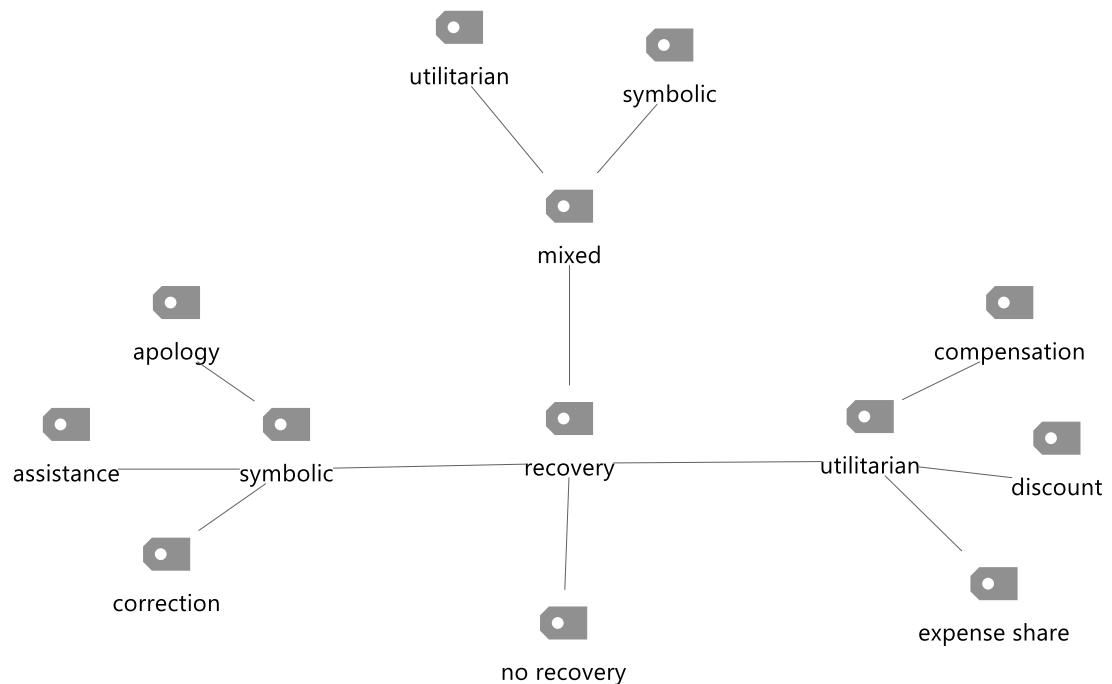


Figure 11. Recovery Classification Map: Both Perspectives



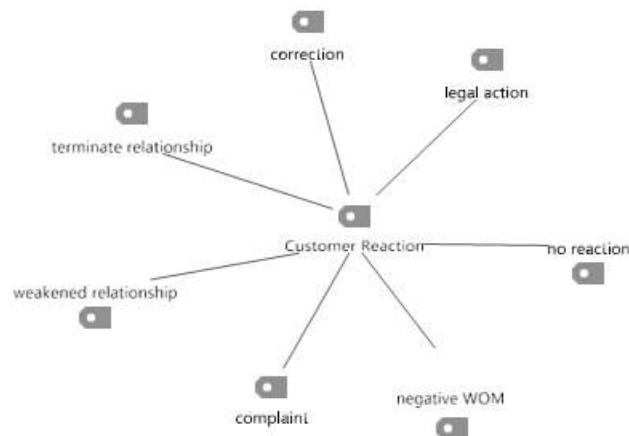
As it can be seen in Figure 12, the related recovery codes are mixed, symbolic, no recover and utilitarian. The sub-codes under utilitarian category are compensation, discount and expense share. Symbolic sub- codes are apology, assistance and correction. And the sub codes for mixed recovery category are utilitarian and symbolic since the mixed recovery strategy consists of both.

4.2.3. Result of the Service Failures and Recovery Strategies

The customer reactions are categorized as shown in the Table 28 below. The categories include: improved relationship, weakened relationship, complaint, correction, legal action, negative word of mouth, termination of the relationship and no reaction. The categorization and the quantities of each code from customers' perspective and third party logistics service providers' perspective is represented in the table below. A total of 216 surveys were coded for customer reactions. Among these 216: 108 were customer's perspective and 108 were 3PL's. In some incidents customers reacted in such a way that required more than one coding. Therefore, a total of 436 customer reactions were coded.

Table 28. Customer Reaction Classification: Both Perspectives

Customer Reaction	3PL	Customer	Total
Improved Relationship	3	0	3
Weakened Relationship	2	2	4
Complaint	51	59	110
Correction	4	11	15
Legal Action	5	6	11
Negative WOM	1	2	3
No Reaction	35	10	45
Terminate Relationship	11	18	29
Total	108	108	216

Figure 12. Customer Reaction Classification Map: Both Perspectives

This thesis utilizes both quantitative and qualitative methods for collecting, identifying, categorizing and analyzing the service failures, service recoveries, customer reactions and their affect on the business relationships between third party logistics service providers and their customers in Turkey. Incidents were collected and from those incidents failure types, categories and sub-categories were identified. Afterwards, recovery strategies applied by third party logistics service providers upon facing aforementioned service failures were also identified and categorized. Moreover, the impact of these failures and recoveries on the relationship between 3PL's and their customers were also identified.

Moreover, the customers' reaction to the overall incidents were also

identified and categorized. All the categorized data was later analyzed through SPSS to test the hypothesized to see if there is a connection between variables and MAXQDA programs were utilized for forming categorization and code maps and double check frequencies between third party logistics service providers' and customers' incidents.

It was commonly stressed that B2B studies in the service failure and recovery research should be expanded. Switching behaviors in B2B context was not widely researched, more so, studies including both satisfied and dissatisfied customer posterior to recoveries are few and finally, the relationship between customers and service providers have not been considered in B2B service sector studies (White and Yanamandram, 2007). This study aims to fill the aforementioned gaps in the literature in addition to presenting the most commonly experienced service failures by third party logistics service providers, most commonly utilized recovery strategies by third party logistics service providers and the affects of these recovery strategies on B2B relationships between third party logistics service providers and their customers. The categorization for the variables considering the unique environment of third party logistics service providers was also represented.

4.3. Hypothesis Tests

4.3.1. Customer Perspective

The hypothesis testing is also examined under customer and 3PL perspective as well. The first is customer's perspective and this section consists of hypotheses proposed and tested with regard to the customer's perspective.

4.3.1.1. Chi- Square Tests

Chi- square tests are utilized in order to test the differences between groups in cross tables (Yazıcıoğlu and Erdoğan, 2014). Chi- square test underlines the statistical significance of the difference between the expected frequencies and observed frequencies and utilizes qualitative data. In addition, chi-square test is

usually utilized in order to test two independent qualitative criteria and look for the relationship in between. Also, the homogeneity of two samples with regard to the same category can be tested by chi-square test as well (Güngör and Bulut, 2008). Moreover, chi-square test is the most frequently used non-parametric test and can be applied in various research topics (Uzungören and Uzungören, 2007).

The entire customer perspective hypotheses regarding chi-square test are listed below:

H₁= There is a relationship between failure type and the relationship with the 3PL posterior to service failure and recovery

H₂ = There is a relationship between failure categories and the relationship with the 3PL posterior to service failure and recovery

H₃= There is a relationship between recovery classification and the relationship with the 3PL posterior to service failure and recovery

H₄= There is a relationship between recovery classification and size of the logistics service customer company

H₅= There is a relationship between the relationship with the 3PL posterior to service failure and recovery and the number of suppliers logistics service customers work with

Table 29. Failure Type and the Relationship with the 3PL: Cross - Tabulation and Chi- Square Test

		Relationship with 3PL				
		Not influenced	Adjourned	Improved	Weakened	TOTAL
Failure Type	Process	8	4	1	2	15
	Outcome	40	21	2	30	93
TOTAL		48	25	3	32	108

$$\chi^2 = 2,913 \text{ p value} = 0,405 \geq 0,05$$

Therefore, H₁= There is a relationship between failure type and the relationship with the 3PL posterior to service failure and recovery is not supported; therefore no further analysis was pursued.

Table 30. Failure Category and the Relationship with 3PL: Cross - Tabulation and Chi- Square Test

		Relationship with The Third Party Logistics Service Providers				TOTAL
		Not influenced	Adjourned	Improved	Weakened	
Failure Categories	Customer Service/	31	14	3	19	69
	Documentation	9	1	0	2	11
	Finance /	2	3	0	0	5
	Marketing / Sales	0	1	0	2	3
	Port Operations	6	6	0	9	21
	TOTAL	44	19	3	30	96

$$\chi^2 = 16,400 \text{ p value} = 0,174 > 0,05$$

H₂ = There is a relationship between failure categories and the relationship with the 3PL posterior to service failure and recovery is not supported; therefore no further analysis was pursued.

Table 31. Recovery Classification and the Relationship with the 3PL: Cross-Tabulation and Chi- Square Test

		Relationship with 3PL				TOTAL
		Not influenced	Adjourned	Improved	Weakened	
Recovery Classification	Mixed	8	1	0	3	12
	No	9	9	0	8	26
	Symbolic	23	11	2	15	51
	Utilitarian	8	4	1	6	19
	TOTAL	48	25	3	32	108

$$\chi^2 = 6,474 \text{ p value} = 0,692 > 0,05$$

H₃= There is a relationship between recovery classification and the relationship with the 3PL posterior to service failure and recovery is not supported therefore, no further analysis was pursued.

Table 32. Recovery Classification and the 3PL Firm Size: Cross-Tabulation and Chi- Square Test

		Logistics Service Customer Firm Size				TOTAL
		1-9 persons	10-49 persons	50-250 persons	More than 250	
Recovery Classification	Mixed	0	2	6	4	12
	No recovery	1	8	7	10	26
	Symbolic	9	11	11	20	51
	Utilitarian	1	1	4	13	19
TOTAL		11	22	28	47	108

$$\chi^2 = 15,717 \text{ p value} = 0,073 \geq 0,05$$

H₄= There is a relationship between recovery classification and size of the logistics service customer company is not supported therefore no further analysis was pursued.

Table 33. Number of Suppliers the Logistics Service Customers Work With and Relationship with 3PL: Cross-Tabulation and Chi- Square Test

		Number of suppliers the logistics service customers work with				TOTAL
		1-3 suppliers	4-6 suppliers	7-9 suppliers	More than 10 suppliers	
Relationship with 3PL	Not Influenced	10	16	2	19	47
	Adjourned	9	9	2	5	25
	Improved	1	1	1	0	3
	Weakened	6	7	4	15	32
TOTAL		26	33	9	39	107

$$\chi^2 = 11,233 \text{ p value} = 0,260 \geq 0,05$$

H₅= There is a relationship between the relationship with the 3PL posterior to service failure and recovery and the number of suppliers logistics service customers work with is not supported and no further analysis was pursued.

4.3.1.2. ANOVA Tests

ANOVA test is used to compare the means of more than two groups and is also known as the variance analysis. However in order to find out which groups differ from the others is found by using post-hoc analysis and Scheffe test (Yazıcıoğlu and Erdoğan, 2014). ANOVA test enables us to explore if the variance between three or more independent sample means is statistically significant or not (Toker, 2007; Bayram, 2004: 80-99)

The entire customer perspective hypotheses regarding ANOVA test are listed below:

- H₆= Failure magnitude differs with regard to the relationship with the 3PL posterior to the service failure and recovery
- H₇= Relationship with the 3PL posterior to service failure and recovery differs with regard to the failure frequency
- H₈= Customer's satisfaction from the recovery differs with regard to the relationship with the 3PL posterior to service failure and recovery
- H₉= The relationship with the 3PL posterior to service failure and recovery differs with regard to the time it took for the recovery
- H₁₀= The recovery classification differs with regard to the importance of the third party logistics service provider to the customer by means of transaction volume
- H₁₁= The relationship with the 3PL posterior to service failure and recovery differs with regard to the importance of the third party logistics service provider to the customer by means of transaction volume
- H₁₂= The relationship with the 3PL posterior to service failure and recovery differs with regard to the length of the past relationship between the parties

Table 34. Failure Magnitude and the Relationship with the 3PL Descriptive Statistics

Relationship with 3PL	MEAN	ST. DEV.	MIN	MAX
Not influenced	6.77	2.390	2	10
Adjourned	8.44	1.660	4	10
Improved	8.00	1.000	7	9
Weakened	7.41	2.092	3	10

p value=0,019 $\leq$ 0, 05

H_6 = Failure magnitude differs with regard to the relationship with the 3PL posterior to the service failure and recovery is supported.

This one- way ANOVA analysis yielded homogeneity of variance value of 0, 54 $\geq$ 0, 05 therefore post hoc analysis was conducted. The post hoc test results are shown in Table 35. The analysis showed that “not influenced” and “adjourned” groups have a Scheffe value of 0,022 and show a significant difference between the aforementioned group’s means.

Table 35. Post-Hoc Test Results for Failure Magnitude and the Relationship with 3PL

Relationship with 3PL		Mean Difference	Std. Error	Sig.
Not Influenced	Adjourned	-1.669	0.526	0.022
	Improved	-1.229	1.268	0.816
	Weakened	-0.635	0.486	0.637
Adjourned	Not Influenced	1.669	0.526	0.022
	Improved	0.440	1.302	0.990
	Weakened	1.034	0.569	0.352
Improved	Not Influenced	1.229	1.268	0.816
	Adjourned	-0.440	1.302	0.990
	Weakened	0.594	1.287	0.975
Weakened	Not Influenced	0.635	0.484	0.637
	Adjourned	-1,034	0.569	0,352
	Improved	-0,594	1.287	0.975

Table 36. Failure Frequency and the Relationship with the 3PL Descriptive Statistics

	MEAN	ST. DEV.	MIN	MAX
Relationship with 3PL				
Not influenced	5.96	3.300	1	10
Adjourned	4.88	3.655	1	10
Improved	7.67	3.215	4	10
Weakened	6.09	3.094	1	10

p value=0,364 $\geq$ 0, 05

H₇= Relationship with the 3PL posterior to service failure and recovery differs with regard to the failure frequency is not supported and no further analysis was pursued.

Table 37. Customer's Satisfaction from the Recovery and the Relationship with the 3PL Descriptive Statistics

Relationship with 3PL	MEAN	ST. DEV.	MIN	MAX
Not influenced	6.44	2.287	1	10
Adjourned	2.12	2.205	1	10
Improved	9.33	0.577	9	10
Weakened	4.09	2.333	1	8
Total	4.82	2.929	1	10

p value=0,000 $\leq$ 0, 05

H₈= Customer's satisfaction from the recovery differs with regard to the relationship with the 3PL posterior to service failure and recovery is supported.

It is seen that for the relationship to be improved the customer must rate their satisfaction at least 9 out of 10. The homogeneity variance was 0,133 therefore a post-hoc analysis was performed and the Scheffe result represented that “not influenced” and “adjourned” relationships show a statistically significant difference (0,000). Moreover, “not influenced” and “weakened relationships” also show a statistically significant difference (0,000), “adjourned” and “improved” relationships show a statistically significant difference (0,000), “adjourned” and “weakened” relationships show a statistically significant difference (0,017). And

finally, “improved” and “weakened” relationships show a statistically significant difference (0,003). The only two groups that a statistical significance was not detected were “not influenced” and “improved” relationships. Therefore, it can be concluded that whether the future relationship is improved or not influenced does not differ with regard to the customer’s satisfaction from recovery.

Table 38. Post-Hoc Test Results for Customer’s Satisfaction from the Recovery and the Relationship with 3PL

Relationship with 3PL		Mean Difference	Std. Error	Sig.
Not Influenced	Adjourned	4.318	0.558	0.000
	Improved	-2.896	1.346	0.208
	Weakened	2.344	0.516	0.000
Adjourned	Not Influenced	-4.318	0.558	0.000
	Improved	-7.213	1.382	0.000
	Weakened	-1.974	0.604	0.017
Improved	Not Influenced	2.896	1.346	0.208
	Adjourned	7.213	1.382	0.000
	Weakened	5.240	1.365	0.003
Weakened	Not Influenced	-2.334	0.516	0.000
	Adjourned	1.974	0.604	0.017
	Improved	-5.240	1.365	0.003

Table 39. Recovery Responsiveness and the Relationship with the 3PL Descriptive Statistics

Relationship with the 3PL	MEANST. DEV.		MINMAX	
Not influenced	4,56	2,649	1	10
Adjourned	7,68	3,185	1	10
Improved	3,00	1,000	2	4
Weakened	6,31	2,416	2	10

p value=0,000 ≤ 0, 05

H₉= The relationship with the 3PL posterior to service failure and recovery differs with regard to the time it took for the recovery is supported.

It is seen that for the relationship to be improved the time for recovery should be as short as possible, to be more specific the customer should evaluate the time a maximum of 4 out of 10. The homogeneity variance was $0,038 \leq 0,05$ therefore a post hoc analysis was not performed.

Table 40. The Importance of the 3PL to the Customer by Means of Transaction Volume and Recovery Classification Descriptive Statistics

Recovery Classification	MEANST. DEV.		MINMAX	
Mixed	7,08	2,353	1	10
No Recovery	5,96	3,092	1	10
Symbolic	6,00	2,735	1	10
Utilitarian	6,16	2,814	1	10

p value=0,662 > 0,05

H₁₀= The recovery classification differs with regard to the importance of the third party logistics service provider to the customer by means of transaction volume is not supported.

The table represents that, if the third party logistics service provider accounts for most of the shipments belonging to the customer, the applied recovery strategy will change accordingly. If the third party logistics service provider accounts for less than half of the shipments belonging to the customer, the chances of pursuing no recovery is increased.

Table 41. The Importance of the 3PL to the Customer by Means of Transaction Volume and the Relationship with 3PL Descriptive Statistics

Relationship with 3PL	MEANST. DEV.		MINMAX	
Not influenced	6,94	2,538	2	10
Adjourned	5,36	3,353	1	10
Improved	8,00	2,646	5	10
Weakened	5,38	2,324	1	10

p value=0,020 ≤ 0,05

H_{11} = The relationship with the 3PL posterior to service failure and recovery differs with regard to the importance of the third party logistics service provider to the customer by means of transaction volume is supported.

The table represents that, if the third party logistics service provider handles most of the shipments of the customer, the relationship with the third party logistics service provider is most likely to improve or not get influenced at all. The chances for an adjourned relationship or a weakened relationship between the parties are only possible when the transaction volume between the parties is not that high. The homogeneity variance was $0,038 \leq 0,05$ therefore post hoc analysis was not performed

Table 42. The Length of the Past Relationship with 3PL and the Relationship with the 3PL Posterior to Service Failure and Recovery Descriptive Statistics

Relationship with the 3PL	MEANST. DEV.		MINMAX	
Not influenced	3,19	1,154	2	5
Adjourned	1,91	0,996	1	4
Improved	4,00	1,000	3	5
Weakened	2,88	1,100	1	5
p value= $0,000 \leq 0,05$				

H_{12} = The relationship with the 3PL posterior to service failure and recovery differs with regard to the length of the past relationship between the parties and is supported.

For the relationship between parties to improve after the service failure and recovery the past relationship must be at least 4-6 years, and no relationship that was older than 10 years were adjourned due to the service failure. The relationships that lasted less than 1 years either got adjourned or weakened after the service failure and recovery. The homogeneity variance was $0,591 \geq 0,05$ therefore post-hoc analysis was pursued. The analysis yielded only adjourned relationships show statistically significant differences with the other groups.

Table 43. Post-Hoc Test Results for the Relationship with the 3PL Posterior to Service Failure and Recovery and the Length of the Past Relationship

Relationship with 3PL		Mean Difference	Std. Error	Sig.
Not Influenced	Adjourned	1.278	0.280	0.000
	Improved	-0.809	0.656	0.679
	Weakened	0.316	0.253	0.667
Adjourned	Not Influenced	-1.278	0.280	0.000
	Improved	-2.087	0.676	0.027
	Weakened	-0.962	0.301	0.021
Improved	Not Influenced	0.809	0.656	0.679
	Adjourned	2.087	0.676	0.027
	Weakened	1.125	0.665	0.418
Weakened	Not Influenced	-0.316	0.253	0.667
	Adjourned	0.962	0.301	0.021.
	Improved	-1.125	0.665	0.418

4.3.2. 3PL Perspective

The second section of hypothesis testing consists of hypothesis tests with regard to 3PL perspective. The tests are chi- square and ANOVA respectively.

4.3.2.1. Chi- square Tests

The entire 3PL perspective hypotheses regarding chi-square test are listed below:

H₁₃: There is a relationship between the failure type and relationship with the customer

H₁₄: There is a relationship between the failure category and relationship with the customer

H₁₅: There is a relationship between the recovery category and relationship with the customer

H₁₆= There is a relationship between the existence of foreign partners in the

third party logistics service provider and the recovery classification

H₁₇= There is a relationship between the educational levels of the third party logistics service provider respondents and recovery classification

H₁₈= There is a relationship between the recovery classification and firm size

H₁₉= There is a relationship between the third party logistics service provider company's age and recovery classification

Table 44. Failure Type and the Relationship with the 3PL Customer: Cross – Tabulation and Chi- Square Test

Failure Types		Relationship with the 3PL Customers				TOTAL
		Not influenced	Adjourned	Improved	Weakened	
	Process	28	0	13	6	47
	Outcome	30	6	12	13	61
TOTAL		58	6	25	19	108

$$\chi^2 = 6,991 \quad p \text{ value} = 0,072 > 0,05$$

Therefore, H₁₃: There is a relationship between the failure type and relationship with the customer is not supported.

However, it can be seen from the table that only outcome failures has caused the relationship with the third party logistics service customer to be adjourned posterior to the service failure and recovery, while both outcome and process failures may result in an improved relationship if handled appropriately.

Table 45. Failure Category and the Relationship with the 3PL Customer: Cross-Tabulation and Chi- Square Test

Failure Categories	Customer Service / Operation		Relationship with the 3PL Customers				TOTAL
			Not Influenced	Adjourned	Improved	Weakened	
			30	2	11	9	52
	Documentation		9	2	3	3	17
	Finance	/	1	0	4	2	7
	Accounting						
	Marketing		4	0	1	2	7
	Sales						
	Port Operations		14	2	6	3	25
TOTAL			58	6	25	19	108

$$\chi^2 = 1,179 \quad p \text{ value} = 0,600 > 0,05$$

Therefore, H₁₄: There is a relationship between the failure category and relationship with the customer is not supported.

The table shows that finance/ accounting and marketing/ sales related failures do not occur a lot and when they do, they do not cause the relationship with the Third Party Logistics Service Customers to be terminated. On the other hand, benchmarking may not be the best choice to since the failure category groups are not evenly distributed due to really high occurrences of customer service and operation failures. This may also be due to the extensive contents of the customer service and operation failure category that includes: carrier failure, packaging, customer unawareness, operational failures, logistics service provider unawareness, damage, delay, lost shipment, miscommunication, regulatory issues, service unavailability, stuffing, tonnage difference, transfer failure, trust violation and wrong delivery dimensions with relevance to the customer services and operations provided by the third party logistics service providers.

**Table 46. Recovery Classification and the Relationship with 3PL Customer:
Cross – Tabulation and Chi- Square Test**

		Relationship with the 3PL Customers				TOTAL
		Not Influenced	Adjourned	Improved	Weakened	
Recovery Classification	Mixed	7	1	1	2	10
	No Recovery	8	1	1	4	14
	Symbolic	30	3	19	4	56
	Utilitarian	13	1	5	9	28
	TOTAL	58	6	25	19	108

$$\chi^2 = 16,275 \quad p \text{ value} = 0,061 > 0,05$$

Therefore, H₁₅: There is a relationship between the recovery category and relationship with the customer is not supported.

It is represented in the table that, the use of symbolic recovery strategies like correction, assistance or apology it usually results in an improved relationship with the 3PL Customers or it does not influence the existing relationship at all.

**Table 47. Recovery Classification and the 3PL Foreign Partner Existence:
Cross – Tabulation and Chi- Square Test**

		Foreign Partner of 3PL		TOTAL
		YES	NO	
Recovery Classification	Mixed	2	8	10
	No Recovery	5	9	14
	Symbolic	21	35	56
	Utilitarian	14	14	28
TOTAL		42	66	108

$$\chi^2 = 3,061 \text{ p value} = 0,382 > 0,05$$

H₁₆= There is a relationship between the existence of foreign partners in the third party logistics service provider and the recovery classification is not supported.

The implemented recovery classification is not dependent on the third party logistics service providers' foreign partners. It was presumed that the foreign partners would provide certain know-how on the relationship management issues and the third party logistics service provider company will be more inclined to put more effort into its recovery efforts with the aim of satisfying its customers. It can also be concluded that the Turkish third party logistics service providers do not need a foreign partner to attain the know-how on the relationship management since they already possess it within themselves. However, the analysis provided no proof of a diversification in the recovery efforts between the third party logistics service providers with foreign partners or not.

**Table 48. Recovery Classification and the 3PL Respondent Education Level:
Cross-Tabulation and Chi- Square Test**

		Education Level of the 3PL Respondent			TOTAL
		High school degree	Bachelor's degree	Master's degree	
Recovery Classification	Mixed	0	8	2	10
	No Recovery	1	12	1	14
	Symbolic	2	41	13	56
	Utilitarian	1	22	4	27
TOTAL		4	83	20	107

$$\chi^2 = 2,968 \text{ p value} = 0,813 > 0,05$$

H₁₇= There is a relationship between the educational levels of the third party logistics service provider respondents and recovery classification is not supported.

The implemented recovery classification is not dependent on the third party logistics service providers' employee's education levels. The profile of the respondents from the third party logistics service providers are mainly university graduates only four of them are high school graduates and none of them are middle school or doctorate graduates.

Table 49. 3PL Firm Size and Recovery Classification: Cross – Tabulation and Chi- Square Test

		3PL Firm Size				TOTAL
		1-9 persons	10-49 persons	50-250 persons	More than 250 persons	
Recovery Classification	Mixed	1	1	4	4	10
	No Recovery	3	4	5	2	14
	Symbolic	11	19	16	9	55
	Utilitarian	8	6	8	6	28
TOTAL		23	30	33	21	107

$$\chi^2 = 6,897 \quad \text{p value} = 0,648 > 0,05$$

H₁₈= There is a relationship between the recovery classification and firm size is not supported.

The implemented recovery classification is not dependent on the third party logistics service providers' firm size. However, it can be said that utilitarian recovery strategies are the most commonly used among the rest of the group. These utilitarian recovery strategies are: compensation, discount, expense share.

Table 50. Recovery Classification and the 3PL Firm Age: Cross – Tabulation and Chi- Square Test

		Firm Age					TOTAL
		1-5 years	6-10 years	11-20 years	21-30 years	More than 30 years	
Recovery Classification	Mixed	1	2	1	3	1	9
	No Recovery	5	2	5	4	3	13
	Symbolic	12	3	9	14	8	55
	Utilitarian	8	12	6	5	4	28
TOTAL		26	19	24	15	21	105

$$\chi^2 = 8,249 \quad p \text{ value} = 0,765 > 0,05$$

H₁₉= There is a relationship between the third party logistics service provider company's age and recovery classification is not supported.

The implemented recovery classification is not dependent on the third party logistics service providers' firm age. It was presumed that an older establishment will realize the importance of the recovery and will put more effort into satisfying its customers and aim forming long- term relationships. This was simply because the success of the firm which accounts for its age is expected to be generated from successful relationship management and existing long-term, loyal customers that supported the third party logistics service provider along the way. However, the data provided from the logistics service providers do not supported the aforementioned presumptions in any way. In addition, the sample size of the each age category is not very different from one another so the non-existence of the support for the hypothesis cannot be attributed to the uneven distributions among the samples.

4.3.2.2. ANOVA Tests

The entire 3PL perspective hypotheses regarding ANOVA test are listed below:

H₂₀= The relationship posterior to service failure and recovery with the customer differs with regard to the failure frequency

H₂₁=The relationship posterior to service failure and recovery with the customer differs with regard to the failure magnitude

H₂₂= The relationship with the customer posterior to the failure and recovery differs with regard to the past relationship between parties

H₂₃= Relationship with the 3PL customer posterior to service failure and recovery differs with regard to the customer's importance for 3PL attributable to its transaction volume

H₂₄= Recovery classification differs with regard to the customer's importance for the third party logistics service by means of transaction volume

H₂₅= Relationship with the customer posterior to service failure and recovery differs with regard to the 3PL's perception of their customer's satisfaction with the recovery

H₂₆= The relationship with the customer posterior to service failure and recovery differs with regard to the recovery responsiveness dependent

Table 51. Relationship with the 3PL Customers and Failure Frequency

Descriptive Statistics

Relationship with customer	MEANST. DEV.		MINMAX	
Not Influenced	5,91	3,347	1	10
Adjourned	6,33	3,141	3	10
Improved	5,36	3,277	1	10
Weakened	6,11	3,264	1	10

p value=0,847>0, 05

Therefore, H₂₀: The relationship posterior to service failure and recovery with the customer differs with regard to the failure frequency is not supported.

The p value was 0,847 hence the hypothesis was not supported, due to this

fact no further analysis was pursued. It can also be concluded that, if the failure is really common it most likely will not result in the termination of the relationship with the Third Party Logistics Service Customers. The frequency of the experienced failure is represented in the survey by 1: very common and 10: rarely.

Table 52. Relationship with the 3PL Customers and Failure Magnitude
Descriptive Statistics

Relationship with customer	MEAN	ST. DEV.	MIN	MAX
Not Influenced	7,24	1,904	1	10
Adjourned	7,00	1,265	5	9
Improved	7,60	2,041	1	10
Weakened	8,21	1,751	5	10

p value: 0,240 > 0, 05

Therefore, H_{21} = The relationship posterior to service failure and recovery with the customer differs with regard to the failure magnitude is not supported.

As the table suggests, from the logistics service providers' point of view, for a relationship between the Third Party Logistics Service Customers and the third party logistics service provider to be adjourned or weakened the failure magnitude must be 5 or above. Moreover, the failure magnitude may not to be as high as a 10 from the third party logistics service provider's perspective, but can still result in the adjournment of the relationship between business parties. However, even a high ranked failure magnitude incident may result in an improved relationship as long as it is handled adequately.

Table 53. Relationship with the 3PL Customers and the Length of the Past
Relationship with the Customer Descriptive Statistics

Relationship with customer	MEAN	ST. DEV.	MIN	MAX
Not influenced	2,31	0,940	1	5
Adjourned	2,00	1,095	1	4
Improved	2,28	0,843	1	4
Weakened	2,21	1,032	1	5

p value = 0,879 > 0, 05

Hence the hypothesis H_{22} = The relationship with the customer posterior to the failure and recovery differs with regard to the past relationship between parties is not supported, due to this fact no further analysis was pursued.

The table represents that the relationship posterior to service failure and recovery is not affected by the length of the past relationship between the customer and the third party logistics service provider due to the data provided by the third party logistics service providers. Therefore, the initial expectancy of past relationship to have an impact on the post- failure/ recovery is non-really strong, on the other hand it can be concluded that if the past relationship between parties is longer than 10 years the affect of the failure will be either weakening the relationship or not influencing it at all. Hence, some affect of the past relationship can be observed as well.

Table 54. Relationship with the 3PL Customer and the Customer's Importance for the 3PL by Means of Transaction Volume Descriptive Statistics

Relationship with customer	MEANST. DEV.		MINMAX	
Not influenced	6,26	2,613	1	10
Adjourned	6,60	1,517	5	9
Improved	6,04	2,606	1	10
Weakened	5,58	2,293	1	10

p value =0,742>0, 05

Hence, the H_{23} = Relationship with the 3PL customer posterior to service failure and recovery differs with regard to the customer's importance for 3PL attributable to its transaction volume is not supported, due to this fact no further analysis was pursued.

The data collected from the logistics service providers show that the relationship with the customer is in no way dependent on the importance of the customer in transaction context. This, also do not comply with the assumption we had prior to the analysis of which, if the customer is deemed important the service provider will try and put more effort into the relationship and making amends.

Moreover, it can also be concluded that since the customer hold more power

in the relationship and the third party logistics service provider is dependent on the customer, it is much easier for the customer to terminate the relationship when not satisfied with the way third party handles the situation.

Table 55. Recovery classification and the Customer's Importance for the 3PL by Means of Transaction Volume Descriptive Statistics

Recovery Classification	MEANST. DEV.		MINMAX	
Mixed	6.00	2.357	2	9
No recovery	6.36	3.342	1	10
Symbolic	5.84	2.530	1	10
Utilitarian	6.54	2.045	2	10

p value= 0,660 > 0, 05

H₂₄= Recovery classification differs with regard to the customer's importance for the third party logistics service provider attributable to its transaction volume is not supported, due to this fact no further analysis was pursued.

The data presented on the table, in compliance with the previous table, also shows that the customer importance for the third party logistics service provider by means of transaction volume does not influence the recovery strategy implemented. Only that, a mixed recovery strategy or a utilitarian recovery strategy is implemented for customers with at least a 2 attributed for importance, this may be due to a dependency structure with third party logistics service customer having more power over the third party logistics service provider company.

Table 56. The 3PL's Perception of Their Customer's Satisfaction with the Recovery Descriptive Statistics

Relationship with customer	MEANST. DEV.		MINMAX	
Not influenced	58	1.835	4	10
Adjourned	6	2.000	1	6
Improved	25	1.814	1	10
Weakened	19	2.518	1	10

p value=0,000 $\leq$ 0, 05

H₂₅= Relationship with the customer posterior to service failure and recovery differs with regard to the 3PL's perception of their customer's satisfaction with the recovery is supported.

Therefore the third party logistics service providers' perception of their customer's satisfaction with the recovery and the relationship with the customer is dependent. The homogeneity variance was $0,012 \leq 0, 05$ thus, post hoc analysis was performed. The Scheffe results represented that all relationship groups show statistically significant differences between one another with the exception of not influenced and improved relationships. These two groups show significant differences between any other groups but with each other.

Table 57. Post-Hoc Test Results For The 3PL's Perception of Their Customer's Satisfaction from Recovery and Relationship with the Customer Posterior To Service Failure and Recovery

Relationship with 3PL		Mean Difference	Std. Error	Sig.
Not Influenced	Adjourned	4.707	0.846	0.000
	Improved	-1.253	0.472	0.077
	Weakened	2.023	0.522	0.003
Adjourned	Not Influenced	-4.707	0.446	0.000
	Improved	-5.960	0.897	0.000
	Weakened	-2.684	0.924	0.043
Improved	Not Influenced	1.253	0.472	0.077
	Adjourned	5.960	0.897	0.000
	Weakened	3.276	0.601	0.000
Weakened	Not Influenced	-2.023	0.522	0.003
	Adjourned	2.684	0.924	0.043
	Improved	-3.276	0.602	0.000

Table 58. The Recovery Responsiveness of 3PL Descriptive Statistics

Relationship with customer	MEAN	ST. DEV.	MIN	MAX
Not influenced	58	2.216	1	10
Adjourned	6	2.251	5	10
Improved	25	1.855	1	7
Weakened	19	2.460	2	10

p value=0,000 $\leq$ 0, 05

H₂₆= The relationship with the customer posterior to service failure and recovery differs with regard to the recovery responsiveness dependent is supported. Therefore the time it took for third party logistics service providers' to recover and the relationship with the customer is dependent. Also, the homogeneity variance is 0,233 > 0, 05 therefore, further post-hoc analyses was not carried out. Table 59 presents the entire hypothesis testing results below.

Table 59. Hypothesis Testing Results

Hypothesis #	Proposed Relationships		Hypothesis
H ₁	Failure type	→ The relationship with the 3PL posterior to service failure and recovery	Not Supported
H ₂	Failure category	→ The relationship with the 3PL posterior to service failure and recovery	Not Supported
H ₃	Recovery classification	→ The relationship with the 3PL posterior to service failure and recovery	Not Supported
H ₄	Recovery classification	→ Size of the 3PL	Not Supported
H ₅	The relationship with the 3PL posterior to service failure and recovery	→ Number of suppliers logistics service customer work with	Not Supported
H ₆	Failure magnitude	→ The relationship with the 3PL posterior to service failure and recovery	Supported
H ₇	The relationship with the 3PL posterior to service failure and recovery	→ Failure frequency	Not Supported
H ₈	Customer's satisfaction from the recovery	→ The relationship with the 3PL posterior to service failure and recovery	Supported
H ₉	Time it took for recovery	→ The relationship with the 3PL posterior to service failure and recovery	Supported
H ₁₀	The importance of 3PL to the customer	→ Recovery classification	Not Supported
H ₁₁	The importance of 3PL to the customer	→ The relationship with the 3PL posterior to service failure and recovery	Supported
H ₁₂	The length of past relationship between the 3PL provider and the customer	→ The relationship with the 3PL posterior to service failure and recovery	Supported
H ₁₃	Failure type	→ Relationship posterior to service failure and recovery with the customer	Not Supported
H ₁₄	Failure category	→ Relationship posterior to service failure and recovery with the customer	Not Supported
H ₁₅	Recovery classification	→ Relationship posterior to service failure and recovery with the customer	Not Supported
H ₁₆	Existence of foreign partners in the 3PL	→ Recovery classification	Not Supported
H ₁₇	Educational levels of the 3PL respondents	→ Recovery classification	Not Supported
H ₁₈	3PL company size	→ Recovery Classification	Not Supported
H ₁₉	3PL company age	→ Recovery Classification	Not Supported
H ₂₀	Failure Frequency	→ Relationship posterior to service failure and recovery with the customer	Not Supported
H ₂₁	Failure magnitude	→ Relationship posterior to service failure and recovery with the customer	Not Supported
H ₂₂	The length of past relationship between the 3PL and the customer	→ Relationship posterior to service failure and recovery with the customer	Not Supported
H ₂₃	Relationship posterior to service failure and recovery with the customer	→ The importance of customer for 3PL	Not Supported
H ₂₄	Recovery Classification	→ The importance of customer for the 3PL	Not Supported
H ₂₅	Relationship posterior to service failure and recovery with the customer	→ 3PL's perception of their customer's satisfaction with the recovery	Supported
H ₂₆	Recovery Responsiveness of 3PL	→ Relationship posterior to service failure and recovery with the customer	Supported

CONCLUSIONS

This research has investigated service failures and recovery strategies implemented by 3PL's in the logistics services from both customer's and 3PL's perspectives. In order to analyze service failures and recovery strategies this research has utilized CIT. Although CIT has been widely used in consumer markets there is limited example in B2B services therefore, this study fills the gap in the related literature. It was found that CIT is also useful in analyzing service failures and recovery strategies B2B services setting as well. The freedom this technique allows enables to gather rich information from the individuals whom experienced the failures first hand.

The literature shows that consumer markets involve relatively more relational failures whereas B2B failures are mostly output failures since the focus is on the result. After the data collection through CIT and analysis, the failure types from the customers' point of view were categorized. The outcome failures are 88.1 % (93) and process failures are 13.8% (15). This is mostly due to the time sensitivity of the logistics services and the customer's likelihood of remembering the worst of the worst. From the 3PL perspective process failures were 43, 5 % (47) and outcome failures are 56, 5% (61). The 3PL perspective yielded a larger quantity of process failures; this may be due to the total awareness of the process by the 3PL's when compared to the customers. Even though in service settings customers are involved in the service proving process, they may not be fully aware of all the details. Hence, unlike the literature suggests, 3PL service providers may be able to conceal the failure from the customer if they can fix it before hand. The literature suggests that failure types influence the implemented recovery strategies. Moreover, for outcome failures the utilitarian recovery strategies and for process failures the symbolic recovery strategies are expected as well. However this study did not find any evidence that supports this.

CIT provided sufficient information for classification of the failure categories as well. These categories are customer service and operation, documentation, finance and accounting, marketing and sales and port operations. All the failure categories fall under outcome and process failures according to the

impact of the failure on the overall logistics activity (cancellation/ delay), and the sensitivity of the shipment (urgent, routine). A delay regarding an urgent shipment is an outcome failure whereas the same delay for a routine shipment can be considered process failure.

The most frequently observed failure categories from the customer perspective are: customer service and operations and port operations. On the other hand the most frequent failure categories are customer service and operations and port operations from the 3PL's perspective as well. This is due to the nature of the logistics services 3PL's provide. The majority of the services provided by 3PL's include customer interaction and the port operations including stuffing, transfer, carrier activities, transit times etc.

On the recovery side, the most common recovery strategy is symbolic recovery in both perspectives. This is probably due to its simplicity. The symbolic recovery includes apology, correction and assistance. These include extending apologies to the customer due to the service failure, trying to get extra time for stuffing from the carrier, arranging extra air cargo in order to overcome the negative outcomes of a delay etc. However, the analysis showed no evidence of recovery strategies affecting the relationship between the 3PL and their customer's relationship posterior to service failure and recovery. On the other hand, it must be noted that even though the recovery classification itself presented no evidence as such, the customer's satisfaction with the implemented recovery from both perspectives has found to be positively related with the relationship between business parties posterior to service failure and recovery. Thus, the significance is not what has been done but rather what the customer expected to be done which affects the customer's satisfaction directly. Therefore these findings are parallel to the equity theory literature; customer expectation is key in customer satisfaction of recovery.

Moreover, the recovery responsiveness, the recovery time lapse is also a significant contributor to the relationship between business parties posterior to service failure and recovery in both perspectives. The timeliness of the recovery is almost as significant as the recovery itself. These findings are also in compliance with the literature.

The following relationships were found only in the customer's perspective. As the literature suggests failure magnitude and relationship between business parties posterior to service failure and recovery has been found to be interrelated in customer's perspective however, 3PL perspective did not yield such results. The difference here may be due to the difference in determining the magnitudes of the failure. Literature suggests that the influence of failure magnitude on the satisfaction level of customer is directly related with the perceived inequity of the exchange. Therefore, it can be said that customers' perceptions on the inequity of the exchange are not parallel to those of 3PL's. The literature also suggests that the failure magnitude has an impact on satisfaction, trust, loyalty, customer retention, evaluation of the service provider, customer's future relationship with the service provider, commitment and negative WOM.

The past relationship between 3PL and the customer is only an important factor for the relationship between business parties posterior to service failure and recovery in customer perspective. This is also in co-ordinance with the relationship management literature however; the 3PL perspective presented no evidence of interrelation with past relationship between parties.

The importance of the 3PL for the customer and relationship between business parties posterior to service failure and recovery has found to be interactive in customer's perception as well. This is in compliance with the dependence structure literature regarding the power imbalance between the parties. However, the same did not occur in 3PL perspective, the reasoning behind it may be related to the 3PL's arranging their recovery strategies without considering the importance attributions of the customer.

In addition the sources of the failures were also identified and categorized. These are: railway operator, lashing company, carrier, customer, customs broker, government bodies, haulier, 3PL's, network members, ports, warehouse operators. The most common failure sources are carriers and 3PL's in customer perceptions where are 3PL perceptions focus on carriers, 3PL's and customers as failure sources. The absence of customers as a failure source in the customer perspective may be due to the external attributions of the customers regarding the failure.

Theoretical Implications

Most of the CIT research on service focuses on B2C services like banking, hospitality, restaurant, airline travel, retail and public transport and are mainly focused on service encounter and interactions. However, this research analyzed the third party logistics service failures and recoveries and contributed to the B2B service literature. As it was previously mentioned, all services have specifically distinctive characteristics and the failures and recoveries related to them differ from service to service. The service failure classification of 3PL services and B2C services are similar in the sense that recovery timeliness is crucial. On the other hand 3PL services differ from B2C services with regard to the involvement of the customer, professionalism of the customer, focus on the end result and complexity level due to many parties in logistics services. Due to the focus on end result and the level of professionalism of both parties in 3PL services could also explain why there are fewer process failures as well. These findings are also in compliance with Lockshin & McDougall (1998) on wine retailing, where the service outcomes in industrial markets were expressed to be generally outcome issues such as delay or damage.

The previous studies on consumer services focused on service provider's employees impact on customers' satisfaction or dissatisfaction and provided insight on that dimension of service failures and recovery whereas this study focuses on negative critical incidents that impact customers' satisfaction or dissatisfaction in all 3PL services rather than service failures due to 3PL employees alone. Also, these critical incidents have been investigated under failure magnitude, failure frequency, recovery responsiveness, customers' satisfaction, the past relationship between parties, the working arrangement between parties, and the power imbalance in the relationship.

The results concluded that CIT is an effective method in B2B service failure and recovery strategy research. Likewise, Durvasula et al., (2000) examining maritime transport recovery strategies and customer satisfaction also concluded that CIT is a useful method for effective service development in B2B services. Also, past research mostly focused on customers' side of the service failures and rarely service providers', while this study utilizes a dyadic approach and includes the both

customers' perspective and the 3PL's perspective to present the whole picture while increasing reliability and validity in B2B services. Furthermore, this study measured the impact on the relationship with customers' customer and service provider's supplier as well.

Service literature suggest distribution channels and service delivery is short however, unlike literature this study examining 3PL service failures and recoveries take into account many actors contributing to the service delivery process in 3PL services such as hauliers, carriers, customs brokers, ports, logistics network members, warehouse operators, government bodies etc. therefore, presenting that logistics services can be disrupted by other parties than just the customer and the service provider and contribute to the B2B service literature and the 3PL literature.

Practical Implications

The study concluded that majority of the 3PL service failures are caused by carrier failures. Hence, 3PL's should be more careful in selecting and evaluating the carriers they work with and keep in mind that 3PL's are responsible to customers just as carriers should be responsible to 3PL's.

CIT utilization revealed insight on how most of the 3PL service failures are related to customer service and operations and this stage is where the 3PL employees are most involved. Therefore, 3PL service employee performance evaluations, employee training, prioritizing hiring applications, monitoring employee and customer interactions and enforcing strict rules for maintaining service quality could be utilized by 3PL's in order to provide seamless, sustainable service to their customers' and keep the relationships in between nurtured.

Likewise, 3PL's should focus more on their complaint managements and claim handling processes in order to improve the customer service quality and customer satisfaction. The effective usage of complaint handling and analyzing will also enable 3PL's to effectively recognize the most problematic areas and dimensions of service quality and implement recoveries in a timely manner. The complaint handling departments are existent in shipping lines and their agents 3PL's usually do not have such a department. The forming of the aforementioned department will provide itself useful for service quality and customer satisfaction

purposes.

On the other hand customers utilize supplier performance evaluation systems that enable them to evaluate the 3PL's they work with. Afterwards customers select high quality service providers to work with using these systems. It is also advised for customers to renew or switch from 3PL's that do not provide the required quality services. Moreover, customers that do not utilize such systems are advised to do so.

Moreover, utilizing advanced information technologies that enable seamless information exchange between parties with minimum human error will help prevent failures regarding miscommunication and documentation. It has also been observed that both 3PL's and shipping lines have been heavily investing in information and communication technologies in order to avoid or minimize such failures.

Furthermore, 3PL's should adopt a rather proactive approach towards service recovery and from quality management and quality improvement systems within the organization. The causes of service failures must be identified using quality systems and the required improvements with regard to these failures must be carried out. Likewise, the improvement of the employees' attitudes toward customers and their competency regarding their jobs should be improved for guaranteeing high service quality and customer satisfaction.

Considering the complexities of the logistics services failures are unavoidable especially those regarding damage and delay. Therefore, obtaining liability insurance with regard to such failures can be an effective way for 3PL's to both recover from the failure and gain customer's trust.

Further Research and Limitations

The finding of this research in compliance with Bitner et al., 1994 in a way that both customers and service providers are found to be the failure source. Therefore, the service failures must be investigated in customer, 3PL and also other contributing parties' perspectives in B2B services.

In addition to this due to the complexity of 3PL services, there are a great many of actors contributing to the realization of the third party logistics service.

Such as: port, customs brokers, government bodies, hauliers, ocean carriers, railway operators, airlines and others depending on the nature of the service. All these perspectives should be investigated in order to reveal the big picture and increase objectivity. Also, some of the service failures in 3PL services are caused by these actors and affect the overall service quality. Therefore, prioritizing supplier selection and utilizing supplier evaluation systems can prove useful for the 3PL's in order to guarantee high level of service quality and customer satisfaction levels.

Furthermore, although this research is in a way dyadic in nature in order to capture the full effectiveness of the actual perceptions of the customers and 3PL's a strictly dyadic exploration must be conducted. In order to achieve the strictly dyadic relationships, a research must be carried out only with the 3PL and its customers related to a certain failure. Even though this study explored both perspectives it did not exactly include the both parties of certain failures.

Future studies should consider critical incidents and the complaint handling documents in 3PL's as well. Also the sample size could be widened and compared with other countries as well as other cultures. The nature CIT is highly flexible and able to adapt to various cultures since the incidents are collected in respondent's own wordings and language. In addition utilizing the same techniques in other B2B service sectors is advised in order to generalize the findings. Service failures and recoveries in 3PL's could also be explored with experimental methods, too.

Some of the limitations similar to other CIT studies are also valid for this study such as the possibility of customers or 3PL employees misunderstanding some of the qualitative and quantitative questions in the questionnaire. Although, the same possibility of misunderstanding can be expressed for any marketing research specifically the qualitative ones.

Recalling bias is another limitation to be underlined since the critical incident collection is carried out through respondents' own words and recollections. Also, regarding the recalling bias the attributions of the respondents may also influence their recollections. On the other hand, it was previously stressed that negative critical incidents are more likely to be remembered by the ones experiencing it since they are non- routine, out of the ordinary, deviant failures.

The negative incidents may also create additional costs for the 3PL other

than the affect on the business relationship between them and their customers. Therefore, further studies may look into discovering these hidden costs of the service failures and recovery in B2B services.

Also, this study was only focused on negative critical incidents regarding 3PL service failures. Thus, future studies may take into account both positive and negative critical incidents associated with 3PL service failures and recoveries and explore the positive ones as well.

The other limitations of this research are the sample size and national scope. This study is conducted as a cross-sectional study and longitudinal studies on service failure and recover in 3PL services may overcome the constraints regarding the cross- sectional data. Considering the long-term nature of purchasing decisions in B2B environments longitudinal studies may be carried out in order to provide a wider understanding of service failures and recoveries in 3PL services.

Moreover, this study classified 3PL service failures with regard to the general departmentalization of 3PL's. Future studies could also consider classifications related to the phase or process of the logistics service to discover where the majority of the service failures occur within the 3PL service phases therefore, suggesting areas of improvements for 3PL's.

In addition, future studies could focus on a single dimension of 3PL service failure to carry out more detailed studies. For example, 3PL service failures regarding documentation may be collected with CIT in order to enable further explorations specifically related with documentation service failures. This might provide insight for developing recoveries specific to the service failure dimension in 3PL to enable effectiveness.

Finally, utilizing focus group interviews after the 3PL service failure and recovery categorization could prove useful in order to understand the dynamics of B2B relationships between 3PL's, their customers and other actors in the supply chain.

REFERENCES

- Abdur Razzaque, M., and Chen Sheng, C. (1998). Outsourcing of logistics functions: a literature survey. *International Journal of Physical Distribution and Logistics Management*, 28(2), 89-107.
- Adams, J. S. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology*, 67(5), 422.
- Arslan, M. (2012). *Endüstriyel Pazarlama Rekabetsel Yaklaşım*. Istanbul: Beta Basım A.Ş.
- Bagozzi, R. P. (1975). Marketing as exchange. *The Journal of Marketing*, 32-39
- Ballou, R. H. (2004). Business Logistics/Supply Chain Management; planning, organizing, and controlling the supply chain. *Fifth Edition* Pearson Education International.
- Bask, A. H. (2001). Relationships among TPL providers and members of supply chains-a strategic perspective. *Journal of Business and Industrial Marketing*, 16(6), 470-486.
- Battaglia, D., Borchardt, M., Afonso Sellitto, M., and Medeiros Pereira, G. (2012). Service recovery: a method for assessing performance. *Business Process Management Journal*, 18(6), 949-963.
- Bayram, N. (2004). *Sosyal bilimlerde SPSS ile veri analizi*. Bursa, Ezgi Kitabevi.
- Beamon, B. M. (1999). Designing the green supply chain. *Logistics information management*, 12(4), 332-342.

- Bearden, W.O. (1983). Profiling consumers who register complaints against auto repair services, *Journal of Consumer Affairs*, Vol. 17 (2). Winter, 315-335.
- Bejou, D. and Palmer, A. (1988). Service Failure and Loyalty: An Exploratory Empirical Study of Airline Customers, *Journal of Services Marketing*, 12(1), 7-22.
- Bejou, D., Edvardsson, B., and Rakowski, J.P. (1996), A Critical Incident Approach to Examining the Effects of Service Failures on Customer Relationships: The Case of Swedish and U.S. Airlines, *Journal of Travel Research*, 35 (1), 35-40.
- Bell, C. R., and Zemke, R. E. (1987). Service breakdown: the road to recovery. *Management review*, 76(10), 32.
- Berry, L., and Parasuraman, A. (1991). Marketing services: Competing through quality. *New York: Free Press*.
- Bienstock, C. C., Mentzer, J. T., & Bird, M. M. (1996). Measuring physical distribution service quality. *Journal of the Academy of Marketing Science*, 25(1), 31-44.
- Bies, R. J., and Moag, J. S. (1986). Interactional justice: Communication criteria of fairness. *Research on negotiation in organizations*, 1(1), 43-55.
- Bies, R. J., and Shapiro, D. L. (1987). Interactional fairness judgments: The influence of causal accounts. *Social Justice Research*, 1(2), 199-218.
- Bingham Jr, F. G., and Barney III, T. Raffield III. *Business Marketing Management (Cincinnati, OH: South-Western College Publishing, 1995) pp, 47-48.*

- Bitner, M. J., Booms, B.H., Mohr, L.A. (1994), Critical Service Encounters: The Employee's Viewpoint, *Journal of Marketing*, 58 (4), pp. 95-106
- Bitner, M. J., Booms, B. H., and Tetreault, M. S. (1990). The service encounter: diagnosing favorable and unfavorable incidents. *The Journal of Marketing*, 71-84.
- Blodgett, J. G., Hill, D. J., and Tax, S. S. (1997). The effects of distributive, procedural, and interactional justice on post complaint behavior. *Journal of retailing*, 73(2), 185-210.
- Bolting, C.P. (1989). How do customers express dissatisfaction and what can service marketers do about it? *Journal of Services Marketing*, Vol. 3(2), 5-23
- Bolton, R. N. (1998). A dynamic model of the duration of the customer's relationship with a continuous service provider: The role of satisfaction. *Marketing science*, 17(1), 45-65.
- Bolton, R. N., and Drew, J. H. (1991). A multistage model of customers' assessments of service quality and value. *Journal of consumer research*, 375-384.
- Bolton, R. N., and Drew, J. H. (1992). Mitigating the effect of service encounters. *Marketing Letters*, 3(1), 57-70.
- Boshoff, C. (1999). Recovsat An Instrument to Measure Satisfaction with Transaction-Specific Service Recovery. *Journal of Service Research*, 1(3), 236- 249.
- Boshoff, C., and Leong, J. (1998). Empowerment, attribution and apologizing as dimensions of service recovery. *International Journal of Service Industry Management*, 9(1), 24-47.

- Boshoff, C.R. (1997), An experimental study of service recovery options, *International Journal of Service Industry Management*, 8(2), pp.110-130.
- Bradley, G., Sparks, B. (2012). Explanations: if, when, and how they aid service recovery, *Journal of Services Marketing*, 21 (1), pp. 41-50
- Brinsmead, A. (2007, October). Logistics Service Recovery and the role of Technology. In *Communications and Information Technologies, 2007. ISCIT'07. International Symposium on* (pp. 1361-1365). IEEE.
- Brown, S. W., Cowles, L.D., Tuten, T.L., (1996), Service recovery: its value and limitations as a retail strategy, *International Journal of Service Industry Management*, 7(5) pp. 32 – 46
- Burns, A. C., Williams, L. A., and “Trey” Maxham III, J. (2000). Narrative text biases attending the critical incidents technique. *Qualitative Market Research: An International Journal*, 3(4), 178-186.
- Caceres, R.C. and Paparoidamis, N.G., (2005), Service quality, relationship satisfaction, trust, commitment and B2B loyalty, *European Journal of Marketing*, Vol. 41 No. 7/8, 2007, pp. 836-867.
- Candler, J. (1994, “You make it, they distribute it”, *Nation's Business*, March, pp. 46- 8
- Cannie, J. K., and Caplin, D. (1991). *Keeping customers for life*. American Management Association.
- Chebat, J. C., and Slusarczyk, W. (2005). How emotions mediate the effects of perceived justice on loyalty in service recovery situations: an empirical study. *Journal of Business Research*, 58(5), 664-673.

- Chell, E. (2004). 5) Critical Incident Technique. *Essential guide to qualitative methods in organizational research*.
- Chopra, S., & Meindl, P. (2007). Supply chain management. Strategy, planning & operation. *Fifth Edition*. Gabler.
- Chou, C., Hsu, Y. H., and Goo, Y. J. (2009). Service Failures and Recovery Strategies from the Service Provider Perspective. *Asia Pacific Management Review*, 14(2), 237-249.
- Chung, B. and Hoffman K. D., (1998), "Critical Incidents: Service Failures That Matter Most," *Cornell Hotel and Restaurant Administration Quarterly*, 39 (June), 66-71
- Chung-Herrera, B. G., Goldschmidt, N., and Hoffman, K. D. (2004). Customer and employee views of critical service incidents. *Journal of Services Marketing*, 18(4), 241-254.
- Craighead, C., Karwan, K., Miller, J. (2004), The effects of severity of failure and customer loyalty on service recovery strategies, *Production Operation Management*, 13 (4) (2004), pp. 307–321
- Cron, W., and DeCarlo, T. (2006). Sales management. pp. 131-135.
- Czepiel, J. A. (1990). Service encounters and service relationships: implications for research. *Journal of business research*, 20(1), 13-21.
- Czepiel, J. A., and Gilmore, R. (1987). Exploring the concept of loyalty in services. *The services challenge: Integrating for competitive advantage*, 91-94.

- Czepiel, J., Solomon, M. and Suprenant, C. (Eds). The Service Encounter, Lexington Books, Lexington, M.A.195-212.
- Dasu, S., and Rao, J. (1999). A Dynamic Process Model of Dissatisfaction For Unfavorable, Non- Routine Service Encounters. *Production and Operations Management*, 8(3), 282-300.
- Day, R.L., Grabicke, K., Schaetzle, T. Staubach, F. (1981). The Hidden Agenda of Consumer Complaining, *Journal of Retailing*, Vol 57, Fall, 86-106
- de Coverly, E., Holme, N. O., Keller, A. G., Thompson, F. H. M., & Toyoki, S. (2002). Service recovery in the airline industry: Is it as simple as 'Failed, Recovered, Satisfied?' *The Marketing Review*, 3(1), 21-37.
- del Río-Lanza, A. B., Vázquez-Casielles, R., and Díaz-Martín, A. M. (2009). Satisfaction with service recovery: Perceived justice and emotional responses. *Journal of Business Research*, 62(8), 775-781.
- Durvasula, S., Lysonski, S., Mehta, S.C. (2000)," Business-to-business marketing service recovery and customer satisfaction issues with ocean shipping lines", *European Journal of Marketing*, Vol. 34 Is 3/4, 433-452.
- Dwyer, F. R., Schurr, P. H., and Oh, S. (1987). Developing buyer-seller relationships. *The Journal of marketing*, 11-27.
- Edvardsson, B. (1988). The service encounter: Service quality in customer relationship: A Study of critical incident in mechanical engineering companies, *The Service Industries Journal*, Vol.8, No.4, 427-445.
- Edvardsson, B. (1992). Service breakdowns: a study of critical incidents in an airline. *International Journal of Service Industry Management*, 3(4), 17-29.

- Edvardsson, B. (1998). Causes of customer dissatisfaction- studies of public transport by the critical incident method, *Managing Service Quality*, 8(3), pp189- 197
- Edvardsson, B. and Strandvik, T., (2000), "Is a Critical Incident Critical for a Customer Relationship?" *Managing Service Quality*, 10 (2), 82-91.
- Edvardsson, B., Ross, I., (2001). Critical Incident Techniques Towards a framework for analyzing the criticality of critical incidents, *International Journal of Service Industry Management*, 12 (3), pp. 251-258.
- Ellinger, A. E., Keller, S. B., and Hansen, J. D. (2006). Bridging the divide between logistics and marketing: facilitating collaborative behavior. *Journal of business logistics*, 27(2), 1-27.
- Festinger, L. (1957) *A Theory of Cognitive Dissonance*, Stanford, CA: Stanford University Press.
- Flanagan, J. C. (1954). The critical incident technique. *Psychological bulletin*, 51(4), 327.
- Flores, L. A. F. S., and Primo, M. A. M. (2008). Failure Recovery Management in Performance of Logistics Services in a B2B Context: A Case Study Using the 3PL Perspective. *Journal of Operations and Supply Chain Management*, 1(1), 29-40.
- Folkes, V.S. (1984). Consumer reactions to product failure: An attributional approach, *Journal of Consumer Research*, 10(4), pp. 398-409.
- Folkes, V.S. (1988). Recent attribution research in consumer behavior: A review and new directions, *The Journal of Consumer Research*, 14(4), pp. 548-565.

- Forbes, L. P., Kelley, S. W., and Hoffman, K. D. (2005). Typologies of e-commerce retail failures and recovery strategies. *Journal of Services Marketing*, 19(5), 280- 292.
- Gabbott, M., and Hogg, G. (1996). The glory of stories: using critical incidents to understand service evaluation in the primary healthcare context. *Journal of Marketing Management*, 12(6), 493-503.
- Garvin, D. A. (1984). What does product quality really mean. *Sloan management review*, 26(1).
- Gil Saura, I., Servera Frances, D., Berenguer Contrí, G., and Fuentes Blasco, M. (2008). Logistics service quality: a new way to loyalty. *Industrial Management and Data Systems*, 108(5), 650-668.
- Gilly, M. C., and Gelb, B. D. (1982). Post-purchase consumer processes and the complaining consumer. *Journal of Consumer Research*, 323-328.
- Gonçalves, K. P. (1998). *Services marketing: a strategic approach*. Prentice Hall.
- Goodwin, C., and Ross, I. (1989). Salient Dimensions of Perceived Fairness in Resolution of Service Complaints. *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 2, 87-92.
- Goodwin, C., and Ross, I. (1992). Consumer responses to service failures: influence of procedural and interactional fairness perceptions. *Journal of Business research*, 25(2), 149-163.
- Gremler, D. D. (2004). The critical incident technique in service research. *Journal of service research*, 7(1), 65-89.

- Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of marketing*, 18(4), 36-44.
- Grönroos, C. (1988). Service quality: the six criteria of good perceived service. *Review of business*, 9(3), 10.
- Grönroos, C. (1982). An applied service marketing theory. *European journal of marketing*, 16(7), 30-41.
- Grönroos, C. (1993). Toward a third phase in service quality research: challenges and future directions. *Advances in services Marketing and Management*, 2(1), 49-64.
- Grönroos, C. (1995). Relationship marketing: the strategy continuum. *Journal of the Academy of Marketing Science*, 23(4), 252-254.
- Grove, S. J., and Fisk, R. P. (1997). The impact of other customers on service experiences: a critical incident examination of “getting along”. *Journal of retailing*, 73(1), 63-85.
- Gunasekaran, A., Patel, C. and Tittiroglu, E. (2001). “Performance Measures And Metrics in a Supply Chain Environment,” *International Journal of Operations and Production Management*, 2(1-2), 71–87.
- Güngör, M., & Bulut, Y. (2008). Ki-Kare Testi Üzerine. *Doğu Anadolu Bölgesi Araştırmaları*, 7(1), 84-89.
- Ha, J., and Jang, S. S. (2009). Perceived justice in service recovery and behavioral intentions: The role of relationship quality. *International Journal of Hospitality Management*, 28(3), 319-327.

- Hart, C. W., Heskett, J. L., and Sasser Jr, W. E. (1989). The profitable art of service recovery. *Harvard business review*, 68(4), 148-156.
- Harvey, J. H., & Weary, G. (1984). Current issues in attribution theory and research. *Annual review of psychology*, 35(1), 427-459.
- Hayes, R. H., Wheelwright, S.C. and Clarke, K. (1988) Dynamic Manufacturing. The Free Press, New York.
- Heider, F. (1958) The Psychology of Interpersonal Relations, New York: Wiley.
- Heider, F. (1976). A conversation with Fritz Heider. *New directions in attribution research*, 1, 47-61.
- Hess, R. L., Ganesan, S., and Klein, N. M. (2003). Service failure and recovery: the impact of relationship factors on customer satisfaction. *Journal of the Academy of Marketing Science*, 31(2), 127-145.
- Hoffman, K.D., Kelley, S.W., Rotalsky, H.M. (1995). Tracking service failures and employee recovery efforts. *Journal of Services Marketing*, 9(2), pp. 49-61.
- Holloway, B. B., and Beatty, S. E. (2003). Service failure in online retailing a recovery opportunity. *Journal of service research*, 6(1), 92-105.
- Homans, G. C. (1961). Social behavior: Its elementary forms.
- Hunt, S.D. (1983). Marketing Theory: The Philosophy of Marketing Science. Homewood, IL: Richard D. Irvin, Inc.
- Hunt, S. D., Arnett, D. B., and Madhavaram, S. (2006). The explanatory foundations of relationship marketing theory. *Journal of Business and Industrial Marketing*, 21(2), 72-87.

- Johnston, R. (1995). The determinants of service quality: satisfiers and dissatisfiers. *International journal of service industry management*, 6(5), 53-71.
- Johnston, R., Michel, S. (2008), Three outcomes of service recovery: Customer recovery, process recovery and employee recovery, *International Journal of Operations and Production Management*, 28(1), pp 79-99.
- Kahneman, D., and Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, 263-291.
- Keaveney, S. M. (1995). Customer switching behavior in service industries: An exploratory study. *The Journal of Marketing*, 71-82.
- Kelley, H. H. (1967) "Attribution theory in social psychology", Nebraska Symposium on Motivation, Vol. 15, pp.192-238.
- Kelley, H. H. (1972). *Causal schemata and the attribution process* (pp. 151-174). Morristown, NJ: General Learning Press.
- Kelley, S. W., and Davis, M. A. (1994). Antecedents to customer expectations for service recovery. *Journal of the Academy of Marketing Science*, 22(1), 52-61.
- Kelley, S.W., Hoffman, K.D., and Davis, A.D. (1993), "A Typology of Retail Failures and Recoveries," *Journal of Retailing*, 69 (Winter), 429-54.
- Kersten, W., and Koch, J. (2009). Qualitätsmessung in der Logistikdienstleistung. In *Weiterentwicklung der Produktion* (pp. 95-116). Gabler.

- Knemeyer, A. M., and Murphy, P. R. (2004). Evaluating the performance of third- party logistics arrangements: a relationship marketing perspective. *Journal of Supply Chain Management*, 40(4), 35-51.
- Koelemeijer, K. (1995). The retail service encounter: identifying critical service experiences. *Journal Of Managing Service Quality*.
- Kolbe, R.H. and Burnett, M.S. (1991). Content Analysis Research: An Examination of Applications with Directives for Improving Research Reliability and Objectivity, *Journal of Consumer Research*, 18. September, 243-250
- Kwon, S., & Jang, S. S. (2012). Effects of compensation for service recovery: From the equity theory perspective. *International journal of hospitality management*, 31(4), 1235-1243.
- Levesque, T. J., and McDougall, G. H. (2000). Service problems and recovery strategies: an experiment. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 17(1), 20-37.
- Lewis, B. R., & McCann, P. (2004). Service failure and recovery: evidence from the hotel industry. *International Journal of Contemporary Hospitality Management*, 16(1), 6-17.
- Lewis, B.R. and S. Spyropoulos, 2001. Service failures and recovery in retail banking: The customer perspective. *International Journal of Bank Marketing*, 19(1): 37-47.
- Lieb, R., and Miller, J. (2002). The use of third-party logistics services by large US manufacturers, the 2000 survey. *International Journal of Logistics*, 5(1), 1-12.

- Lin, H. H., Wang, Y. S., and Chang, L. K. (2011). Consumer responses to online retailer's service recovery after a service failure: A perspective of justice theory. *Managing Service Quality: An International Journal*, 21(5), 511-534.
- Lind, E. A., and Tyler, T. R. (1988). *The social psychology of procedural justice*. Springer Science and Business Media.
- Lockshin, L., and McDougall, G. (1998). Service problems and recovery strategies: An examination of the critical incident technique in a business-to business market. *International Journal of Retail and Distribution Management*, 26(11), 429-438.
- Lovelock, C.H., Wirtz, J. (2011) *Services Marketing: People, Technology, Strategy*. Prentice Hall
- Lundberg, C., (2011). Critical Service Encounters in Hotel Restaurants: The Personnel's Perspective, *Scandinavian Journal of Hospitality and Tourism*, 11(1), 1-19.
- Mangan, J., Lalwani, C., and Butcher, T. (2008). *Global logistics and supply chain management*. John Wiley and Sons.
- Maxham, J. G. (2001). Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions. *Journal of Business Research*, 54(1), 11-24.
- McColl-Kennedy, J. R., and Sparks, B. A. (2003). Application of fairness theory to service failures and service recovery. *Journal of Service Research*, 5(3), 251-266.

- McCollough, M. A., and Bharadwaj, S. G. (1992). The recovery paradox: an examination of consumer satisfaction in relation to disconfirmation, service quality, and attribution based theories. *Marketing theory and applications*, 119.
- McCollough, M. A., Berry, L. L., and Yadav, M. S. (2000). An empirical investigation of customer satisfaction after service failure and recovery. *Journal of service research*, 3(2), 121-137.
- McQuilken, L. 2009, The influence of failure severity and perceived employee effort on consumers' post complaint negative WOM intentions in a service guarantee context, in *ANZMAC 2009: Sustainable management and marketing conference*, Monash University, Melbourne, Vic., pp. 1-9.
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., and Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business logistics*, 22(2), 1-25.
- Mentzer, J.T., Flint, D.J., Hult M.G.T., (2001) Logistics Service Quality as a Segment-Customized Process. *Journal of Marketing*: October 2001, Vol. 65, No. 4, pp. 82-104
- Michel, S. (2001). Analyzing service failures and recoveries: a process approach. *International Journal of Service Industry Management*, 12(1), 20-33.
- Miller, J. L., Craighead, C. W., and Karwan, K. R. (2000). Service recovery: a framework and empirical investigation. *Journal of operations Management*, 18(4), 387-400.
- Mittal, B., and Lassar, W. M. (1998). Why do customers switch? The dynamics of satisfaction versus loyalty. *Journal of services marketing*, 12(3), 177-194.

- Mohr, L. A., and Bitner, M. J. (1995). The role of employee effort in satisfaction with service transactions. *Journal of Business Research*, 32(3), 239-252.
- Moorman, C., Deshpande, R., and Zaltman, G. (1993). Factors affecting trust in market research relationships. *the Journal of Marketing*, 81-101.
- Morgan, R. M., and Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *the journal of marketing*, 20-38.
- Mueller, R. D., Palmer, A., Mack, R., and McMullan, R. (2003). Service in the restaurant industry: an American and Irish comparison of service failures and recovery strategies. *International Journal of Hospitality Management*, 22(4), 395- 418.
- Murray, K. B., and Schlacter, J. L. (1990). The impact of services versus goods on consumers' assessment of perceived risk and variability. *Journal of the Academy of Marketing Science*, 18(1), 51-65.
- Nikbin, D., Ismail, I., Marimuthu, M., and Jalalkamali, M. (2010). Perceived justice in service recovery and recovery satisfaction: The moderating role of corporate image. *International Journal of Marketing Studies*, 2(2), p47.
- Nyquist, J.D., Bitner, M.J. and Booms, B.H. (1985). "Identifying communication difficulties in the service encounter: Critical incident approach",
- Odekerken-Schröder, G., van Birgelen, M., Lemmink, J., de Ruyter, K., and Wetzels, M. (2000). Moments of sorrow and joy: an empirical assessment of the complementary value of critical incidents in understanding customer service evaluations. *European Journal of Marketing*, 34(1/2), 107-125.

- Ofla, B. S., Sullivan, U. Y., and Baltacioėlu, T. (2012). An attribution approach to consumer evaluations in logistics customer service failure situations. *Journal of Supply Chain Management*, 48(4), 51-71.
- Ofla, B.S. (2011). *An Attributional Approach for Consumer Evaluations in Logistics Customer Service Failure Situations* (Doctoral Dissertation). Retrieved From Council of Higher Education Thesis Center.
- Ok, C., Back, K. J., and Shanklin, C. W. (2005). Modeling roles of service recovery strategy: a relationship-focused view. *Journal of Hospitality and Tourism Research*, 29(4), 484-507.
- Olsen, L. L., and Johnson, M. D. (2003). Service equity, satisfaction, and loyalty: from transaction-specific to cumulative evaluations. *Journal of Service Research*, 5(3), 184-195.
- Olsen, M., and Thomasson, B. (1992, June). Qualitative Methods in Service Quality Research: An Illustration of the Critical Incident Technique and Phenomenography'. In *QUIS3 Conference* (pp. 14-17).
- Ostrom, A., and Iacobucci, D. (1995). Consumer trade-offs and the evaluation of services. *The Journal of Marketing*, 17-28.
- Ozgen, O., & Duman Kurt, S. (2012). Pre-recovery and post-recovery emotions in the service context: a preliminary study. *Managing Service Quality: An International Journal*, 22(6), 592-605.
- Özgüven, N. (2008). Hizmet pazarlamasında müşteri memnuniyeti ve ulařtırma sektörü üzerinde bir uygulama. *Ege Akademik Bakıř*, 8(2), 651-682.
- Öztürk, S. A. (2000). Hizmet Kalitesi Ölümünde Yeni Bir Yaklařım: Kritik Olaylar Tekniėi. *Anatolia: Turizm Arařtırmaları Dergisi*, 11, 57-68.

- Panayides, P. M., and So, M. (2005). The impact of integrated logistics relationships on third-party logistics service quality and performance. *Maritime Economics and Logistics*, 7(1), 36-55.
- Parasuraman, A., Berry, L. L. and Zeithaml, V. (1988). Servqual: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of retailing*, Vol 14, Spring, 12-39.
- Parasuraman, A., Berry, L. L., and Zeithaml, V. A. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of retailing*, 67(4), 420.
- Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *the Journal of Marketing*, 41-50.
- Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1994). Alternative scales for measuring service quality: a comparative assessment based on psychometric and diagnostic criteria. *Journal of retailing*, 70(3), 201-230.
- Payne, A. (1993). *The essence of services marketing*. Prentice Hall.
- Pérez, L., & Cambra-Fierro, J. (2015). Value generation in B2B contexts: the SMEs' perspective. *European Business Review*, 27(3), 297-317.
- Perrault, W. D., & Leigh, L. E. (1989). Reliability of nominal data based on qualitative judgments. *Journal of marketing research*.
- Primo, A.M., Dooley, M.K., and Rungtusanatham, M. J. (2007). Manufacturing firm reaction to supplier failure and recovery. *International Journal of Operations and Production Management*, 27(3), 323-341.

- Primo, M., Dooley, K., and Rungtusanatham, M. (2007). Manufacturing firm reaction to supplier failure and recovery. *International Journal of Operations and Production Management*, 27(3), 323-341.
- Qureshi, M. N., Kumar, D., and Kumar, P. (2007). Modeling the logistics outsourcing relationship variables to enhance shippers' productivity and competitiveness in logistical supply chain. *International Journal of Productivity and Performance Management*, 56(8), 689-714.
- Rao, K., and Young, R. R. (1994). Global supply chains: factors influencing outsourcing of logistics functions. *International Journal of Physical Distribution and Logistics Management*, 24(6), 11-19.
- Rauyruen, P., and Miller, K. E. (2007). Relationship quality as a predictor of B2B customer loyalty. *Journal of business research*, 60(1), 21-31.
- Reynolds, K.L., Harris, L.C., (2005). When service failure is not service failure: an exploration of the forms and motives of “illegitimate” customer complaining, *Journal of Service Marketing*, 19(5), pp. 321-335
- Richins, M. L. (1985). The role of product importance in complaint initiation. *Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 50, 53.
- Richins, M. L. (1987). A multivariate analysis of responses to dissatisfaction. *Journal of the Academy of Marketing Science*, 15(3), 24-31.
- Vitale, R.P., Giglierano, J.J. and Pfoertsch, W. (2011). *Business-to- business Marketing: Analysis and Practice*. Prentice Hall.
- Roos, I. (2002), Methods of Investigating Critical Incidents, *Journal of Service Research*, 4(3), pp. 193-204.

- Rosenberg, L. J., and Czepiel, J. A. (1984). A marketing approach for customer retention. *Journal of Consumer Marketing*, 1(2), 45-51.
- Rozin, P. and Royzman, E.B. (2001). Negativity bias, negativity dominance, and contagion, *Personality and Social Psychology Review*, 5(4), pp. 296-320.
- Rudolph, T., Bussch, A., and Busch S., (2000). Retail Food Failures and Recovery Strategies in Switzerland, *Journal of Marketing Channels*, Vol.7 (3), 69-92.
- Saura, I.G., Molina, R.E.M., Francés, D. S. (2008) 'Logistic service quality and technology: a comparison between supplier-retailer and retailer-consumer relationships', *The International Review of Retail, Distribution and Consumer Research*, 18(5), pp. 495 — 510
- Seiders, K., and Berry, L. L. (1998). Service fairness: What it is and why it matters. *The Academy of Management Executive*, 12(2), 8-20.
- Selviaridis, K., and Spring, M. (2007). Third party logistics: a literature review and research agenda. *The International Journal of Logistics Management*, 18(1), 125- 150.
- Shapiro, R. D., and Heskett, J. L. (1985). *Logistics Strategy: cases and concepts*. St. Paul, Minnesota: West Publishing Company.
- Sheth, J. N., and Parvatiyar, A. (1995). The evolution of relationship marketing. *International Business Review*, 4(4), 397-418.
- Sheth, J.N., Parvatiyar A., (1994). *Relationship Marketing: Theory, Methods and Applications*, Atlanta, Georgia.

- Singh, J., and Wilkes, R. E. (1996). When consumers complain: a path analysis of the key antecedents of consumer complaint response estimates. *Journal of the Academy of Marketing science*, 24(4), 350-365.
- Sink, H.L., Langley, C.J. Jr and Gibson, B.J. (1996), “Buyer observations of the US third- party logistics market”, *International Journal of Physical Distribution and Logistics Management*, Vol. 26 No. 3, pp. 36- 46
- Smith, A. K., Bolton, R. N., and Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *Journal of marketing research*, 356-372.
- Solomon, M. R., Carol Suprenant, John A. Czepiel and Evelyn G. Gutman, (1985), A Role Theory Perspective on Dyadic Interactions: The Service Encounter ,*Journal of Marketing*, 49(1), pp. 99-111.
- Sparks, B. A., and McColl-Kennedy, J. R. (2001). Justice strategy options for increased customer satisfaction in a services recovery setting. *Journal of Business Research*, 54(3), 209-218.
- Spekman, R. E. (1988). Strategic supplier selection: understanding long-term buyer relationships. *Business horizons*, 31(4), 75-81.
- Spreng, R. A., Harrell, G. D., and Mackoy, R. D. (1995). Service recovery: impact on satisfaction and intentions. *Journal of Services Marketing*, 9(1), 15-23.
- Stauss, B. (1993). Service problem deployment: transformation of problem information into problem prevention activities. *International Journal of Service Industry Management*, 4(2).
- Stauss, B., and Mang, P. (1999). “Culture shocks” in inter-cultural service encounters? *Journal of Services marketing*, 13(4/5), 329-346.

- Stauss, B., and Weinlich, B. (1997). Process-oriented measurement of service quality: Applying the sequential incident technique. *European Journal of Marketing*, 31(1), 33-55.
- Stewart, G. (1995). Supply chain performance benchmarking study reveals keys to supply chain excellence. *Logistics Information Management*, 8(2), 38-44.
- Strandvik, T., and Veronica L., 1994. Relationship Strength in Bank Services. Proceedings from the 1994 Research Conference on Relationship Marketing: Theory, Methods and Applications.
- Strauss, A. and Corbin, J. (1990), Basics of Qualitative Research, Grounded Theory, Procedures and Techniques, Sage, Beverly Hills, CA.
- Swanson, S. R., and Kelley, S. W. (2001). Attributions and Outcomes of the Service Recovery Process. *Journal of Marketing Theory and Practice*, 9(4), 50–65.
- Swanson, S.R., Hsu, M.K. (2009) Critical Incidents in Tourism: Failure, Recovery, Customer Switching, and Word –of-Mouth Behaviors, *Journal of Travel and Tourism Marketing*, 26 (2), 180-194.
- Tax, S. S., Brown, S. W., and Chandrashekar, M. (1998). Customer evaluations of service complaint experiences: implications for relationship marketing. *The Journal of Marketing*, 60-76.
- Taylor, S. A., and Baker, T. L. (1994). An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. *Journal of retailing*, 70(2), 163-178.
- Telci, E. E., Maden, C., and Kantur, D. (2011). The theory of cognitive dissonance: a marketing and management perspective. *Procedia-Social and Behavioral Sciences*, 24, 378-386.

- Thaler, R. (1985). Mental accounting and consumer choice. *Marketing science*, 4(3), 199-214.
- Thibaut, J. W., and Walker, L. (1975). *Procedural justice: A psychological analysis*. L. Erlbaum Associates.
- Toker, B. (2007). The Effects of Demographic Factors on Job Satisfaction: An Application on Five and Four Star Hotels in Izmir. *Doğuş University Journal*, 8(1).
- Uzgören, N., & Uzgören, E. (2007). Dumlupınar Üniversitesi lisans öğrencilerinin memnuniyetini etkileyen bireysel özelliklerin istatistiksel analizi-hipotez testi, ki-kare testi ve doğrusal olasılık modeli. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, 17, 173-193.
- Van Doorn, J., and Verhoef, P. C. (2008). Critical incidents and the impact of satisfaction on customer share. *Journal of Marketing*, 72(4), 123-142.
- Vitale, R. P., Giglierano, J. J., and Pfoertsch, W. (2011). BUSINESS-TO-BUSINESS marketing: Analysis and practice, Prentice Hall.
- Weber, R.P. (1985). Basic Concept Analysis, Sage University Paper Series on Quantitative Applications in the Social Sciences, 7-49, Beverly Hills and London: Sage Publications, Inc.
- Webster Jr, F. E. (1992). The changing role of marketing in the corporation. *The Journal of Marketing*, 1-17.
- Webster, C., and Sundaram, D. S. (1998). Service consumption criticality in failure recovery. *Journal of Business Research*, 41(2), 153-159.

- Weiner, B. (1972) *Theories of Motivation: From Mechanism to Cognition*, Oxford, England: Markham
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological review*, 92(4), 548.
- Weiner, B. (Ed.). (1974). *Achievement motivation and attribution theory*. General Learning Press.
- Weun, S. Beatty, S.E., Jones, M.A. (2004) The impact of service failure severity on service recovery evaluations and post-recovery relationships. *Journal of Services Marketing*. 18(2).pp 133-146
- White, L., and Yanamandram, V. (2007). A model of customer retention of dissatisfied business services customers. *Managing Service Quality: An International Journal*, 17(3), 298-316.
- Wright, R. (2004). *BUSINESS-TO-BUSINESS Marketing – A Step-By-Step Guide*, Pearson Education Limited, Harlow, England
- Yazıcıoğlu, Y., and Erdoğan, S. (2014). *SPSS uygulamalı bilimsel araştırma yöntemleri*. Detay Yayıncılık.
- Yıldırım, C. (2015). *An agency theory approach for service failure and recovery in service supply chain*. (Unpublished Doctoral Dissertation). Izmir: Izmir University of Economics: Graduate School of Business.
- Youngdahl, W. E., and Kellogg, D. L. (1997). The relationship between service customers' quality assurance behaviors, satisfaction, and effort: A cost of quality perspective. *Journal of Operations Management*, 15(1), 19-32.
- Zeithaml, V. A., Berry, L. L., and Parasuraman, A. (1993). The nature and

determinants of customer expectations of service. *Journal of the academy of Marketing Science*, 21(1), 1-12.

Zeithaml, V. A., Berry, L. L., and Parasuraman, A. (1996). The behavioral consequences of service quality. *the Journal of Marketing*, 31-46.

Zeithaml, V. and Bitner, M.J. (2003), *Services Marketing: Integrating Customer Focus across the Firm*, 3rd ed., McGraw- Hill, New York, NY.

Zemke, R., and Bell, C. (1990). Service recovery: Doing it right the second time. *Training*, 27(6), 42-48.

Zhu, Z., Sivakumar, K., and Parasuraman, A. (2004). A Mathematical Model of Service Failure and Recovery Strategies*. *Decision Sciences*, 35(3), 493-525.

Appendix I.

Pre-Test Service Failure Critical Incident Questions

1- Profile Questions

- a. How old are you?
- b. How many years of experience you have in the Freight Forwarding Industry?
- c. How many years has it been since you started working here?
- d. How many employees work here in total?
- e. How old is the company?
- f. What is your job title?

2- Service Failure Questions

- a. Could you please tell me in detail about a time a critical incident has occurred due to a service failure? When did this incident occur? What was the shipment? What was the service failure type?
- b. What happened exactly?
- c. Why do you think this happened?
- d. How did the customer react?
- e. What could have been done in order to recover from the failure? What was done? Do you think the implemented recovery strategy was adequate?
- f. How the company's relationship with the customer was affected? How was your company affected by this?
- g. Did same kind of a failure occur afterwards?
- h. Can you please rate this failure in severity, criticality, and frequency aspects?

Appendix II. CRITICAL INCIDENT COLLECTION FORMS: CUSTOMER PERSPECTIVE

LOJİSTİK HİZMETLERDE HİZMET HATALARI ve TELAFİ YÖNTEMLERİ ÜZERİNE KRİTİK OLAY VERİ TOPLAMA FORMU: MÜŞTERİ BAKIŞ AÇISI

Kritik olay (vaka) tekniği, tedarikçi ile müşteri arasındaki ilişkilerde ve/veya mal-hizmet alışverişlerinde olması beklenenden veya normal olarak nitelendirilenden farklı bir özellik gösteren olayların incelenmesine yönelik bir tekniktir.

Bu araştırmanın amacı, uluslararası lojistik hizmetlerde yaşanan hizmet hatalarını, bu hataların telafi yöntemlerini ve bunların müşteriler ile lojistik hizmet sağlayıcılar arasındaki ilişkileri nasıl etkilediğini incelemektir.

Araştırma sonuçları Dokuz Eylül Üniversitesi Denizcilik İşletmeleri Yönetimi Doktora öğrencisi Araş. Gör. Nazlı Gülfem GİDENER ÖZAYDIN' ın Prof. Dr. D. Ali DEVECİ danışmanlığında yürüttüğü doktora tez çalışmasında kullanılacak olup, cevaplarınızın tümü gizli tutulacaktır. Veri toplama formunu doldurduktan sonra ngg.ozaydin@deu.edu.tr e-posta adresine göndermenizi rica ederiz. Katılımlarınız ve katkılarınız için çok teşekkür ederiz.

I. Lütfen müşteri olarak son 1 yıl içerisinde lojistik hizmet sağlayıcı bir tedarikçiniz ile yaşadığınız **kritik bir olayı (hatayı) anlatınız. (Lojistik hizmet sağlayıcı işletme size tam olarak ne dedi veya ne yaptı? Bu kritik olayın (hatanın) gerçekleşmesine yol açan koşullar nelerdi? Bu hata nereden kaynaklandı?**

(a). Bu hizmet hatasının **hangi lojistik süreçte** yaşandığını lütfen belirtiniz.

İhracat sevkiyatı İthalat sevkiyatı

(b). Bu hizmet hatasının **önemini/büyükliğini** (oluşturduğu zararlar bakımından) belirtiniz. (1: Minör-küçük; 10: Majör-büyük)

1 2 3 4 5 6 7 8 9 10

(c). Lojistik hizmet sağlayıcılarınızla çalışırken bu hizmet hatasıyla karşılaşma **sıklığınızı** belirtiniz. (1: Çok sık; 10: Çok nadiren)

1 2 3 4 5 6 7 8 9 10

II. (a). Lojistik hizmet sağlayıcı işletme bu hizmet hatasını **telafi** etmek için tam olarak ne yaptı (ne tür bir eylemde bulundu)? **Anlatınız.**

(b). Yaşadığınız bu hata karşısında müşteri olarak **sizin tepkiniz** tam olarak ne oldu (ne tür bir eylemde bulundunuz)? **Anlatınız.**

(c). Lojistik hizmet sağlayıcı işletmenin bu hatayı **telafi etme şeklinden duyduğunuz memnuniyeti** belirtiniz. (1: Çok zayıf; 10: Çok iyi)

1 2 3 4 5 6 7 8 9 10

(d). Bu hatanın telafi edilmesi (çözülmesi, düzeltilmesi) ne kadar zaman aldı (1: Çok kısa; 10: Çok uzun)

1 2 3 4 5 6 7 8 9 10

III. (a). Bu olaydan sonra **lojistik hizmet sağlayıcınız** ile ilişkileriniz nasıl etkilendi?

Koptu Zayıfladı Değişmedi Kuvvetlendi

(b). Bu olaydan sonra **müşterilerinizle ve/veya tedarikçilerinizle** olan ilişkileriniz nasıl etkiledi.

Koptu Zayıfladı Değişmedi Kuvvetlendi

IV.(a). Bu lojistik hizmet sağlayıcının işletmeniz için önemini gerçekleştirdiğiniz **işlem hacminiz** açısından belirtiniz (1: Önemli değil; 10: Çok önemli)

1 2 3 4 5 6 7 8 9 10

(b). Bu lojistik hizmet sağlayıcı tedarikçiniz ile kaç yıldır çalışıyorsunuz?

1'den az 1-3 4-6 7-10 10'yıldan fazla

(c). Bu lojistik hizmet sağlayıcı ile çalışma şeklinizi belirtiniz?

İşlem bazlı Uzun dönemli kontratlı

(d). Bu olayda kullandığınız teslim şeklini belirtiniz?

FOB CIF Diğer (Belirtiniz).....

(e). Bu olayda söz konusu olan yük cinsini belirtiniz.....

PROFİL SORULARI:

1. Yaşınız : 20-24 25-29 30-34 35-39 40- 44 45-49 50 ve üstü

2. İşyerindeki unvanınız :

3. Şimdiki işyerinizde çalışma süreniz : Yıl

4-Toplam profesyonel çalışma süreniz : Yıl

5. Hangi departmanda görev yapmaktasınız?

6. Eğitim durumunuz nedir: Ortaokul Lise Üniversite
Yüksek Lisans Doktora

7. İşletmenizde çalışan kişi sayısı : 1-9 10-49 50-250 250'den fazla

8. İşletmenizin yaşı : 1-5 6-10 11-20 21-30 30'dan fazla

9. İşletmeniz yabancı ortaklı mı? : Evet, (Yabancı ortağa ait payın, toplam hisse içinde yüzdesi:%) Hayır

10. Yıllık sevkiyat hacminiz nedir? (TEU/ Ton olarak).....

11. Yaklaşık kaç lojistik hizmet sağlayıcı işletme ile çalışıyorsunuz? 1-3 4-6 7-9 10'dan fazla

12. İşletmenizin faaliyette bulunduğu sektör (ürün) nedir?.....

13. Tedarikçi performans değerlendirme sisteminiz bulunmakta mıdır? Evet Hayır

Appendix III. CRITICAL INCIDENT COLLECTION FORMS: 3PL PERSPECTIVE

LOJİSTİK HİZMETLERDE HİZMET HATALARI ve TELAFİ YÖNTEMLERİ ÜZERİNE KRİTİK OLAY VERİ TOPLAMA FORMU: LOJİSTİK HİZMET SAĞLAYICI BAKIŞ AÇISI

Kritik olay (vaka) tekniği, tedarikçi ile müşteri arasındaki ilişkilerde ve/veya mal-hizmet alışverişlerinde olması beklenenden veya normal olarak nitelendirilenden farklı bir özellik gösteren olayların incelenmesine yönelik bir tekniktir.

Bu araştırmanın amacı, lojistik hizmetlerde yaşanan hizmet hatalarını, bu hataların telafi yöntemlerini ve bunların müşteriler ile lojistik hizmet sağlayıcılar arasındaki ilişkileri nasıl etkilediğini incelemektir.

Araştırma sonuçları Dokuz Eylül Üniversitesi Denizcilik İşletmeleri Yönetimi Doktora öğrencisi Araş. Gör. Nazlı Gülfem GİDENER ÖZAYDIN' ın Prof. Dr. D. Ali DEVECİ danışmanlığında yürüttüğü doktora tez çalışmasında kullanılacak olup, cevaplarınızın tümü gizli tutulacaktır. Veri toplama formunu doldurduktan sonra ngg.ozaydin@deu.edu.tr e-posta adresine göndermenizi rica ederiz. Katılımlarınız ve katkılarınız için çok teşekkür ederiz.

I. Lütfen lojistik hizmet sağlayıcı olarak son 1 yıl içerisinde bir müşteriniz ile yaşadığınız kritik bir olayı (hatayı) anlatınız. (Lojistik hizmet sağlayıcı işletme size tam olarak ne dedi veya ne yaptı? Bu kritik olayın (hatanın) gerçekleşmesine yol açan koşullar nelerdi? Bu hata nereden kaynaklandı?

(a). Bu hizmet hatasının **hangi lojistik süreçte** yaşandığını lütfen belirtiniz.
İhracat sevkiyatı İthalat sevkiyatı

(b).Bu hizmet hatasının **önemini/büyükliğini** (oluşturduğu zararlar bakımından) belirtiniz. (1: Minör-küçük; 10: Majör-büyük)

1 2 3 4 5 6 7 8 9 10

(c).Bu hizmet hatasıyla karşılaşma **sıklığını** belirtiniz. (1:Çok sık; 10: Çok nadiren)

1 2 3 4 5 6 7 8 9 10

II. (a). Lojistik hizmet sağlayıcı işletme olarak bu hizmet hatasını **telafi etmek** için tam olarak ne yaptınız (ne tür bir eylemde bulundunuz)? **Anlatınız.**

(b). Yaşadığınız bu hata karşısında **müşterinizin tepkisi** tam olarak ne oldu (ne tür bir eylemde bulundular)? **Anlatınız.**

(c). Size göre **müşterinizin** sizin bu hatayı telafi etme şeklinizden duyduğu memnuniyeti belirtiniz. (1: Çok zayıf; 10: Çok iyi)

1 2 3 4 5 6 7 8 9 10

(d) Bu hatanın telafi edilmesi (çözülmesi, düzeltilmesi) ne kadar **zaman** aldı (1: Çok kısa; 10: Çok uzun)

1 2 3 4 5 6 7 8 9 10

III. (a). Bu olaydan sonra **müşteriniz** ile ilişkileriniz nasıl etkilendi?

Koptu Zayıfladı Değişmedi Kuvvetlendi

(b). Bu olaydan sonra **hizmet sağlayıcılarınızla** olan ilişkileriniz nasıl etkilendi.

Koptu Zayıfladı Değişmedi Kuvvetlendi

IV.(a).Bu müşterinin işletmeniz için **önemini** gerçekleştirdiğiniz işlem hacmi açısından belirtiniz (1: Önemli değil; 10: Çok önemli)

1 2 3 4 5 6 7 8 9 10

(b). Bu müşteri ile **kac yıldır** çalışıyorsunuz?

1'den az 1-3 4-6 7-10 10'yıldan fazla

(c). Bu müşteri ile **çalışma şeklinizi** belirtiniz?

İşlem bazlı Uzun dönemli kontratlı

(d). Bu olayda kullandığınız **teslim şeklini** belirtiniz?

FOB CIF Diğer (Belirtiniz).....

(e). Bu olayda söz konusu olan **yük cinsini** belirtiniz.....

PROFİL SORULARI:

1. Yaşınız : 20-24 25-29 30-34 35-39 40- 44 45-49 50 ve üstü

2. İşyerindeki unvanınız :

3. Şimdiki işyerinizde çalışma süreniz : Yıl

4-Toplam profesyonel çalışma süreniz : Yıl

5. Hangi departmanda görev yapmaktasınız?

6. Eğitim durumunuz nedir: Ortaokul Lise Üniversite
Yüksek Lisans Doktora

7. İşletmenizde çalışan kişi sayısı: 1-9 10-49 50-250
250'den fazla

8. İşletmenizin yaşı : 1-5 6-10 11-20 21-30
30'dan fazla

9. İşletmeniz yabancı ortaklı mı? : Evet, (Yabancı ortağa ait payın, toplam hisse içinde yüzdesi: %