# AN ATTRIBUTIONAL APPROACH FOR CONSUMER EVALUATIONS IN LOGISTICS CUSTOMER SERVICE FAILURE SITUATIONS

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# AN ATTRIBUTIONAL APPROACH FOR CONSUMER EVALUATIONS IN LOGISTICS CUSTOMER SERVICE FAILURE SITUATIONS

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I certify that this thesis satisfies all the requirements as a thesis for the degree of Doctor of Philosophy.

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This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

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ABSTRACT

**AN ATTRIBUTIONAL APPROACH FOR CONSUMER EVALUATIONS IN LOGISTICS CUSTOMER SERVICE FAILURE SITUATIONS**

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The primary goal of this study is to investigate the roles of expectations and purchase criticality on consumers' brand perceptions and attribution behaviors in delivery failures. The provision of logistics services is often a crucial point in supply chain management that can influence brand perceptions.

The level and the quality of customer service provided may determine whether the organization will retain existing customers or even attract new ones. As a consequence, a failure in logistics customer service and its effect on overall perceptions of a brand should not be underestimated. Furthermore, the involvement

of a third party logistics service provider in this failure situation can create considerable shifts in the responses of consumers especially in the attributional behavior for cause of failure.

By applying scenario-based experiments, this study demonstrates the dynamics by which expectations, purchase criticality and third party logistics service provider affect consumer brand perceptions and attributions. The results designate the presence of two expectation-based buffering effects in logistics failures. First buffering effect arises in the overall brand evaluations and repurchase intentions, while the second buffering effect is being observed in the attributions of consumers to the brand. The findings indicate that higher expectations are protecting the brand and causing more attribution to the third party. Additionally, criticality has crucial impact on the brand evaluations and attributions.

Keywords: Logistics Customer Service Failures, Expectation, Criticality, Brand Perception, Cognitive Consistency Theory, Attribution Theory, 3PL Company

ÖZET

# LOJİSTİK MÜŞTERİ HİZMETLERİ HATALARINDA MÜŞTERİ DEĞERLENDİRMELERİ İÇİN ATIF YAKLAŞIMI

OFLAÇ,Bengü

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Bu çalışmanın ana amacı, teslimat hatalarında, beklenti ve önemlilik düzeylerinin müşterilerin marka algılarına ve atıf davranışlarına etkisini araştırmaktır. Lojistik hizmetlerin temini, tedarik zincirinde müşterilerin marka algılarını etkileyebilecek önemli bir husustur.

Sağlanan müşteri hizmetlerinin seviyesi ve kalitesi, var olan müşterilerin elde tutulmasında ve yeni müşterilerin çekilmesinde belirleyici olabilir. Bu nedenle, lojistik müşteri hizmetlerinde meydana gelen bir hata ve bu hatanın marka algısına etkisi azımsanmamalıdır. Ayrıca, bu hata durumuna üçüncü parti lojistik hizmet sağlayıcının dahil olması, müşterilerin verdiği tepkilerde, özellikle de hata nedenini atfetme davranışında, dikkate değer değişiklikler yaratabilir.

Bu çalışma beklenti düzeyi, satın alma önemlilik düzeyi ve üçüncü parti lojistik hizmet sağlayıcı gibi dinamiklerin müşteri marka algısındaki ve hatayı atfetme davranışındaki etkilerini senaryoya dayalı deneyler ile açıklamaktadır. Sonuçlar, lojistik hatalarda, beklenti tabanlı iki tampon etkisine işaret etmektedir. İlk tampon etkisi, genel marka değerlendirmesinde ve tekrar satın alma eğiliminde; ikinci etki ise markaya yapılan hata atıf davranışlarında gözlemlenmektedir. Yüksek beklenti düzeylerinin markayı koruduğu ve marka yerine üçüncü partiye daha fazla atıf yapılmasına neden olduğu bulunmuştur. Bunlara ek olarak, kritiklik düzeyinin de marka algısını ve atıf davranışını önemli derecede etkilediği sonucuna ulaşılmıştır.

Anahtar Kelimeler: Lojistik Müşteri Hizmetleri Hatası, Beklenti Düzeyi, Önemlilik, Marka Algısı, Bilişsel Tutarlılık Teorisi, Nedensel Atıf Teorisi, Üçüncü Parti Lojistik Hizmet Sağlayıcı

*To the memory of my father*

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Bengü Oflaç

Izmir, June 2011

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## LIST OF ABBREVIATIONS

B2B: business to business

B2C: business to consumer

3PL: third party logistics

HC: high criticality

LC: low criticality

HE: high expectation

LE: low expectation

Attr.: attribution

SA: self-attribution

BA: brand attribution

LCA: logistics company attribution

Unin: unavailable information

Ain: available information

# CHAPTER–1

# INTRODUCTION

## 1.1. Introduction of the Main Concept and General Aims of the Study

In today's global world, supply chain management (SCM) and logistics activities are playing important roles in providing distinctive differences between one company's offer and that of its competitors. Mentzer et al. (2001) defined SCM as an integrative philosophy that directs supply chain members to focus on developing innovative solutions to create unique, individualized sources of customer value and satisfaction through improving both efficiency (i.e., cost reduction) and effectiveness (i.e., customer service) in a strategic context to obtain competitive advantage.

According to this comprehensive point of view, the scope of SCM involves not only logistics management but also all other functions within a supply chain to create customer value and satisfaction. Christopher (1992) stated that a supply chain is a network of organizations, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services delivered to the ultimate consumer. In this context, logistics systems increase the level of responsiveness to the consumers' implicit and explicit wants and needs as a support and reinforcement to the other marketing strategies.

Due to the emergence of customer based strategies, supply chain management and logistics management have begun to carry a crucial importance on brand perception. A supply chain can serve as a powerful pillar to build up a strong and valuable brand. Global companies like Zara, Dell, WalMart and IKEA are the strong supporters of

this approach. Dell's consistent service philosophy, Zara's quick response strategy, WalMart and IKEA's reasonable price concepts are derived through well managed inventory and transportation activities. These are likely to be the indicators of how efficient and effective supply chains impact the process of building strong brands. It can be claimed that these companies can fulfill and moreover exceed the expectations of their consumers through well-designed logistics systems and supply chain management in order to differentiate themselves in the eyes of their consumers.

Tucker (1994) defined customer service as a key to understand a customer and his perceptions. According to Tucker, it does not matter what a supplier does, instead what customers think the supplier does in the area of customer service matters. Thus, logistics customer service can be defined as the most crucial interface point of supply chain management that has influences on customer satisfaction and on brand perceptions. Logistics customer service refers to the logistics dimensions such as availability and timeliness, etc. (Mentzer et al., 1989). The level and the quality of customer service provided to customers can determine whether the organization will retain existing customers and how many customers it will attract (Lambert et al., 1998).

Hence, it can be stated that a failure in the logistics customer service may affect overall perceptions on brand. Here, one of the main arguments is that the perception of delays as customer service failures can show discrepancies in terms of consumer expectations and the perceived criticality of that purchase. This study explores the impact of problems that may occur in the delivery process by considering consumer expectations and purchase criticality on brand evaluations and repurchase intentions.

In logistics customer service failure situations, the consumer seeks the location of the cause (Hess et al., 2003). The important question is "*Who is to blame for the failure?*". Consumer, focal company/brand or third party logistics (3PL) company can be seen as the cause of failure and be blamed. However, in this accusation process, different cognitive processes can take place and alter the intentions and evaluations of consumers. This study investigates the locus of attribution in the context of theoretical frameworks.

### 1.2. Research Questions

The research questions addressed in this study are as follows:

- After experiencing a logistics customer service failure, how does the failure affect overall evaluations of the brand and repurchase intentions?
- Do the evaluations of the brand and repurchase intentions differ according to the criticality of the service and the losses?
- Is there any difference in evaluations of the brand and repurchase intentions between the consumers holding different levels of (high/low) expectations?
- What happens to the reactions when criticality and expectations are considered at the same time?
- Does the tendency of attributing blame (attribution to brand, to logistics company and to self) for logistics service failure change according to criticality situations, expectations and availability of 3PL company information?

### 1.3. Significance of the Study

Although delays are widely studied in the service literature as failures related to pure service offerings such as the delays in restaurants or airports, this study focuses on the delays occurred in the product delivery process and approaches them as logistics customer service failures.

In the logistics and supply chain literature, there is lack of understanding the consumers and their reactions to failures. The logistics customer service is generally associated with the relationships and failures in business to business (B2B) environment. This study may provide an insight for the consumer behavior orientation in logistics customer service. In order to take corrective or preventive actions, understanding the consumer is critical.

Defining critical situations for the consumers and combining them with the individual expectations can provide comprehension for the impacts of delay failures on overall customer evaluations, repurchase intentions and attributions. This study may also contribute to the awareness of the role of logistics in brand evaluations and repurchase intentions by integrating marketing and logistics literatures.

It is also important to understand consumers' attributions for logistics service failures. The expectations, criticality of that purchase and the information provided for the existence of a third party logistics service provider may alter the blame attributions for the brand, for self or for the logistics company. Attribution emphasis in the logistics view is a requirement especially in the case of 3PL involvement. Also

results of this study will supply an insight for understanding the 3PL awareness of the consumers regarding their role in product delivery process.

### 1.4. Structure of the Thesis

This paper is structured as follows. Theoretical background starts with **Chapter 2**, which provides an extensive literature on logistics customer service and failures. Delays and cost of failures are explained in detail.

In **Chapter 3**, the logistics service failure and expectations are discussed in the context of a theoretical framework, Cognitive Consistency Theory, by also taking service criticality factor into account. On the basis of this framework, a set of hypotheses are developed for evaluating the main and interaction effects of expectation and service criticality on brand attitude and repurchase intentions of consumers in the logistics service failure conditions.

Subsequently, in **Chapter 4**, attribution behaviors of the consumers are examined in the light of Attribution Theory. Concepts and classifications of attribution will be viewed and additionally, expectations, criticality of purchase and 3PL knowledge are also associated with the attribution of logistics service failure and hypothesized in this chapter.

**Chapter 5** includes hypotheses, methodology, characteristics of the samples, operationalization of variables, manipulation and confounding checks, validity and reliability discussions, stimulus materials and statistical analyses as well as results are explained.

Finally, discussion of results, their contribution to theory and practice are addressed in **Chapter 6**. Moreover, limitations of the study are explained, and recommendations for further research are provided.

## CHAPTER–2

## LOGISTICS CUSTOMER SERVICE FAILURES

### 2.1. The Place of Customer Service in Product/Service Offerings

"Product is anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need" (Kotler and Armstrong, 2006, p.232). As herein defined, products involve tangibles like physical objects, places, organizations, people and intangibles like services and ideas or a mixture of them.

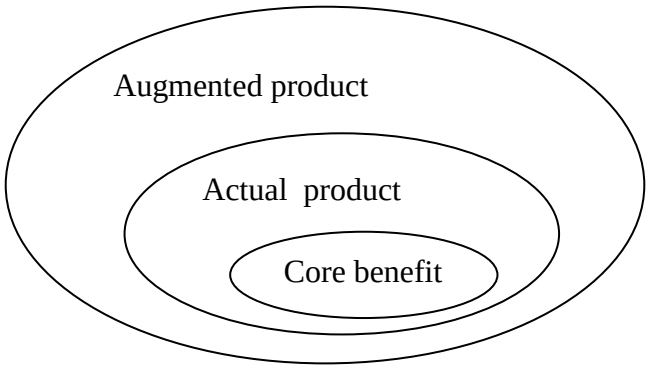



Figure 1. Three levels of products and services (Kotler and Armstrong, 2006)

A product can be divided in three levels: *core benefit, actual product* and *augmented product (*Kotler and Armstrong, 2006). *Core benefits* are the real things that the customers are buying. The real aim in buying the product/service can refer to the core benefit part of the product/service. The features, design, quality, brand name and packaging issues are required to form *the actual product* or *service*. This level also covers the core benefit level. *Augmented product* is a term that defines the combination of core benefit, actual product and supplementary services (Lovelock and Wirtz, 2004). In order to build up the third level, there is a need to offer

additional customer services and benefits such as warranty, after-sales and call centers.

Kotler and Armstrong (2006, p.233) discussed services as “a form of product that consists of activities, benefits, or satisfactions offered for sale that are essentially intangible and do not result in the ownership of anything”. While pure tangible goods are the ones with just a physical product without any services accompanying the actual product, in pure services core benefit and the other levels are all about intangible service offerings. However, between these two types, there are lots of offerings entitled as augmented products that are composed of tangibles and intangibles (Bowen, Siehl and Schneider, 1989).

Oliva and Kallenberg (2003) announced the possible reasons for integration of services with core product offerings as (1) economic outcomes; (2) rise in service demand; and (3) competitive pressures. In terms of economic outcomes, services can provide a more stable source of revenue with higher profit margins. For instance, providing after-sale services will enable to get earnings in a stable way even after the purchasing stage of the consumer.

As more services are being demanded from the companies, the importance of supplementary services is coming into sight for the companies. Due to the customers’ eagerness to get more customized products and service offerings, companies are attempting to design mixed offerings rather than presenting just a physical product.

With globalization, many products become commodities that can easily be imitated. However, services are less visible and more labor oriented and are much more difficult to imitate (Oliva and Kallenberg, 2003). Supplementary services provided along with the actual product are recently becoming more and more important for most of the manufacturing and service companies as a determinant of the position in competition. Obviously, the augmented product is a potential source of product differentiation (Bowen et al., 1989).

Customer service should be considered as a tool for enhancing the product or service offerings and enabling the transformation into augmented product or service. In this study, rather than focusing on a pure service offering, a mixed good-service offering is selected as the main consideration area. Durable goods like appliances require services all through their life cycle starting from acquisition and delivery process. Apart from the delivery service, customers may seek to have additional services such as installation, upgrades and maintenance (Oliva and Kallenberg, 2003).

The companies selling appliances as actual products are also responsible for the delivery process, and after-sales services such as installation, providing spare parts and handling complaints. All these supplementary services can be assessed under the topic of customer service.

### 2.2. Logistics Customer Service Concept

On the manufacturing side, services that accompany products such as acceptable delivery time, after-sales repairs, installation and good attitude of employees delivering the service are defined as customer service (Bowen et al., 1989). Service

firms are different from manufacturing firms because of their greater amount of interaction with customer.

Service encounters have been defined as personal (Keaveney, 1995) and dyadic interactions between a customer and a service provider (Surprenant and Solomon, 1987; Bitner, H. Booms and Tetreault, 1990). This interaction is also being described as the period of time during which a consumer directly interacts with a service (Shostack, 1985) or as an integration of all factors impacting the interaction such as environment and personnel (Bitner et al., 1990; Keaveney, 1995). In a broader way, customers generally appraise service encounters in three dimensions: outcomes as benefits or costs obtained consequently, procedures and interactions (Smith et al., 1999). Though forming just a little part in any transaction, perceptions of the whole process and the repurchase intentions might be formulated during this encounter (Shostack, 1985).

While pure services are mainly characterized by person to person interaction such as medical services or consulting firms (Solomon, Surprenant, Czepiel and Gutman, 1985) and considered as service encounters, in mixed product-service offerings service encounters are generally overshadowed.

In mixed product-service offerings, the service providers are the last players in the supply chains that define or explain the services or products to the end-users, so it can be claimed that the interaction between the service provider and the customer has a crucial impact on the overall evaluation of the services or brands (Suprenant and Solomon, 1987). However, this impact on overall evaluations is generally

underestimated. Due to wide definition of services, service suppliers can be product manufacturers, components manufacturers, system integrators, end-user maintenance units and third parties (Oliva and Kallenberg, 2003).

Customer service has been the major subject of many different studies both in marketing and logistics literatures. While some researchers studied customer service as the basis of market segmentation strategies with different customer needs (Sharma and Lambert, 1994; Kyj and Kyj, 1994; Holcomb, 1994), many of them gave emphasis to customer service dimensions (La Londe and Zinszer, 1976; Mentzer et al., 1989; Emerson and Grimm, 1996). Emerson and Grimm (1996) have defined logistics customer service as providing place, time and form utility by ensuring right place, right time and undamaged condition.

Mentzer et al. (1989) developed a holistic customer service framework which involves availability, timeliness and deliver quality as logistics customer service dimensions where price, product quality, sales support and warranty are assessed as marketing service dimensions. Emerson and Grimm (1996) reevaluated this framework by suggesting quality, product support-customer service, product support-sales, pricing policy, communication, delivery quality, and availability dimensions.

Among the various kinds of customer service classifications, the most popular one can be stated as the pre-transaction, transaction and post-transaction categorization (La Londe and Zinszer, 1976; Lambert et al., 1998; Ballou, 2004).Written statement of customer service policy, customers informed with a written statement of policy, organization structure, system flexibility and management services are categorized

as pre-transaction elements where stock out level, order information availability, system accuracy, consistency of order cycle, special handling of shipments, transshipments, order convenience, product substitution taken as transaction elements. In addition to these elements installation, warranty, repairs, service parts, product tracking, customer complaints-claims-returns, product replacement are considered as post-transaction elements. Each component of these three elements can have significant impact on customers' perceptions of the organization and their overall satisfaction (Lambert et al., 1998).

Logistics customer service has long been recognized as a key area for creating customer value (Holcomb, 1994). Creating value and satisfaction through supply chain activities and customer service elements are studied by some of the researchers (Zokaei and Hines, 2007; Holcomb, 1994).

In this context, the relationship between customer service and satisfaction has been studied from different points of view. In various literatures, satisfaction and service quality are considered as related constructs. While satisfaction is generally associated with a specific transaction, perceived service quality stands as a more comprehensive judgment relating to the superiority of the service (Parasuraman et al., 1988). According to some researchers (Oliver, 1981; Parasuraman et al., 1985) incidents of satisfaction over time result in perceptions of service quality. From another point of view, satisfaction level is determined by the perspective of service quality (Mentzer et al., 2001).

Innis and La Londe (1994) discussed the importance of customer service relation through satisfaction, market share and customer loyalty. Apart from this, Holcomb (1994) emphasized the importance of market segmentation and differentiation in customer service mix for achieving customer satisfaction. While Willett and Stephenson (1969) focused on the relationship between order service time and satisfaction, Davis-Sramek et al. (2008) concentrated on the manufacturers' ability to create retailer customer loyalty through one of the major logistics customer service element: order fulfillment.

Many of the instruments used in logistics regarding to quality ground on the well-known SERVQUAL scale (Parasuraman et al., 1988). This multi-item scale which consists of five dimensions (tangibles, reliability, responsiveness, assurance and empathy) has been widely used for measuring perceived quality. Regarding to the quality of logistics activities, Bienstock et al. (1997) developed a valid and reliable instrument for assessing physical distribution service quality (PDSQ) based on three major dimensions: timeliness, availability and condition. In this study, customer service and logistics quality (timeliness, availability, delivery quality) are stated as the demand-management interface capabilities of logistics that provide product or service differentiation and service enhancement. Mentzer et al. (2001) broadened the definition of PDSQ by the operationalization of other critical aspects of logistics service and named this as Logistics Service Quality (LSQ). With this approach, PDSQ becomes a component of LSQ by extending the dimensions as personnel contact quality, order release quantities, information quality, ordering procedures, order accuracy, order condition, order quality, order discrepancy handling and timeliness.

The aforecited studies focus on industrial markets and consider the intra-firm customer service among retailers and wholesalers, warehouses and the industrial customers in B2B operations rather than focusing on end-user. The perception of end-users should also be taken into account for delivering superior customer services.

The major aim of this research is to explore consumer reaction to logistics service failure situations and the overall effect of these situations on consumers' brand perceptions and attributions. Although there is considerable amount of studies focusing on the customer service and branding separately, the studies that focus on the impact of logistics customer service on consumer's brand perception are scarce. There are some studies like the study of Verbeke et al. (1998) focusing on the consumer's response to the preferred brand out-of-stock situation and the study of Blodgett et al. (1995) exploring the effects of customer service on consumer complaining behavior but they are limited in number.

Appliances sector has been selected due to the considerable effect of logistics customer service on consumer behavior. Appliances form the actual product part and logistics customer service has a vital role as supplementary services in building up the augmented mixed offering. In this sector, delivery is generally fulfilled after the purchasing process, consequently when a consumer purchases appliance like a washing machine; there is a possibility of encountering a logistics service failure such as timeliness and condition problems in delivery.

Parallel to this statement, in this study, the impact of logistics customer service in the appliances sector is being explored from the service failure perspective. The type of failure emphasized here is not a core service like an attorney service; hence it is taken as a sequential service process that follows the actual purchase.

## 2.3. Failures

### 2.3.1. Service Failures

Although the service companies target the perfect service level for their customers, service failures are inevitable for most of the times due to the complex, variable and inseparable nature of services (Lane and Keaveney, 2005; Ok, Back and Shanklin, 2007). In a customer oriented point of view, a service failure is any occasion where something goes wrong for the customers (Palmer et al., 2000). Service failure is also defined as the service performance that cannot meet the expectations of customers (Hess et al., 2003).

In order to define and categorize, many typologies have been generated by the researchers in the field of service failures (Bitner et al., 1990) According to the literature, there are two types of encounter failures: outcome and process (Smith et al., 1999; Ok et al., 2007). The outcome failures refer to the problematic occasions that take place in the fulfillment of core services, as the primary reason for the service encounter, like not to be served in a restaurant, whereas the process failures are related to the way core service delivered like the misbehavior of the waiter (Smith et al., 1999; Hess et al., 2003).

As for the core service failures, Keaveney (1995) defined three subcategories: mistakes, billing errors and service catastrophes. Among these subcategories, service catastrophe represents the failures that have detrimental effects on people, family and belongings or the failures that cause the customer to lose money and time. Service failures may end up with serious incidents or some piddling events like small delays.

Severity is defined as "the magnitude of loss that customers experience due to the failure" (Hess et al., 2003, 132). The loss occurred from a severe service failure is higher than the loss from a minor failure (Smith et al., 1999; Hess et al., 2003; Harris, Grewal, Mohr and Bernhardt, 2006). Obviously, the severity of the failures may influence the perceptions and reactions of the customers (Smith et al., 1999; Hess et al., 2003). The size of failure based loss influences the satisfaction level of the customer. Previous research revealed that the higher the magnitude of service failure, the lower the level of customer satisfaction is (Harris et al., 2006). Specifically, the more the loss is, the more customer will be dissatisfied and find the failure more inequitable (Smith et al., 1999).

Due to possible loss of economic and social resources, some researchers view service failure as a comprehensive concept involving utilitarian exchange elements as economic resources (money, time and goods) and the symbolic elements as psychological or social resources (status, esteem or empathy) (Bagozzi, 1975; Smith et al., 1999). Customers are seeking redress for the losses occurred as consequences of the failures and thus, companies are endeavoring to recover these failures by compensating with tangibles such as discounts, refunds, upgraded services, free products or services, store credits, etc. or interactional resources as empathy,

acknowledgement of the problem or an apology (Blodgett et al., 1997; Hess et al., 2003; Smith et al., 1999). Magnitude of the failure also influences the resource exchanged during failure and recovery. Smith et al. (1999) found that the magnitude of the failure also impacts the customers' recovery evaluations by representing a reference point for the judgment of failure. When the failure is less severe, quick response and compensation have greater impacts on customers.

There are three identified consumer responses to service failures: exit, voice, and loyalty *(*Hirschman, 1970; Black and Kelley, 2009*).* In the voice behavior, the consumers are inclined to complain and express their dissatisfaction to the company with the aim of contributing to the correction process, provide compensation or preclude other possible service failures deriving from the company's actions. With the developments in technology, online consumer voice mechanisms have been considered as easy tools for the consumers who want to share their thoughts about the failures and the recoveries (Black and Kelley, 2009). Whereas exit refers to the act of leaving the organization by stopping the purchases, loyalty is being used for the consumer who continues with the unsatisfying service with the belief that things will soon amend (Ok et al., 2007; Black and Kelley, 2009). It can be claimed that voice behavior contributes to the feedback process and thus educates the focal company when compared to the blankness of silent exit. Even the existence of discontent can remain hidden as a consequence of exit behavior (Hirschman, 1980). Hirschman's (1970) exit, voice ad loyalty typology subsequently expanded by adding neglect option as a response to dissatisfaction (Kolarska and Aldrich, 1980; Rusbult, Zembrodt and Gum, 1982; Farrell, 1983). This neglect indicates disregardful behavior such as lack of caring and staying away (Rusbult et al., 1982).

Some researchers approach to failure occasions from a rectifying perspective by considering the recovery efforts (Smith et al., 1999; McCollough, Berry and Yadav, 2000; Ruyter and Wetzels, 2000; Holloway and Betty, 2003; Maxham and Netemeyer, 2002; Michel, 2001; Patterson, Cowley and Prasongsukarn, 2006) Service recovery is the response of service provider in case of failures (Black and Kelley, 2009; Smith et al., 1999). Superior recoveries can invert the negative effects of failures whereas poor service recovery efforts can aggravate the impact of service failures (Black and Kelley, 2009). Poor service recovery creates a double deviation effect: failures both in providing the initial service process and in the recovery process (Bitner et al., 1990). Therefore, as well as service failures, failed service recovery efforts may also cause switching behavior (Keavey, 1995; Smith et al., 1999). Researches demonstrate that online retailers can fail in providing recovery efforts that match with consumers' expectation (Holloway and Betty, 2003). Ineffective service recovery attempts may also end up in customer complaining behavior and even worse; these unsuccessful recovery strategies are negatively affecting repatronage intentions (Holloway and Betty, 2003). Due to the fact that consumer's perceptions and expectations of recovery efforts vary depending on a consumer's value orientation in terms of uncertainty avoidance, power distance and collectivism; developing recovery strategies requires being sensitive to the cultural diversity of consumer profile (Patterson et al., 2006). In brief, recovery design is a hard task to accomplish. Additionally, it should be noted that customer satisfaction was found to be lower after service failure and the subsequent highly performed recovery efforts when compared to the error-free situations (McCollough et al., 2000).

Although service failures and recovery have been studied by many researchers in unison, recovery process is considered to be beyond the scope of this study. In order to view the whole part, it is important to apprehend how the consumers process the service failure regardless of recovery (Choi and Mattila, 2008).

Companies' ignorance about ways and means of satisfying certain consumer demands is a widespread action in most of the emerging market sectors (Hirschman, 1980). Service failure occasions should be identified, monitored and analyzed for achieving progress. Developing a deeper understanding of consumer perception and reactions following the service failure occasions may contribute to develop better customer service strategies, to design appropriate recovery efforts and preventable actions (Palmer et al., 2000).

### 2.3.2. Delays as Logistics Customer Service Failures

In today's world, consumers are becoming busier and time sensitive (Diaz and Ruiz, 2002). As a consequence, there is a growing force on service and service related industries for satisfying the time requirements of the consumers. Due to the fact that consumers attach importance and value to time and are eager to pay more for rapid services, companies are formulating strategies for providing faster or on-time services. Moreover, consumers are expecting to have the services compatible with their own time schedule rather than considering the companies' time availability. Consumers' time constraints and priorities, varying from consumer to consumer as well as from one market segment to another, should be considered as a key success driver for retaining the existing consumers and attracting the new ones (Lovelock and Wirtz, 2004).

Though delays are defined as the timing problems that are endemic to services (Hui and Zhou, 1996); they can also occur in mixed product-service offerings. Waiting for the service during the delays can be described as "the time from which a customer is ready to receive the service until the time service commences. It also refers to the state of readiness felt by that customer during the wait" (Taylor, 1994; 56).

Although service failure issues have received considerable attention in the literature, these topics have received only limited attention in the context of logistics services. Delivery problems, including delays and never arrived products, have been counted as the most frequent type of service failures that the consumers are facing in online retailing context (Holloway and Betty, 2003). This study is putting emphasis on the delay occurred in the delivery part of a mixed product-service offering. As a distinctive feature, this study considers delays as a logistics customer service failure rather than a pure service failure.

In addition to the cost-effective techniques focusing on delay driven time and money costs like Queuing Theory, customers' psychological reactions to waiting have also been recognized as a main concern area in the academic field (Carmon, Shanthikumar and Carmon, 1995; Hui and Zhou, 1996; Diaz and Ruiz, 2002; Groth and Gilliland, 2006). Since time is seen as a scarce resource (Feldman and Hornik, 1981), having to wait for the service can drive future behavior and buying decisions by shaping overall service evaluations (Groth and Gilliland, 2006). There are some studies proving that the delays have great impacts on customers' overall service evaluations (Dubé-Rioux et al., 1989; Taylor, 1994; Taylor and Claxton, 1994) and on satisfaction levels (Diaz and Ruiz, 2002; Tom and Lucey, 1995; 1997). Therefore,

waiting for the service was suggested as one of the main reasons for customers' service switching behavior (Keaeney, 1995).

Additionally, researchers in the service literature have mostly focused on the impact of providing information about the reasons and the duration of delays on reactions (Hui, Tse and Zhou, 2006; Groth and Gilliland, 2006; Dubé-Rioux et al., 1989; Taylor, 1994; Hui and Zhou, 1996) and the effects of emotional reactions' (anger, etc.) on delay perceptions (Diaz and Ruiz, 2002; Taylor and Claxton, 1994; Taylor, 1994). It was found that the employees' response to slow service is a very important determinant in the perception of service failures (Bitner et al., 1990). In the poorly organized services no explanation of delay or ignorance can result in the aggravation of the service failure (Bitner et al., 1990).

Furthermore, researchers in the fields of service, waiting and attribution, investigated the situational factors influencing the customer's evaluation of service and delay such as the phase in which delay takes place (pre-process, in-process and post-process delays) (Dubé-Rioux et al.;1989); service or store environment (Tom and Lucey, 1997; Groth and Gilliland, 2006); the type of delays as procedural, correctional, and unknown (Hui,Thakor and Gill, 1998) and service provider's control level over delay (Taylor, 1994; 1995). The mentioned pre-process, in-process and post-process waiting phase categorization (Dubé-Rioux et al.,1989) is not comprehensive by reason of ignoring the location where waiting action takes place (Taylor, 1994). Customers can wait at the actual service setting (e.g., waiting at the bank queue) or can wait at home for the service (e.g., waiting at home for a delivery

to come). In this study, delay driven waiting occurs in the product delivery stage after an actual purchase.

As individual factors, the impact of prior expectations and perceived waiting time (Tom and Lucey, 1995; 1997); the effect of different levels of consumers' needs like hunger (Dubé-Rioux et al., 1989) and the psychological distance to the goal state of service encounter (Hui et al., 1998) have also been explored by the researchers. In a study conducted for online shoppers, the researchers proved that experienced consumers are adding and allowing extra time for delivery due to the experienced delays before (Hollaway and Betty, 2003).

A customer's psychological experience of delays can show discrepancies depending on the perception of time value, and the perceived cost of waiting (Groth and Gilliland, 2006). Importance level of service is a changeable factor according to the personality or occasions and may influence customers' perceived cost of waiting and delays. A customer's reaction experiencing a delay that may result in a real intangible cost such as stress (for missing another subsequent action) or a tangible cost as an extra expense will probably be different from the reaction to a delay that has no certain cost except losing time.

Individual factors, such as personal expectation and criticality can alter the perceptions of delays (Durrande-Moreau, 1999). Thus, defining critical situations and combining them with the individual expectations can provide an insight for understanding the impacts of delay failures on overall customer evaluations, repurchase intentions and attributions.

## 2.4. Cost of Failures

Although customer service is generally considered as crucial only for service companies, it is also important for all the members of a supply chain, from supplier to end-user. Strong customer service is deliberated as a winning criterion for achieving higher sales (Lapidus and Pinkerton, 1995). On the other hand, in case of customer service failures, all the parties involved in the failure incident may be exposed to inevitable costs.

Following a service failure, some perceptional changes arise on the customers' side. Customers tend to view the service failure as a loss and perceived loss depends on the magnitude of the failure (Smith et al., 1999). *Prospect theory* sheds light on the evaluations of customers. According to this theory, outcomes are coded as gains or losses relative to a neutral reference point and thus losses are perceived as larger than gains (Kahneman and Tversky, 1979; Smith et al., 1999). In the service failure context, reference point can be taken as the status quo or an expectation level. Customers probably set reference points as no-failure situation and encode the failure as a loss. This encoding process leads to interpret the failure heavily (Parasuraman, Berry and Zeithaml, 1991; Smith et al., 1999).

Supportively, *negativity bias principle* states that negative events are more salient and dominant in combinations and are more affective than positive events in most of the time (Kanouse and Hanson, 1972). Even if their magnitutes are equal, the negative event is more salient than its positive inverse (Rozin and Royzman, 2001). As it is obvious from the negativity literature, customers may weigh negative things heavily in their perceptions of service failures (Fiske, 1980; Smith et al., 1999).

Consistent with *social exchange* and *equity theories*, in the case of a failure the resources lost should be balanced with the gains received from the recovery effort offered by the company (Smith et al., 1999). However, *mental accounting principle* suggests that when there is a larger loss with a smaller gain, customers are inclined to segregate the failure and the gain (Thaler, 1985). In the service failure context, the customers are segregating the sequential failure and recovery occasions and are inclined to perceive their losses in failures as greater than the gains obtained from companies' recovery efforts (Smith et al., 1999).

In addition to this negativity dominance effect in perceptions, halo effect can take place due to the negativity related alterations in the minds of the customers ( Palmer et al., 2000). Halo effect is defined as "the influence of one's attitude toward an action on beliefs about perceived consequences of the action" (Bagozzi, 1996, p.237) In other words, attitudes shape beliefs (Bagozzi, 1996). Halo effect is the evaluation of a person or an organization in a way that negatively or positively colors the perception (Coombs and Holladay, 2006). Following a service failure, by just looking at a single failure occasion, a brand can subsequently be judged to have many other poor traits. Even worse, service failures may alter the attitudes and by this way can shape the future beliefs and intentions towards a brand.

Disconfirmation of customer expectations leads to customer dissatisfaction (Parasuraman et al., 1985) and negative word-of-mouth (Richins, 1983) also in service failure contexts. Additionally, service failure is a determinator in customer switching behavior (McCollough et al., 2000). Losing customers is a crucial situation

for the companies due to the implicit and explicit costs involved. Losing a customer refers to losing the future revenue coming from that customer.

It can also be claimed that the duration of the relationship with the lost customer has an impact on company's profitability (Keaveney, 1995). Switching behavior of a long-term customer means that the company is losing a high margin and free of charge marketer part of its customer base because loyal consumers are inclined to display lower price sensitivity and favorable word-of-mouth behavior (Annisimova, 2007). These loyal customers have tendencies to purchase more products from the company (Zeithaml et al., 1996) and to make additional purchases such as services for maintenance and accessories. Due to the experience-curve effect, these customers are the ones that can be served more efficiently (Zeithaml et al., 1996). In brief, providing customer retention and maintaining loyal customers play important roles for increasing company profitability (McCollough et al., 2000).

Furthermore, attracting new customers for the replacement of the lost ones requires considerable amount of marketing efforts and expenses. The cost of obtaining a new customer is five times greater than servicing an existing one (Lapidus and Pinkerton, 1995). As for attracting and getting to know the newly acquired customers, companies are setting up new accounts, carrying out credit searches, advertisements and promotional efforts. Obviously, due to adaptation time as an introduction stage, operating cost required to serve a new customer increases (Keaveney, 1995). Hence, new customers can remain unprofitable for a period of time after the acquisition (Zeithaml et al., 1996). Moreover, in order to capture new customers from other companies, there is a need to serve in higher customer service standards.

Apart from losing the customers that might possibly engage in positive word of mouth, customers who switch due to dissatisfaction are more likely to make negative word of mouth when compared to the ones that switch for better prices. Also there is a possibility to retain these unsatisfied customers and to be exposed to negative word of mouth (Wangenheim, 2005). Unfortunately, negative events expand more rapidly both in time and space than positive ones (Rozin and Royzman, 2001). As a consequence of this speedy-spreading negative word of mouth, company may also lose the prospect customers.

Regarding to all these costs both for companies and customers, it is indispensable to develop deeper understanding of failures and their reflections in customers' minds.

# CHAPTER-3

# UNDERSTANDING THE LOGIC OF CONSUMER IN FAILURE SITUATIONS

## 3.1. Expectation Concept

Expectation can be defined as a subjective probability that a behavior will be followed by a particular outcome (Coye, 2004). Expectations either active (anticipated) or passive (not processed until disconfirmation), may have anchoring effects for future satisfaction judgments (Erevelles and Leavitt, 1992; Coye, 2004). Hence, for the marketers, in order to assess the consumer evaluations and after-purchase behavioral intentions, it is important to understand the nature of consumer expectations and the influences upon those (Webster, 1991).

In the marketing literature, expectation is being used in order to connote different meanings like ideal 'can be', normative 'should be' and predictive 'will be' expectations (Hubbert et al., 1995). While 'will be' expectations refer to the ones that the consumers develop about what will happen in their next service encounter; 'should be' expectations are related to the alterable thoughts of consumers about what they deserve. 'Ideal' expectations can be differentiated from the 'should be' expectations in terms of representing enduring wants that remain unaffected by the external factors (Boulding et al., 1993; Hubbert et al., 1995). Service expectations are also defined as desired, adequate and predicted (Zeithaml et al., 1993). The distinction between these different meanings of expectation is also supported with empirical findings. Boulding et al. (1993) found that the rise of *will be* expectations leads to higher perceptions of quality after exposure to actual service while

consumers' *should be* expectations are diminishing the perceptions of the actual service delivered.

Previous research indicates that expectations are formed through direct experience with the product, experience with similar products and information from external sources like media and social environment (Webster, 1991; Spreng and Page, 2001). In addition to past experience and external communications, expectations can also be formed as a result of word-of-mouth communications and personal needs (Zeithaml et al., 1985). Moreover, Oliver (1980) suggested that personal attributes such as perceptual distortion and symbolic elements are also influencing the formation process of expectations as well as the interactions with social referents and prior experience with product.

Impact of all these factors may vary in persuasiveness and reliability. For instance, personal need level is a factor that influences the persuasiveness level of the communication source. The stronger the need, the more effective the communication source in building expectations. Furthermore, impact of sources on service expectations can differ according to the service type involved (professional or non-professional services) (Webster, 1991).

Depending on the credibility and reliability of source, expectations are likely to differ in their confidence level (Spreng and Page, 2001). In other words, expectations formed through expert opinion or real purchase experience can be taken as more reliable and strong by the individual than the ones generated via advertising. Confidence in expectations may also change according to the familiarity and

complexity of the product category. Unfamiliarity or complexity of the product can also create nebulous expectations (Churchill and Surprenant, 1982). In order to eliminate the impact of pre-purchase experience and the source effect on expectation, this study utilizes fictitious brands.

### 3.1.1. Disconfirmation of Expectation Paradigm

Expectation is a phenomenon that is largely studied both in satisfaction/dissatisfaction (S/DS) and service quality literatures (Oliver, 1980; Boulding et al., 1993; Spreng and Page, 2001; Yi and La, 2004). Expectations serve as a reference point with which subsequent experiences are compared resulting in evaluations of satisfaction or quality (Zeithaml, Berry and Parasuraman, 1993). According to disconfirmation paradigm, expectations are confirmed when the product performs as expected (zero disconfirmation), negatively disconfirmed when it falls short of expectation and positively disconfirmed when it exceeds the expectation (Oliver, 1980; Webster, 1991).

Satisfaction and service quality literatures are considering expectations and perceptions as in connection with the disconfirmation of expectation paradigm (Oliver, 1980). In S/DS literature, satisfaction is generally defined as the additive combination of expectation level and the resulting disconfirmation (Oliver, 1980). Thus, expectation is considered to be one of the major antecedents of satisfaction (Oliver, 1980; Spreng and Page, 2001). Due to the impact of satisfaction on attitude change, repeat purchase and brand loyalty (Webster, 1991), developing a deeper understanding for consumers' expectations is arising as a fundamental concern.

Service quality literature considers expectations as pretrial beliefs forming reference points with which product performance is compared. Perceived service quality is formed as a result of the comparison between consumer expectations and service perceptions (Zeithaml et al., 1993). Boulding et al. (1993) found that if the consumers' service quality perception is high, they are more likely to display positive behaviors such as positive word of mouth or repurchase.

Parasuraman, Zeithaml and Berry (1985) suggested the service quality model and defined some gaps on the marketer side that can affect the perception of quality. The management's misunderstanding of consumer quality needs (consumer expectation and management perception gap), the possible differences between management perception and the established service quality specifications due to resource and market constraints (management perception and service quality specification gap), and the variety that occurs during the execution of service quality specifications (service quality specifications and service delivery gap) may affect consumers' perception of service. Furthermore, external communications like media ads are also influencing consumer expectations and perceptions of service. Promising more than possible in service business will raise initial expectations but lower the perceptions of quality when the promises are not kept (service delivery and external communications gap). Furthermore, absence of information related to service delivery or company's invisible special efforts can stimulate the discrepancy (Parasuraman et al., 1985; Webster, 1991).

The last gap is the one that exists between expected service and perceived service. Consistent with the disconfirmation paradigm, if expected service is greater than the

perceived service, perceived quality is less than satisfactory. When they are equal, perceived quality is satisfactory and when expected service is less than perceived service, perceived quality is more than satisfactory (Parasuraman et al., 1985).

Although both the satisfaction and service quality literatures are grounded on disconfirmation paradigm, the conceptualizations of expectation in the mentioned literatures show discrepancies (Parasuraman et al., 1988). In the gap based service quality model, perceived service quality is defined as the gap between expectations and perceptions (Parasuraman et al., 1988). They identify (1988, p. 17) expectations as "desires or wants of consumers, i.e., what they feel a service provider should offer rather than would offer" and perceptions as the beliefs of consumers on the service received (Parasuraman et al., 1985). Normative 'should be' expectations based on what consumers think that they deserve are used as the comparison standards for service quality evaluation. On the other hand, in the satisfaction literature, expectations are defined as belief probabilities of what the consequences of an event will be (Oliver, 1980).

### 3.2. Expectation and Failure

The companies are generally assessed through not only the performance and the quality of their products but also the number and the extent of the problems that the customers encounter and the recovery options offered by the company for solution (Colgate and Naris, 2001). Service failure is a term associated with the problematic occasions that a customer exposes during the service processes (Spreng et al., 1995). These failures may derive from different factors. Apart from gaps as occurred in different processes (Parasuraman et al., 1985), variance in subgoals between

customers and service providers can also cause disparity (Hubber et al., 1995). In addition to this, perceived beginning point of service encounter comprehended differently by customers and service providers can also cause problems.

In the satisfaction and dissatisfaction literature, disconfirmation paradigm asserts that the higher the expectation related to actual performance, the greater the level of disconfirmation and the lower the satisfaction (Oliver, 1980; Webster, 1991). Accordingly, in the gaps model of service quality, expectations play a contrasting role. As service quality formed through a comparison between perceptions of service and expectations, an increase in perceptions or a decrease in expectations result in increased service quality.

As herein defined, service failure is described as the service performance that falls below a customer's expectations (Hess et al., 2003). In the light of mentioned perspectives, a decrease in expectations may contribute to reduce the degree of failure perceived by increasing satisfaction and perceived service quality. However, there is another perspective that presents a contradicting view for expectation when compared to satisfaction and service quality literatures: Cognitive Consistency Theory.

### 3.2.1. Cognitive Consistency Theory

Consistency refers to harmony, balance and equilibrium (Brown, Asher and Cialdini, 2005). Cognitive consistency theories can be identified as the attempts to explore processing in tasks that involves multiple variables (Simon et al., 2004).

The motive for providing and maintaining consistency has been the focus of many academic studies and theory building efforts (Festinger, 1957; Osgood and Tannenbaum, 1955). Cognitive consistency theory is a grounded theory inspired from many other relative theories such as balance theory (Heider, 1958), cognitive dissonance theory (Festinger, 1957) and congruity theory (Osgood and Tannenbaum, 1955). Cognitive consistency theory as a social cognitive theory of attitude-behavior consistency leans on the hierarchy-of-effects principle, in other words, rationality (Sapp, 2002). According to this hierarchy, attitudes reflect beliefs, intention reflects attitudes and behavior reflects intentions (Fishbein and Ajzen, 1975). Rationality as a concept deriving from different cognitive processes such as expected utility, subjective utility, attribution and resolution of cognitive dissonance is the focus of to all hierarchy of effects based theories (Sapp, 2002). However, there are some factors that can form obstacles to rationality. Existence of contradictory beliefs, countervailing values, limitations in knowledge, addictions motivated by both physical and social conditions (e.g. alcoholism) and any kind of abnormal psychology can create inconsistency or nonrationality in behaviors (Sapp, 2002). Otherwise, the hierarchy-of-effects principle assumes that behavior represents the logical outcome of beliefs, attitudes and intentions.

What lies underneath cognitive consistency is a set of structural dynamics principles explaining the effect of interaction among the pieces of psychological knowledge on cognition (Markus and Zajonc, 1985). As the first principle, cognitive states are determined holistically rather than elementally. In addition to the singular effect of cognitions, interaction of cognitions also play an important role in the determination of cognition states. Secondly, structural properties are dynamic. Some things go

together while the others do not. These relations beween cognitions can determine the stability and the level of change. The third principle states that the dynamic characteristics of mental processes have a tendency to settle at states in which all the components have the same dynamic character like all positive or all negative as contrasting sides. Consonance (Festinger, 1957) is a term that defines this equilibrium and balance of states. Hence, dissonance can be defined as the two cognitions that do not fit or the situation that one does not follow the other (Festinger, 1957). Dissonance causes some kind of psychological reactions such as tension, discomfort and strain (Brown et al., 2005) and at the same time an urge to reduce these reactions (Nail, Misak and Davis, 2004).

Invariably, this dynamic structure involving states of disequilibrium may result in changes and reconstruction of cognitive elements in order to provide the equilibrium. In this reconstruction stage, the aim is to get rid of dissonant elements by changing the dissonant cognitions and their personal attitudes- behaviors or by decreasing the personal importance level of the dissonant cognitions (Festinger, 1957; Simon, Snow and Read, 2004). Rejecting one proposition as being false, adding consonant cognitions and finding an additional explanation for support are the other possible alternatives for solving the inconsistency of states (Festinger, 1957; Gawronski and Strack, 2004). It is found that the dissonance related attitude changes may emerge only for explicit attitudinal judgments, not for implicit evaluative associations (Gawronski and Strack, 2004).

According to self-consistency model of dissonance, inconsistency appears when people perceive a discrepancy between their behavior and their personal standards or

self-expectancies for the self attributes of competence and morality (Stone and Cooper, 2001). Nevertheless, preference for consistency is a concept related to some personal attributes such as openness to new things and information, rigidity and personal need for structure. Low preference- for- consistency people can be considered as open to new stimuli regardless of the consistency with their previous expectations, commitments and choices (Cialdini, Trost and Newsom; 1995).

### 3.2.2. Expectation and Failure in Cognitive Consistency Theory

Preexisting beliefs and prior expectations are found to have an assimilation effect via creating bias on the perceptions, especially on the perceptions of current performance (Spreng and Page, 2001). Previous research suggests that high expectation of service level can act as a buffer in the poor service occasions. Without any differences in order variables, the people with high expectations of service encounter evaluated the service quality as higher than the ones with low expectations (Boulding et al., 1993).

Due to the fact that customers' overall quality perceptions affect their overall evaluations following a service failure (Choi and Mattila, 2008), this finding plays a significant role for understanding the customer reactions upon a failure. Consumers holding high expectations (formed through reading overstatements on quality) but were negatively disconfirmed, rated product quality higher than the ones holding low expectations. Assimilation effect on performance evaluations took place toward manipulated expectations (Olshavsky and Miller, 1972).

Also it is found that positive prior experiences and beliefs towards a firm predominate the new information gathered during the service failure experience

(Bolton, 1998; Yen et al., 2004). Even, in instances where brand crises occurred due to the delivery of defective and dangerous products, positive prior expectations were found to constitute an insurance against the devastating impacts of crises on brands (Dawar and Pillutla, 2000).

Assimilation may or may not occur; even contrast effect can take place depending on different occasions (Sherif, Taub and Hovland; 1958). For instance, it is found that the anchoring effect of expectations on subsequent performance evaluations and quality perceptions can vary according to the discrepancy between expectation and performance. If the discrepancy is high, one would tend to contrast his evaluation with the previous expectation and if the discrepancy is low, assimilation of evaluation toward the expectation can be observed (Olshavsky and Miller, 1972). Also, in a study conducted by Voss, Parasuraman and Grewal (1998), empirical support was provided for the impact of price-performance consistency on the relations between pre-purchase expectations and post-purchase evaluations. If there is consistency between price and performance, consumers assimilate their subsequent judgments; however in case of inconsistency, expectations may have no effect or a negative (contrast) effect on judgments.

Furthermore, consumers with high source confidence for their expectations depend on disconfirmation rather than performance and they are inclined to display greater assimilation effects. However, the consumers holding lower levels of expectations may not be so strongly committed to their pre-existing expectations because they are evaluating according to performance or desires (Spreng and Page, 2001).

This is relevant with the cognitive consistency theory. According to the cognitive consistency theory, people seek for consistency between attitudes and cognitions (Abelson et al., 1968; Yen et al., 2004). In light of this theory, when individuals with high positive expectations encounter to a service failure, they feel dissonance and tend to ignore the service failure information which is inconsistent with their expectations. Selective interpretation can provide internalization of the failure in a way to protect prior expectation by legitimizing it with some causal attributes (Yen et al., 2004). By reason of the buffer effect, disconfirmed high expectations may turn into higher customer service expectations for recovery. Consumers who have high involvement may expect more from the companies that they are committed to in an exchange for their patronage behavior in failures (Hess et al., 2003).

Gronroos (1988) describes the brand reputation and image as a filter that influences the perception of the operation of the company. Brand image and reputation generated through actual purchase or social environment can create a halo effect on consumers' attitude (Yen et al., 2004) and future intentions.

Additionally, single failure occasion can be seen as inadequate to influence the overall impressions especially by the individuals with high-expectations. A consumer can have a tendency to believe that a brand with high reputation and good image also has a good customer management system and may discount the importance of an isolated logistics customer service failure (Gronroos, 1988; Choi and Mattila, 2008).

Based on these arguments, the proposed main effect hypotheses are below:

**H1:** Following a logistics customer service failure, overall brand evaluations are likely to be higher among consumers holding higher expectations for the brand than those with lower expectations.

**H2:** Following a logistics customer service failure, repurchase intentions are likely to be higher among consumers holding higher expectations for the brand than those with lower expectations.

### 3.3. Criticality Concept

When a purchase occasion is more important to a customer in terms of the consequences, he/she is likely to assess service failure as more critical (Ostrom and Iacobucci, 1995; Webster and Sundaram, 1998). The same purchase can be perceived differently depending on the situational factors. Even, the purchase of the same product can be associated with different levels of situational involvement for the consumer depending on the importance of the purchase situation. For instance, involvement in gift buying is greater than the purchases for personal use (Clarke and Berk, 1979).

Due to the criticality perception based on consequences, criticality can be associated with the severity of failures (Hess et al., 2003). Criticality of the service can also determine the severity of the failure related to that service due to the occurred tangible and intangible losses.

The studies related to service criticality are rare. In the study of Ostrom and Iacobucci (1995) criticality was selected as a between-subjects factor for experience (hotels, fast food outlets, hair salons and checking accounts) and credence services

(tax consultant, psychotherapy, physicians and financial investments). The impact of different service attributes such as price, quality, friendliness of service personnel and the degree of service customization were also taken into account along with the service industry type, criticality and the type of evaluative judgment. With this study, consumers are found to be price sensitive for less critical experience service situations (hotels, fast food outlets, hair salons) when compared to the high critical ones.

There are some studies focusing on the impact of criticality on recovery evaluations of the consumers. Webster and Sundaram (1998) found that the criticality of service consumption has a significant negative effect on consumers' perceived level of satisfaction with the recovery efforts and loyalty toward the firm. Furthermore, according to the criticality level of service, different type of recovery efforts should be offered to the consumers for restoring customer satisfaction and maintaining loyalty after a failure. Additional empirical support was provided by Levesque and McDougall (2000) for the influence of problem severity and criticality level of the service on the effectiveness of recovery efforts, loyalty and customer complaint behavior. Criticality effect on the success of recovery efforts can show discrepancy between different nations and cultures (Gubler, McCarter, Seawright and Zhang, 2008).

In service encounters, personalization signifies any behavior that contributes to the individuation of the customer by emphasizing uniqueness as a person and fulfilling the special needs (Suprenant and Solomon, 1987). Personalization can be considered as one of the major factors that influences the perceptions of customers in service

encounters. These personalization efforts may refer to a smile, a gesture, eye contact or the customization of the service according to the needs of customers.

Especially in criticality occasions, service providers may receive specific customer demands. Customization and quality was found to be more important for high critical service encounters than for less critical ones (Ostrom and Iacobucci, 1995). Customers have high expectations of situation-specific personalization not only for critical service encounters but also for the recovery efforts following a possible failure (Hollaway and Betty, 2003).

In this study, customers are seeking to have on-time delivery as promised. In high criticality situation, delay may cause food decomposition and this failure will probably be evaluated as more severe due to the related monetary and time costs endured when compared to the low criticality situation.

In case of failures, high-criticality situations are likely to create greater dissatisfaction than the low-criticality situations (Levesque and McDougall, 2000). Regardless of the recovery efforts, it is predicted that when consumers encounter service failures, depending on the criticality levels of the situations, their overall brand evaluation and repurchase intentions are likely to differ. Based on the arguments above, the main effects are hypothesized as:

**H3:** Following a logistics customer service failure, overall brand evaluations are likely to be more favorable among the consumers in low criticality situations than those in high criticality.

**H4:** Following a logistics customer service failure, repurchase intentions are likely to be more favorable among the consumers in low criticality situations than those in high criticality.

Moreover, criticality situations by interacting with expectation and cognitive consistency may generate different results. The main aim is to investigate whether high expectations play a buffer effect in high criticality situations or not. Based on the preceding discussion, the interaction effects are hypothesized as follows:

**H5:** In high criticality situations, consumers holding high brand expectations should evaluate logistics customer failure more favorably than the ones with low brand expectations in terms of brand evaluations.

**H6:** In high criticality situations, consumers holding high brand expectations should evaluate logistics customer failure more favorably than the ones with low brand expectations in terms of repurchase intentions.

# CHAPTER-4

# CONSUMERS' ATTRIBUTIONAL APPROACH TO FAILURES

## 4.1. Attribution Theory

Heider (1976) explained the motivation for attribution by stating that "Attribution is part of our cognition of the environment. Whenever you cognize your environment you will find attribution occurring" (p. 18). Hence, according to Heider, to develop a better understanding of surroundings and to have control over the environment can be affirmed as the basic reasons of attributing behavior.

Individuals, groups and organizations possess an inherent need to understand the causes of events (Heider, 1958; Jones and Davis, 1965; Kelley, 1973; Weiner, 1974, 1980, 1983). This is parallel to the definition of attributions as attempts to understand the factors involved in perceived causation (Harvey and Weary, 1984).

The scope of attribution research involves all aspects of causal inferences including the initial perception stage, causal judgment as well as social inference, and consequences related (Crittenden, 1983; Folkes, 1988). Attribution theories can be classified as those focusing on the cognitive processes that link perceived causes with their antecedent conditions and as the ones focusing on the dynamics of behavior and the links between perceived causes and their consequences (Kelley and Michela, 1980).

The standard attribution theory in social psychology is related to the explanations of a particular person behavior for the interpretation of experiences in terms of causes

and effects (Heider, 1958; Wimer and Kelley, 1982). This personal interpretation is substantial in the development and maintenance of interpersonal relationships (Heider, 1958; Kelley, 1979) due to the fact that interpersonal relations depend to a large extent upon each person's interpretation of the other's behavior. In this point of view, attribution theory has been widely used by the researchers in explaining social interactions. For instance, in close relationships between lovers or married couples and family relations, attributions are being used as a communication tool for expressing feelings such as hurt and blame (Orvis, Kelley and Butter 1976; Harvey, Wells and Alvarez 1978).

In addition to the personal and interpersonal relations, attribution involves the achievement domain. In this domain of study, the main emphasis is on the way a person judges the causes of achievement outcomes and their effects on future achievement behavior (Weiner, 1974).

### 4.2. Development of Attribution Theory

Fritz Heider proposed two concepts that remain influential up to now: Attribution theory and balance theory. Since then many researchers, in particular, Jones and Davis (1965), Kelley (1967) and Weiner (1974, 1980, 1983, and 1985) have contributed to the area of attribution with their thoughts and analyses.

According to the Heider's point of view (1958), any event or action in the environment can give rise to the search for causes (departure of a plane, the purchase of a house, etc.). Heider suggested the well-known basic distinction of causes: internal (personal causes) and external (environmental or situational causes).

Heider's causal ascriptions encompass reasons, thus reasons and causes were taken as a whole.

Kelley (1967) extended the ideas of Heider and drew attention. Kelley's covariation theory served as an important approach for understanding the effect of information covariation on causal inferences. Kelley's schemata (1972) enables to assembly the information required by covariation analysis in attribution process.

Jones and Davis's (1965) correspondent inference theory is an attribution theory that covers inference of intentions and investigates how an observer of an action makes inferences about the personal dispositions of the actor acting in behavioral freedom. Actor-setting causation, non-common effects, and expectations play significant roles in the inference process of actor's personal dispositions.

Heider's one dimensional taxonomy (internal and external) was elaborated by Weiner (1972, 1974) by appending new causal dimensions such as stability and controllability. The information based model of Kelley served as a basis for Weiner's classification.

In light of Weiner's studies, the attribution theory has been centered upon a different focus: achievement. In achievement domain, there is a desire for finding the causes of success and failure, in brief achievement outcomes (Weiner, 1974). The consumers are conducting attributional search for the causes mostly for negative and unexpected events due to the fact that negative events arouse more causal attribution than the positive ones (Folkes, 1984; Rozin and Royzman, 2001).

Weiner (1974, 1983) focuses on negative end results that elicit attribution related activity such as being fired from work rather than achievement activities like accepting a particular job and the things lying beneath.

Weiner and other researchers (Harvey and Weary, 1984; Weiner, 1974, 2008) have contributed to the attribution field by distinguishing reasons from causes and outcomes from events. Reasons are being used in everyday life, especially in expressing the actions that are intentionally accomplished with free will and desire in order to get a benefit, referring to purposes of a behavior (Harvey and Weary, 1984; Malle, 2004; Weiner, 2008). Unlike the reason and event, there is no intention or free will for the cause and the related outcome. Lack of intelligence can be a cause for a failure outcome. Causes are forming necessary and sufficient conditions for outcomes (Harvey and Weary, 1984).

Furthermore, Weiner (2008) argued about the ambiguity in the scope of attribution in terms of using future and past beliefs. By this way, he has brought two directional views into attribution theory: backward and forward attributions. The processes and information explaining the causal decisions (I succeed because I studied a lot) or the effects of causal judgments on future behavior (I can quit smoking, and thus will improve my health) can both be within the scope of attribution theory (Weiner, 2008).

With the contributions of all these researchers, attribution theory expanded and turned into a broad approach that sheds light on the consumers' cause and effect relationships in failure perceptions.

### 4.3. Causal Attribution Dimensions

Causality is investigated under three dimensions: locus, stability and controllability (Heider, 1958; Weiner, 1980).

*Locus* is about whether the cause is internal or external to the actor (Heider 1958; Weiner, 1980).The main consideration in locus whether the cause of failure is related to consumer or is located somewhere in the production or distribution of the product (Folkes, 1984). In addition to the internal and external terms, person-environment and disposition-situation distinctions are being used for expressing the locus of attribution (Wimer and Kelley, 1982). The terms of buyer-related and seller-related are being used to define the locus in two causal-agents situation. However, more complexity arises in determining the locus in supply chains where multiple causal agents interact. The failure can be retailer-related, buyer-related or wholesaler-related (Folkes, 1988). This finds its parallel in the Wimer and Kelley's (1982) simple and complex causes' distinction. While simple cause term refers to the sole cause of an effect and is sufficient for creating that effect, complex causes specify a part in a set of causes which produces many effects. Furthermore, proximal and distal are also being used for detecting the place of cause in the funnel of causality. Simple causes are proximal and the complex ones are distal from event (Wimer and Kelley, 1982).

*Stability* dimension refers to the perception of causes as temporary (just for once) or permanent (remaining stable). Stable causes indicate enduring problems that are widely common in service failure settings. A failure related to the processes or inadequate staff can be considered as a stable cause while the one-time happening

events deriving from unpredicted situations are perceived as unstable (Hess et al., 2003).

*Controllability* is the belief of consumers about whether the company could impact or prevent the occurrence of a failure (Hess et al., 2003). Causes can also be or cannot be controllable by the firm due to being subject to personal influences or other constraints forcing. Controllability dimension refers to the volitional or non-volitional causes (Folkes, 1984).

This study is restricted to locus attributions of consumers.

### 4.4. Antecedents of Causal Attributions

Attribution may result from motivational or non-motivational processes. Three antecedents of causal attribution have been defined: motivation, information and beliefs (Kelley and Michela, 1980).

#### 4.4.1. Motivational Factors

Motivation as an impetus for undertaking tasks has an important role in attribution research (Wimer and Kelley, 1982).

**Self-serving biases:** These ego-defensive biases are the esteem based biases that have motivational impacts on attributions (Harvey and Weary, 1984). Consumers have a tendency to attribute good outcomes to self and accept more responsibility for them while attributing bad things to external or situational outcomes. By this way, an individual is protecting his/her self-esteem (Harvey and Weary, 1984; Folkes, 1988).

This motivation to maintain self-esteem is also valid in the explanation of divergent causal attributions for success and failure. Personal responsibility for failure is disaffirmed as a result of self-protection motivation, because the failure is observed as a threat to self-esteem implying that the individual is not competent, intelligent, etc. (Larson, 1977). Besides this self-serving motivation, defensive attribution referring to the attribution of blame to the victims can also take place and impact the attributions made (Folkes, 1988).

**The false consensus effect**: This indicates a tendency to assume a false consensus of one's behavior (Folkes, 1988). This can arise from incomplete information or a motivation for self-validation. Common things and behaviors shared by many people are perceived as more appropriate than unique or unusual ones (Sherman et al., 1983).

**Self-presentation:** The individuals tend to express causal attributions designed for gaining approval from others (Harvey and Weary, 1984). Self-presentation motivations have influences on causal attributions (Arkin, Appelman and Burger 1980).

**Control motivation:** The desire for control is one of the key driving forces in attribution behavior (Harvey and Weary, 1984). Attributional activities tend to increase following a situation with lack of control (Pittman and Pittman, 1980).

### 4.4.2. Information

Information and information related antecedents can be taken as cognitive processes (Harvey and Weary, 1984).

**Kelley' cube and covariation theory**: This theory served as an explanation of the cognitive processes of attributions by illuminating the effect of information on causality (1967). Covariation refers to the process by which an individual's attributes effects to those causal factors with which they covary, rather than to those from which they are relatively independent (Harvey and Weary, 1984). According to Kelley (1967) people use three types of information when interpreting the cause of a behavior: *distinctiveness, consistency and consensus.* Related to causation, an individual expects to encounter information patterns which are characterized by certain levels of consensus, distictiveness and consistency (Orvis, Cunningham and Kelley,1975). The individual relates the information of a specific behavior to these expected patterns and interprets the behavior in terms of the attributions implied by the consistent patterns (Orvis et al., 1975).

An attribution is made if it is uniquely associated with him or distinctively occurs in the presence of a particular stimulus, if it is consistent over time, and if it is consensusly experienced by an amount of people or a combination of any of this information affect the attributions made. Individual compares each piece of information to these patterns and interprets it in terms of the one or two of them corresponding.

**Discounting principle:** According to this principle, people tend to minimize the effect of an attribution for an action when they are aware of other plausible causes (Kelley, 1972).

**The actor-observer bias**: This refers to the observer's tendency to attribute the actor's behavior to the actor's personal dispositions, while the actor attributes the same action to situational factors (Jones and Nisbett, 1971; Harvey and Weary, 1984). The reason of this can be explained by the differential salience of information available to both actor and observer. Actor has more detailed information on his situation, motives and history than observer can access (Jones and Nisbett, 1971)

### 4.4.3. Beliefs

Preexisting assumptions and expectations can influence the attribution process (Harvey and Weary, 1984). Especially prior expectations for success (Feather, 1969, Feather and Simon, 1971; Weiner, 1985) may change the perception of cause or can magnify the attribution. According to Weiner (2000), customers' positive impressions and beliefs deriving from the past experiences become frozen and not easily changed by current performance. In addition to this, individuals are inclined to take more personal responsibility for expected than for unexpected outcomes (Feather, 1969; Feather and Simon, 1971).

Attributions can be altered by influencing motivations, by changing information availability, and by creating beliefs. Neverthless, it is not easy to change the previously formed attributions due to consumers' internalisation of attributions as beliefs (Folkes, 1988).

### 4.5. Reasons for Attributional Discrepancies in Service Failures

Attribution for failure refers to the subject's perception of which party or parties are at fault for the service failure (Harris et al., 2006). Consumers are inclined to blame firm, themselves or some combination of these in service failures. However, buyers and sellers may view different reasons for the failure and this incongruity may lead to varied recovery expectations and conflict (Folkes, 1984; Folkes and Kotsos, 1986). Thus, understanding the antecedents and reasons of attributions are crucial for the firm regarding to the implications on satisfaction, repurchase intentions and solution efforts.

The discrepancies in attributions and the antecedents have been studied by different researchers in product and service failure literatures. Folkes and Kotsos (1986) conducted an experimental study in which consumers and vendors read scenarios about a buyer experiencing product failure. While buyers were found to perceive failure deriving from product or repair and blame the product, sellers perceived the failures as buyer related and did not blame the sellers of the same product. As contrary to this, sellers blamed the sellers of different products and services for the failures. This result was partially related with ethnocentric biases in other words, ingroup-outgroup attributional biases (Folkes and Kotsos, 1986). This finding can be linked to the relationship between group attribution states and perceived group identity. Homogeneity and heterogeneity of ingroup and outgroup dynamics may mediate the attribution process based on size, stage of formation, discrimination, categorization, consensus, status and context (Kelley, 1967; Bogumil, 2002).

Apart from this, the effect of information on service failure attributions has also been studied. It was found that low consensus leads to consumer related problem perception, whereas high consensus leads to product or firm related failure perception (Orvis et al., 1975). Nonetheless, due the negativity effect, consumers tend to exaggerate the frequency of the product failures and may apprehend the failures as buyer related. Additionally, undercomplaining customers may lead to low consensus estimation and underestimation of failures by the seller firms. On the other hand, overestimation of the frequency of the product failures can increase the consumers' attributions of blame to the sellers due to the availability biases (Folkes and Kotsos,1986).

Importance of the product/service and intangibility level of services also affect the causal attribution in failures. Consumers tend to neglect the causes for the products/services that have relatively low importance (Folkes, 1984) and more likely to blame the service provider when the service is more intangible (Bebko, 2001).

As another reason of ambiguity in attribution, consumer participation impact has been studied. Consumers feel themselves more responsible for the failures when they purchase services than when they purchase goods (Zeithaml and Bitner, 1996; Yen et al., 2004). As a reason of this, consumer participation to the service failure by providing inadequate explanations about what they want and how they want can be given (Parasuraman et al., 1985) By the impact of participation, self-serving bias can be reduced (Choi and Mattila, 2008).

Online transactions can also be viewed as the examples of participation due to its interactive nature. Harris et al. (2006) examined the discrepancies in consumers' attributions of blame for service failures and its effect on recovery expectations in online and offline settings. They found that customers involved in online transactions blame themselves more for a service failure than the ones offline. Additionally, due to the self-attribution of blame, online customers expect lower levels of redress from the service companies.

Researchers in the field consider expectations as antecedents of attributions. Empirical studies demonstrated that customers with higher expectations of relationship continuity with the service organization, number of past encounters and past service performance may attribute the failure to a less stable cause and have lower service recovery expectations (Hess et al., 2003). Accordingly, the consumers with low service outcome expectations are more likely to blame the company for the service failures than did the consumers with high expectations (Yen et al., 2004). Therefore, relationships and expectations may also act as a buffer in attributions (Hess et al., 2003; Choi and Mattila, 2008).

### 4.6. Consequences of Causal Attributions

According to attribution theory, perceived reason for a product failure determines consumer response (Folkes, 1984). People are inclined to search for the causes of failures in relation to the urge for more explanations in negative events (Rozin and Royzman, 2001).

An example would be when a consumer buys detergent and uses it but still finds that the laundry is not clean. There can be several explanations to this situation. The

detergent as a product can be ineffective or there can be a problem in the amount of detergent used or the washing machine can be the reason for this. The redress that the consumer seeks depends on the causes (Folkes, 1984).

In the attribution and product/service failure literatures, linkages between causes and consequences are made in terms of stability, locus and controllability causal dimensions. Behavioral consequences of causal attributions can be categorized as follows (Folkes, 1984; 1988):

- Expectancy reactions
- Marketplace equity reactions
- Emotions (anger, blame, desire for revenge,pride, confidence, gratitude,etc.)

When consumers are exposed to failures deriving from unstable causes, they may feel uncertain about the possibility of the recurrence of the failure. However, if the cause is perceived as a stable one, consumers expect to experience failures in the future in a more certain way (Weiner, 1980; Folkes, 1984). If a delay in the product delivery occurs due to an accident on the road, the cause for the failure is categorized as unstable. But if, the delay takes place because of the incapability of the delivery employees or the lack of communication technologies, the cause will be perceived as a stable one.

Locus of the cause may impact consumer reactions in terms of equity of exchange. Marketplace exchange refers to the transaction of money for a product. When the failure occurs, inequity arises in the mentioned transaction (Smith et al., 1999). Locus of attributions influence the recovery expectations because they affect the

inequity solutions (Folkes, 1988; Harris et al., 2006). In order to recover the failure and balance the inequity, apologies or refunds may be used depending on the locus of failure. The more consumers think that the fault belongs to the firm , the stronger they feel that they deserve a failure recovery such as refund, apology, etc. But if consumers find themselves guilty, little or no recovery is expected from the firms. Responsibility for solving the problem rests with the party who caused it (Folkes, 1984; 1988). Additionally, controllable failures make the consumer think that the service provider might have prevented the failure by more efforts and thus, they expect greater recovery efforts (Hess et al., 2003).

Locus and controllability have impacts on emotions. Internal attributions of success are related to the feelings of confidence and pride, external attributions are linked to affects such as gratitude. For failure, internal causes magnify feelings of guilt and resignation (Crittenden, 1983) while external ones arouses anger (Weiner, 1980). When the failure is firm related and can be controlled; the anger of the consumer will be more than the consumer related and uncontrollable ones. Even, firm related and controllable failures lessen the effect of recovery efforts (Folkes, 1984; Folkes et al., 1987). In addition to all these, actions for revenge as a desire to hurt the company's business can also be observed.

Moreover, locus and controllability dimensions influence the degree of engagement in word of mouth behavior and complaining to firm/to others (Folkes, 1988).

### 4.7. Attributions in Multiple Causal Agents Situation

*Locus* which refers to who or what caused an event is relevant to the scope of this study. In supply chains, the existence of multiple casual agents such as retailers,

wholesalers, manufacturers, suppliers and buyers cause complexity in the determination of locus. Accordingly, the locus of the failure examined in this study has a complex structure due to the involvement of third party logistics (3PL) company. This complexity may create discrepancies in the locus attributions of consumers. A consumer can perceive the locus of failure as internal or external to the brand, 3PL company and self.

### 4.7.1. Logistics Outsourcing

#### 4.7.1.1. Drivers for Logistics Outsourcing

There are many driving forces behind the rapid growth of third party logistics. Globalization stemming from global sourcing and reduced trade barriers between countries stimulate the demand for strategic logistics activities. Moreover, increase in competition has been forcing companies to pursue for differentiation opportunities in products/services and cost. Logistics customer service is acting as an important differentiator in maximizing profits in today's competitive environment (Lim, 2000). In order to gain competitive advantage through high levels of customer service and customer satisfaction as well as cost leveraging effect, companies have begun to pay attention to the execution of logistics activities (Lim, 2000; Skjoett-Larsen, 2000). All these changes in the global markets end up in more complex supply chains and an intense need for expertise in the international arena (Lim, 2000).

Additionally, pressure to downsize for flexibility, narrower definitions of core competencies, need for higher levels of specialization and advanced technology have given rise to the emergence of contracted logistics companies (Razzaque and Sheng,

1998; Oliva and Kallenberg, 2003). Consequently, by the impact of all these driving factors, niche markets for the third party logistics companies emerged and logistics outsourcing has increased (Lim, 2000).

#### 4.7.1.2. Third Party Logistics Companies

Different terms are being used for third party logistics such as contract logistics and outsourced logistics. Lieb, Millen and Wassenhove (1993) defined third party logistics as the use of external companies to perform all logistics functions or the selected logistics activities on a contractual basis. In the literature, some other definitions for the logistics service providers also exist. Some of these definitions are taking third party logistics companies as the ones that offer at least two services or more narrowly just one type of logistics activity (Razzaque and Sheng, 1998).

Public warehousing is recognized to be the first outsourcing example in logistics (Goldsmith, 1989). In today's business world, third-party logistics companies are providing services such as logistics information systems, transportation, shipment consolidation, warehouse management/operation, carrier selection, rate negotiations, fleet management, product returns, order fulfillment, customer spare parts and purchasing (Lieb and Randall, 1996). In addition to all these logistics activities, these companies are also performing value added activities like assembly and quality control (Razzaque and Sheng, 1998).

#### 4.7.1.3. Pros and Cons of Logistics Outsourcing

Outsourcing contributes to the profitability and competitive advantage by enhancing value creation for the customer. Moreover, it enables to concentrate on core businesses and reduces the investment in facilities, equipment, information

technologies and labor (Razzaque and Sheng, 1998; Wilding and Juriado, 2004). By providing high levels of coordination, outsourcing reduces inventory and improves inventory turnover rate that leads to reduced transit times and less damage (Richardson, 1995). Thus, it brings in flexibility and ability to respond to the fluctuations in demand, marketing and manufacturing (Richardson, 1995; Lim, 2000; Skjoett-Larsen, 2000; Wilding and Juriado, 2004). Furthermore, companies can reply to the increasing environmental concern of consumers by outsourcing reverse logistics activities to 3PL companies (Wilding and Juriado, 2004).

Through consolidation and achieved economies of scale, logistics companies can perform with lower costs when compared to companies' in-house performance (Wilding and Juriado, 2004; Razzaque and Sheng, 1998).

Due to the variety in customers, third party logistics companies can bring in new insights and developments in the area of concern, in other words benchmarking options (Razzaque and Sheng, 1998; Lim, 2000). By benefiting from the expertise of 3PLs, reduction in risk and uncertainty can be achieved in international markets (Lim, 2000).

However, beside all these benefits gained through outsourcing to 3PL companies, the companies may encounter some undesirable consequences (Razzaque and Sheng, 1998). Contracting to third party logistics is a binding , generally a multi-year agreement (on the average 1-3 years) and because of this, switching costs can be high (Lim, 2000). For most of the companies, outsourcing processes such as selection, control and performance assessment can be problematic.

By the use of third parties, the companies are losing the interface with the customer. The performance of the 3PL impacts the customers' perception of the main company. Therefore, the communication problems, 3PL company's inadequate capability to meet the requirements of customers or any unreliable promises given by 3PL company that are incongruent with the goals of company may give rise to dissatisfaction (Razzaque and Sheng, 1998).

### 4.7.2. The Impact of 3PL Companies on Failure Perceptions

Critical issues for outsourcing such as motivations to use third parties, resulting satisfaction, relationships between customers and 3PL companies such as partnerships and selection criteria for 3PL companies have been studied by the researchers (Razzaque and Sheng, 1998; Wilding and Juriado, 2004; Knemeyer and Murphy, 2005). However, there is a lack of research for the impact of 3PL companies on consumers' failure perceptions.

In service and product failure literatures, it has been limited to emphasizing the impacts of failures and recovery efforts in single company situations (producer/service company). However, collaborations in the form of outsourcing referring to two or more companies in relation have been ignored.

The relationships between third party logistics companies and the customer companies range from single transaction to integrated logistics service agreements (Skjoett-Larsen, 2000). Nevertheless, the relationships between these two parties are becoming more like strategic alliances due to the requirement of performance and service quality assurance. Alliances formed between shippers and 3PL companies

can be categorized according to the scope of partnerships, management, degree of customization and dedication, knowledge level of the parties and geographical location (Hertz and Alfredsson, 2003).

From the companies' point of view, it is a hard task to decide on alignment with third party logistics companies that can measure up to predetermined levels of service performance (Lim, 2000). Especially for the specific activities such as transportation or warehousing, logistics service providers can be the ones who encounter the customer in B2B and B2C settings. In B2C, more specifically for online shopping or for the transactions that have after sales delivery, 3PL companies are forming the last stage of transaction. Therefore, from customers' point of view, 3PL companies are generally recognized as inseparable from the rest of the processes or as an extension of the manufacturer. By reason of this, failures occurred in the delivery phase of the product can be detrimental for the manufacturer brand.

Although it is not about using third party service providers, Weber and Spark's study (2004) may shed light to the failure reactions to the situations in which more than one company involved. In this study, the airline that issued the tickets-the customers are more loyal to- and the one that performed the passenger transportation were different. This study suggested that customers may attribute the blame to the alliance as integrated entity if it is promoted and known much or blame the airline that they were travelling regardless of alliance or the other partner. While some respondents tended to see the issuing airline as innocent due to the out-of-control area of the airline, the others found it equally responsible for the failure. As parallel to this finding, some of them declared that they were inclined to repurchase tickets in the

future from the issuing brand, but not from the actual carrier airlines. Others stated that they would not fly with both of the brands.

As it is obvious from this study, the images of the firms in alliance can be negatively influenced by one of them's failure, leading to dissatisfaction, negative word of mouth and reduced loyalty. Additionally, the attribution behaviors of customers differ from each other when there is more than one company to blame.

### 4.7.3. Attribution Theory in Logistics Customer Service Failures

Although considerable amount of studies have been conducted in the product and service failure literatures based on attribution theory (Choi and Mattila, 2008; Folkes, 1984; Taylor, 1994; Harris et al., 2006), attribution behavior of consumers in the existence of 3PL company has not been investigated in the scope of logistics customer service failures.

Heider (1958) suggested that people form attributions with regard to consistency principles. Thus, grounding on the cognitive consistency theory, different expectation levels of consumers can alter the attribution of cause in logistics customer service failures. When compared to low expectation, high expectation towards the brand can act as a buffer and prevent the attribution of failure to the brand.

**H7.** Consumers holding high expectations, as compared to those with low expectations, are less likely to attribute logistics service failure to the brand.

Weiner (1985) stated that repeated success of an individual make people think that the person is highly capable. When he/she fails, people tend to see that failure as a bad luck. Similarly, in this case, it is predicted that consumers with high expectations are more likely to attribute the failure to the logistics companies when compared to the ones with low expectations.

**H8.** Consumers holding high expectations, as compared to those with low expectations, are more likely to attribute logistics service failure to the logistics company.

As mentioned before, consumers may have a tendency to attribute good outcomes to self and bad things to external or situational outcomes. Therefore, in the failure occasion, external attribution rather than internal is expected, but it is also important to know whether these self-esteem protective motives are stimulated by the impact of high expectations or not (Harvey and Weary, 1984; Folkes, 1988). This prediction is hypothesized as below:

**H9.** Consumers holding high expectations are less likely to blame themselves for the failure than the ones holding low expectations.

Besides between group comparisons for low and high expectation levels, within group predictions can also be made for developing a deeper understanding. It is predicted that the consumers with low expectations attribute the failure more to the brand than to the logistics company or self.

**H10.** The consumers holding low expectations are inclined to attribute the failure more to the brand than to the logistics company.

For the consumers holding high expectations, the attributions should be directed more to the logistics company than to the brand or self.

**H11.** The consumers holding high expectations are inclined to attribute the failure more to the logistics company than to the brand.

However, the high criticality level can change the location of cause. As compared to low critical situations, consumers in high criticality can end up in blaming the brand for causing the failure.

**H12:** In high criticality situations, as compared to those in low criticality, consumers are more likely to attribute logistics service failure to the brand.

In general, many firms are outsourcing logistics activities such as transportation and warehousing to third party logistics service providers. Consumers' awareness level of third party becomes important especially in failure situations. What happens to the attributions in a failure situation if the consumer is informed about the third party performing the logistics activities for that brand? It is predicted that there should be a difference between the informed and uninformed participants in terms of attributions to 3PL company.

**H13:** Consumers informed about a third party logistics company, as compared to the ones with no information, are more likely to attribute blame to the logistics company.

## CHAPTER-5

## METHODOLOGY

### 5.1. Research Model and Hypotheses

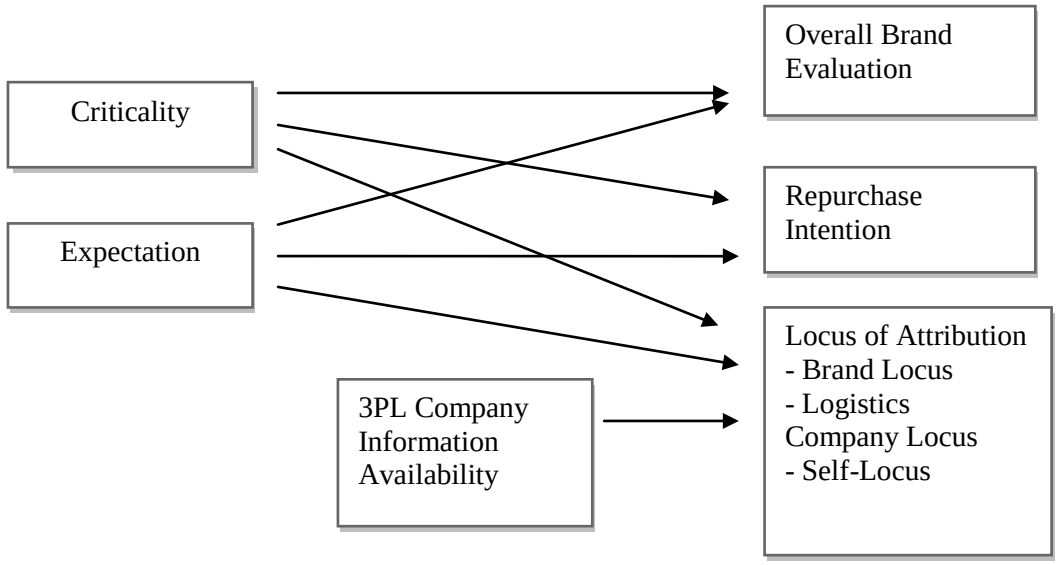



Figure 2. Research Model

As the model indicates, it is suggested that criticality and expectations may have influences on overall brand evaluation, repurchase intention and causal attribution behavior (attribution to brand, logistics company and self). Also, according to the model, third party logistics (3PL) company information availability is also added as a moderating variable. Based on the research questions, thirteen hypotheses are presented and tested in this study. The theoretical backgrounds and the hypothesis development processes were explained in the previous chapters. These hypotheses are summarized as follows:

**H1:** Following a logistics customer service failure, overall brand evaluations are likely to be higher among consumers holding higher expectations for the brand than those with lower expectations.

**H2:** Following a logistics customer service failure, repurchase intentions are likely to be higher among consumers holding higher expectations for the brand than those with lower expectations.

**H3:** Following a logistics customer service failure, overall brand evaluations are likely to be more favorable among the consumers in low criticality situations than those in high criticality.

**H4:** Following a logistics customer service failure, repurchase intentions are likely to be more favorable among the consumers in low criticality situations than those in high criticality.

**H5:** In high criticality situations, consumers holding high brand expectations should evaluate logistics customer failure more favorably than the ones with low brand expectations in terms of brand evaluations.

**H6:** In high criticality situations, consumers holding high brand expectations should evaluate logistics customer failure more favorably than the ones with low brand expectations in terms of repurchase intentions.

**H7:** Consumers holding high expectations, as compared to those with low expectations, are less likely to attribute logistics service failure to the brand.

**H8:** Consumers holding high expectations, as compared to those with low expectations, are more likely to attribute logistics service failure to the logistics company.

**H9.** Consumers holding high expectations are less likely to blame themselves for the failure than the ones holding low expectations.

**H10:** The consumers holding low expectations are inclined to attribute the failure more to the brand than to the logistics company.

**H11:** The consumers holding high expectations are inclined to attribute the failure more to the logistics company than to the brand.

**H12:** In high criticality situations, as compared to those in low criticality, consumers are more likely to attribute logistics service failure to the brand.

**H13:** Consumers informed about a third party logistics company, as compared to the ones with no information, are more likely to attribute blame to the logistics company.

## 5.2. Research Design

### 5.2.1. Sample

The degree to which underlying constructs are captured by the respondents is an important issue in terms of construct validity (Viswanathan, 2005). Therefore, the age of the respondents should be appropriate to have shopping experiences of appliances. Therefore, undergraduate students were not considered as the target respondents of this study and not included. Two interviewers were charged in order

to gather data from the field and before the data collection; they were trained for preventing any interviewer biases. Three different provinces in İzmir were selected for acquiring balanced data regarding to the demographic characteristics of participants. A total of 296 respondents (37 respondents for each cell) were randomly assigned to the experimental conditions.

Among the total 296 respondents, who answered the questionnaires, 53.4 % (n=158) were female, 46.6 % (n= 138) were male. 6.4 % (n= 19) had primary school, 3.4 % (n=10) had secondary school and 31.4 % (n=93) had high school education levels. 47.3 % (n= 140) were university graduates, and 11.5 % (n=34) had graduate degrees (master's and PhD degrees).

The age mean was 34 (SD=9.533). While 14.5% (n=43) were 24 and below (lowest age was 20), 137 of the respondents (46.3%) were between the ages of 25-34, 67 of them (22.6 %) were in the 35-44 range. A total of 49 respondents (16.6 %) had ages in the 45 and above range.

42.6 % (n= 126) of the respondents reported their income levels per month between 0-1000 TL. 35.8% (n= 106) were in the 1001-2000 TL income level range while 11.5 % (n=34) were in the range of 2001-3000 TL. 3.4 % (n=10) had an income between 3001-4000 TL, 6.8 % (n=20) had 4001 TL and above income levels.

Table 1. Demographic Characteristics of Sample

| | | ***N= 296*** | ***%*** |
|---|---|---|---|
| ***Gender*** | Female | 158 | 53.4 |
| | Male | 138 | 46.6 |
| ***Education*** | Primary school | 19 | 6.4 |
| | Secondary school | 10 | 3.4 |
| | High school | 93 | 31.4 |
| | Undergraduate | 140 | 47.3 |
| | Graduate degree | 34 | 11.5 |
| ***Age*** | 24 and below | 43 | 14.5 |
| | 25-34 | 137 | 46.3 |
| | 35-44 | 67 | 22.6 |
| | 45 and above | 49 | 16.6 |
| ***Income (monthly)*** | 0-1000 | 126 | 42.6 |
| | 1001-2000 | 106 | 35.8 |
| | 2001-3000 | 34 | 11.5 |
| | 3001-4000 | 10 | 3.4 |
| | 4001 and above | 20 | 6.8 |

### 5.2.2. Experimental Design

Due to the difficulties of understanding the perception of consumers and exploring complex constructs (Ueltschy et al., 2007), utilizing a statistical experimental design based on scenarios is preferred. An experimental approach enables to provide better control over the independent variables of interest, and to rule out extraneous variables (Cook and Campbell, 1979). In true experimental designs, controlled arrangement and manipulation of the conditions should be provided. Randomization is another primary feature of true experiments referring to the random assignment of treatments to the sampling units (Rosenthal and Rosnow, 1991).

Vignette role playing is an accepted and commonly used technique especially in service failures studies (Bitner, 1990; Hess et al., 2003). Vignette based experiments

contribute to the internal validity and enable to operationalize expensive or difficult manipulations easily by giving control over otherwise unmanagaeable variables (Hess et al., 2003; Lane and Keaveney, 2005).

Service encounters in the forms of scenarios enable the participants to be involved in the failure incidents, to interact with service provider and to acquire outcomes such as perceptional alterations or financial losses in a hypothetical way (Lane and Keaveney, 2005). Usage of scenarios eliminates the obstacles related with observation and enactment of service failure incidents in the field such as expenses, time involved, ethical considerations, managerial undesirability of intentionally imposing service failures on customer (Smith et al., 1999) and unpleasant consequences of real time failure observations and real experiments (McCollough et al.,2000). This methodology also diminishes biases from memory lapses, rationalization tendencies, and consistency factors (Smith et al., 1999).

All these issues are also problematic for this study which tries to measure evaluations, repurchase intentions and causal attributions made after failure but before recovery. Thus, vignette scenarios were developed for delivery delays in the context of logistics customer service failures. Scenarios developed for the study based on the literature and real life-experiences. These episodes were placed in the questionnaires and the respondents were asked to imagine themselves in the situations described and then to report how they would feel using validated measures of brand evaluation, repurchase intention and causal attribution.

To assess the impact of independent variables, a between subjects, fixed effects $2^3$ factorial design was conducted (high versus low expectation x high versus low criticality x 3PL company info available versus not available). Factorial design was utilized to examine main effects of a number of independent variables and to investigate how various combinations of independents work together to produce an effect.

### 5.2.3. Operationalization of Independent Variables

#### 5.2.3.1. Expectation

Expectation is a phenomenon that is largely studied both in satisfaction and service quality literature (Oliver, 1980; Boulding et al., 1993; Spreng and Page, 2001; Yi and La, 2004). Expectation is used for implying ideal (can be expectation), predictive (will be expectations) and normative (should be expectations) meanings (Boulding et al., 1993; Hubbert et al., 1995). In this study, rather than focusing on the consumers' expectations based on what they deserve and should get or what they ideally want, predictive 'will be' expectation is going to be used consistent with the construct definition used in satisfaction literature.

In the measurement of expectations various kinds of techniques have been used. Modeling approach has been widely utilized in the operationalization of expectations both by satisfaction and service quality researches (Boulding et al., 1993; Anderson and Sullivan, 1993; Rust et al., 1999). In order to operationalize the 'will be' expectations, scripts which are the mental representations of stereotyped sequence of events identifying a well-known situation, have also been used (Hubbert et al., 1995).

Apart from modeling and scripts, expectation manipulations in the form of scenarios are also used in a number of studies in the services literature. Ueltschy et al. (2007) manipulated service performance and expectation by the usage of scenarios in order to investigate the influence of culture on service quality perceptions and customer satisfaction in a cross-cultural setting. In order to create high and low levels of expectation for a dental office, actions of the staff, physical descriptions of the dentist facility, neighborhood location and previous experiences were used. Significant mean differences were found in the manipulation checks at $p < 0.001$ level between the respondents assigned to high (M=6.27) and low expectation (M=3.28) scenarios. As an example for the mentioned manipulations, high expectation scenario is presented below:

*High expectation*

*"Two weeks ago you visited your dentist for your bi-annual teeth cleaning and check-up. At that time you were told that you had a cavity that needed to be filled and so you set-up an appointment to have this done. You are now returning to the dentist for this filling. As you approach the dental office, you find a place to park near the office, which is located on the second floor of a modern brick building in a better suburb of town. You enter the office, close the door and have a seat. It is a large office with ten chairs, soft mauve carpeting, nicely coordinated wallpaper, and soft pleasant music playing. As you sit down, you hear a high speed modern dental drill in the inner office.*

*Although it has been over a year since your last filling, you recall the situation well. You remembered that everything went smoothly. There was no pain during the drilling of the tooth and you were in and out of the dental office in a short period of time. Overall, it was a very pleasant and satisfactory experience. You are anticipating a similar visit during this visit as well."*

Service expectation was also manipulated by instructing the subjects to imagine that they heard about the good or poor quality of customer service at a hospital regarding to the medical service provided (Choi and Mattila, 2008). For checking the manipulation of expectations, they used the statement: "I expect the quality of customer service in this hospital to be high." The average rating for the expectation was higher for the high expectation scenarios (M= 5.75) than for the low expectation ones (M=4.53) at a significant level. The manipulation used for high expectation is given below:

*"Imagine that you have been suffering from serious coughing in the past few days. Due to busy work schedules, you have not been able to make time to visit a hospital yet. You've just heard about a hospital near your office that offers not only good treatment services for coughing but also prompt services in accordance with appointment times. You decide to use this hospital."*

In another study exploring the impact of customer participation and service expectation on locus attributions after service failures, expectation was manipulated by instructing the subjects to imagine that they had either favorable or unfavorable prior experiences with a specific educational program of a university. In the manipulation checks, significant differences in the average expectation ratings for the high (M=4.89) and low (M=3.58) expectation conditions were reported. The parts that states high and low level expectation based on prior experience are as below (Yen et al., 2004):

*High expectation*

*"I took several courses in the continuing education program at X university once, and had some positive experiences with the program. I was very impressed with the quality of the program at the time. Most instructors were knowledgeable and skillful in teaching and the program personnel were helpful and friendly to students. They seem to have answers to all of the questions that students asked."*

*Low expectation*

*"I took several courses in the continuing education program at X university once, and my experiences with the program were not so great. There were not many courses in the program to choose from, and the teaching quality varied with the instructors. In addition, there was a high turnover of the service employees (instructors) in the program, and so very often the*

*employees were not capable or experienced enough to help the students."*

Dawar and Pillutla (2000) manipulated expectations by informing subjects in cover story instructions in two levels: strong positive by stating that the brand is "highly reputable and successful" in its home market, with a "spotless record of excellent products for over 30 years," and had "won an award from consumers the previous year" or weak positive expectations by stating the brand had "sold products in its home market for over 30 years". Significant difference was found between the weak expectations (M=3.47) and the strong ones (M=4.54) in the manipulation checks.

Brand image and reputation generated through actual purchase or social environment, are being used in expectation manipulations due to the fact that they can create a halo effect on consumers' attitude and future intentions (Yen et al., 2004). Regarding to this, a consumer can have a tendency to expect that a brand with high reputation and good image also has a good customer management system (Gronroos, 1988; Choi and Mattila, 2008).

Depending on the description of the brand reputation and image as filters that influence the perception of company's operations (Gronroos, 1988); in this study expectation was manipulated by using reputation, image and experience status of the brand which is also consistent with the manipulations of Dawar and Pillutla (2000).
In order to eliminate the impact of pre-purchase experience and source effect on expectation, fictitious brand was utilized. The expectation manipulations used in this study are as follows:

*High expectation*

*You bought a new refrigerator from a store operated by a well-known brand, ZNC. This brand has high reputation and 30 years of experience in the appliances sector. Last year, ZNC had received the customer award. You used some products of this brand before and had very favorable experiences.*

*Low expectation*

*You bought a new refrigerator from a store operated by ZNC brand with which you have no purchasing experience at all. This brand is not widely known due to its short history in the market.*

#### 5.2.3.2. Criticality

According to the importance of consequences, a purchase occasion can be perceived differently. Criticality is the importance of service to the consumer (Ostrom and Iacobucci, 1995). In the service literature, the service failures are reported to be taken as more serious when the purchase is more critical to the customers (Ostrom and Iacobucci, 1995; Webster and Sundaram, 1998).

Criticality construct should be distinguished from the goal attractiveness placed in the services literature. Responses to the service failure situations that cause obstacles in reaching the determined goals will be different for the consumers with high goal orientation and low goal orientation. It is noted that the larger a delay preventing a consumer from achieving the desired goal state, the more negative consumers' responses will be (Meyer, 1994; Butcher and Kayani, 2008). While the criticality can

be directly associated with the focal service encounter, the goal attractiveness deals with the criticality of the following actions which are considered as desired goals. As an example, Butcher and Kayani (2008) formulated service failure in terms of delay situations occurred in restaurant settings for the consumers who planned to attend to their favorite artist's concert after having dinner in order to manipulate high goal attractiveness in scenarios.

In the services literature, the number of studies focusing on the service criticality is rare. The criticality construct is usually taken as an independent variable and scenario technique is widely used for creating two levels of manipulation: high and low.

In the study of Ostrom and Iacobucci (1995) consumers were found to be price sensitive for less critical experience service situations, and customization and quality was found to be more important for high critical service encounters (Ostrom and Iacobucci, 1995). The manipulation checks of the mentioned study indicated a significant difference on ratings of criticality when subjects instructed to imagine more critical (M= 6.08) or less critical (M= 4.95) service encounters. In this study, high and low criticality levels for hair salons and psychotherapy are demonstrated as follows:

> *Low criticality for psychotherapy*
>
> *"Imagine that you want to find a psychotherapist to talk with for a couple of sessions because you're having some trouble in sleeping."*

*High criticality for psychotherapy*

*"Imagine that you want to find a psychotherapist to talk with at least a couple of months because of a death in the family and your significant other of many years is leaving you."*

*Low criticality for hair salons*

*"Imagine that you need to make an appointment to have your hair trimmed in the next couple of days."*

*High criticality for hair salons*

*"Imagine that you need to make an appointment to have your hair cut and styled for a very important social occasion scheduled for tomorrow."*

Webster and Sundaram (1998) found that the criticality of service consumption has a significant effect on customers' perceived level of recovery satisfaction and loyalty toward the firm. Criticality was manipulated along with the other independent variables in the scenarios. A check of subjects' ratings on criticality designated significant differences between high (M= 6.26) and low (M= 4.10) critical treatments. The parts of the scenarios that represent the criticality manipulations are below:

*High criticality*

*"You arrive by taxi at the auto dealer service center to pick up your car at the previously arranged time. However, the car is*

*not ready as promised. Your family needs the car to drive to a major, important social gathering."*

*Low criticality*

*"You drove your other vehicle to the auto dealer service to pick up your car at the previously arranged time."*

Levesque and McDougall (2000) indicated that the criticality has an influence on the impact of recovery, loyalty and customer complaint behavior. In this study, they used scenario based manipulations for creating high and low criticality levels and obtained significant difference between high and low criticality service occasions:

*Low criticality*

*"At the busiest time of the summer tourist season, you made reservations at Motel Beta that is part of a national "no-frills" chain. You needed a room for an overnight stay on the way to your vacation. The chain gets a good rating from the Canadian Automobile Association."*

*High Criticality*

*"At the busiest time of the summer tourist season, you made a reservation at Hotel Alpha, part of a national hotel chain, which the Canadian Automobile Association rates very highly. You had planned a four day vacation with this specific hotel in mind because it offers many features including a health club,*

*swimming pool, fine restaurants, and a reputation for giving special attention to its guests."*

In order to manipulate the criticality construct, the scenario manipulations were used consistent with the literature. The two levels of criticality manipulations are demonstrated below:

*Low criticality*

*You had decided to change your working refrigerator with a state-of-the-art one.*

*High criticality*

*Your refrigerator broke down in the morning of a mid-summer day. It was full of food and meats that could easily spoil until the following day. The repairman that you called came in the morning and said that the motor burned out and the new motor would cost nearly as a new one.*

#### 5.2.3.3. Third Party Logistics Company Information Effect

Due to the lack of studies focusing on consumer perception in logistics customer service failures, no previous measurement technique was found related to the involvement of third party logistics (3PL) companies. Consequently, for operationalizing this independent variable, treatment and control groups were utilized.

For half of the eight groups, information about the 3PL company performing transportation and warehousing activities was provided and for the other half, the 3PL company information was not provided.

### 5.2.4. Operationalization of Dependent Variables

#### 5.2.4.1. Brand Evaluation

Brand attitudes are defined as consumers' overall evaluations of a brand whether it is good or bad (Mitchell and Olson, 1981; Keller, 1993). Brand attitudes are important because they often form the basis for consumer behavior by leading to intentions, and afterwards ensuing to actual behavior (Fishbein and Ajzen 1975). In many studies brand attitude is used as a dependent variable (Park and Young, 1986; Simonin and Ruth, 1998).

In the literature, different models have been developed in order to explain the brand attitude construct. According to the Fishbein's summation theory of attitude, a person's attitude toward an object is composed of subjective values or evaluations of the attributes associated with that object and influenced by the strength of these associations (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 2008). In this widely known multi-attribute model, brand attitude is considered as the function of the associated attributes and benefits that are salient for the brand (Keller, 1993). The extent to which consumers think the brand has certain attributes or benefits and the evaluative judgment of these beliefs on how good or bad it is that the brand has those attributes and benefits are critical for the formulation of Fishbein's brand attitude.

However, previous researchers have indicated that apart from product-related attributes, beliefs about the non-product related attributes can also associated with brand attitudes (Rossiter and Percy, 1987; Keller, 1993). Due to the difficulty of specifying all these attributes and beliefs associated with a brand, a more general approach which is not confined by the attribute or benefit values is also being used for brand attitude (Srinivasan ,1979). In accordance with these arguments, Keller (1993) classifies brand associations in three groups: brand attributes (product or non-product related), benefits (functional, experiential or symbolic) and overall brand attitudes.

In this study, the main focus is the overall evaluation of brands rather than attributes and beliefs. Rather than intrinsic cues (product related attributes like taste), extrinsic cues (aspects of a product like customer service options and guarantees) are being considered for evaluating the brand in terms of customer service failure (Olson and Jacoby, 1972; Ostrom and Iacobucci, 1998). For that reason, henceforth in this study overall brand evaluation term is going to be used instead of brand attitude.

A multi-item semantic differential scale was utilized including the anchoring word pairs of unfavorable-favorable, bad-good and negative-positive in order to assess the brand evaluations (Muehling and Laczniak, 1988). This semantic differential scale is widely used by researchers for assessing brand evaluations (Hui and Zhou, 1996; Dawar and Lei, 2009).

Participants were asked to response to the 7-point semantic differential scale items (larger numbers indicate more positive evaluations) with the statement of "My

overall evaluation toward the Brand ZNC is …" by using bad-good, unfavorable-favorable, and negative-positive as scale endpoints.

#### 5.2.4.2. Repurchase Intentions

Repurchase intention is defined as the individual's judgment on repurchasing a designated service from the same company by considering a current situation and likely circumstances (Hellier et al., 2003).

Service failures can give occasion to switching behavior (Hollaway and Betty, 2003). However, some barriers influencing the switching behaviors in the failure occasions also exist. These barriers such as the prior experience with the brand can retain the customer from quitting (Holloway and Betty, 2003). Maintaining and improving current customers' repurchase intentions are economically more advantageous than trying to attract new customers (Keaveney, 1995). Thus, besides complaining behavior, word of mouth and brand loyalty, repurchase intention is also considered as one of the most crucial post-purchase intentions (Lapidus and Pinkerton, 1995).

Regarding to all these, finding more antecedents of repurchase intention is of great importance in the academic field (Kim and Ok, 2009). In this study, one of the main concerns is to explore the effect of expectation and criticality on repurchase intentions after a delay in delivery.

In the literature repurchase intention was operationalized with different scales. Gilly (1987) used a four-point scale (definitely will buy/will not buy again). Esch et al. (2006) utilized a five point scale for measuring the future intended purchase by

asking “Do you intend to buy the brand in the future?” (1=not at all, 5=very likely). In another study conducted by Mittal and Kamakura (2001) repurchase intention was measured on a 5 point scale (5=very likely, 1=very unlikely) for the question "Based on your ownership experience, how likely are you to purchase a vehicle made by Company X at your next purchase occasion?".

Blodgett et al. (1993) operationalized repatronage intentions by using three items ($RI_1$: Knowing what I do now, if I had to do it all over again, I would visit this restaurant, $RI_2$: Because of what happened, I would never go to this restaurant again, RI3: If this situation had happened to me, I would never go this restaurant in the future).

In some of the studies, repurchase intention and recommendation statements are combined assuming that the greater likelihood of recommendation, the more positive the repurchase intention (Sirohi et al., 1998; Grewal et al., 2008; Cronin et al., 2000). Some researchers have also paid attention to frequencies and probabilities of repatronage behaviors (Kim and Ok, 2009).

In a considerable amount of study, adaptations from behavioral intention scale of Zeitham et al. (1996) have been used by the researchers (Grewal et al., 2008; Silva and Alwi, 2006). Similarly, to measure repurchase intentions of the consumers in this study, an adaptation of this scale was utilized. The current study adopted 3-item purchase intentions part of this framework ($I_1$: Consider XYZ your first choice to buy services, $I_2$: Do more business with XYZ in the next few years, $I_3$: Do less business with XYZ in the next few years (-)). It should be noted that consistent

with the literature, switching behavior item was used to invigorate the effect of repurchase intention measurement. As relevant to the main scale, 7-point Likert scale was used.

#### 5.2.4.3. Attribution Measurement

The measurement of causal attribution can show discrepancies between the studies. Measuring attribution is a hard task to do regarding to the preservation of naturalistic feature of causality. Three types of attribution measurement can be observed in the academic field: unsolicited attribution measures, usage of archival data and structured attribution measures.

**Unsolicited attribution measures:** In this type, subjects are explaining the attribution while describing the dramatic event and the feelings that they felt. This one involves asking "what" rather than "why" questions in order to collect data. The information gathered is generally coded by independent raters. The coding process can be difficult in this measurement technique due to the number and type of attributions made (Harvey and Weary, 1984).

Harvey, Yarkin, Lightner and Town's (1980) measurement of attribution in which subjects reported the discussion between a couple with negative outcomes can be given as an example for this type of measure. In the mentioned study, the subjects were reporting the things on videotape and what they felt about it.

**Usage of archival data :** Another measurement type is the coding of archival data in order to get natural attributions from written documents such as journals or

newspapers. By means of coding attributional statements in newspapers, Lau and Russell (1980) found that coaches and players tended to make internal attributions for success and external attributions for failure.

**Structured attribution measures:** This is the utilization of rating scales and open-ended questions in the measurement process of causal attributions (Harvey and Weary, 1984). In many of the attribution studies, structured attribution measures were used (Wimer and Kelley, 1982; Folkes and Kotsos, 1986; Bebko, 2001; Harris et al.,2006)

Harris et al. (2006) used two 7-point Likert scales asking how much blame the subjects burden to themselves and to the firm. These kind of scales permits the subjects to assign joint blame for themselves, the firm and the logistics company.

In the study of Folkes and Kotsos (1986), participants composed of apparel shoppers, drivers, apparel salesclerks, and car mechanics received questionnaires about a person who experienced a service problem (a car breakdown after being repaired) or a product problem (split seams in pants). Participants first described what could be the most likely reason for this problem, and then they were asked three questions on locus and blame. Participants were asked whether the reason had something to do with the person who purchased the product/service or the sellers /service providers. The second and third questions determined blame for product failure, asking "To what extent do you blame the person who bought the product or the service?" and then "To what extent do you blame the store that sold the product or the service provider?" both anchored by "not at all" and "completely."

Consistent with the literature, three 7-point scales were used to measure attributions for brand, 3PL company and self. The two items asking for responsibility and blame were also consistent with the scales of Walster (1966) and Folkes and Kotsos (1986).

### 5.2.5. Stimulus materials

Appliances sector was selected because: (1) Appliances form the actual product part and logistics customer service has a vital role as supplementary service in building up the augmented mixed offering (2) As a product, refrigerator is relevant to participants due to its everyday use and it can easily be manipulated by criticality (3) delivery is generally fulfilled after the purchasing process so that there is a possibility of exposing to logistics service failures such as delays and condition problems related to delivery.

#### 5.2.5.1. Scenarios

**High criticality-high expectation**

Your refrigerator broke down in the morning of a mid-summer day. It was full of food and meats that could easily spoil until the following day. The repairman that you called came in the morning and said that the motor burned out and the new motor would cost nearly as a new one.

Hence, you immediately bought a new refrigerator from a store operated by a well-known brand, ZNC. This brand has high reputation and 30 years of experience in the appliances sector. Last year, ZNC had received the customer award. You used some products of this brand before and had very favorable experiences.

While purchasing you explained the situation that you were in and they promised to deliver you the product in the afternoon of the same day. But in the afternoon they called and said that they could deliver the product in the afternoon of the following day.

**Low criticality- low expectation**

You had decided to change your working refrigerator with a state-of-the-art one. Hence, you bought a new refrigerator from a store operated by ZNC brand with which you have no purchasing experience at all. This brand is not widely known due to its short history in the market.

While purchasing you explained the situation that you were in and they promised to deliver you the product in the afternoon of the same day. But in the afternoon they called and said that they could deliver the product in the afternoon of the following day.

**Low criticality-high expectation**

You had decided to change your working refrigerator with a state-of-the-art one.

Hence, you immediately bought a new refrigerator from a store operated by a well-known brand, ZNC. This brand has high reputation and 30 years of experience in the appliances sector. Last year, ZNC had received the customer award. You used some products of this brand before and had very favorable experiences.

While purchasing you explained the situation that you were in and they promised to deliver you the product in the afternoon of the same day. But in the afternoon they

called and said that they could deliver the product in the afternoon of the following day.

**High criticality- low expectation**

Your refrigerator broke down in the morning of a mid-summer day. It was full of food and meats that could easily spoil until the following day. The repairman that you called came in the morning and said that the motor burned out and the new motor would cost nearly as a new one. Hence, you bought a new refrigerator from a store operated by ZNC brand with which you have no purchasing experience at all. This brand is not widely known due to its short history in the market.

While purchasing you explained the situation that you were in and they promised to deliver you the product in the afternoon of the same day. But in the afternoon they called and said that they could deliver the product in the afternoon of the following day.

### 5.2.6. Procedures

296 individuals for main study and 80 individuals for pre-tests voluntarily completed the questionnaires. Convenience sampling was conducted due to its advantages such as low cost and time saving features (Malhotra, 2004). Before the pretests and main test, expert opinions were taken and pilot tests were conducted in groups of 10-15 participants for translating and adapting the scales and scenarios to Turkish, rewording the items and corrections.

Conducting the manipulation and confounding checks with the same procedures, instruments and subject types as the main experiment is a crucial issue (Perdue and

Summers, 1986). Regarding to between–subject design usage, each subject exposed to only one treatment both in pretests and main test (Rosenthal and Rosnow, 1991). Between subject design was selected because it allows cleaner test of theoretical hypotheses (Greenwald, 1976). Hence, the pre-tests for criticality and expectation were conducted as between subjects design with a sample size of 80 (20 for each group) taken from the same subject pool of the main experiment. The respondents were randomly assigned to the groups. Manipulation checks for criticality and the expectation checks were executed separately for not creating any reactions or interactions. These checks were used in finalizing the main design for ensuring that the manipulations were out of problems. After exposure to the manipulation checks, participants were interviewed.

As for the main experiment, each subject was randomly assigned to one of the eight experimental conditions in a 2x2x2 (high versus low expectation x high versus low criticality x 3PL company info available versus unavailable) between subjects design. The participants were asked to imagine themselves in the situations, and to respond to the questionnaires immediately after reading the materials. Brand evaluation and repurchase intentions were measured in different pages in terms of controlled sequencing and both had its own instructions rather than a common one. By this way, the across-measure correlational systematic error level was reduced.

## 5.3. Preliminary Research

### 5.3.1. Manipulation Checks

Conducting manipulation checks as pretest in an experiment enables to take corrective actions for the subsequent main part of the experiment. In order to assure

construct validity, it is crucial to capture the unobservable independent variables (latent variables) which cannot be directly measured instead manipulated indirectly by changing some aspects of the subject's environment. This is also important for providing convergent validity. Strong and reliable manipulations for achieving meaningful main tests can be accomplished with careful pre-experimental explication of the constructs so that the definitions are clear and the words being used are appropriate for the common understanding (Perdue and Summers, 1986). In Table 2, the manipulations for expectation, criticality and 3PL company info availability are demonstrated.

Table 2. Manipulation Levels

| **Levels** | **Criticality Manipulation** |
|---|---|
| low | You had decided to change your working refrigerator with a state-of-the-art one. |
| high | Your refrigerator broke down in the morning of a mid-summer day. It was full of food and meats that could easily spoil until the following day. The repairman that you called came in the morning and said that the motor burned out and the new motor would cost nearly as a new one. |
| | **Expectation Manipulation** |
| low | You bought a new refrigerator from a store operated by ZNC brand with which you have no purchasing experience at all. This brand is not widely known due to its short history in the market. |
| high | You bought a new refrigerator from a store operated by a well-known brand, ZNC. This brand has high reputation and 30 years of experience in the appliances sector. Last year, ZNC had received the customer award. You used some products of this brand before and had very favorable experiences. |
| | **Third Party Logistics Service Provider Information** |
| control | - |
| treatment | Transportation and warehousing activities of ZNC brand are performed by a third party logistics service provider. |

### 5.3.1.1. Manipulation Checks for Criticality and Realism

As a part of the preliminary research, manipulation checks were conducted in order to see whether there were significant differences on ratings of criticality when subjects were exposed to more critical or less critical purchase scenarios. In other words, an examination of subjects' ratings on perceived importance of timely delivery of the product was done by asking the item "I think timely delivery for this situation is very important" in a Likert scale. These scenarios were tested as between- subjects on 40 respondents (20 respondents for each treatment).

Additionally, perceived realism of the scenarios were evaluated by asking to the respondents the item "I believe that such things are likely to happen in real life" (Webster and Sundaram, 1998),by utilizing a 7 point Likert scale.

Table 3. Descriptive Statistics for Criticality Manipulation

| | low-high | N | Median | Std. Deviation | Mean | Mean Rank | Sum of Ranks |
|---|---|---|---|---|---|---|---|
| I think timely delivery for this situation is very important. | LC | 20 | 6.00 | 1.268 | 5.85 | 16.60 | 332.00 |
| | HC | 20 | 7.00 | .470 | 6.70 | 24.40 | 488.00 |
| | Total | 40 | 7.00 | 1.037 | 6.27 | | |

High scores indicate higher criticality levels.

Table 4. Mann-Whitney U Test Statistics for Criticality

| | I think timely delivery for this situation is very important. |
|---|---|
| Mann-Whitney U | 122.000 |
| Wilcoxon W | 332.000 |
| Z | -2.349 |
| Asymp. Sig. (2-tailed) | .019 |
| Exact Sig. [2*(1-tailed Sig.)] | .035[a] |

Mann-Whitney U test revealed a significant difference in the importance levels of timely delivery between high criticality (Md=7, N=20) and low criticality situations (Md= 6, N=20), U=122, z=-2.349, p=.019, r=0.4 (indicating an effect more than medium). As expected, participants in high criticality situations rated the importance of timely delivery as higher than the participants in low criticality.

Table 5. Descriptive Statistics for Reality

| | low-high | N | Median | Mean | Std. Deviation | Mean Rank | Sum of Ranks |
|---|---|---|---|---|---|---|---|
| I believe that such things can happen in real life. | LC | 20 | 6.00 | 6.05 | 1.050 | 19.68 | 393.50 |
| | HC | 20 | 7.00 | 6.00 | 1.487 | 21.33 | 426.50 |
| | Total | 40 | 6.00 | 6.02 | 1.271 | | |

Realism of the scenarios were evaluated by asking participants to rate the likelihood that a similar problem would occur to someone in real life (1 = completely disagree to 7 = completely agree). Participants perceived the criticality scenarios (M = 6.02, N=40, SD = 1.271) as highly realistic, ensuring ecological validity. Furthermore, no significant difference for the high (Md=7, N=20) and low criticality situations (Md=6, N=20) was found in terms of realism (U=184, z=-.480, p=.631). In brief, both of the situations were perceived as equally realistic.

Table 6. Mann-Whitney U Test Statistics for Reality

| | I believe that such things can happen in real life. |
|---|---|
| Mann-Whitney U | 183.500 |
| Wilcoxon W | 393.500 |
| Z | -.480 |
| Asymp. Sig. (2-tailed) | .631 |
| Exact Sig. [2*(1-tailed Sig.)] | .659[a] |

### 5.3.1.2. Manipulation Checks for Expectation

To conduct the brand expectation manipulation checks, "I expect the logistics customer service level of this brand to be high" and "I expect this brand to have on-time delivery system" statements with 7-point Likert scales were utilized.

A brief definition of logistics customer service was provided to the participants in the questionnaires of expectation manipulation. These scenarios were tested as between-subjects on 40 respondents (20 respondents for each treatment). In this check, the main aim was to see whether the average expectation rating for the high expectation condition was higher than the low expectation condition at a significant level.

Table 7. Descriptive Statistics for Expectation Manipulation (a)

| | low-high | N | Median | Std. Deviation | Mean | Mean Rank | Sum of Ranks |
|---|---|---|---|---|---|---|---|
| I expect the logistics customer service level of this brand to be high. | LE | 20 | 4.00 | 1.976 | 4.70 | 15.10 | 302.00 |
| | HE | 20 | 7.00 | .671 | 6.65 | 25.90 | 518.00 |
| | Total | 40 | 7.00 | 1.760 | 5.68 | | |

High scores indicate higher expectation levels.

Table 8. Mann-Whitney U Test Statistics for Expectation (a)

| | I expect the logistics customer service level of this brand to be high. |
|---|---|
| Mann-Whitney U | 92.000 |
| Wilcoxon W | 302.000 |
| Z | -3.206 |
| Asymp. Sig. (2-tailed) | .001 |
| Exact Sig. [2*(1-tailed Sig.)] | .003[a] |

Mann-Whitney U test indicated that there was a significant difference in the expectation levels of logistics customer service level between the participants who received high brand expectation (Md=7, N=20) and low brand expectation scenarios (Md=4 , N=20), U=92, z=-3.206, p=.001, r=0.5 (indicating a large effect). As expected, participants who received high brand expectation scenarios rated the logistics customer service level expectancy as higher than the participants who received low brand expectation scenarios.

More specifically, an additional Mann-Whitney U test was run and showed that there was also a significant difference in the on-time delivery expectation levels between the participants received high (Md=7, N=20) and low (Md=6, N=20) brand expectation scenarios (U=98, z=-3.059, p=.002, r=0.5, indicating a large effect). As expected, participants who received high brand expectation scenarios rated on-time delivery expectancy as higher than the participants who received low expectation scenarios.

Table 9. Descriptive Statistics for Expectation Manipulation (b)

| | low-high | N | Median | Std. Deviation | Mean | Mean Rank | Sum of Ranks |
|---|---|---|---|---|---|---|---|
| I expect this brand to deliver its products on-time. | LE | 20 | 6.00 | 1.694 | 5.35 | 15.38 | 307.50 |
| | HE | 20 | 7.00 | .444 | 6.75 | 25.63 | 512.50 |
| | Total | 40 | 7.00 | 1.413 | 6.05 | | |

High scores indicate higher expectation levels.

Table 10. Mann-Whitney U Test Statistics for Expectation (b)

| | I expect this brand to deliver its products on-time. |
|---|---|
| Mann-Whitney U | 97.500 |
| Wilcoxon W | 307.500 |
| Z | -3.059 |
| Asymp. Sig. (2-tailed) | .002 |
| Exact Sig. [2*(1-tailed Sig.)] | .005[a] |

### 5.3.2. Confounding Check

Confounding means that the treatment effect and some other effect cannot be separated (Rosenthal and Rosnow, 1991). In the expectation manipulation, the usage of fictitious brands may help to prevent the confounding effects of various levels of prior knowledge and brand associations on participants' responses. On the other hand, in the literature, there are some concerns implying that the usage of predictive and ideal expectations can be confounding (Boulding et al, 1993; Spreng et al., 1998). This study focuses on the predictive 'will be' expectations rather than emphasizing the desires and wants of the consumer on what they get in terms of logistics customer service. The predictive 'will be' expectations of consumers should ground on the scenarios. Thus, in order to understand these perplexing situations, confounding check was applied by asking the respondents some questions at the end of the expectation manipulation checks. Different definitions and interpretations of expectation were explained in the questions and then respondents were asked which of the three definitions of expectation was most similar to the definition they personally used to answer the questions of the scenario.

Table 11. Frequencies of Expectation Types

| | Observed N | Expected N | Residual |
|---|---|---|---|
| should be-deserved expectations | 4 | 13.3 | -9.3 |
| will be expectations | 22 | 13.3 | 8.7 |
| ideal expectation | 14 | 13.3 | .7 |
| Total | 40 | | |

Table 12. Chi-Square Test Statistics

| | Expectation type |
|---|---|
| Chi-Square | 12.200[a] |
| df | 2 |
| Asymp. Sig. | .002 |

The results of the test indicates that there was significant difference in the proportion of types in the current sample ($\chi^2$ (2, n=40) =12.200, p<.002). However, additional binomial proportion test results showed that there was no significant difference between the ideal and will be expectations. Although, this indicates that people may answer to the scenarios depending both on will be and ideal expectations, findings of the main study proved that the respondents mostly replied according to their will be expectations. Otherwise, no significant difference would have occurred between the observed impacts of low and high expectations on dependent variables.

### 5.4. Validity and Reliability of the Study

#### 5.4.1. Validity

Regarding to validity, different concerns were taken into consideration in the design process of this study. For the purpose of furnishing construct validity, sample selection was done regarding to the capability for capturing the constructs. With the assistance of between-subjects design, different threads to construct validity such as

hypothesis-guessing and the interaction of different treatments were avoided. Additionally, manipulation checks and confounding checks were conducted for enhancing construct validity. In order to elicit that the manipulations were measuring the independent variables of interest and at the same time not producing any changes in measures of related but different constructs (Perdue and Summers, 1986), manipulation and confounding checks were conducted. While manipulation checks for expectation and criticality variables are providing to have convergent validity, the confounding checks designed to differentiate and understand expectation types regarding to discriminant validity.

Internal validity is a main issue in obtaining causal relationships in a research design. Respondents were randomly assigned to the treatment groups. This assignment technique eliminates the threads of selection. Also the usage of the same instruments prevented from testing and instrumentation problems. Fictitious brand name usage and the scenario based experiments by enhancing control otherwise unmanagaeable variables, contributed to omit the history effect of respondents.

Furthermore, statistical conclusion validity has also been taken into account in this study. In order to have high statistical power, sample size was arranged as 296 (37 respondents for each of the 8 treatments). The measures used for the experiment have adequate reliability levels. Also the manipulations utilized were formed mainly based on the previous literature. Reliability check of the criticality scenarios was also included into the pre-test. Additionally, by adding control variables such as age, education, income and gender, the effect of random heterogeneity of respondents was checked.

The generalizability of a causal relation to different settings and samples is an issue of external validity. Heterogeneous sampling by focusing on representativeness as well as confounding factors contributed to external validity. The main thing that matters for external validity is theoretical understanding instead of the findings (Berkowitz and Donnerstein, 1982). With this study, the contribution to both theoretical and practical areas will be provided.

### 5.4.2. Reliability of the Scales

Internal consistency refers to the homogeneity of items constituting a scale. A scale is internally consistent to the extent that its items are highly intercorrelated referring that they are all measuring the same thing and sharing a common latent variable. Internal consistency is equated with Cronbach's coefficient alpha corresponding to the proportion of variance in a scale that is attributable to the true score of the latent variable (DeVellis, 2003).

Among various methods for computing reliability, coefficient alpha is generally the first measure that is being used for assesing the quality of the instrument. The degree of alpha value indicates the items' ability to capture the construct (Churchill, 1979). The value of the coefficient can be a value between 0 and 1, and a value of 0.6 and less depicts an inadequate internal consistency reliability (Malhotra,2004). In this study, coefficient alpha values for the five constructs are all in acceptable levels. The cronbach's alpha values and item numbers are displayed below in Table 13.

Table 13. Scale Item Numbers and Scale Reliability

| Construct | Cronbach's alpha | Number of scale items |
|---|---|---|
| Overall brand evaluation (AvBEV) | 0.975 | 3 |
| Repurchase intention (AvRP) | 0.869 | 3 |
| Locus attribution to brand (AvAtB) | 0.70 | 2 |
| Locus attributions to logistics c. (AvAtL) | 0.866 | 2 |
| Self-locus attributions (AvAtI) | 0,71 | 2 |

## 5.5. Analyses and Results

### 5.5.1. Sample Matching

Randomization helps to give equal chances to participants for being allocated to the treatment but does not ensure to balance the characteristics of participants in different groups (Rosenthal and Rosnow, 1991). In order to test the balance of participant characteristics in eight groups, chi-square analyses were conducted for income, gender, education and age differences. Findings revealed that the groups were identical with regard to these factors.

Table 14. Sample Matching Test Results

| Pearson Chi-Square | value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| group*gender | 11.892 | 7 | .104 |
| group*age | 21.756 | 21 | .414 |
| group*education | 17.066 | 28 | .947 |
| group*income | 28.744 | 28 | .426 |

There is no significant difference between groups at **α=0.05.**

### 5.5.2. Hypotheses Testing

**Hypothesis 1**

Hypothesis 1 predicted that following a logistics customer service failure, overall brand evaluations are likely to be higher among consumers holding higher expectations for the brand than those with lower expectations. To test this hypothesis, one-way between subjects ANOVA test was conducted to compare the effect of expectation levels (high and low expectation) on brand evaluations. According to the results of the Levene's Test of Homogeneity of Variance (Table 16), variances are not significantly different from each other (p=. 208). Consumers holding high expectations ($M_{HE}$: 3.14, SD=1.407) rated higher brand evaluations than the consumers with low expectations ($M_{LE}$: 2.286, SD=1.1011). ANOVA results for H1 (Table 17) revealed a significant difference in group means at the p< .05 level in brand evaluation scores for two levels of expectation [F (1, 294) = 33.792, p= .000]. Calculated eta squared was .103 designating a large effect. Effect size is defined as a way of quantifying the difference between two groups and as a measure of effectiveness of treatments in experiments (Coe, 2000). There are various kinds of effect size calculations such as $r^2$,adjusted $R^2$, Cohen's d , Kendall's W, Eta, etc. Among those, this study utilizes Eta effect size calculation. According to Cohen (1988) 0.01= a very small effect, 0.06= a moderate effect, 0.14= a very large effect. These findings indicate that consumers holding high brand expectations are evaluating the brand in a more positive way than the ones with lower brand expectations after a logistics customer service failure. Thus, Hypothesis 1 was accepted.

Table 15. Descriptive Statistics for Expectation Effect on Brand Evaluations

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Min. | Max. |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| LE | 148 | 2.286 | 1.1011 | .0905 | 2.107 | 2.465 | 1.0 | 5.0 |
| HE | 148 | 3.140 | 1.4067 | .1156 | 2.911 | 3.368 | 1.0 | 7.0 |
| Total | 296 | 2.713 | 1.3315 | .0774 | 2.561 | 2.865 | 1.0 | 7.0 |

Table 16. Homogeneity of Variances Test Result for H1

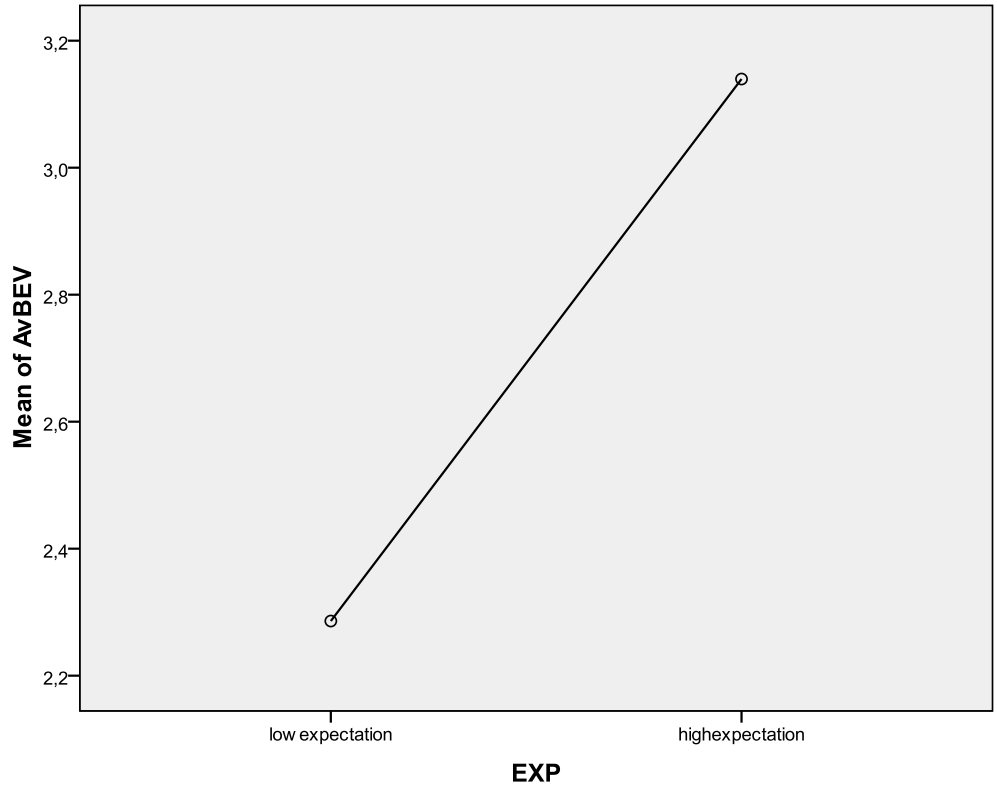
| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 1.591 | 1 | 294 | .208 |

Table 17. ANOVA Statistics for Expectation Effect on Brand Evaluations

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 53.919 | 1 | 53.919 | 33.792 | .000 |
| Within Groups | 469.116 | 294 | 1.596 | | |
| Total | 523.036 | 295 | | | |

As obvious from the mean plot (Figure 3), brand evaluation ratings are higher for the consumers holding high expectations as compared to the ones holding low expectations.

Figure 3. Mean Plot for Expectation Effect on Brand Evaluations




**Hypothesis 2**

Hypothesis 2 addresses the influence of expectation on repurchase intentions. It is predicted that following a logistics customer service failure, repurchase intentions are likely to be higher among consumers holding higher expectations for the brand than those with lower expectations. In order to test H2, one-way between subjects ANOVA test was conducted. Levene's Test for Equal Variances (Table 19) proved that the homogeneity of variances assumption was not violated (p=.257). As higher scores indicate higher repurchase intentions, consumers holding higher brand expectations were inclined to repurchase products from the same brand more after a logistics service failure when compared to the consumers with low expectations ($M_{LE}$: 2.705, SD= 1.2451 *versus* $M_{HE}$: 4.257, SD=1.4143). Results show a

significant difference (Table 20) between the two levels of expectation at the p< .05 level [F (1, 294) = 100.381, p=. 000]. Eta$^2$= .255, indicates a very large effect. Thus, H2 was accepted. As a result, these findings show that the consumers holding high brand expectations are inclined to repurchase more from the brand after a logistics customer service failure than the ones holding lower brand expectations. This effect can also be observed from the mean plot (Figure 4).

Table 18. Descriptive Statistics for Expectation Effect on Repurchase Intentions

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Min. | Max. |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| LE | 148 | 2.705 | 1.2451 | .1023 | 2.503 | 2.907 | 1.0 | 6.0 |
| HE | 148 | 4.257 | 1.4143 | .1163 | 4.027 | 4.486 | 1.0 | 7.0 |
| Total | 296 | 3.481 | 1.5405 | .0895 | 3.305 | 3.657 | 1.0 | 7.0 |

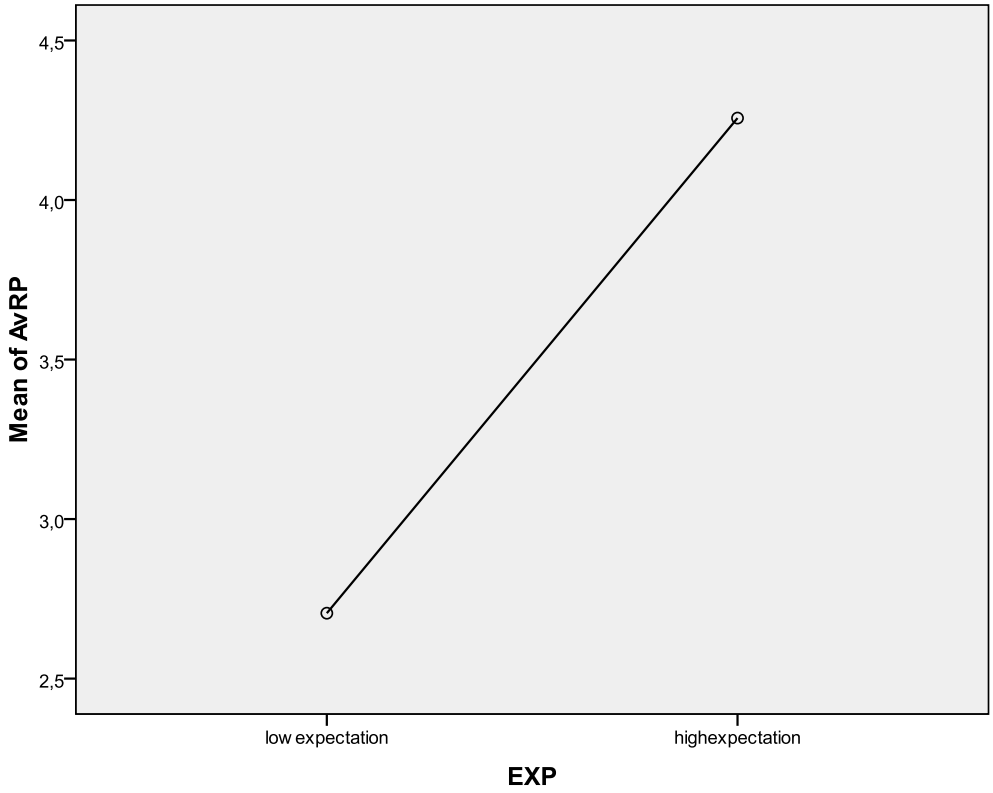
Table 19. Homogeneity of Variances Test Result for H2

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 1.288 | 1 | 294 | .257 |

Table 20. ANOVA Statistics for Expectation Effect on Repurchase Intentions

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 178.199 | 1 | 178.199 | 100.381 | .000 |
| Within Groups | 521.915 | 294 | 1.775 | | |
| Total | 700.114 | 295 | | | |

Figure 4. Mean Plot for Expectation Effect on Repurchase Intentions




**Hypothesis 3**

H3 predicts that following a logistics customer service failure, overall brand evaluations are likely to be more favorable among the consumers in low criticality situations than those in high criticality. With the Levene's Test of Homogeneity of Variance (Table 22), equality of variances assumption was proved (p=.878). The outcome of one way between subjects ANOVA demonstrated (Table 23) that there was a significant difference between the two levels of criticality on brand evaluations ($M_{LC}$: 3.173 SD= 1.323 *versus* $M_{HC}$: 2.252 SD= 1.175) at the p<.05 level [F (1,294) = 40.112, p=.000]. $Eta^2$= .120 indicates a considerably big effect size. Thus, H3 was accepted.

As it is obvious from the results, the brand evaluations of the consumers in low criticality are more favorable compared to the ones in high criticality. This effect can also be observed from the mean plot (Figure 5).

Table 21. Descriptive Statistics for Criticality Effect on Brand Evaluations

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Min. | Max. |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| LC | 148 | 3.173 | 1.3228 | .1087 | 2.959 | 3.388 | 1.0 | 7.0 |
| HC | 148 | 2.252 | 1.1752 | .0966 | 2.061 | 2.443 | 1.0 | 6.0 |
| Total | 296 | 2.713 | 1.3315 | .0774 | 2.561 | 2.865 | 1.0 | 7.0 |

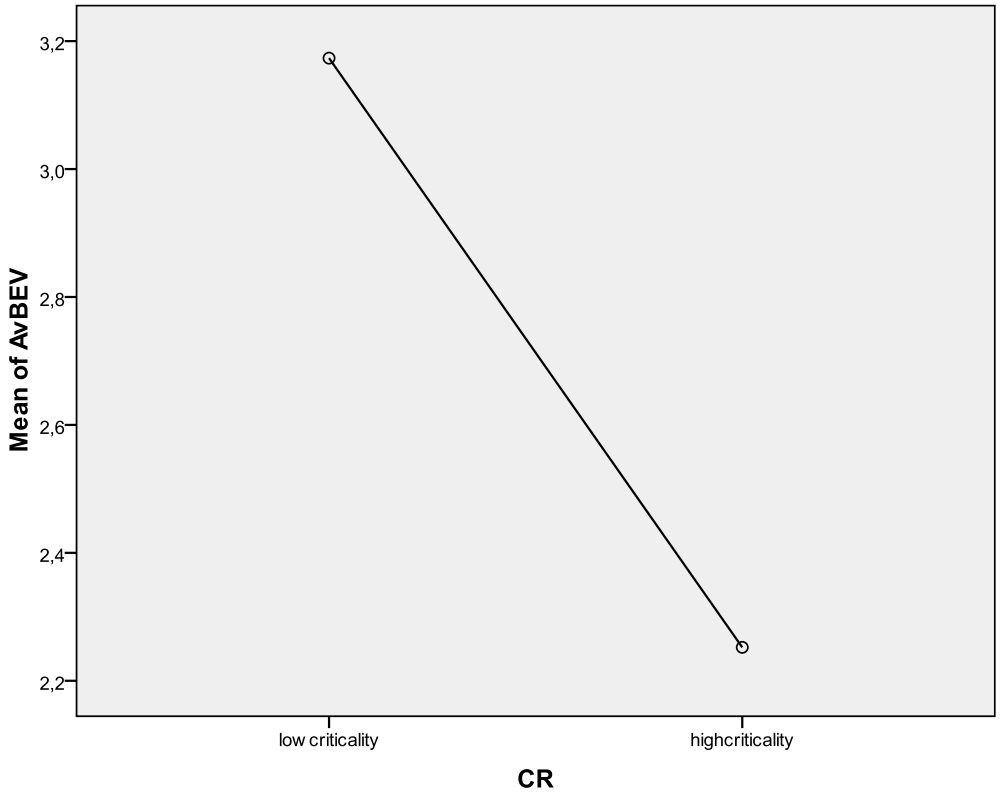
Table 22. Homogeneity of Variances Test Result for H3

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| .024 | 1 | 294 | .878 |

Table 23. ANOVA Statistics for Criticality Effect on Brand Evaluations

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 62.793 | 1 | 62.793 | 40.112 | .000 |
| Within Groups | 460.242 | 294 | 1.565 | | |
| Total | 523.036 | 295 | | | |

Figure 5. Mean Plot for Criticality Effect on Brand Evaluations




**Hypothesis 4**

Hypothesis 4, states that following a logistics customer service failure, repurchase intentions are likely to be more favorable among the consumers in low criticality situations than those in high criticality. The variance homogeneity assumption was provided as displayed on Table 25 (p= .584). According to the result of one way between subjects ANOVA (Table 26), there was significant difference between high criticality and low criticality situations in terms of repurchase intentions [F (1,294) = 32. 521, p= .000]. As also obvious from the mean plot (Figure 6), consumers in low criticality situations were more inclined to repurchase products from ZNC brand in the future ($M_{LC}$= 3.966, SD=1.464 *versus* $M_{HC}$=2.995, SD=1.465). Calculated $eta^2$=.099 value indicates a big effect size. Thus, H4 was accepted.

Table 24. Descriptive Statistics for Criticality Effect on Repurchase Intentions

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Min. | Max. |
|---|---|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound | | |
| LC | 148 | 3.966 | 1.4635 | .1203 | 3.728 | 4.204 | 1.0 | 7.0 |
| HC | 148 | 2.995 | 1.4651 | .1204 | 2.757 | 3.233 | 1.0 | 7.0 |
| Total | 296 | 3.481 | 1.5405 | .0895 | 3.305 | 3.657 | 1.0 | 7.0 |

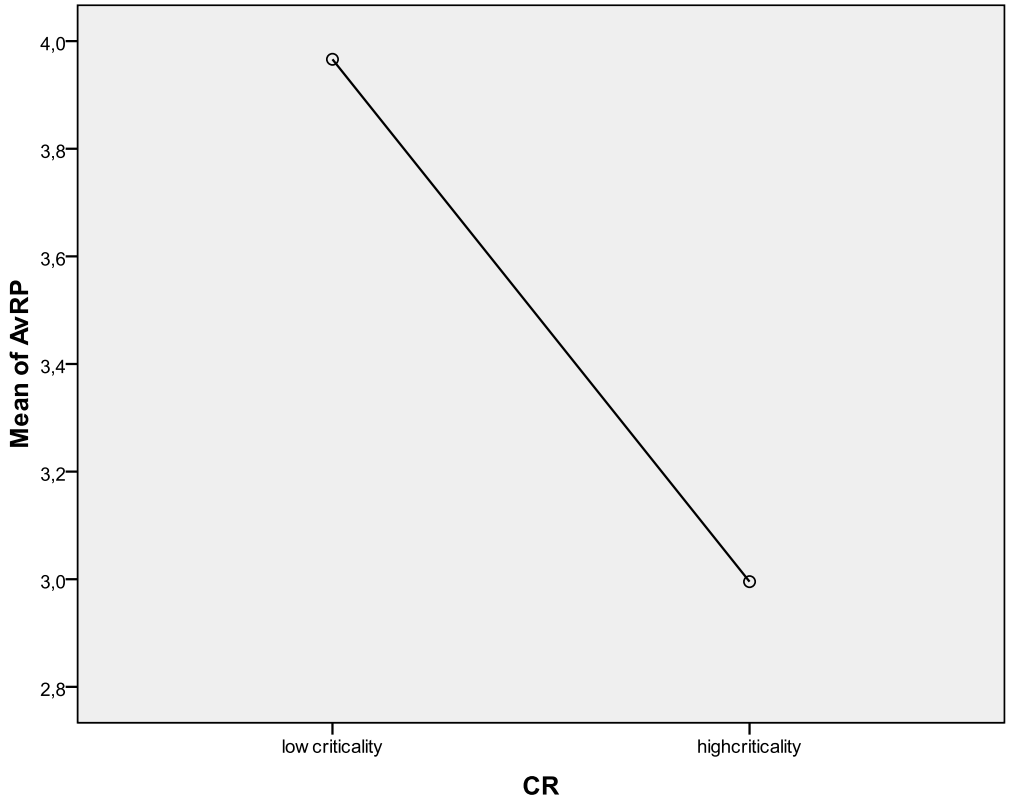
Table 25. Homogeneity of Variances Test Result for H4

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| .301 | 1 | 294 | .584 |

Table 26. ANOVA Statistics Criticality Effect on Repurchase Intentions

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 69.730 | 1 | 69.730 | 32.521 | .000 |
| Within Groups | 630.384 | 294 | 2.144 | | |
| Total | 700.114 | 295 | | | |

Figure 6. Mean Plot for Criticality Effect on Repurchase Intentions




**Hypothesis 5**

In hypothesis 5, it is predicted that in high criticality situations, consumers holding high brand expectations should evaluate logistics customer failure more favorably than the ones with low brand expectations in terms of brand evaluations. A two-way between groups ANOVA was conducted to investigate the impact of criticality and expectation on brand evaluations.

According to Levene's Test of Homogeneity of Error Variances (Table 28), equality of variances assumption was provided (p=.056). The interaction effect between criticality and expectation on brand evaluation was not statistically significant (Table

29) at $p < .05$ level [$F(1, 292) = .818$, $p=.366$, partial $eta^{2} = .003$]. As it can also be observed from the profile plot (Figure 7), H5 was rejected.

The results designated that the effect on brand evaluation of any specific level change for criticality is the same for every fixed setting of expectation. This is an additive model (no-interaction model).

Table 27. Descriptive Statistics for the Interaction Effect on Brand Evaluations

| CR | EXP | Mean | Std. Deviation | N |
|---|---|---|---|---|
| LC | LE | 2.685 | 1.0021 | 74 |
| | HE | 3.662 | 1.4265 | 74 |
| | Total | 3.173 | 1.3228 | 148 |
| HC | LE | 1.887 | 1.0559 | 74 |
| | HE | 2.617 | 1.1816 | 74 |
| | Total | 2.252 | 1.1752 | 148 |
| Total | LE | 2.286 | 1.1011 | 148 |
| | HE | 3.140 | 1.4067 | 148 |
| | Total | 2.713 | 1.3315 | 296 |

Table 28. Levene's Test of Equality of Error Variances for H5

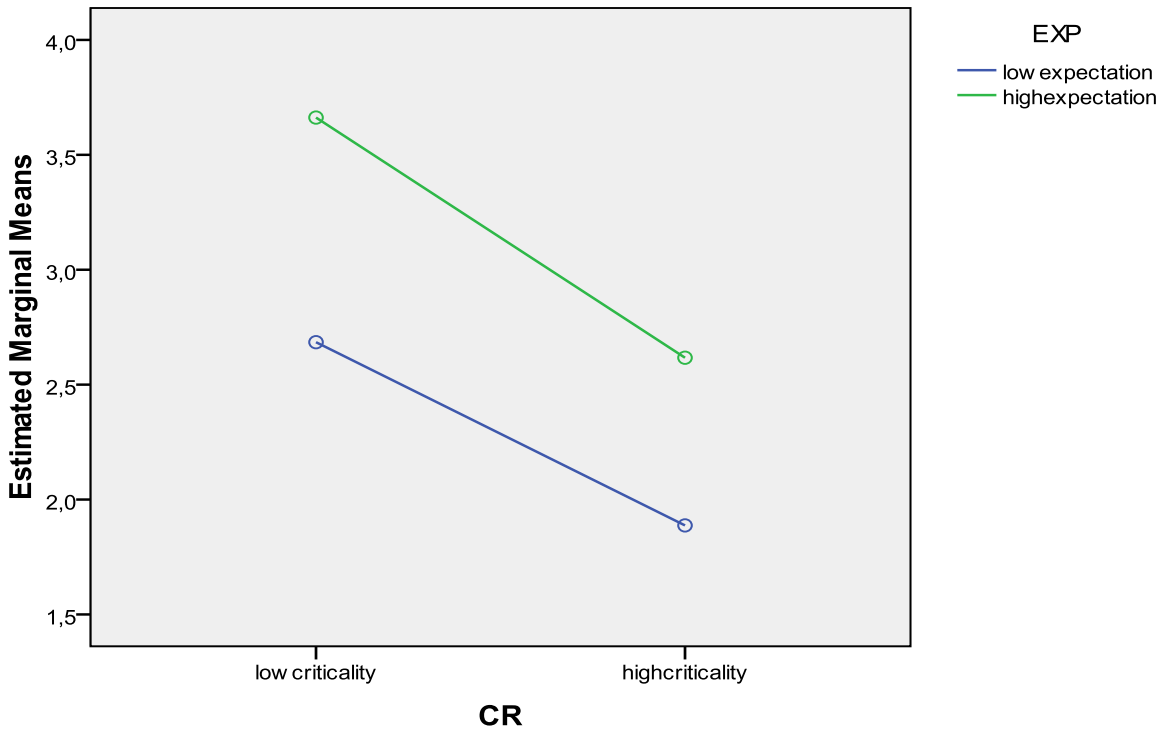
| F | df1 | df2 | Sig. |
|---|---|---|---|
| 2.547 | 3 | 292 | .056 |

Table 29. Tests of Between-Subjects Effects for the Interaction Effect on Brand Evaluations

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | 117.848[a] | 3 | 39.283 | 28.309 | .000 | .225 |
| Intercept | 2178.409 | 1 | 2178.409 | 1569.878 | .000 | .843 |
| criticality | 62.793 | 1 | 62.793 | 45.252 | .000 | .134 |
| expectation | 53.919 | 1 | 53.919 | 38.857 | .000 | .117 |
| criticality * expectation | 1.136 | 1 | 1.136 | .818 | .366 | .003 |
| Error | 405.188 | 292 | 1.388 | | | |
| Total | 2701.444 | 296 | | | | |
| Corrected Total | 523.036 | 295 | | | | |

a. R Squared = .225 (Adjusted R Squared = .217)

Figure 7. Profile Plots for the Interaction Effect on Brand Evaluations



**Hypothesis 6**

According to Hypothesis 6, it is anticipated that in high criticality situations, consumers holding high brand expectations should evaluate logistics customer failure more favorably than the ones with low brand expectations in terms of repurchase intentions. In order to examine the influence of criticality and expectation on repurchase intentions, a two-way between groups ANOVA was conducted. Levene's Test for the Homogeneity of Error Variances was conducted and homogeneity was proved (p=.152). However, as it can also be seen from the profile plot (Figure 8), the interaction effect between criticality and expectation on repurchase intention was not statistically significant at $p < .05$ level [$F (1, 292) = .332$, $p=.565$, partial $eta^2=.001$]. H6 was rejected.

Table 30. Descriptive Statistics for the Interaction Effect on Repurchase Intentions

| CR | EXP | Mean | Std. Deviation | N |
|---|---|---|---|---|
| LC | LE | 3.149 | 1.2190 | 74 |
| | HE | 4.784 | 1.2131 | 74 |
| | Total | 3.966 | 1.4635 | 148 |
| HC | LE | 2.261 | 1.1121 | 74 |
| | HE | 3.730 | 1.4117 | 74 |
| | Total | 2.995 | 1.4651 | 148 |
| Total | LE | 2.705 | 1.2451 | 148 |
| | HE | 4.257 | 1.4143 | 148 |
| | Total | 3.481 | 1.5405 | 296 |

Table 31. Levene's Test of Equality of Error Variances for H6

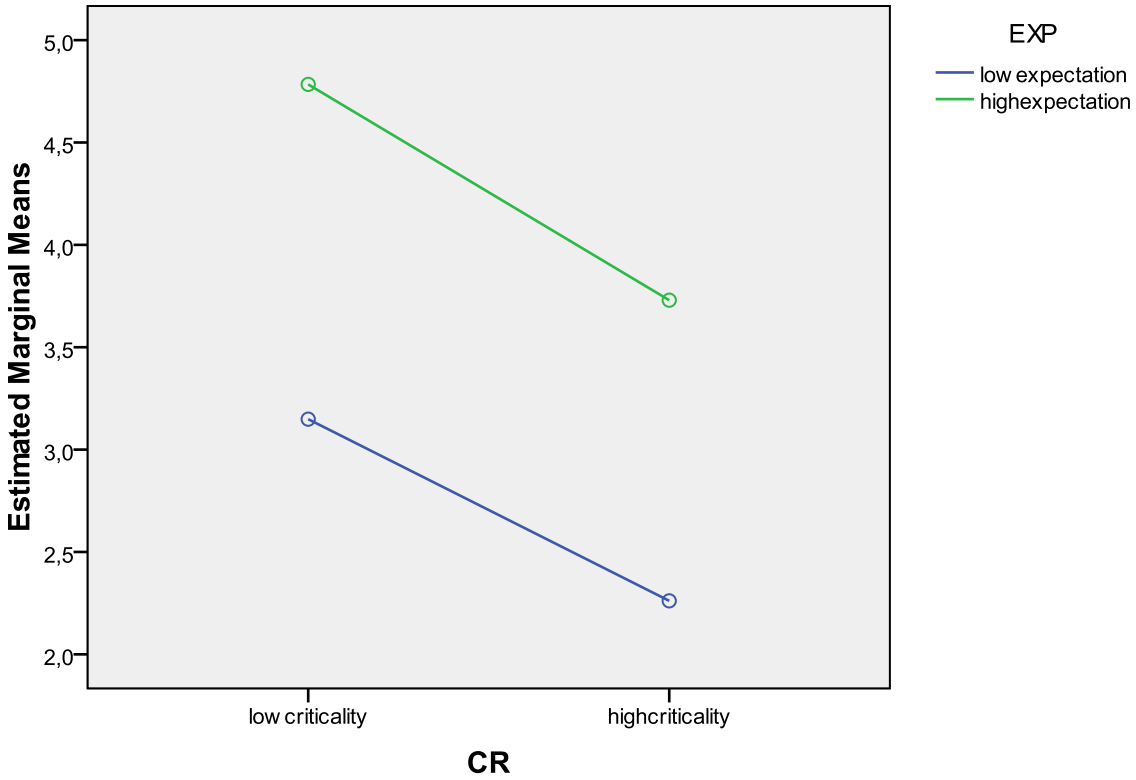
| F | df1 | df2 | Sig. |
|---|---|---|---|
| 1.776 | 3 | 292 | .152 |

Table 32. Tests of Between-Subjects Effects for the Interaction Effect on Repurchase Intentions

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | 248.443[a] | 3 | 82.814 | 53.538 | .000 | .355 |
| Intercept | 3586.442 | 1 | 3586.442 | 2318.592 | .000 | .888 |
| criticality | 69.730 | 1 | 69.730 | 45.080 | .000 | .134 |
| expectation | 178.199 | 1 | 178.199 | 115.203 | .000 | .283 |
| criticality * expectation | .514 | 1 | .514 | .332 | .565 | .001 |
| Error | 451.671 | 292 | 1.547 | | | |
| Total | 4286.556 | 296 | | | | |
| Corrected Total | 700.114 | 295 | | | | |

a. R Squared = .355 (Adjusted R Squared = .348)

Figure 8. Profile Plots for the Interaction Effect on Repurchase




As the conclusion of these two interaction tests, criticality effects on the dependent variables (brand evaluation and repurchase intention) were the same for both levels

of expectation, and expectation effects on the dependent variables were the same for both levels of criticality. Due to the fact that no interaction effect was observed, it is logical to focus only on the main effects previously discussed.

**Hypotheses 7-8-9**

In order to assess the locus of attribution (brand locus, logistics company locus and self-locus) in different levels of expectation, independent sample T-tests were conducted. The results of independent sample T-tests at $p < .05$ level indicated that there were significant differences between the consumers holding high and low expectations regarding to locus attributions.

In Hypothesis 7, due to the buffer effect of high expectations, it is predicted that consumers holding high expectations, as compared with those lower expectations, are less likely to attribute logistics service failure to the brand. The results revealed that the consumers with low expectations were attributing the blame for failure to ZNC brand more than the ones with high expectations ($M_{LE}$= 5.733, SD=1.2 *versus* $M_{HE}$=5.402, SD=1.25). In here, it can be stated that high brand expectations were acting like buffers [t (294) = 2.327, p=.021, $eta^2$= .02]. H7 was accepted.

According to Hypothesis 8, consumers holding high expectations, as compared to those with low expectations, are more likely to attribute logistics service failure to the logistics company. This study indicated that the consumers with high expectations were attributing blame more to logistics firm when compared to the consumers with low expectations ($M_{LE}$=5.557, SD=1.531 *versus* $M_{HE}$=5.882, SD=1.247) with t(282)= -1.998, p=.047, $eta^2$=.013. H8 was accepted.

As for the self-locus, in Hypothesis 9, it was predicted that consumers holding high expectations are less likely to blame themselves for the failure than the ones holding low expectations. According to the results, the consumers with low expectations were blaming themselves more than the consumers with high expectations ($M_{LE}$=2.679, SD= 1.5 *versus* $M_{HE}$=1.77, SD= .85) with t (232) = 6.414, p=.000, $eta^2$=.123 .Thus, H9 was accepted.

Table 33. Group Statistics for Expectation Effect on Attributions

| | EXP | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| AvAtI | LE | 148 | 2.6791 | 1.50058 | .12335 |
| | HE | 148 | 1.7703 | .84792 | .06970 |
| AvAtB | LE | 148 | 5.7331 | 1.20008 | .09865 |
| | HE | 148 | 5.4020 | 1.24766 | .10256 |
| AvAtL | LE | 148 | 5.5574 | 1.53144 | .12588 |
| | HE | 148 | 5.8818 | 1.24726 | .10252 |

Table 34. Independent Samples Test for Expectation Effect on Attributions

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | |
|---|---|---|---|---|---|---|---|---|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference |
| AvAtI | eq. var. assumed | 41.735 | .000 | 6.414 | 294 | .000 | .90878 | .14168 |
| | eq. var. not assumed | | | 6.414 | 232.188 | .000 | .90878 | .14168 |
| AvAtB | eq.var. assumed | .497 | .481 | 2.327 | 294 | .021 | .33108 | .14230 |
| | eq. var. not assumed | | | 2.327 | 293.557 | .021 | .33108 | .14230 |
| AvAtL | eq. var. assumed | 3.960 | .048 | -1.998 | 294 | .047 | -.32432 | .16235 |
| | eq. var not assumed | | | -1.998 | 282.427 | .047 | -.32432 | .16235 |

**Hypothesis 10**

In order to understand the subjects' tendency to attribute the cause of delay to brand, logistics company and themselves, paired sample T tests were run within each group.

In hypothesis 10, it is predicted that the subjects holding low expectations are inclined to attribute the failure more to the brand than to the logistics company. The analyses proved that the participants holding low expectations towards brand were attributing the blame for the service failure both to the brand and the logistics company ($M_{BA}$=5.733, SD=1.2 *versus* $M_{LCA}$=5.557, SD=1.53). In other words no significant difference was found between the ratings of brand and logistics company attributions [t (147) = 1.089, p=.278 at the p< .05 level]. H10 was rejected.

Surprisingly, from the comparisons, it is obvious that the subjects holding low expectations were attributing less blame for the failure to themselves ($M_{SA}$= 2.6791, SD= 1.5) than to brand ($M_{BA}$=5.7331, SD=1.2) [t (147) = 20.538, p=.000 at the p< .05 level, $eta^2$=.742] or to logistics company ($M_{LCA}$=5.5574, SD=1.53)[ t(147)=-15.819, p=.000 at the p< .05 level, $eta^2$=.629].

Table 35. Paired Samples Statistics for Attributions of Consumers with Low Expectation

| EXP | | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|---|
| LE | Pair 1 | AvAtB | 5.7331 | 148 | 1.20008 | .09865 |
| | | AvAtI | 2.6791 | 148 | 1.50058 | .12335 |
| | Pair 2 | AvAtB | 5.7331 | 148 | 1.20008 | .09865 |
| | | AvAtL | 5.5574 | 148 | 1.53144 | .12588 |
| | Pair 3 | AvAtI | 2.6791 | 148 | 1.50058 | .12335 |
| | | AvAtL | 5.5574 | 148 | 1.53144 | .12588 |

Table 36. Paired Samples Test for Attributions of Consumers with Low Expectation

| EXP | | | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | | | Mean | Std. Deviation | Std. Error Mean | | | |
| LE | Pair 1 | AvAtB - AvAtI | 3.05405 | 1.80902 | .1487 | 20.538 | 147 | .000 |
| | Pair 2 | AvAtB - AvAtL | .17568 | 1.96211 | .16128 | 1.089 | 147 | .278 |
| | Pair 3 | AvAtI - AvAtL | -2.87838 | 2.21361 | .18196 | -15.819 | 147 | .000 |

**Hypothesis 11**

According to Hypothesis 11, it is anticipated that the subjects holding high expectations are inclined to attribute the failure more to the logistics company than to the brand.

As for the participants with high expectations, significant differences were found between the pairs. Results show that the participants holding high expectations towards brand, were attributing the blame for the service failure more to the logistics company ($M_{LCA}$= 5.882, SD=1.247) than to the brand ($M_{BA}$=5.402, SD=1.248) [t(147)= -3.628, p=.000 at the p< .05 level, $eta^2$=.08] or than to themselves ($M_{SA}$=1.77, SD=.848) [t(147)= -30.633, p=.000 at the p< .05 level, $eta^2$= .87]. Thus, H11 was accepted.

Table 37. Paired Samples Statistics for Attributions of Consumers with High Expectation

| EXP | | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|---|
| HE | Pair 1 | AvAtB | 5.4020 | 148 | 1.24766 | .10256 |
| | | AvAtI | 1.7703 | 148 | .84792 | .06970 |
| | Pair 2 | AvAtB | 5.4020 | 148 | 1.24766 | .10256 |
| | | AvAtL | 5.8818 | 148 | 1.24726 | .10252 |
| | Pair 3 | AvAtI | 1.7703 | 148 | .84792 | .06970 |
| | | AvAtL | 5.8818 | 148 | 1.24726 | .10252 |

Table 38. Paired Samples Test for Attributions of Consumers with High Expectation

| EXP | | | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | | | Mean | Std. Deviation | Std. Error Mean | | | |
| HE | Pair 1 | AvAtB - AvAtI | 3.63176 | 1.65509 | .13605 | 26.695 | 147 | .000 |
| | Pair 2 | AvAtB - AvAtL | -.47973 | 1.60873 | .13224 | -3.628 | 147 | .000 |
| | Pair 3 | AvAtI - AvAtL | -4.11149 | 1.63281 | .13422 | -30.633 | 147 | .000 |

**Hypothesis 12**

In H12, it is predicted that in high criticality situations, as compared to those in low criticality, consumers are more likely to attribute logistics service failure to the brand. To test this hypothesis, independent sample T-tests comparing the three attribution responses in low criticality and high criticality were run. The output displays that the subjects in high criticality compared to low criticality made more attribution for logistics service failure to the brand ($M_{HC}$= 5.7973, SD= 1.14 *versus*

$M_{LC}$=5.3378, SD=1.29), [*t* (294)= -3,257, p=.001, $eta^2$= .04]. Thus, H12 was accepted.

On the other hand, criticality levels did not create any difference for the attribution to logistics company ($M_{LC}$=5.757, SD= 1.408 *versus* $M_{HC}$=5.682, SD=1.404) with the values of *t* (294) = .455, p=.650. As for the self-attribution, in high criticality, subjects were more inclined to blame themselves than low criticality situations ($M_{LC}$=2.064, SD=1.113 *versus* $M_{HC}$=2.385, SD=1.448) (t (276) = -2.138, p=.033, $eta^2$= .02).

Table 39. Group Statistics for Criticality Effect on Attributions

| | CR | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| AvAtI | LC | 148 | 2.0642 | 1.11313 | .09150 |
| | HC | 148 | 2.3851 | 1.44760 | .11899 |
| AvAtB | LC | 148 | 5.3378 | 1.28732 | .10582 |
| | HC | 148 | 5.7973 | 1.13515 | .09331 |
| AvAtL | LC | 148 | 5.7568 | 1.40757 | .11570 |
| | HC | 148 | 5.6824 | 1.40353 | .11537 |

Table 40. Independent Samples Test for Criticality Effect on Attributions

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | |
|---|---|---|---|---|---|---|---|---|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference |
| AvAtI | eq. var. assumed | 6.443 | .012 | -2.138 | 294 | .033 | -.32095 | .1501 |
| | eq. var. not assumed | | | -2.138 | 275.804 | .033 | -.32095 | .1501 |
| AvAtB | eq. var. assumed | 1.383 | .240 | -3.257 | 294 | .001 | -.45946 | .14108 |
| | eq. var. not assumed | | | -3.257 | 289.467 | .001 | -.45946 | .14108 |
| AvAtL | eq. var. assumed | .076 | .783 | .455 | 294 | .650 | .07432 | .16339 |
| | eq. var. not assumed | | | .455 | 293.998 | .650 | .07432 | .16339 |

In order to develop a deeper understanding of the attributions in low and high criticality situations within the groups, paired sample T tests were conducted. In low criticality, subjects were inclined to attribute more to the logistics company ($M_{LCA}$=5.757, SD= 1.408) than to the brand ($M_{BA}$= 5.338, SD= 1.287) [t (147) = -2.721, p= .007 at the p< .05 level, $eta^2$=.05] or to themselves ($M_{SA}$= 2.064 SD= 1.113) [t (147) =-23.913, p=.000 at the p< .05 level, $eta^2$=.72].

Table 41. Paired Samples Statistics for Attributions of Consumers in Low Criticality

| CR | | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|---|
| LC | Pair 1 | AvAtB | 5.3378 | 148 | 1.28732 | .10582 |
| | | AvAtI | 2.0642 | 148 | 1.11313 | .09150 |
| | Pair 2 | AvAtB | 5.3378 | 148 | 1.28732 | .10582 |
| | | AvAtL | 5.7568 | 148 | 1.40757 | .11570 |
| | Pair 3 | AvAtI | 2.0642 | 148 | 1.11313 | .09150 |
| | | AvAtL | 5.7568 | 148 | 1.40757 | .11570 |

Table 42. Paired Samples Test for Attributions of Consumers in Low Criticality

| CR | | | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | | | Mean | Std. Deviation | Std. Error Mean | | | |
| LC | Pair 1 | AvAtB - AvAtI | 3.27365 | 1.69266 | .13914 | 23.529 | 147 | .000 |
| | Pair 2 | AvAtB - AvAtL | -.41892 | 1.8727 | .15393 | -2.721 | 147 | .007 |
| | Pair 3 | AvAtI - AvAtL | -3.69257 | 1.87856 | .15442 | -23.913 | 147 | .000 |

However, for high criticality, no significant difference was found between the attributions to the brand ($M_{BA}$=5.797, SD=1.135) and to the logistics company ($M_{LCA}$= 5.682, SD=1.404) [t (147) = .806, p=.421 at the p< .05 level]. In high criticality, subjects attributing the failure less to themselves ($M_{SA}$=2.385, SD= 1.448) than to brand [t (147) = 22.833, p= .000 at the p< .05 level, $eta^2$= .78] or to the logistics company [t (147) = -18.456, p=.000 at the p< .05 level, $eta^2$= .69].

Table 43. Paired Samples Statistics for Attributions of Consumers in High Criticality

| CR | | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|---|
| HC | Pair 1 | AvAtB | 5.7973 | 148 | 1.13515 | .09331 |
| | | AvAtI | 2.3851 | 148 | 1.44760 | .11899 |
| | Pair 2 | AvAtB | 5.7973 | 148 | 1.13515 | .09331 |
| | | AvAtL | 5.6824 | 148 | 1.40353 | .11537 |
| | Pair 3 | AvAtI | 2.3851 | 148 | 1.44760 | .11899 |
| | | AvAtL | 5.6824 | 148 | 1.40353 | .11537 |

Table 44. Paired Samples Test for Attributions of Consumers in High Criticality

| CR | | | Paired Differences | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | | | Mean | Std. Deviation | Std. Error Mean | | | |
| HC | Pair 1 | AvAtB - AvAtI | 3.41216 | 1.81801 | .14944 | 22.833 | 147 | .000 |
| | Pair 2 | AvAtB - AvAtL | .11486 | 1.73313 | .14246 | .806 | 147 | .421 |
| | Pair 3 | AvAtI - AvAtL | -3.2973 | 2.17346 | .17866 | -18.456 | 147 | .000 |

**Hypothesis 13**

In Hypothesis 13, it is predicted that the subjects informed about the third party logistics company, as compared to the ones with no information, are more likely to attribute blame to the logistics company.

Independent sample T tests were run for investigating the impact of available and unavailable 3PL company information on the attributions of failure. As expected, the availability of 3PL company info created a significant difference for the attributions to logistics firm ($M_{Unin}$= 5.338, SD=1.561 *versus* $M_{Ain}$= 6.101, SD=1.107) at the significance level of $p< .05$ [t (265) = -4.855, p=.000, $eta^2$= .07]. As for the attribution to logistics company, the violation of equal variances occurred, however the groups were statistically different in means both for equal and unequal variances. Hence, H13 was accepted.

No significant difference was observed for the self attribution between the groups that were informed and uninformed about the 3PL company ($M_{Unin}$=2.159, SD=1.204 *versus* $M_{Ain}$=2.291, SD= 1.389) at the significance level of $p< .05$ [t (294) = -.872, p=.384].

Additionally, results indicated that the availability of 3PL company information did not affect the ratings of attributions of failure to the brand ($M_{Unin}$= 5.635, SD=1.234 *versus* $M_{Ain}$=5.500, SD=1.233) at the significance level of $p< .05$ [t (294) = .942, p=.347].

Table 45. Group Statistics for 3PL Company Information Effect on Attributions

| | info3PL | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| AvAtB | unavailable 3PL info | 148 | 5.6351 | 1.23387 | .10142 |
| | available 3PL info | 148 | 5.5000 | 1.23305 | .10136 |
| AvAtL | unavailable 3PL info | 148 | 5.3378 | 1.56080 | .12830 |
| | available 3PL info | 148 | 6.1014 | 1.10650 | .09095 |
| AvAtI | unavailable 3PL info | 148 | 2.1588 | 1.20379 | .09895 |
| | available 3PL info | 148 | 2.2905 | 1.38875 | .11415 |

Table 46. Independent Samples Test for 3PL Company Information Effect on Attributions

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | |
|---|---|---|---|---|---|---|---|---|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference |
| AvAtB | eq. var. assumed | .025 | .874 | .942 | 294 | .347 | .13514 | .14339 |
| | eq. var. not assumed | | | .942 | 294 | .347 | .13514 | .14339 |
| AvAtL | eq. var. assumed | 16.411 | .000 | -4.855 | 294 | .000 | -.76351 | .15727 |
| | eq. var. not assumed | | | -4.855 | 264.963 | .000 | -.76351 | .15727 |
| AvAtI | eq. var. assumed | 1.694 | .194 | -.872 | 294 | .384 | -.13176 | .15107 |
| | eq. var. not assumed | | | -.872 | 288.192 | .384 | -.13176 | .15107 |

| Table 47. Hypotheses | | Results |
|---|---|---|
| **H1.** | Following a logistics customer service failure, overall brand evaluations are likely to be higher among consumers holding higher expectations for the brand than those with lower expectations. | **Accepted** |
| **H2.** | Following a logistics customer service failure, repurchase intentions are likely to be higher among consumers holding higher expectations for the brand than those with lower expectations. | **Accepted** |
| **H3.** | Following a logistics customer service failure, overall brand evaluations are likely to be more favorable among the consumers in low criticality situations than those in high criticality. | **Accepted** |
| **H4.** | Following a logistics customer service failure, repurchase intentions are likely to be more favorable among the consumers in low criticality situations than those in high criticality. | **Accepted** |
| **H5.** | In high criticality situations, consumers holding high brand expectations should evaluate logistics customer failure more favorably than the ones with low brand expectations in terms of brand evaluations. | **Rejected** |
| **H6.** | In high criticality situations, consumers holding high brand expectations should evaluate logistics customer failure more favorably than the ones with low brand expectations in terms of repurchase intentions. | **Rejected** |
| **H7.** | Consumers holding high expectations, as compared to those with low expectations, are less likely to attribute logistics service failure to the brand. | **Accepted** |
| **H8.** | Consumers holding high expectations, as compared to those with low expectations, are more likely to attribute logistics service failure to the logistics company. | **Accepted** |
| **H9.** | Consumers holding high expectations are less likely to blame themselves for the failure than the ones holding low expectations. | **Accepted** |
| **H10.** | The consumers holding low expectations are inclined to attribute the failure more to the brand than to the logistics company. | **Rejected** |
| **H11.** | The consumers holding high expectations are inclined to attribute the failure more to the logistics company than to the brand. | **Accepted** |
| **H12.** | In high criticality situations, as compared to those in low criticality, consumers are more likely to attribute logistics service failure to the brand. | **Accepted** |
| **H13.** | Consumers informed about a third party logistics company, as compared to the ones with no information, are more likely to attribute blame to the logistics company. | **Accepted** |

### 5.5.3. Control Variables

The difference in how genders respond to the services have been studied in many studies (Iacobucci and Ostrom, 1993; Mattila and Mount, 2003) According to the results of these studies, females are less influenced by efficiency aspects and more concentrated on relational aspects while men are more likely to focus on service delivery outcomes rather than process aspects. In the light of these literatures, the perception of delay as a logistics customer service failure may show discrepancies between women and men in terms of tolerance levels and this difference may differentiate their reactions. Additionally, different education, income and age levels can also differentiate brand evaluations, repurchase intentions and causal attributions.

**Gender**

In order to investigate the impact of gender on dependent variables, one-way ANOVA was conducted. With the Levene's Test of Homogeneity of Variance (Table 48), equality of variances assumption was proved for repurchase intention and brand attribution, and for brand evaluation, attribution to logistics company and self-attribution the assumption was violated. Thus, an additional Welch test for robustness was conducted for these dependent variables.

The outcome of one way between subjects ANOVA demonstrated (Table 49) that at the $p<.05$ level, there was no significant difference between males and females on repurchase intentions [$F(1,294) = 3.328$, $p=.069$] and on attributions to brand [$F(1,294) = .120$, $p=.729$]. According to the results of Welch Robustness Test, there was no significant difference between genders in terms of overall brand evaluations [$F(1,270) = .805$, $p=.370$] and attributions to logistics company [$F(1,253) = .848$,

p=.358]. Surprisingly, there was significant difference between males (M=2.5507, SD=1.579) and females (M=1.9399, SD=.905) on self-attribution behavior [F (1,212) =16.043, p=.000]. Males were more inclined to attribute the blame to themselves when compared to females.

Table 48. Test of Homogeneity of Variances for Gender

| | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|
| AvBEV | 7.017 | 1 | 294 | .009 |
| AvRP | 3.813 | 1 | 294 | .052 |
| AvAtB | 3.424 | 1 | 294 | .065 |
| AvAtL | 7.868 | 1 | 294 | .005 |
| AvAtI | 48.506 | 1 | 294 | .000 |

Table 49. ANOVA Statistics for Gender

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| AvBEV | Between Groups | 1.460 | 1 | 1.460 | .823 | .365 |
| | Within Groups | 521.575 | 294 | 1.774 | | |
| | Total | 523.036 | 295 | | | |
| AvRP | Between Groups | 7.836 | 1 | 7.836 | 3.328 | .069 |
| | Within Groups | 692.278 | 294 | 2.355 | | |
| | Total | 700.114 | 295 | | | |
| AvAtB | Between Groups | .183 | 1 | .183 | .120 | .729 |
| | Within Groups | 448.465 | 294 | 1.525 | | |
| | Total | 448.649 | 295 | | | |
| AvAtL | Between Groups | 1.735 | 1 | 1.735 | .880 | .349 |
| | Within Groups | 579.492 | 294 | 1.971 | | |
| | Total | 581.226 | 295 | | | |
| AvAtI | Between Groups | 27.486 | 1 | 27.486 | 17.182 | .000 |
| | Within Groups | 470.324 | 294 | 1.600 | | |
| | Total | 497.810 | 295 | | | |

Table 50. Robust Tests of Equality of Means for Gender

| | | Statistic[a] | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| AvBEV | Welch | .805 | 1 | 269.570 | .370 |
| AvRP | Welch | 3.286 | 1 | 279.359 | .071 |
| AvAtB | Welch | .119 | 1 | 278.975 | .731 |
| AvAtL | Welch | .848 | 1 | 253.071 | .358 |
| AvAtI | Welch | 16.043 | 1 | 211.720 | .000 |

**Age**

Participants were divided into four groups according to their ages (Group 1: 24 and below, Group 2: 25-34, Group 3: 35-44, Group 4: 45 and above). Homogeneity of Variance (Table 51) assumption was violated just for the self-attribution variable. Therefore, Welch test results were taken as the basis for this variable. According to the results of ANOVA and Welch Robustness Test, a statistically significant difference at the the $p < .05$ level was found only in self-attribution scores between Group 2 and 3 [$F(3,115) = 3.723$, $p = .013$]. Subsequently, post-hoc comparisons with Games-Howell test indicated that the mean score for Group 2 (age range of 25-34) ($M = 2.02$, $SD = 1.085$) was significantly different from Group 3 (age range of 35-44) ($M = 2.59$, $SD = 1.621$). According to the results, the participants aged between 35-44 were more inclined to attribute the blame to themselves when compared to the 25-34 age-group.

Table 51. Test of Homogeneity of Variances for Age

| | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|
| AvBEV | 1.286 | 3 | 292 | .279 |
| AvRP | 1.025 | 3 | 292 | .382 |
| AvAtB | .793 | 3 | 292 | .499 |
| AvAtL | .084 | 3 | 292 | .969 |
| AvAtI | 12.743 | 3 | 292 | .000 |

Table 52. ANOVA Statistics for Age

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| AvBEV | Between Groups | 2.007 | 3 | .669 | .375 | .771 |
| | Within Groups | 521.029 | 292 | 1.784 | | |
| | Total | 523.036 | 295 | | | |
| AvRP | Between Groups | .838 | 3 | .279 | .117 | .950 |
| | Within Groups | 699.276 | 292 | 2.395 | | |
| | Total | 700.114 | 295 | | | |
| AvAtB | Between Groups | 2.531 | 3 | .844 | .552 | .647 |
| | Within Groups | 446.118 | 292 | 1.528 | | |
| | Total | 448.649 | 295 | | | |
| AvAtL | Between Groups | .621 | 3 | .207 | .104 | .958 |
| | Within Groups | 580.605 | 292 | 1.988 | | |
| | Total | 581.226 | 295 | | | |
| AvAtI | Between Groups | 21.653 | 3 | 7.218 | 4.426 | .005 |
| | Within Groups | 476.157 | 292 | 1.631 | | |
| | Total | 497.810 | 295 | | | |

Table 53. Robust Tests of Equality of Means for Age

| | | Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| AvBEV | Welch | .389 | 3 | 119.744 | .761 |
| AvRP | Welch | .105 | 3 | 114.388 | .957 |
| AvAtB | Welch | .511 | 3 | 113.308 | .675 |
| AvAtL | Welch | .097 | 3 | 115.070 | .962 |
| AvAtI | Welch | 3.723 | 3 | 115.045 | .013 |

**Education**

Participants were divided into five groups according to their education levels (Group 1: primary school, Group 2: secondary school, Group 3: high school, Group 4: undergraduate, Group 5: graduate degree). Homogeneity of Variance (Table 54) assumption was violated for attribution to brand and attribution to logistics company variables. Therefore, Welch Test results were taken as the basis for these variables. According to the results of Anova and Welch Robustness Test, only a statistically significant difference at the p <.05 level was found in attribution to logistics company scores according to education levels [F (4, 46) =4.961, p=.002]. Post-hoc comparisons using Games-Howell test indicated that the mean score for graduate degree group (M=6.265, SD=.688) was significantly different from high school (M=5.371, SD=1.713).

According to the results, the participants with graduate degrees were more inclined to attribute the blame to logistics companies when compared to the high school level participants.

Table 54. Test of Homogeneity of Variances for Education

| | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|
| AvBEV | 1.657 | 4 | 291 | .160 |
| AvRP | .717 | 4 | 291 | .581 |
| AvAtB | 5.429 | 4 | 291 | .000 |
| AvAtL | 5.539 | 4 | 291 | .000 |
| AvAtI | 1.096 | 4 | 291 | .359 |

Table 55. ANOVA Statistics for Education

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| AvBEV | Between Groups | 14.829 | 4 | 3.707 | 2.123 | .078 |
| | Within Groups | 508.207 | 291 | 1.746 | | |
| | Total | 523.036 | 295 | | | |
| AvRP | Between Groups | 8.969 | 4 | 2.242 | .944 | .439 |
| | Within Groups | 691.145 | 291 | 2.375 | | |
| | Total | 700.114 | 295 | | | |
| AvAtB | Between Groups | 18.285 | 4 | 4.571 | 3.091 | .016 |
| | Within Groups | 430.364 | 291 | 1.479 | | |
| | Total | 448.649 | 295 | | | |
| AvAtL | Between Groups | 24.974 | 4 | 6.243 | 3.266 | .012 |
| | Within Groups | 556.253 | 291 | 1.912 | | |
| | Total | 581.226 | 295 | | | |
| AvAtI | Between Groups | 13.969 | 4 | 3.492 | 2.100 | .081 |
| | Within Groups | 483.841 | 291 | 1.663 | | |
| | Total | 497.810 | 295 | | | |

Table 56. Robust Tests of Equality of Means for Education

| | | Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| AvBEV | Welch | 2.013 | 4 | 43.514 | .109 |
| AvRP | Welch | .833 | 4 | 43.334 | .512 |
| AvAtB | Welch | 2.667 | 4 | 43.530 | .045 |
| AvAtL | Welch | 4.961 | 4 | 46.286 | .002 |
| AvAtI | Welch | 1.170 | 4 | 42.416 | .338 |

In order to reach more logical interpretations, another classification was done for education levels. High school and below levels were taken as Group 1, while undergraduate and above levels formed Group 2. Homogeneity of Variance (Table 57) assumption was violated for attribution to brand and attribution to logistics company variables. Therefore, Welch Test results were taken as the basis for these

variables. According to the results of ANOVA and Welch Robustness Tests, statistically significant differences at the the p <.05 level were found in attribution to logistics company [F (1, 212) =7.959, p=.005] and attribution to brand scores according to education levels [F (1, 208) = 6.47, p=.012]. Descriptive statistics indicated that Group 1(high school and below level) attributed the failure less to the brand than Group 2 (undergraduate and above level) ($M_1$=5.3402, SD=1.434 versus $M_2$=5.727, SD=1.046) and they also attributed to the logistic company less than Group 2 ($M_1$=5.434, SD= 1.61 versus $M_2$=5.92, SD=1.204).

Table 57. Test of Homogeneity of Variance for Two Education Levels

| | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|
| AvBEV | .406 | 1 | 294 | .525 |
| AvRP | 3.124 | 1 | 294 | .078 |
| AvAtB | 17.265 | 1 | 294 | .000 |
| AvAtL | 10.972 | 1 | 294 | .001 |
| AvAtI | 2.700 | 1 | 294 | .101 |

Table 58. Robust Tests of Equality of Means Two Education Levels

| | | Statistic[a] | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| AvBEV | Welch | .540 | 1 | 252.442 | .463 |
| AvRP | Welch | .227 | 1 | 243.379 | .634 |
| AvAtB | Welch | 6.470 | 1 | 207.942 | .012 |
| AvAtL | Welch | 7.959 | 1 | 211.797 | .005 |
| AvAtI | Welch | 1.910 | 1 | 234.486 | .168 |

Table 59. ANOVA Statistics for Two Education Levels

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| AvBEV | Between Groups | .976 | 1 | .976 | .550 | .459 |
| | Within Groups | 522.059 | 294 | 1.776 | | |
| | Total | 523.036 | 295 | | | |
| AvRP | Between Groups | .560 | 1 | .560 | .235 | .628 |
| | Within Groups | 699.554 | 294 | 2.379 | | |
| | Total | 700.114 | 295 | | | |
| AvAtB | Between Groups | 10.732 | 1 | 10.732 | 7.205 | .008 |
| | Within Groups | 437.916 | 294 | 1.490 | | |
| | Total | 448.649 | 295 | | | |
| AvAtL | Between Groups | 16.877 | 1 | 16.877 | 8.792 | .003 |
| | Within Groups | 564.349 | 294 | 1.920 | | |
| | Total | 581.226 | 295 | | | |
| AvAtI | Between Groups | 3.390 | 1 | 3.390 | 2.016 | .157 |
| | Within Groups | 494.420 | 294 | 1.682 | | |
| | Total | 497.810 | 295 | | | |

**Income**

Participants were divided into five income groups ( Group 1: 0-1000 TL, Group 2: 1001-2000 TL, Group 3: 2001-3000 TL, Group 4: 3001-4000 TL, Group 5: 4001 TL and above). Homogeneity of Variance (Table 60) assumption was violated just for attribution to brand. Therefore, Welch Test results were taken as the basis for this variable. According to the results of Anova and Welch Robustness Test, no significant difference at the $p < .05$ level was found between the income groups on dependent variables.

Table 60. Test of Homogeneity of Variances for Income

| | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|
| AvBEV | 1.208 | 4 | 291 | .308 |
| AvRP | 1.171 | 4 | 291 | .324 |
| AvAtB | 3.660 | 4 | 291 | .006 |
| AvAtL | 2.336 | 4 | 291 | .056 |
| AvAtI | .273 | 4 | 291 | .895 |

Table 61. ANOVA Statistics for Income

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| AvBEV | Between Groups | 3.025 | 4 | .756 | .423 | .792 |
| | Within Groups | 520.011 | 291 | 1.787 | | |
| | Total | 523.036 | 295 | | | |
| AvRP | Between Groups | 7.948 | 4 | 1.987 | .835 | .504 |
| | Within Groups | 692.166 | 291 | 2.379 | | |
| | Total | 700.114 | 295 | | | |
| AvAtB | Between Groups | 13.016 | 4 | 3.254 | 2.174 | .072 |
| | Within Groups | 435.632 | 291 | 1.497 | | |
| | Total | 448.649 | 295 | | | |
| AvAtL | Between Groups | 12.063 | 4 | 3.016 | 1.542 | .190 |
| | Within Groups | 569.163 | 291 | 1.956 | | |
| | Total | 581.226 | 295 | | | |
| AvAtI | Between Groups | 7.832 | 4 | 1.958 | 1.163 | .327 |
| | Within Groups | 489.978 | 291 | 1.684 | | |
| | Total | 497.810 | 295 | | | |

Table 62. Robust Tests of Equality of Means for Income

| | | Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| AvBEV | Welch | .766 | 4 | 46.249 | .553 |
| AvRP | Welch | 1.127 | 4 | 45.376 | .356 |
| AvAtB | Welch | 2.520 | 4 | 46.008 | .054 |
| AvAtL | Welch | 1.756 | 4 | 44.976 | .154 |
| AvAtI | Welch | 1.186 | 4 | 43.940 | .330 |

# CHAPTER-6

# DISCUSSION

## 6.1. Discussion of the Results and Managerial Implications

Although logistics customer service is widely studied from the perspective of B2B, there is no considerable amount of information on how the consumers evaluate the logistics failures and how these evaluations color the perceptions about the brand. Based on this gap, one of the aims of this study has been determined as to provide an understanding for the impact of expectations and criticality on overall brand evaluations and repurchase intentions through delays in delivery. Additionally, this study presents an attributional approach and tries to figure out who the consumers blame in multi causal agents situations.

The findings of this study have several important implications both for the theory and the practitioners. Both the companies who are outsourcing their logistics functions to third parties and the logistics companies can benefit from the results of this study.

Results of this thesis indicate that consumers holding high brand expectations are evaluating the brand in a more positive way than the ones with lower brand expectations after a logistics customer service failure. Findings have also revealed that consumers holding high brand expectations are more inclined to repurchase from the brand after a logistics customer service failure than the ones holding low brand expectations. This finding may contribute to the understanding of companies for getting to know about what actions cause customers to switch from one company to another.

In the literature, there are many recommendations ranging from inflating expectations (consistency theory based) (e.g. Boulding et al., 1993) to keeping them at levels consistent with actual performance (e.g.Parasuraman et al., 1991) to deflating (Voss, Parasuraman and Grewal, 1998). The results of this study, are contrary to what is suggested by gap theory (Parasuraman et al., 1988) implying the importance of reducing the gap between expectations and perceptions in order to improve service quality.

In accordance with cognitive consistency theory, these findings demonstrated that expectations create a buffering effect and this effect is valid not only for pure tangible or intangible settings but also for the mixed product and service offerings. According to the results, in order to reduce the negative impact of logistics customer service failures such as delivery delays on brand evaluation and repurchase intentions, manufacturers need to enhance the expectations of consumers. Companies, to whom consumers have high expectations, can benefit from the goodwill provided whether the company's reputation or the previous experiences. This also designates that the consumers holding high expectations are more inclined to ignore a single failure incident.

In addition to the effect of expectations, this study has also focused on criticality of the purchases. Criticality refers to the importance level of a purchase occasion to a customer in terms of the consequences (Ostrom and Iacobucci, 1995; Webster and Sundaram, 1998). As it is obvious from the results, the brand evaluations and repurchase intentions of the consumers in high criticality are more unfavorable when compared to the ones in low criticality situations. For the companies, this finding

points to the value of identifying the customers' criticality perceptions. To apprehend the criticality levels of the purchases may contribute to companies in improving and customizing the service levels according to the criticality based special requirements and needs of the customers. Additionally, due to the fact that criticality is a major indicator of the occurred tangible and intangible losses in a failure occasion, awareness of criticality levels is also crucial for companies in order to develop appropriate recovery strategies.

Furthermore, this research also tries to figure out whether consumers' expectation levels and criticality of the purchase create a combined effect on brand evaluations and repurchase intentions beyond their individual effects. No interaction between expectation and criticality was reported in the outputs. Then for the companies, it is logical to focus only on the main effects of expectation and criticality.

In service and product failure literatures, it has been limited to emphasizing the impacts of failures and recovery efforts in single company situations (producer/service company). However, multi agent causality situations such as the collaborations in the form of outsourcing referring to two or more companies in relation have been ignored. Attribution theory focuses on perceived causes and their effects on actions (Folkes, 1984). With the assistance of the attributional approaches, predictions on the locus of attribution (to whom the blame attributed) and how the cause of failure influences the response of consumers can be made (Folkes, 1984).

Consumers holding high expectations, as compared to those holding lower expectations, are less likely to attribute logistics service failure to the brand.

Additionally, this study also demonstrated that consumers with high expectations are more likely to attribute logistics service failure to the logistics company when compared to the consumers with low expectations. In addition to these comparative findings, detailed analysis revealed that the participants holding high expectations towards brand are attributing the blame for the service failure more to the logistics company than to the brand or than to themselves.

These findings are in line with cognitive consistency theory. High brand expectations are acting as buffers also for the attributions of blame and protecting the brand. While protecting the brand, because of the mentioned buffering effect, consumers are inclined to attribute the cause of failure more to the other party involved in the process. This situation can be associated with discounting principle of attribution theory. According to this theory, people tend to minimize the effect of an attribution for an action when they are aware of other plausible causes (Kelley, 1972).

These findings can be viewed as advantageous for the brands outsourcing. However, the tendency of not blaming the company for the service failure may result in salient consumer behavior. By reason of this, the brands can stay oblivious of the failures occurred in the delivery stage of their products. Therefore, the brands should identify and manage the consumers holding high expectations for getting feedback.

As for the consumers with low expectations, the analyses surprisingly proved that they are attributing the same amount of blame to the brand and to the logistics company. Failure based negativity impacts the consumers with low expectations by creating a domino effect. Following a service failure, by just looking at a single delay

incident, a brand and the other firms working collaboratively can be negatively judged and seen as the causes of failure. Even worse, service failures may alter the attitudes and by this way can shape the future beliefs and intentions for all the parties involved. Thus, third party logistics service providers should be aware of the consumer reactions directed to themselves and should take responsibility on the consumer side. Failures are not only detrimental for the focal company, but also for the 3PL companies.

Criticality also plays as an antecedent in the attribution behavior. As expected, consumers in high criticality compared to low criticality attribute the failure more to the brand. Obviously, different criticality levels change the attributions to brand .On the other hand; criticality levels do not create any difference for the attribution to logistics company.

For providing a deeper understanding of the attributions in low and high criticality situations, within groups analyses were conducted. Surprisingly, it has been found that in low criticality, subjects were inclined to attribute more to the logistics company than to the brand or to themselves. Due to being attributed more, comprehension of low criticality situations is also crucial for 3PL logistics companies. On the other hand, due to the lack of information this situation may lead to false consensus effect that has implications on manufacturing brands. When the consumers do not complain about the logistics customer service failures to the sellers, they may underestimate the frequency of the failure and miss the opportunity to take corrective actions.

However, for high criticality, negativity effect arises and consumers tend to attribute the failure both to the brand and to the logistics company. Consequently, understanding the criticality levels and tailoring the service is important both for the manufacturing brands and 3PL companies in terms of attributions.

As for self-locus, consumer either holding low or high expectations are attributing the least blame to themselves. This is in parallel to self-serving bias. In order to protect his/her self-esteem, consumers have a tendency to attribute good outcomes to self and accept more responsibility for them while attributing bad things to external or situational outcomes (Harvey and Weary, 1984; Folkes, 1988). Personal responsibility for failure is disaffirmed because the failure is observed as a threat to self-esteem implying that the individual is not competent, intelligent, etc. (Larson, 1977).

Nonetheless, when a comparison is made, consumers holding high expectations are less likely to blame themselves for the failure than the ones holding low expectations. This finding also proposes that the consumers with low expectations blame themselves more than the consumers with high expectations. This proves that self-serving bias is stimulated by high expectations in logistics customer service failures.

As for the self-attribution in criticality, both in high criticality and low criticality situations, consumers put the least blame for failure to themselves than to brand or to the logistics company. However, in high criticality, subjects are more inclined to blame themselves than low criticality situations.

Additionally, it has been found that the males are more inclined to attribute the blame to themselves when compared to females. This conclusion can be associated with the disparity of failure perceptions between genders. In light of this finding, it can be claimed that the men are feeling more responsible for the failure occurred while the women are inclined to ignore their inputs into the causes of failures.

Furthermore, the participants aged between 35-44 are found to be more inclined to attribute the blame to themselves when compared to the 25-34 age-group. These two age groups encompassing the consumers who are most likely to purchase appliances. The effect of aging can be the result for this differentiation in self-attribution.

The important point for the practitioners is whether or not these biases should be corrected. From a short-sighted view, it can be assumed that some companies would prefer to let the consumer blame themselves rather than blaming the brand. But it should be noted that there is evidence in the literature stating that in the case of self-attribution, consumers are more likely to expect that the failure will occur again in the future (Folkes, 1984).

Attributions to brand and logistics company may lead to voice behavior more than the consumers blaming themselves. Voice behavior is an opportunistic action for the companies to correct their faults and enhance their services. This chance is lost when consumers blame themselves or the other party more.

Due to the possible differences in education and awareness level, the possible impact of available and unavailable 3PL company information on the attributions of failure

has also been investigated. As expected, the availability of 3PL company information created a significant difference for the attributions to logistics firm. However, it did not affect the ratings of attributions to the brand and to the self. Briefly, this proposes that attributions to 3PL company increase when consumers note that they are involved.

As an additional finding, consumers with high school and below levels of education attributed the failure less to the brand and less to the logistic company than the ones with undergraduate and above levels of education. This can be related to the development of judgmental thought as getting more educated.

These explanations shed light on the certain patterns of attribution behavior of consumers. Companies should try to comprehend the attributions due to its impacts on the recovery options supplied and demanded, the content and the nature of communication between buyers and sellers (Folkes, 1984; Folkes and Kotsos,1986).

Furthermore, perceived reasons can be different than the true causes of failures and may affect the attributions made (Folkes, 1984). For that reason, companies should cogitate on the attributions of consumers. Even though the cause is not deriving from company and the failure is uncontrollable, if the consumers perceive the failure as a fault of the company, the consequences will be detrimental.

In order to prevent failures, companies need to specify the responsibilities of the third party logistics service providers. Communication between these two parties plays a vital role. Tangibilizing service processes (Bebko, 2001) may help to reduce

the attributions made to the brand or logistics company. By displaying the service processes such as the online tracking systems used in the cargo companies, tangibilization can be provided. By providing transparecy and drawing the consumer inside the process, failures and attributions to brand or logistics companies may be prevented.

Investigating all the mentioned issues above may contribute to understand the conditions under which a brand or a 3PL company is more or less vulnerable to the consequences of logistics customer service failures.

### 6.2. Limitations and Recommendations for Further Research

The use of scenarios, although essential to experimental manipulation, may have a limiting effect for the emotional involvement of participants and, therefore, their responses to experimental scenarios may be weaker than to actual purchase experience and service failure. Nonetheless, data collection from the field setting contributed to increase external validity of the study findings.

Another limitation of the study can be the use of one logistics customer service dimension. Besides on-time delivery, other logistics customer service dimensions such as condition, order consistency, accuracy of delivery, etc. should also be investigated in the context of failures. To address the need of measuring the perception of consumers regarding to the logistics customer service dimensions, a specific scale can be developed for B2C. Additionally, in future studies, this attributional approach can also be applied to B2B settings. Thus, the attribution

behaviors of the companies depending on their expectancies and purchase criticalities can also be examined in the context of failures.

As well as different logistics customer service dimensions, price and quality factors can also be added as independent variables in the future study. This study manipulates the expectation towards a brand. However, in the future work, it can be extended by considering 3PL company as another brand. By this way, consumer evaluations and attributions for different levels of expectation towards manufacturer and 3PL company brands can be investigated simultaneously. Hence, the researchers can figure out what happens if consumer holds a high level of expectation towards 3PL company and low level of expectation to manufacturer brand or vice versa.

Additionally, industry specific focus can be seen as a limitation that forms a threat for external validity. Moreover, consumers may have industry-specific knowledge that impacts their responses. But in here, the main aim is to reflect the effect of delays on consumers. Thus, not only appliances sector, but also the other sectors like online retailing are having such failures and losing customers. Future research may investigate the impact of industry-specific knowledge on overall evaluations and attributions.

Lastly, this thesis is focusing on how consumers process logistics customer service failures and attributions regardless of the recovery outcome. In further studies, consumer demand for the logistics customer service failure recovery and perceived fairness can be investigated.

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## APPENDICES

## Appendix I

## High Criticality Manipulation Check Test

Sayın Katılımcı,

Bu araştırma tüketici algısı ve lojistik arasındaki ilişkiyi incelemek amacıyla yürütülen akademik bir çalışmadır. Bu mektubun beraberinde kısa bir senaryo bulunmaktadır. Senaryoyu okuduktan sonra lütfen soruları yanıtlayınız.

Bu ön-testin sonuçları bir doktora tez çalışmasında kullanılacaktır. Kişisel cevaplar değil örneklemden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle ad ve soyadı bilgilerinizi yazmanıza gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

Bu ön-testi tamamlamak ortalama olarak 2 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmakta olup olası katılımınız için şimdiden çok teşekkür ederim.

Saygılarımla,

Bengu Sevil OFLAÇ
İzmir Ekonomi Üniversitesi

Kullanmakta olduğunuz buzdolabınız yaz mevsiminin ortasında bir sabah bozuldu. Buzdolabının içi ertesi güne kadar bozulacak yiyecek ve etlerle doluydu. Çağırdığınız tamirci hemen o sabah geldi, buzdolabının motorunun yandığını ve yeni bir motor takmanın neredeyse yeni bir buzdolabı kadar tutacağını söyledi. Bu nedenle, hemen yeni bir buzdolabı satın aldınız. Satın alırken içinde olduğunuz durumu açıkladınız ve size aynı gün akşamüstü teslimat yapacaklarına dair söz verdiler.

*Lütfen yukarıdaki senaryoya dayanarak aşağıdaki sorulara cevap veriniz.*

1. Bu durum için zamanında teslimatın çok önemli olduğunu düşünüyorum.

Kesinlikle Katılmıyorum 1 2 3 4 5 6 7 Kesinlikle Katılıyorum

2. Böyle olayların gerçek hayatta gerçekleşebileceğine inanıyorum.

Kesinlikle Katılmıyorum 1 2 3 4 5 6 7 Kesinlikle Katılıyorum

## Appendix II

## High Expectation Manipulation Test

Sayın Katılımcı,

Bu araştırma tüketici algısı ve lojistik arasındaki ilişkiyi incelemek amacıyla yürütülen akademik bir çalışmadır. Bu mektubun beraberinde kısa bir senaryo bulunmaktadır. Senaryoyu okuduktan sonra lütfen soruları yanıtlayınız.

Bu ön-testin sonuçları bir doktora tez çalışmasında kullanılacaktır. Kişisel cevaplar değil örneklemden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle ad ve soyadı bilgilerinizi yazmanıza gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

Bu ön-testi tamamlamak ortalama olarak 2 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmakta olup olası katılımınız için şimdiden çok teşekkür ederim.

Saygılarımla,

Bengu Sevil OFLAÇ
İzmir Ekonomi Üniversitesi

*Lütfen size yardımcı olacak aşağıdaki tanımı ve sonrasında senaryoyu okuyunuz.*

> Lojistik müşteri hizmetleri, ürün/hizmetlerin son tüketiciye ulaştırılması için gerçekleştirilen tüm faaliyetlerde müşterilerin ihtiyaçlarını saptayıp, bu ihtiyaçlara en iyi şekilde cevap vererek fayda sağlayan süreçlerdir. Bu faydalar ürünlerin tam zamanında teslim edilmesi, ürünün bulunabilirliği, sipariş takip bilgisinin sağlanabilmesi, sistem doğruluğu, teslimat süresinin tutarlılığı, sipariş verme kolaylığı, stokta ürün ikamesinin bulunması gibi birçok boyutta sınıflandırılabilir.

Tanınmış bir marka olan ZNC'den yeni bir buzdolabı aldınız. ZNC, beyaz eşya sektöründe 30 yıllık deneyime sahip yüksek itibarlı bir markadır. Geçen yıl, bu marka müşteri ödüllerine layık görülmüştür. Bu markanın bazı ürünlerini daha önce kullanmış olduğunuzdan bu markayla ilgili olumlu deneyimlere sahipsiniz.

*Lütfen yukarıdaki senaryoya göre aşağıdaki soruları cevaplayınız.*

- Bu markanın lojistik müşteri hizmetleri seviyesinin yüksek olmasını beklerim.

Kesinlikle Katılmıyorum 1 2 3 4 5 6 7 Kesinlikle Katılıyorum

- Bu markanın, ürünlerini zamanında teslim etmesini beklerim.

Kesinlikle Katılmıyorum 1 2 3 4 5 6 7 Kesinlikle Katılıyorum

Yukarıdaki soruları yanıtlarken kullandığınız beklenti tipine en yakın olanı aşağıdakilerden hangisidir? Lütfen işaretleyiniz.

□ Kişisel olarak hak ettiğime inandığım lojistik müşteri hizmetleri

□ Önceden bu markayla ilgili sahip olduğum bilgi ve deneyimlere dayanarak, alacağımı düşündüğüm lojistik müşteri hizmetleri

□ İdeal olarak kesinlikle almam gereken lojistik müşteri hizmetleri

## Appendix III

## Main Test Questionnaire Example

Sayın Katılımcı,

Bu araştırma tüketici algısı ve lojistik arasındaki ilişkiyi incelemek amacıyla yürütülen akademik bir çalışmadır. Bu mektubun beraberinde kısa bir senaryo bulunmaktadır. Senaryoyu okuduktan sonra lütfen soruları yanıtlayınıız.

Bu testin sonuçları bir doktora tez çalışmasında kullanılacaktır. Kişisel cevaplar değil örneklemden alınan kümülatif cevaplar önem taşımaktadır. Bu nedenle kimlik bilgilerinizi yazmanıza gerek yoktur. Bu araştırmaya katılmanız sizin için herhangi bir risk taşımamakta olup cevaplarınızın tümü gizli tutulacaktır.

Bu testi tamamlamak ortalama olarak 5 dakikanızı almaktadır. Katılımınız tamamen gönüllülük esasına dayanmakta olup olası katılımınız için şimdiden çok teşekkür ederim.

Saygılarımla,
Bengu Sevil OFLAÇ
İzmir Ekonomi Üniversitesi

**Demografik Özellikler**

1. Cinsiyetiniz nedir?
   □Erkek
   □ Kadın

2. Kaç yaşındasınız? …….

3. Bitirdiğiniz son okul aşağıdakilerden hangisidir? Eğer halen devam etmekte iseniz, lütfen son bitirdiğiniz okulu işaretleyiniz.
   □ İlkokul
   □ Ortaokul
   □ Lise
   □ Üniversite
   □ Lisans üstü

4. Gelir seviyeniz nedir?
   □ 0-1000
   □ 1001-2000
   □ 2001-3000
   □ 3001-4000
   □ 4001- üstü

Lütfen kendinizi aşağıdaki durumda hayal ediniz ve olayların sizin başınıza gelmiş olduğunu düşünerek cevap veriniz.

Kullanmakta olduğunuz buzdolabınız yaz mevsiminin ortasında bir sabah bozuldu. Buzdolabının içi ertesi güne kadar bozulacak yiyecek ve etlerle doluydu. Çağırdığınız tamirci hemen o sabah geldi, buzdolabının motorunun yandığını ve yeni bir motor takmanın neredeyse yeni bir buzdolabı kadar tutacağını söyledi. Bu nedenle, hemen beyaz eşya sektöründe 30 yıllık deneyime sahip, tanınmış ve yüksek itibarlı bir marka olan ZNC'nin kendi işlettiği mağazasından yeni bir buzdolabı satın aldınız. Geçen yıl bu marka, müşteri ödüllerine layık görülmüştür. Markanın bazı ürünlerini daha önce kullanmış olduğunuzdan bu markayla ilgili oldukça olumlu deneyimlere sahipsiniz.

Satın alırken içinde olduğunuz durumu açıkladınız ve size aynı gün akşamüstü teslimat yapacaklarına dair söz verdiler. Fakat akşamüstü sizi arayıp ürünü ancak ertesi gün akşamüstü getirebileceklerini ilettiler. ZNC markasının depolama ve taşımacılık faaliyetleri, markadan bağımsız bir lojistik firması tarafından gerçekleştirilmektedir.

1. ZNC markasına karşı tutumum…

| Çok olumsuz | Bir hayli olumsuz | Biraz olumsuz | Ne olumlu ne olumsuz | Biraz olumlu | Bir hayli olumlu | Çok olumlu |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| Çok kötü | Bir hayli kötü | Biraz kötü | Ne iyi ne kötü | Biraz iyi | Bir hayli iyi | Çok iyi |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| Çok negatif | Bir hayli negatif | Biraz negatif | Ne negatif ne pozitif | Biraz pozitif | Bir hayli pozitif | Çok pozitif |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Lütfen yukarıdaki senaryoya göre aşağıda verilmekte olan tekrar satın alma eğilimi ile ilgili ifadelere ne derece katıldığınızı belirtiniz.

2. Gelecekte beyaz eşya satın alacağım zaman, ZNC markası ilk tercihim olacaktır.

| Hiç katılmıyorum | Katılmıyorum | Kısmen katılmıyorum | Ne katılıyorum ne katılmıyorum | Kısmen katılıyorum | Katılıyorum | Tamamen katılıyorum |
|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

3. Gelecekte bu markadan tekrar ürün satın alırım.

| Hiç katılmıyorum | Katılmıyorum | Kısmen katılmıyorum | Ne katılıyorum ne katılmıyorum | Kısmen katılıyorum | Katılıyorum | Tamamen katılıyorum |
|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

4. Gelecekte bu markadan tekrar ürün satın almam.

| Hiç katılmıyorum | Katılmıyorum | Kısmen katılmıyorum | Ne katılıyorum ne katılmıyorum | Kısmen katılıyorum | Katılıyorum | Tamamen katılıyorum |
|---|---|---|---|---|---|---|
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

Lütfen aşağıdaki soruları cevaplayınız.

5. Yaşadığınız geç teslimat sorununda kendinizde herhangi bir sorumluluk olduğunu düşünüyor musunuz?

| Hiç sorumlu değilim | Sorumlu değilim | Kısmen sorumlu değilim | Ne sorumluyum ne sorumlu değilim | Kısmen sorumluyum | Sorumluyum | Tamamen sorumluyum |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. Yaşadığınız geç teslimat sorununda ZNC markasının herhangi bir sorumluluğu olduğunu düşüyor musunuz?

| Hiç sorumlu değil | Sorumlu değil | Kısmen sorumlu değil | Ne sorumlu ne sorumlu değil | Kısmen sorumlu | Sorumlu | Tamamen sorumlu |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

7. Yaşadığınız geç teslimat sorununda lojistik firmasının herhangi bir sorumluluğu olduğunu düşüyor musunuz?

| Hiç sorumlu değil | Sorumlu değil | Kısmen sorumlu değil | Ne sorumlu ne sorumlu değil | Kısmen sorumlu | Sorumlu | Tamamen sorumlu |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

8. Bu durumda ürünü satın alan kişi olarak kendinizi ne kadar suçlu buluyorsunuz?

| Hiç suçlu değilim | Suçlu değilim | Kısmen suçlu değilim | Ne suçluyum ne suçlu değilim | Kısmen suçluyum | Suçluyum | Tamamen Suçluyum |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

9. Bu durumda ZNC markasını ne kadar suçlu buluyorsunuz?

| Hiç suçlu değil | Suçlu değil | Kısmen suçlu değil | Ne suçlu ne suçlu değil | Kısmen suçlu | Suçlu | Tamamen Suçlu |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

10. Bu durumda lojistik firmasını ne kadar suçlu buluyorsunuz?

| Hiç suçlu değil | Suçlu değil | Kısmen suçlu değil | Ne suçlu ne suçlu değil | Kısmen suçlu | Suçlu | Tamamen Suçlu |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Katılımınız için teşekkür ederiz.

## Appendix IV

**Groups and Demographics Crosstabs**

| | | Gender | | |
|---|---|---|---|---|
| | | man | woman | Total |
| groups | HCLE | 20 | 17 | 37 |
| | HCHE | 14 | 23 | 37 |
| | LCLE | 13 | 24 | 37 |
| | LCHE | 15 | 22 | 37 |
| | Att.HCLE | 25 | 12 | 37 |
| | Att.HCHE | 17 | 20 | 37 |
| | Att.LCLE | 19 | 18 | 37 |
| | Att.LCHE | 15 | 22 | 37 |
| Total | | 138 | 158 | 296 |

| | | Age | | | | |
|---|---|---|---|---|---|---|
| | | 24 and below | 25-34 | 35-44 | 45 and above | Total |
| groups | HCLE | 6 | 16 | 8 | 7 | 37 |
| | HCHE | 6 | 21 | 5 | 5 | 37 |
| | LCLE | 3 | 16 | 10 | 8 | 37 |
| | LCHE | 7 | 17 | 10 | 3 | 37 |
| | Att.HCLE | 7 | 16 | 11 | 3 | 37 |
| | Att.HCHE | 6 | 22 | 5 | 4 | 37 |
| | Att.LCLE | 3 | 13 | 9 | 12 | 37 |
| | Att.LCHE | 5 | 16 | 9 | 7 | 37 |
| Total | | 43 | 137 | 67 | 49 | 296 |

| | | Education level | | | | | |
|---|---|---|---|---|---|---|---|
| | | primary school | secondary school | high school | undergraduate | graduate degree | Total |
| Groups | HCLE | 4 | 1 | 11 | 20 | 1 | 37 |
| | HCHE | 3 | 0 | 12 | 17 | 5 | 37 |
| | LCLE | 1 | 2 | 10 | 21 | 3 | 37 |
| | LCHE | 2 | 1 | 10 | 19 | 5 | 37 |
| | Att.HCLE | 2 | 2 | 14 | 14 | 5 | 37 |
| | Att.HCHE | 0 | 2 | 12 | 17 | 6 | 37 |
| | Att.LCLE | 3 | 1 | 11 | 16 | 6 | 37 |
| | Att.LCHE | 4 | 1 | 13 | 16 | 3 | 37 |
| Total | | 19 | 10 | 93 | 140 | 34 | 296 |

| | | Income | | | | | |
|---|---|---|---|---|---|---|---|
| | | 0-1000 | 1001-2000 | 2001-3000 | 3001-4000 | 4001 and above | Total |
| Groups | HCLE | 15 | 16 | 5 | 0 | 1 | 37 |
| | HCHE | 12 | 16 | 3 | 3 | 3 | 37 |
| | LCLE | 16 | 16 | 3 | 2 | 0 | 37 |
| | LCHE | 10 | 16 | 7 | 2 | 2 | 37 |
| | Att.HCLE | 20 | 11 | 4 | 1 | 1 | 37 |
| | Att.HCHE | 18 | 9 | 4 | 1 | 5 | 37 |
| | Att.LCLE | 16 | 11 | 5 | 0 | 5 | 37 |
| | Att.LCHE | 19 | 11 | 3 | 1 | 3 | 37 |
| Total | | 126 | 106 | 34 | 10 | 20 | 296 |

# VITA

Bengü Sevil Oflaç was born in Muğla on January 7, 1980. She received her bachelor's degree from Izmir Dokuz Eylül University, Faculty of Economics and Administrative Sciences in 2003. After getting her MA in marketing from Izmir Dokuz Eylül University (2006), she has taken a scholarship from Izmir University of Economics and become a Phd candidate in Business Administration with Logistics Management major. She was a visiting scholar at University of Illinois Urbana Champaign, in Business College in 2009 for conducting her Phd research. She worked in Izmir University of Economics, Department of Logistics Management, as a research assistant from 2006 to 2008. Since then, she has been working as an instructor in the same department at Izmir University of Economics.