

EXAMINING THE VALUE OF AFTER-SALES SERVICES
THROUGH THE LENS OF SERVICE-DOMINANT LOGIC:
A CONSERVATION-OF-RESOURCES-THEORY INTERPRETATION

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A CONSERVATION-OF-RESOURCES-THEORY INTERPRETATION

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DECLARATION OF ORIGINALITY

I, Ebru Kuzgun, certify that

- I am the sole author of this thesis and that I have fully acknowledged and documented in my thesis all sources of ideas and words, including digital resources, which have been produced or published by another person or institution;
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ABSTRACT

Examining the Value of After-Sales Services through the Lens of Service-Dominant Logic: A Conservation-of-Resources-Theory Interpretation

The current study investigates the customers' after-sales service (AS-S) experiences with a framework based on service-dominant logic that involves both value co-creation and co-destruction elements. The main constructs that are investigated as a means to comprehend customers' AS-S experiences are contemplated upon the conservation of resources theory. Accordingly, the study develops and proposes constructs of primary resource loss (i.e. losses of value-in-exchange, value-in-use, and value-context), resource conservation effort (i.e. process, mental, and legal/punitive efforts), secondary resource loss (time, self-esteem, consumer-rights, and material/financial losses), and finally secondary resource gain (convenience, support, self-esteem, and material/financial gains) that emerge in consumers' AS-S experiences. The purpose of this study is to understand how these constructs are related to each other and to the customers' service satisfaction in shaping their overall AS-S experiences. Two conceptual models are proposed with an intention to devote separate focus on co-creative after-sales service experiences that results in secondary consumer gains and on co-destructive after-sales service experiences that ends up with secondary consumer losses. The proposed models are empirically tested with data from 422 consumers in Turkey. The hypotheses are tested with the utilization of Structural Equation Modelling (SEM) in SPSS AMOS. The results indicate different paths that after-sales service specific secondary losses and secondary gains would follow which eventually leads to satisfaction (for co-creative service settings) and dissatisfaction (for-co-destructive service settings).

ÖZET

Satış Sonrası Hizmet Değerinin Hizmet-Baskın Mantık Merceğiyle İncelenmesi:

Kaynakların Korunması Teorisi Yorumlaması

Mevcut çalışma, müşterilerin satış sonrası hizmet (SSH) deneyimlerini, değer birliğinde yaratımı ve yıkımı unsurlarını içeren hizmet-baskın mantık çerçevesinde araştırmaktadır. Müşterilerin SSH deneyimlerini anlamak için incelenen esas değişkenler, kaynakların korunması teorisi kapsamında yorumlanmaktadır. Bu doğrultuda çalışmanın geliştirdiği değişkenler; SSH deneyimlerinde tüketicilerin birincil kaynak kayıpları (değişim değeri, kullanım değeri ve bağlama dayalı değerde kayıplar), kaynak koruma çabaları (sürece bağlı, zihinsel ve yasal / cezalandırıcı çabalar), ikincil kaynak kayıpları (zaman, benlik saygısı, tüketici hakları ve maddi / finansal durumda kayıplar) ve son olarak ikincil kaynak kazanımları (rahatlık, destek, benlik saygısı ve maddi / finansal durumda kazanımlar) olarak tanımlanmıştır. Çalışmanın amacı, müşterilerin genel SSH deneyimlerinin şekillenmesinde bu değişkenlerin birbiriyle olan ilişkilerinin oynadığı rolü açıklamaktır. İkincil tüketici kazanımlarıyla sonuçlanan birliğinde değer yaratıcı SSH deneyimleri ve ikincil tüketici kayıpları ile sonuçlanan birliğinde değer yıkıcı SSH deneyimlerine odaklanan iki farklı kavramsal model önerilmiştir. Önerilen modeller, Türkiye'deki 422 tüketiciden toplanan veri ile ampirik olarak analiz edilmiştir. Hipotezler, SPSS AMOS'ta Yapısal Eşitlik Modellemesi (SEM) kullanılarak test edilmiştir. Sonuçlar, SSH deneyimine özgü ikincil kayıpların ve ikincil kazanımların, hizmetin memnun edici (birliğinde değer yaratıcı hizmet ortamı) veya memnuniyetsizlik verici (birliğinde değer yıkıcı hizmet ortamı) olmasına sebep olurken izlediği farklı yollardaki ilişkileri göstermektedir.

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CHAPTER 1

INTRODUCTION

In an increasingly competitive business environment where customers have an overwhelming amount of choice alternatives, pressure for organizations to establish enduring relationships with their existing customers is more intense than ever before. According to the recent conceptualization of value based on Service-Dominant Logic (SDL), customers play active roles in value generation process by using/consuming the product, which is termed as value co-creation (Vargo and Lusch, 2004; 2008). More specifically, it is claimed that products' actual value is dependent on consumers' usage experiences. This explication of value signifies the importance of consumers' product usage processes in the value-based outcomes of products delivered by companies. Furthermore, it also indicates that organizations need to manage relationships with their customers as long as customers are in value generation process, which is until the end of product's usage life. Indeed, it is acknowledged that the relationship between a producer and its customers lasts for the lifetime of the product with the customer (Rigopoulou, Chaniotakis, Lymperopoulos, & Siomkos, 2008).

Value generation process is elucidated by Grönroos and Voima (2013) by classifying it into three spheres; namely provider sphere, customer sphere, and joint sphere. The provider sphere is defined as the back office of the service process, where value propositions are produced by the service provider with no interaction with the customers. On the other hand, those consumption experiences that create value for the consumer occur at the customer sphere, where the consumer individually creates value without direct interactions with the firm. Lastly, the joint

sphere occurs when consumers and the firm get in direct interactions to co-create value. Those joint spheres may occur at the production stage which is called as co-designing or co-production (Prahalad 2004; Vargo & Lusch 2004; Grönroos & Voima, 2013), occur at the stage where product that carries value-in-exchange is delivered to the customer at the point of purchase (Grönroos & Voima, 2013), or lastly, as the current dissertation suggests, occurs when consumers' consumption experiences are disrupted due to product failures and they need support from the company's after-sales services (AS-S). The main purpose of this dissertation is to investigate the lastly mentioned joint sphere in the value generation process that involves firms and consumers who jointly co-create AS-S value.

As the product's actual value is formed through consumers' usage experiences, the companies' provision of support for enhancing those experiences becomes imperative. AS-S is defined as "those activities in which a firm engages after purchase of its product that minimize potential problems related to product use and maximize the value of the consumption experience" (Asugman, Johnson & McCullough, 1997, p. 12). AS-S is acknowledged as one of the biggest sources of revenue and profit. Cohen, Agrawal and Agrawal (2016b) declare that in the US on average \$1 trillion is spent each year for the products that consumers have already had. Indeed, they claim that it is the golden age of services when businesses should transform into a services business. So far, most of the businesses in North America, Western Europe, and Japan have already "stopped pushing products and started delivering the value that customers get out of using those products" (Cohen et al., 2016b, p. 129). Therefore, in the age of services, ensuring high AS-S quality is of primary concern for all businesses. It is vital for businesses to consider AS-S as a significant element of their offerings to the customers together with the product. It is

suggested that “businesses, however, do not have the knowledge about how to provide effective AS-S” (Cohen et al., 2016b, p. 129). To provide effective services, it is important to understand customers.

Understanding needs, wants, and demands of the customers constitute the fundamental pillars of marketing (Kotler & Armstrong, 2012). Furthermore, comprehension of customers’ expectations from a service offering is indispensable in designing effective service settings (Goldstein, Johnston, Duffy, & Rao, 2002). In order to understand customers in AS-S context, their motivations to interact with the service provider need to be scrutinized. According to the Conservation of Resources (COR) theory, a theory of motivation proposed by Hobfoll (1988, 1989), the primary motivation of people is to protect against and recover from losses since resource losses are more prominent than resource gains. Therefore, individuals are motivated to put effort at a greater extent to protect against or recover from a resource loss than they do to gain resources. Based on this theory, individuals invest such resources as time, money, energy, knowledge (Smith, 2013) when they face an actual or potential loss situation. The initial loss that customers put effort to recover from is termed as primary resource loss. As a result of the processes that customers engage in, in order to recover from their primary loss situation, they may gain new resources (termed as secondary resource gain) or lose resources (termed as secondary resource loss). Since AS-S is an exchange context that deals with consumers’ actual or potential resource loss situations, the current study focuses on the AS-S interactions from the customer’s perspective and explores it with the application of COR theory.

According to COR theory, resources are those things that customers value (Hobfoll, 1988, 1989; Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). In the context of AS-S, the value that is in jeopardy to be lost is the one that is

received from the product. Based on SDL, product's value is categorized into three dimensions: value-in-exchange, value-in-use, and value-in-context. Value-in-exchange refers to the product's economic or monetary value, value-in-use refers to such values as emotional, esteem, convenience, performance, and value-in-context refers to the value dependent on time, location, lack of alternatives, and uncertain conditions (Gummerus & Philström, 2011). Interpreting AS-S experiences based on COR theory, the current study proposes that the actual or potential losses in product's value (i.e. exchange, use, and context value) in case of a product failure accounts for primary resource losses. It is further suggested that consumers' interactions with the company to receive AS-S is a resource investment process to recover from an actual or a threat of a resource loss (product failure), whereas the outcome of the after-sales service interactions accounts for secondary resource losses and secondary gains.

Accordingly, the aim of the current dissertation is to investigate AS-S interactions from consumers' point of view by taking the value-based and motivational lens in observing consumers' AS-S experiences. While for the value perspective SDL is utilized, for the motivational perspective COR is applied. As a result, the contribution of this research is aimed to be two-fold: First, it is intended to bring an added perspective with the application of SDL that will help us to investigate the effects and consequences of failed product's value on customers' AS-S experiences. Second, it is intended to offer a novel perspective with the application of COR theory that will enable us to assess the effects and consequences of consumers' motivations to engage in AS-S, which is to conserve their already-owned resources, in the AS-S context.

The dissertation is organized as follows: First, in Chapter 2, the research questions and objectives are discussed, and the proposed conceptual model is proposed. Then, a literature review is conducted to gain theoretical knowledge in Chapter 3. Later, research design and methodology and the measurement development processes are deliberated in Chapter 4. Subsequently, hypotheses are developed in Chapter 5. Afterwards, in Chapter 6, analysis of the collected data and the results are examined. Finally, the research findings, implications for the theory and practice, and research limitations and suggestions for future research are discussed in Chapter 7.

CHAPTER 2

RESEARCH OBJECTIVES AND PROPOSED MODELS

The main objective of this research is to investigate empirically the dimensions that constitute consumers' AS-S experiences from consumers' point of view based on COR theory. Furthermore, the main framework of the AS-S process is built based on SDL which claims that value is co-created jointly with the customer and the service provider. In this chapter, first the AS-S process developed based on SDL will be discussed. Then, the main AS-S dimensions proposed based on COR theory will be reflected. Later, all constructs that will be investigated in the scope of this dissertation will be explained. Subsequently, based on these discussions, the main research question and the related sub-questions will be presented, and the conceptual model will be proposed. Finally, the research delimitations will be discussed.

2.1 Extended value creation model including AS-S joint sphere

According to the SDL, value is created in three spheres: provider sphere, joint sphere, and customer sphere (Grönroos & Voima, 2013). The current paper suggests that customer's independent value creation process might be disrupted due to product failure and necessitate customers and the service provider meet back in the joint sphere to co-create AS-S value. Therefore, the value co-creation process suggested by Grönroos and Voima (2013) is extended in Figure 1 which illustrates the initiation of a new joint sphere that involves AS-S interactions.

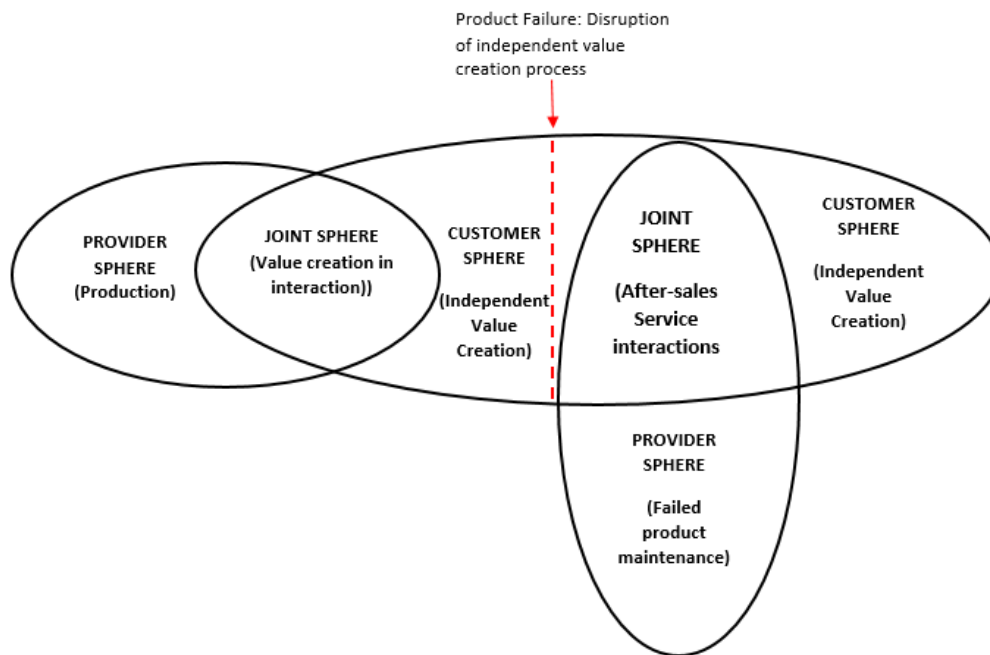


Figure 1. Proposed AS-S value creation model.
 Extended from “Critical service logic: Making sense of value creation and co-creation.”, C. Grönroos & P. Voima, 2013, *Journal of the Academy of Marketing Science*.

As depicted in Figure 1, AS-S interactions initiate when consumers’ regular consumption experiences are interrupted due to product failure. When their products fail, consumers are not able to continue with the independent value creation process in the customer sphere. In this point, consumers interact with the firms’ AS-S where a new joint sphere and provider sphere reveal. When the product is repaired in the back-office, AS-S value proposition is formed in the provider sphere. On the other hand, when the consumers are in interaction with the services, value is co-created in the joint sphere. When the product maintenance finishes, both provider and joint spheres end, and consumers continue with their consumption experiences in the customer sphere through independent value creation.

Accordingly, consumers’ AS-S experiences will be investigated in three phases: (1) Customer sphere before AS-S interactions; when customers’ value-in-use

creation process is disrupted and they face an actual or potential loss of their products' value (primary loss) due to a product failure without direct interaction with the company, (2) joint sphere; when customer-firm interactions take place in an AS-S context with the motivation of conserving the value that consumers are at risk of losing, and (3) Customer sphere after AS-S interactions; when the customers continue their consumption experiences individually with the newly co-created or co-destroyed value received from the interaction phase.

2.2 Dimensions that constitute consumers' AS-S experiences based on COR theory

Contemplating on the COR theory, dimensions with regards to the three phases of AS-S value co-creation process within the scope of this study are presented in Figure 2. Accordingly, when consumers' regular consumption experiences are disrupted, they experience primary resource loss in the customer sphere before the interaction phase. Then consumers engage in resource conservation effort to recover from the potential or actual loss of their possessions in the joint sphere where consumers get in touch with AS-S. With the termination of ASS, the result is either secondary resource gain when value co-creation occurs or secondary resource loss when value co-destruction occurs.

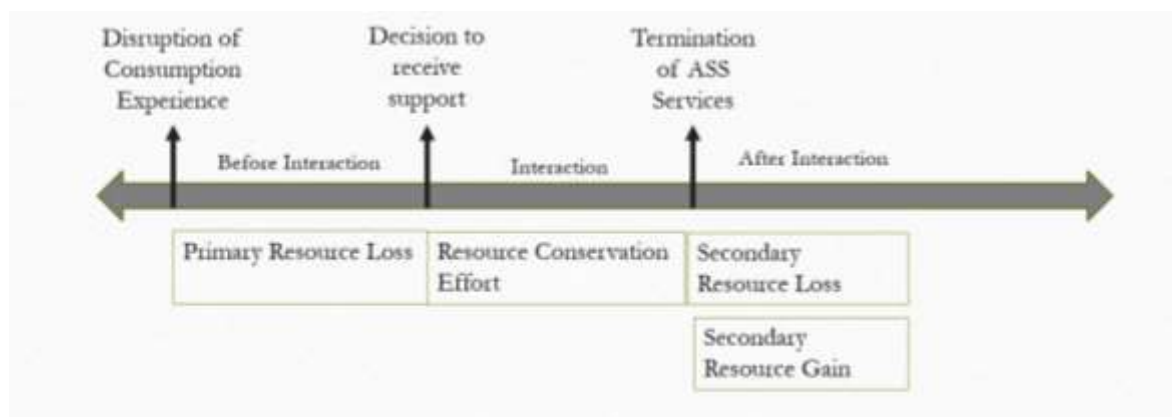


Figure 2. Proposed AS-S value creation constructs based on COR theory

First, it is noteworthy to discuss why these constructs would be meaningful in AS-S studies. As will be discoursed more in detail in the literature review section, AS-S studies have so far examined interactions between the service providers and the individuals through such constructs as service quality, information quality, system quality, service satisfaction, customer loyalty, and customer perceived value. They have an underlying assumption that an AS-S experience is a discrete event that starts and ends with the interactions between the customer and the service provider.

However, distinct from many other service contexts, consumers have previous stories with the service subject that is the broken product. Therefore, the primary loss of a product from individuals' lives is an important indicator of their AS-S experiences; hence, an important construct to be investigated. Furthermore, previous AS-S studies do not take consumers' resource conservation effort into consideration. This implies their assumption that the consumer is the passive service receiver. However, consumers devote various types of efforts (financial, physical, temporal etc.) to recover when they face a failure situation (Smith, 2013). Finally, the consequences of an AS-S interaction are only investigated with quality and satisfaction constructs.

Nevertheless, according to the COR theory, people incur secondary losses or gains as a result of their effort to recover from a loss situation. Therefore, the perceived secondary resource loss and secondary resource gain constructs are important consequences to be investigated in the AS-S context. Drawing on the COR theory in this dissertation, the aim is to comprehend the consumers' whole product recovery journey starting from the product's breakdown (that occurs before interaction with the service provider) and ending with the new gains and losses depending on the service interaction's success. Accordingly, this study aims to propose support for the significance of the four main dimensions derived from the COR theory; i.e. primary

resource loss, resource conservation effort, secondary resource loss, and secondary resource gain in the AS-S context. Development of those measures will contribute to the understanding of consumer's whole product recovery journey that goes through the before-, during-, and after-interaction phases instead of evaluating their experiences with a view of AS-S as a single point in time experience.

Second, the reasoning of the need for a new construct-development for those dimensions must be discussed. COR theory is proposed by Hobfoll (1989) to conceptualize stress. He conceptualizes stress through gain and loss of resources. Psychological stress is defined as "a reaction to the environment in which there is (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment of resources. Both perceived and actual loss or lack of gain are envisaged as sufficient for producing stress" (Hobfoll, 1989, p. 516). Resources, furthermore, are defined as "those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies" (Hobfoll, 1989, p. 516). The kinds of resources proposed by Hobfoll (1989) are object resources, conditions, personal characteristics, energies, and social support. Hobfoll and Lilly (1993) in Figure A1 and Hobfoll (2001) in Figure A2 list the types of resources utilized in the COR theory (Appendix A). Those resources include objects (personal transportation, housing, adequate furnishing at home etc.), conditions (stable employment, status /seniority at work, personal health etc.), personal characteristics (sense of humor, ability to communicate well etc.), energies (free time, time for work, money for extras etc.), and social support (understanding from employer, support from co-workers, intimacy with at least one friend etc.).

The COR theory has dominantly been used in the organizational literature in the context of work stress and job performance. These studies have mostly investigated job resources to analyze employees' stress at work and its effects on the performance through loss or gain of those resources (e.g. Ito & Brotheridge, 2003; Schaufeli & Bakker, 2004; Wright & Hobfoll, 2004; Dewe, 2017; Hou, Doerr, Johnson, & Chen, 2017; Westman & Chen, 2017). Some other studies applied COR theory in other contexts such as to analyze the relationship between socioeconomic status and health (Heaney & Hoppe, 2017), posttraumatic stress after a natural disaster (Blaze & Shwalb, 2009).

Other than studies conducted by Smith's (2013) and Surachartkumtonkun, McColl-Kennedy, and Patterson (2015), to our knowledge so far, there are no studies found in the literature which analyzed consumer resources in any other different marketing context. Furthermore, even though Smith's (2013) and Surachartkumtonkun et al. (2015) analyze customer resources in a service setting, they do not develop measurement scales for consumer resources. Halbesleben et al. (2014) suggest that, "The future of COR theory rests in researchers' ability to appropriately measure resources" (p. 1354). They further argue that, "A focus on the value of resources and capturing resources across the taxonomy of resources will improve research" (p. 1354). Accordingly, they recommend researchers to develop and apply measures of resource value. The aim of this study, therefore, is to take up the challenge and develop measures for customer resources which are lost (as primary and secondary) or gained and resource conservation effort in the after-sales service context.

Therefore, multi-item scale development is required for those constructs in an AS-S context so that we can identify and measure what individual consumers

actually lose when their products break down (primary resource loss); what they do in order to recover from this situation (resource conservation effort); what they gain as a result of a successful - co-creative - service interaction (with secondary resource gains); and what they lose as a result of unsuccessful - co-destructive - service interaction (with secondary resource losses).

2.3 Research questions

As the primary purpose of the current dissertation is to have a closer look at the AS-S process from consumers' point of view Based on SDL framework with a contemplation on COR theory as a motivational lens, exploration of and the relationships between those dimensions will be under scrutiny. Based on the knowledge generated in literature review and reflections discussed above, the broad research question is identified as:

“What are the main dimensions that emerge as a result of customers' motivation of conserving their resources' value in an AS-S context and how are these dimensions related in the development of consumers' satisfaction with their AS-S interactions?”

The main research question is directed at exploring and investigating the relationships between the four main constructs identified based on COR theory, i.e. primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain.

More specifically, the first part of the main research question is formed as follows, aiming to explore and develop these constructs in AS-S context:

“What are the main dimensions that emerge as a result of customers' motivation of conserving their resources' value in an AS-S context”

With regards to the first part of the research question, the following sub-questions are developed:

1. What are the forms of resources that constitute consumers' primary resource loss in a product breakdown situation? → consumer sphere
2. What are the types of effort that consumers devote to recover from a loss situation in interaction with AS-S? → joint sphere
3. What are the forms of resources that constitute consumers' secondary resource loss as a result of service received from AS-S? → consumer sphere after co-destructive AS-S interactions
4. What are the forms of resources that constitute consumers' secondary resource gain as a result of service received from AS-S? → consumer sphere after co-creative AS-S interactions

Furthermore, the second part of the main research question investigates the relationships between these constructs and their role in generating the overall AS-S satisfaction, as follows:

“How are these dimensions related in the development of consumers' satisfaction with their AS-S interactions?”

Related to this part of the main research question, the following sub-questions are generated for consumers who experience secondary losses (co-destructive service experiences) and for consumers who experience secondary gains (co-creative service experiences):

5. How do consumers' primary losses affect their resource conservation effort?
6. How do consumers' and service's co-creative efforts affect consumers' secondary losses as a result of co-destructive AS-S interactions?

7. What are the relationships between consumers' different types of secondary losses as a result of co-destructive AS-S interactions? (What are the emerging loss spirals?)
8. How do failed co-creative efforts have an impact on consumer's service satisfaction as a result of co-destructive AS-S interactions?
9. How do consumers' and service's co-creative efforts affect consumers' secondary gains as a result of co-creative AS-S interactions?
10. What are the relationships between consumers' different types of secondary gains as a result of co-creative AS-S interactions? (What are the emerging gain spirals?)
11. How do successful co-creative efforts have an impact on consumer's service satisfaction as a result of co-creative AS-S interactions?

2.4 Proposed conceptual models and constructs under scrutiny

As the reasoning behind the inevitability of using and developing these constructs based on COR theory in the AS-S context is explained, now it is necessary to delineate each construct in the conceptual models that depict consumers' AS-S experiences with secondary losses (Figure 3) and consumers' AS-S experiences with secondary gains (Figure 4).

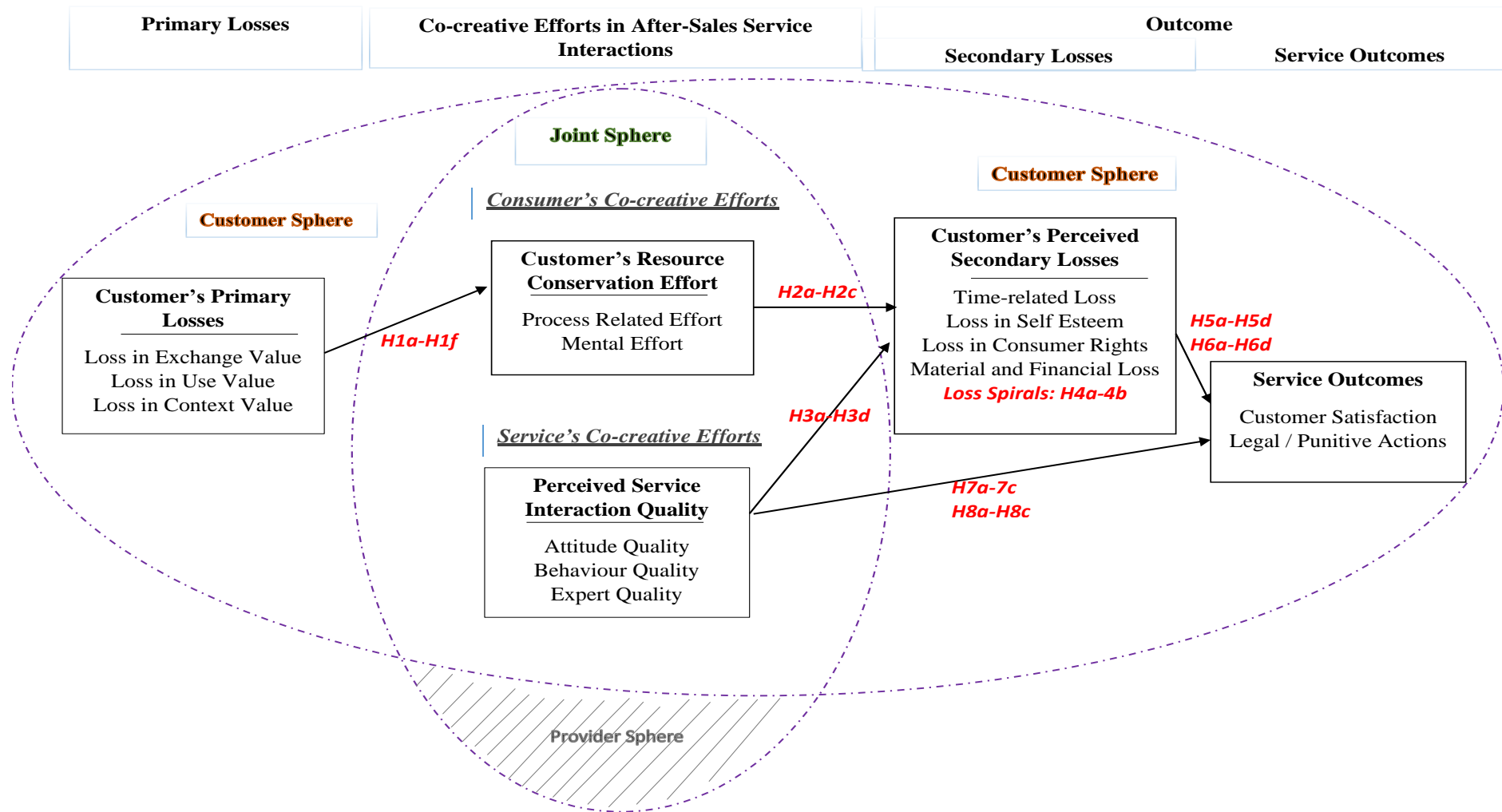


Figure 3. Proposed conceptual model of AS-S experiences with secondary losses

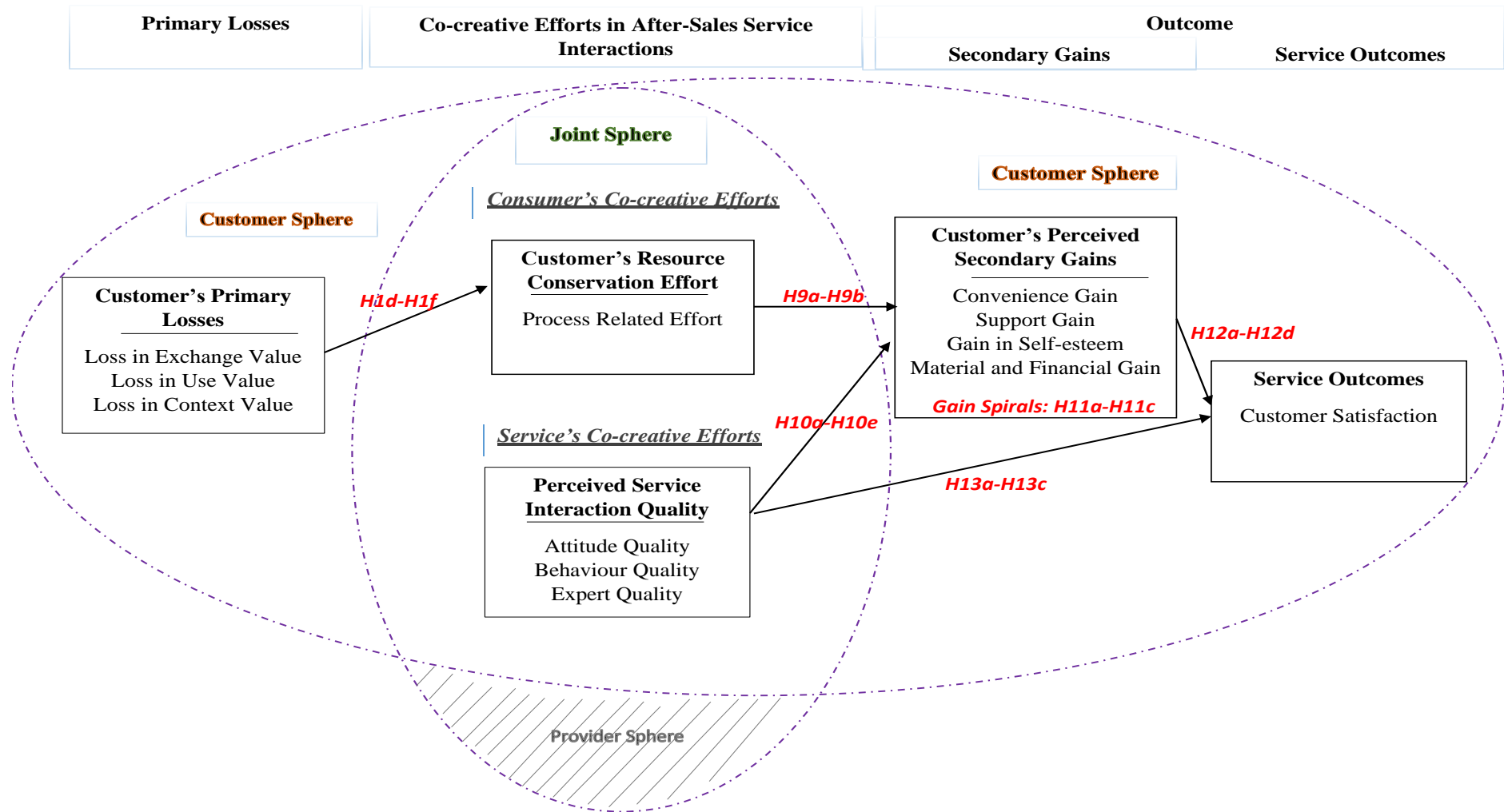


Figure 4. Proposed conceptual model of AS-S experiences with secondary gains

2.4.1 Primary resource loss

COR theory researchers have made a dispute on the definition of resources. Hobfoll (2001) defines resources as, “Those objects, personal characteristics, conditions, or energies that are valued in their own right, or that are valued because they act as conduits to the achievement or protection of valued resources” (p. 339). Halbesleben et al. (2014) develop a criticism towards Hobfoll and other COR theorists stating that they consider anything that holds value to someone as a resource. Accordingly, they propose a new definition that includes goal attainment. They define resources as, “Anything perceived by the individual to help attain his or her goals” (p. 1338). They state that their definition of resources emphasizes individuals’ perception, but not the real experience, about the resources regarding their aid in attaining individual’s goals. In other words, the value of the resources is identified by the extent that these resources are perceived to be useful for attaining personal goals. Their main concern regarding previous definitions and use of resources is that even though some resources are valuable for some people, they might not hold any value for the individual in a particular context. Accordingly, the perceptions regarding a resource’s ability to help the individual attain his/her goals are important indicator of resources’ value. Halbesleben et al. (2014), furthermore, argue that what determines individuals’ motivation to conserve resources is the value of those resources.

The value of objects that consumers possess has been categorized in different ways in marketing literature as discussed in the literature review section. SDL view of value co-creation integrates and re-classifies all different kinds of customer value in three categories; i.e. value-in-exchange, value-in-use, and value-in-context. Value-in-exchange is independent of the use-value of the product and entails the value received at the point of purchase. Since it is an economic view of value, value-in-

exchange is described as the delivery of product in return of its price. Accordingly, value-in-exchange refers to the monetary value of the product. On the other hand, value-in-use and value-in-context require customers' active role to be co-created. Gummerus and Philström (2011) propose a taxonomy of value types under value-in-use and value-in-context. Value-in-use comprises such types as emotional value, esteem value, convenience value, and performance value. They also included monetary value in the conceptualization of value-in-use. Even though it can be argued that the monetary value of a product may have an effect on its use-value, there are considerable amount of claims in the literature that differentiate value-in-exchange from value-in-use (as discussed in the literature review section) with its emphasis on the economic value of the product. Therefore, monetary value in this study is classified under the value-in-exchange category, instead of value-in-use as suggested by Gummerus and Philström (2011). Moreover, value-in-context is determined by such conditions as the time, location, lack of alternatives, and uncertain conditions (Gummerus & Philström, 2011).

In the current study, primary resource loss indicates the perceived value of consumer resources that are lost or in the risk of being lost. To put it differently, as the subject of primary loss is individual's possessions that are broken in the context of AS-S, primary resource loss refers to the perceptions of consumers regarding the actual or potential loss of value after the product is broken. Based on the discussion above, the value of those resources under the primary resource loss construct will be investigated in three value categories based on SDL; i.e. value-in-exchange, value-in-use, and value-in-context.

2.4.2 Resource conservation effort

Halbesleben et al. (2014) suggest that the value of resources are subject to be conserved. Hobfoll (2011) proposes that when individuals experience losses, they apply conservation strategies by utilizing resources that are available to them.

Resource conservation effort, in this study, refers to the energy resources utilized by the consumers to conserve the value they receive from their possessions when they experience primary losses in their possessions' value. Energies are proposed to be one of the resources by the COR researchers. For the consumers, as proposed by Smith (2013), energies include time, money, knowledge, physical effort, and emotional effort.

In the current study, the consumers' effort devoted to conserving the value of their resources in an AS-S context are analyzed and two resource conservation effort constructs are included in the conceptual model: mental and process related effort (it will be discussed more in detail in the measurement development part of Chapter 4). While mental effort are only observed in the repeating failing service experiences which result in more destructive thoughts (Bushman 2002; Collins & Bell, 1997) and decreased ability to forgive (McCullough, Bono, & Root, 2007), it is proposed only in the conceptual model of AS-S experiences with secondary losses. On the other hand, process related effort refers to the consumers' actions in AS-S process in interaction with the service personnel which entail such actions as calling the call center, waiting for the service personnel etc. Those actions are observed in both AS-S experiences with positive and negative results. Therefore, process related effort construct is proposed in both conceptual models of AS-S experiences with secondary losses and secondary gains.

2.4.3 Secondary resource loss and secondary resource gain

Hobfoll (2001) describes secondary resource losses as a situation that happens because of unsuccessful adaptation of conservation strategies. On the other hand, secondary resource gains are explained as situations that happen due to the successful adaptation of conservation strategies. In other words, while successful resource conservation strategies result in new resource gains; unsuccessful conservation strategies cause further losses. Smith (2013) analyzes consumer resources, i.e. material resources, conditions, self (self-esteem, self-efficacy), social support, energies, leisure, and hope, in her study under the investigation of both primary and secondary resource losses. However, she distinguishes primary and secondary resource losses in her analysis by evaluating secondary losses as those occur after consumers apply coping behaviors, or in other words resource conservation effort.

Secondary resource losses and secondary resource gains, in the current study refer to those resources that are lost or gained based on the success of resource conservation strategies applied by the consumers. Accordingly, the consumers' secondary losses that emerge as a result of unsuccessful integration of resources and secondary gains that emerge as a result of successful integration of resources in the interaction phase in an AS-S context are analyzed (it will be discussed more in detail in the measurement development part of Chapter 4). Consequently, secondary loss constructs proposed in the conceptual model of AS-S experiences with secondary losses are time-related loss, loss in self-esteem, loss in consumer rights, material and financial loss. In addition, secondary gain constructs proposed in the conceptual model of AS-S experiences with secondary gains are convenience gain, support gain, gain in self-esteem, and material and financial gain.

2.4.4 AS-S Quality

In the joint sphere, customers are in interaction with the service provider. Hence, they do not only put individual effort to conserve their resources, but also receive service from the AS-S provider. It is acknowledged in the literature that service quality is the fundamental component of all services that determine customer satisfaction. In correspondence, it is found in the review of AS-S literature that service quality is the main variable that is investigated in almost all studies (Negash, Ryan, & Igbaria, 2003; Rigopoulou et al., 2008; Ahn & Sohn, 2009; Potluri & Hawariat, 2010; Murali, Pugazhendhi, & Muralidharan, 2016; Albors-Garrigos, Frass, Schoeneberg, & Signes, 2017). Therefore, customers' perceived service quality concerning the AS-S provided by the company will be taken into consideration in the joint sphere in the current study.

Therefore, besides consumers' resource conservation efforts in the joint sphere, the successful or unsuccessful adaptation of resources in customer-service provider interactions are expected to be the outcome of service interaction quality. Therefore, the service's role in the joint sphere is considered as its interaction quality. Brady and Cronin (2001) suggest three levels of service's interaction quality: attitude quality, behavior quality, and expertise quality. Attitude quality refers to the service employees' approach to consumers in a friendly and polite manner. Behavior quality refers to whether service employees take actions that address customers' main needs. Expertise quality refers to the extent that service employees are judged to be proficient in their jobs; e.g. knowledgeable and professional enough to answer their questions and solve technical problems they have (Brady & Cronin, 2001). Consequently, service attitude, behavior, and expertise

quality constructs are proposed in both conceptual models of AS-S experiences with secondary losses and secondary gains.

2.4.5 Outcome Variables

There are two outcome variables under investigation. First is the legal and punitive behaviors. Legal and punitive effort proposed as an outcome variable in the conceptual model of AS-S experiences with secondary losses to be devoted by customers as a result of secondary losses incurred is derived from measurement development process (discussed in Chapter 4). It is found that legal and punitive effort occurs as a result of consumers' incurrence of secondary losses and their resulting motivation to recover from those secondary losses by taking the issue to the third parties (i.e. consumer courts, social or traditional media sites, complaint websites etc.). This accords with Grégoire, Ghadami, Laporte, Sénécal, and Larocque (2018) who claim that customers involve in revenge behaviors as a means to justice restoration after repeating failures or recovery attempts. The repeating failures encountered by the customers in recovery process is suggested to give lack of a sense of control over a situation. The lack of sense of control results in maladaptive behaviors (Bowen & Johnson, 1999; Surachartkumtonkun et al., 2015) such as legal and punitive actions observed in unsuccessful AS-S experiences with secondary losses in the current study.

The second outcome variable under scrutiny in the current study is satisfaction. Satisfaction is one of the most imperative variables in the marketing field as primary focus of both marketing scholars and practitioners is to attain high customer satisfaction. In accordance with this, in the AS-S context, customer satisfaction is investigated in various studies (Negash et al., 2003; Rigopoulou et al.,

2008; Potluri & Hawariat, 2010; Hussain, Bhatti, & Jilani, 2011; Murali et al., 2016; Albors-Garrigos et al., 2017; Trang & Tho, 2019). Likewise, it is purpose of the current dissertation to explore customers' satisfaction/dissatisfaction as a result of their AS-S experiences that ends up with either secondary losses or secondary gains.

2.5 Research Delimitations

First, the general domain delimitations in the current study will be discussed. The constructs will be investigated through analysis of individual consumers, not the business customers. In order to explain the reason for drawing this boundary, it is important to emphasize the distinction between businesses and individual consumers in an AS-S context. The distinction is made between B2B and B2C context in the literature in several different contexts; i.e social media communication strategies (Swani, Brown, & Milne, 2014; Iankova, Davies, Archer-Brown, Marder, & Yau, 2018), supply chain management strategies (Hoejmose, Brammer, & Millington, 2012), adoption of ICT in the ecommerce (Asare, Gopolang, & Mogothwane, 2012), retailing (Dant & Brown, 2008) etc. This distinction should be made for the AS-S context as well based on several reasons.

First, individual consumers in B2C context purchase products as the value of those items contribute to their lives in so many ways. Sheth, Newman, and Gross (1991) identify those values that consumers receive through buying a product as functional, conditional, social, emotional, and epistemic. The business customers in B2B context, however, possess those products as the value of them contributes to the business's effectiveness and efficiency. In other words, while possessions in the B2C context have so many different meanings for individual consumers, business customers possess products as functional resources. Consistently, it is found that

companies use emotional message appeals in B2C context, while they use functional message appeals in B2B context in their communication strategies (Swani et al., 2014). Considering this distinction, the kinds of value that business and individual consumers lose with the broken products differ as well. The second distinction is related to the effort made in order to recover from the actual or potential loss situation. Such differences in technical knowledge, ability to afford service fee, flexibility of timing to call and deal with the service, immediacy to find a solution and many other factors altogether make the effort that businesses and individuals devote to recover from the loss situation vary. Third, it can be assumed that the broken or out-of-service product will have different consequences for businesses and individuals. Due to aforementioned differences between these two types of consumers regarding the value they attribute to their products, the positive or negative consequences of the AS-S that they receive for those products tend to differ as well. As a result, it can be suggested that these three distinctions will give rise to varying AS-S experiences for business and individual customers and explain the necessity of separate and special attention to each type.

As it will be deliberated more in the literature review in the next chapter, most of the studies investigated AS-S interactions by taking businesses as the unit of analysis. There is little attention given to the individual consumers' perspectives. Moreover, these businesses are mostly investigated within the business-to-business (B2B) context. Very few studies have so far examined business-to-consumer (B2C) context of AS-S. The dominancy of the investigation of business customers in AS-S context directed the focus of this research to the individual consumers in the B2C context with the aim of better comprehending individual consumers' AS-S experiences.

Lastly, as the main purpose of the current dissertation is to reveal AS-S process from the consumers' point of view, the provider sphere in which consumers do not have any role is out of focus. On the other hand, customer sphere before the interaction phase where consumers experience product failure, the joint sphere in the interaction phase where consumers get in touch with AS-S, and customer sphere after the interaction phase where consumers continue with their consumption experiences with the new value co-created during AS-S are investigated in the current study.

CHAPTER 3

LITERATURE REVIEW

3.1 After-sales services

The literature on AS-S is reviewed between the years 1990 and 2019 on journals that are indexed in SCOPUS, Emerging Sources Citation Index, Social Science Citation Index, EBSCO, Ulrich's Periodicals, Science Citation Index Expanded, Springer, ISI Science Citation Index, UlrichsWeb and in total 50 articles that directly focus on AS-S are found (Appendix B). Out of those articles, 10 studies are conceptual, 25 studies conduct an empirical investigation in B2C business, and 15 studies conduct an empirical investigation in B2B industry. From those empirical studies that are applied to B2C business, only 9 studies used customers as a unit of analysis (Negash et al., 2003; Rigopoulou et al., 2008; Ahn & Sohn, 2009; Potluri & Hawariat, 2010; Hussain et al., 2011; Murali et al., 2016; Wickramasinghe & Mathusinghe, 2016; Albors-Garrigos et al., 2017; Trang & Tho, 2019), while the rest of 16 studies applied organizational investigation (Cohen & Lee, 1990; Loomba, 1996; Asugman et al., 1997; Loomba, 1998; Goffin, 1999; Verstrepen, Deschoolmeester, & Van den Berg, 1999; Cohen, Cull, Lee, & Willen, 2000; Goffin & New, 2001; Gaiardelli, Saccani, & Songini, 2006; Saccani, Songini, & Gaiardelli, 2006; Cavalieri, Gaiardelli, & Ierace, 2007; Gaiardelli, Saccani, & Songini, 2007; Kim & Park, 2008; Gupta, Vääänen, & Khaneja, 2016; Rezapour et al., 2016; Borchardt, Souza, Pereira, & Viegas, 2018). Moreover, from those empirical studies that are applied to B2B business, only 6 studies contacted the business customers while the rest of the 9 studies investigated organizations that provide service. The main industries that are

investigated with a focus of AS-S are automobile, home appliances, mobile phone, and telecommunication.

The reviewed articles are summarized in Appendix B. Definition and components of AS-S, the purpose of the study, unit analysis, and the key outcome are indicated for each article. The review of related literature has revealed that empirical studies applied to B2C industry that have investigated customers as a unit of analysis have analyzed different processes under AS-S; such as product delivery and installation (Rigopoulou et al., 2008), call center services (Ahn & Sohn, 2009; Wickramasinghe & Mathusinghe, 2016), web-based support (Negash et al., 2003), home service delivery (Ahn & Sohn, 2009; Potluri & Hawariat, 2010), complaint handling services (Ahn & Sohn, 2009; Potluri & Hawariat, 2010), repair and maintenance (Potluri & Hawariat, 2010; Wickramasinghe & Mathusinghe, 2016), billing services (Potluri & Hawariat, 2010), and warranty services (Wickramasinghe & Mathusinghe, 2016), proactive AS-S (Trang & Tho, 2019); or have not identified the service process studied (Hussain et al., 2011; Murali et al., 2016; Albors-Garrigos et al., 2017) (Table 1).

Table 1. Empirical Studies with a Focus on Customers in B2C AS-S Context

Authors	Industry	Product Delivery & Installation	Call center Services	Web-based Support	Service Delivery (Home visit or on-site)	Claim / Complaint Handling	Repair & Maintenance	Billing Services	Warranty Services	Proactive Services	Not Classified
Negash et al. (2003)	Not specified			*							
Rigopoulou et al. (2008)	Home appliances	*									
Ahn and Sohn (2009)	Home appliances		*		*	*					
Potluri and Hawariat, (2010)	Telecom				*	*	*	*			
Hussain et al. (2011)	Automotive Battery										*
Murali et al. (2016)	Home Appliances										*
Wickramasinghe and Mathusinghe (2016)	Home Appliances		*				*		*		
Albors-Garrigos et al. (2017)	Automotive										*
Trang and Tho (2019)	Automotive and Computer									*	

3.2 Service quality in after-sales services

In the services literature, a significant concern was devoted to the service quality in the 1980's (Parasuraman, Zeithaml & Berry, 1985). The differentiation between goods and services was identified in the same period with the suggestion that services have distinct characteristics such as intangibility, inseparability, variability, and perishability. Given its distinct characteristics, the quality measurement of services required a separate investigation from goods quality. Furthermore, it was acknowledged that the evaluation of service quality is more difficult than the evaluation of goods quality (Parasuraman et al., 1985).

Service quality is defined as the difference between customer's expectations and their perceptions about what they experienced (Grönroos, 1982; Smith & Houston, 1982; Churchill & Surprenant, 1982; Parasuraman, Zeithaml & Berry, 1985, 1988). The service quality models conceptualize the service quality construct in the form of an attitude. Therefore, the service quality models do not measure the objective quality, but the perceived quality (Parasuraman et al., 1988). Parasuraman et al. (1985) suggest that not only the outcome of services but also the process of service delivery is of substantial importance in service quality evaluations.

Accordingly, they suggest a service quality model, which identifies five gaps that might occur during a service delivery process that will cause a service failure. These gaps are: Gap 1) between consumer expectation and management perception, Gap 2) between management perception and service quality specification, Gap 3) between service quality specifications and service delivery, Gap 4) between service delivery and external communications, and finally Gap 5, which is the function of all the other four gaps, is between expected service and perceived service.

Furthermore, the determinants of service quality used by consumers to evaluate a service process are identified as; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding / knowing the customer, and tangibles (Parasuraman et al., 1985). Reliability “involves consistency of performance and dependability”; responsiveness “involves timeliness of service”; competence “means possession of the required skills and knowledge to perform the service”; access “involves approachability and ease of contact”; courtesy “involves politeness, respect, consideration, and friendliness of contact personnel (including receptionists, telephone operators, etc.”; communication “means keeping customers informed in language they can understand and listening to them”; credibility “involves trustworthiness, believability, honesty”; security “is the freedom from danger, risk, or doubt”; understanding / knowing the customer “involves making the effort to understand the customer’s needs”; and tangibles “include the physical evidence of the service” (Parasuraman et al., 1985, p. 47). These ten dimensions were later reduced to five that constitute the main dimensions of SERVQUAL scale, which was developed by Parasuraman et al. (1988). These dimensions are; “tangibles: physical facilities, equipment, and appearance of personnel; reliability: ability to perform a promised service dependably and accurately; responsiveness: willingness to help customers, and provide prompt service; assurance: knowledge and courtesy of employees and their ability to inspire trust and confidence; empathy: caring, individualized attention the firm provides its customers” (Parasuraman et al., 1988, p. 23).

It is found in this review of after-sales service literature that main variables that are investigated in empirical studies with a focus on AS-S are service quality (Negash et al., 2003; Rigopoulou et al., 2008; Ahn & Sohn, 2009; Potluri &

Hawariat, 2010; Murali et al., 2016; Albors-Garrigos et al., 2017) and customer perceptions regarding various service elements (Hussain et al., 2011; Wickramasinghe & Mathusinghe, 2016). On the other hand, the main outcome variables that are investigated are satisfaction/dissatisfaction (Negash et al., 2003; Rigopoulou et al., 2008; Potluri & Hawariat, 2010; Hussain et al., 2011; Murali et al., 2016; Albors-Garrigos et al., 2017; Trang & Tho, 2019), loyalty (Murali et al., 2016; Albors-Garrigos et al., 2017), repurchase / retention (Rigopoulou et al., 2008; Murali et al., 2016), and WOM (Rigopoulou et al., 2008) (Appendix C). It is also recognized in one of the very recent studies conducted by Murali et al. (2016) that the research conducted in the context of AS-S, mainly focus on the link between service quality and its outcomes such as customer satisfaction and loyalty.

Service quality literature has, so far, mostly focused on the link between AS-S quality and its attitudinal and behavioral outcomes. Van Birgelen, de Ruyter, de Jong, and Wetzels (2002) studied the moderating impact of national culture characteristics on the relationship between perceived service quality and customer satisfaction. Rigopoulou et al. (2008) studied the link between after-sales service quality and customer satisfaction in the electronics industry. They solely focus on the installation element of a AS-S, which is one among seven customer support characteristics identified by Goffin (1999). Potluri and Hawariat (2010) analyzed the perceptions of Ethiopian customers regarding AS-S provided by Telecom operators. Yan and McLaren (2010) also analyzed the perceived service quality for the automobile retails in South African market. Fazlzadeh, Bagherzadeh and Mohamadi (2011) conducted research to investigate the link between the AS-S quality and customer satisfaction for home appliances in Iran. Vanniarajan (2011) studied the mediating role of customer satisfaction between AS-S quality and behavioral

intentions. Pakdil, Işın, and Genç (2012) conducted both qualitative (applying content analysis) and quantitative analysis (applying factor analysis) for analyzing quality function deployment application in AS-S. Murali et al. (2016) made a research on the relationship between AS-S quality and satisfaction, loyalty, and retention.

Furthermore, an extensive search of service quality literature carried out in the current dissertation reveals that there is not much emphasis given to the interpretation of AS-S context by considering its distinctive characteristics from other forms of service interactions. Heretofore, there is no study found in the literature which devotes specific attention to the consumers' on-going experiences with the product and product's already existing value for the customer. Neither is there any study found in the literature that analyzes consumers' attitudes and behaviors which are formed with the motivation to conserve their possessions in an AS-S context.

3.3 Service-dominant logic

3.3.1 Value co-creation

According to the new marketing perspective introduced by SDL (Vargo & Lusch, 2008), there is a distinction between the term “service” and “services”. Indeed, the “service” reflects the process in which one's resources are used as a means to provide benefit to another entity (Vargo & Lusch 2004, 2008; Lusch, Vargo, & O'Brien, 2007). With this explication, the concept of service encompasses both goods and services. Vargo and Lusch (2004, 2008) explicitly indicate that goods are the distribution mechanisms for the provision of service (fundamental proposition 3).

Therefore, the service concept is distinguished from the plural form of services in that services refer to a particular type of product which is intangible.

With the adoption of SDL view into the marketing literature, all types of products – i.e. goods or services - are seen as tools for value co-creation. And, value co-creation is seen as a joint activity that involves both companies and customers. Accordingly, the perspective of “marketing-to” approach that explains value creation in forms of value delivery to the customers which are assumed to be passive value receivers has shifted to a “marketing-with” approach which considers customers as active value co-creators. (Vivek, 2009). The SDL claims that value is constantly co-created with the active involvement of the consumers (Lusch et al., 2007). According to this view, firms sell goods and services as a means to offer service to the customers (Gummesson, 2007). Customers, on the other hand, joins value co-creation process through experience of these value propositions. Hence, it is claimed that customers’ usage processes are indispensable for the actual value to be realized.

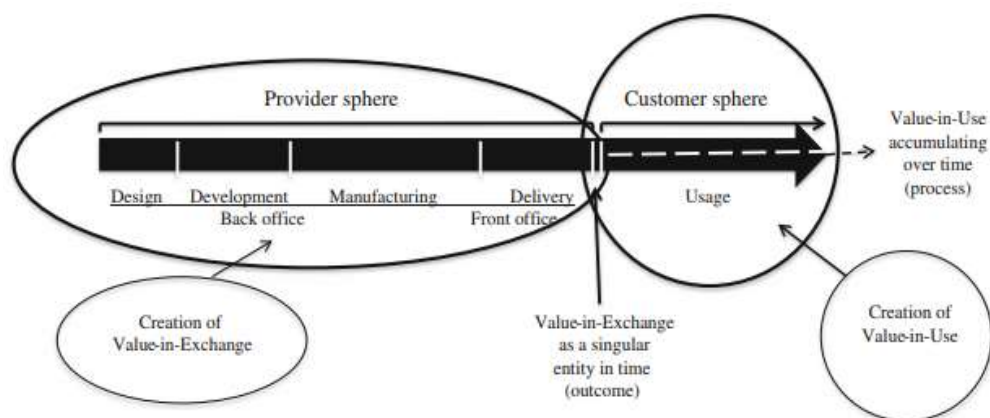


Figure 5. Value co-creation process (Grönroos & Voima, 2013)

In Figure 5, Grönroos and Voima (2013) depict value co-creation process. Accordingly, in firm's production phase at back-office processes, the value that is created is value-in-exchange, which is also referred to as potential value. This value-in-exchange is delivered to the customer at a front office delivery process. The value for customers is generated and begins accumulating as value-in-use through customer's usage phase.

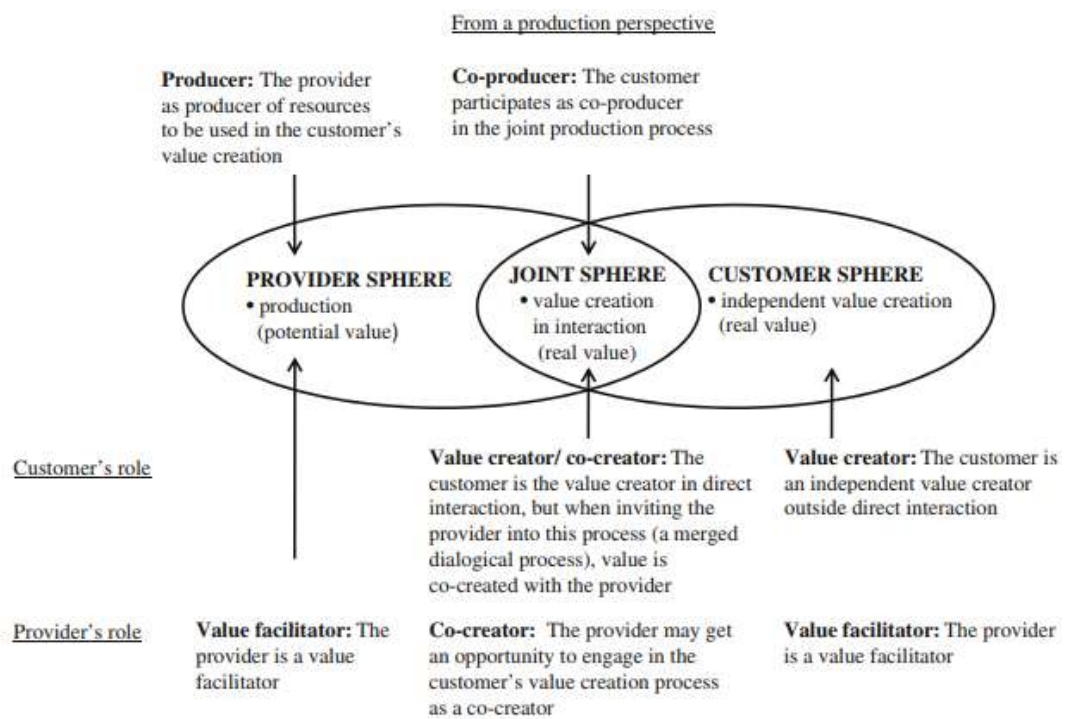


Figure 6. Value creation spheres (Grönroos & Voima, 2013)

Figure 6 depicts value co-creation spheres proposed by Grönroos and Voima (2013) who provide detailed view with regards to customers' and providers' role in each sphere. Based on this framework, three main spheres are proposed. First is the 'provider sphere' where customer does not have any role and firm has the role as a value facilitator. Second is the 'joint sphere' where both customers and the company

interact as value co-creators. In the final phase, i.e. customer sphere, customer independently creates value and provider acts as a value facilitator.

3.3.2 Value types in Service Dominant Logic

Creation of value is identified as the goal of marketing (Sheth & Uslay, 2007).

Mainly, customer value is defined as the net gain incurred as a result of evaluating all the benefits over costs (Christopher, 1996). Correspondingly, Zeithaml (1988, p. 14) defines value as consumers' overall valuation of total benefits based upon what is received and what is given. Applying SDL, the core value dimensions are classified into three categories: value-in-exchange, value-in-use, and value-in-context.

Value-in-exchange: Marketing is defined as a system by which value is exchanged amongst various parties (Bagozzi, 1975). The exchange value is rooted in the discipline of economy which conceptualizes it through indicators such as money (Marx, 1962; Tucker, 1978). Products' exchange value, based on economic-based transactions view, is determined by its price by the companies. Furthermore, based on this view, value is created by the firm through production stage and exchanged at the purchasing moment in return for money with the customers. Therefore, economical view of value assumes that company is the mere value creator and the customer is the passive value receiver. Indeed, the value is asserted as something that is embedded in the products (Grönroos, 2008). The SDL integrates exchange value as one of three types of value (i.e. value-in-exchange, value-in-use, and value-in-context). Through the lens of SDL, Gummerus and Philström, (2011) define value-in-exchange as product's economic or monetary value.

Value-in-use: The debate over value-in-exchange view with regards to its over-emphasis on economic value has brought new value terms to the marketing:

value-in-use and value-in-context. Value-in-use is proposed as the actual value that is generated in the customers' domain during their consumption or usage processes (Vargo & Lusch, 2004; Grönroos, 2006). Hence, it is suggested that the actual value is not created solely by the firm but is co-created through customer's value generating activities (Grönroos, 2000). Products, which are posited as the mechanisms for service provision, turn out to be valuable to the customers through its usage process. Grönroos (2008) explains the importance of value-in-use by stating that value-in-exchange would not exist if value-in-use could not be created by the consumers. Products would incorporate value-in-exchange only in the short term in the lack of value-in-use in the long term. Correspondingly, exchange value is asserted by Ballantyne and Varey (2006) as a predicted value-in-use of the products that are exchanged. As the actual value can only be co-created through usage experiences and defined as value-in-use, the value types under value-in-use would encompass those that transpire as a result of consumers' usage experiences. From the SDL view, Gummerus and Philström (2011) propose a classification of value under value-in-use including such values as emotional value, esteem value, convenience value, and performance value.

Value-in-context: Firms' value propositions are realized by the customers through usage processes within a particular context. The value generating actors interact with each other in specific contexts for the purpose of value-in-exchange and value-in-use actualization. Chandler and Vargo (2011) explain context, from the macro perspective, as the essential value co-creation element that comprises the temporal successive levels of simultaneous and continuous processes in which markets emerge. From the micro perspective, consumption experiences through which value co-creation occurs also encompass the temporal successive processes of

context as a crucial element. Based on SDL, value-in-context is conceptualized through such conditions as the time, location, lack of alternatives, and uncertain conditions (Gummerus & Philström, 2011).

3.3.3 Value co-destruction

Value co-destruction in SDL was first proposed by Ple and Chumpitaz-Caceres (2010) with an argument that the interactions between service systems with the aim of value co-creation can also have adverse consequences which result in co-destruction of value. Based on a detailed search on the EBSCO database and on the index of *The Service-Dominant Logic of Marketing* book (2006), Ple and Chumpitaz-Caceres (2010) reveal that in general the marketing literature and specifically the literature on SDL have mainly focused on the creation / co-creation of value, but not the destruction / co-destruction of value. More recent study by Lintula, Tuunanen and Salo (2017) make an extensive literature review in four different databases, namely ProQuest, EBSCOhost, Emerald Insight, and Google Scholar, with the keywords “co-destruction”, “value”, and “service”, and retrieved 17 directly related and 14 secondarily related articles in total. These statistics indicate that there is not much attention devoted to the negative consequences of interactions that result in failed value co-creation or in value co-destruction.

Followed by the emphasis made on the importance of value co-destruction, scholars have studied and found some empirical findings which explore the co-destruction incidents in such contexts as public transport (Echeverri & Skalen, 2011); shopping centers (Smith, 2013); self-diagnosis of health conditions (Robertson, Polonsky & McQuilken, 2014); sport management (Stieler, Weismann & Germelmann, 2014); banking services (Kashif & Zarkada, 2015); internet-based

services (Heidenreich, Wittkowski, Handrich, & Falk, 2015); public services (Williams, Kang & Johnson, 2016); non-profit housing (Hansen, 2017); B2B services (Chowdhury, Gruber & Zolkiewski, 2016; Prior & Marcos-Cuevas, 2016); information systems artifact (Vartiainen & Tuunanen, 2016); tourism services (Gohary, Hamzulu & Pourazizi, 2016); social marketing (Zainuddin, Dent & Tam, 2017); cultural sponsorship relationship (Makkonen & Olkkonen, 2017).

Due to the limited number of studies applied in value co-destruction concept and therefore availability of variety of models applied in very specific, non-generalizable exploratory studies, it is not possible at this stage of the concept development to find an all-encompassing and widely applicable model and definition of value co-destruction. Accordingly, it is noteworthy to analyze some of the most relevant definitions and models applied in the literature.

Ple & Chumpitaz-Caceres (2010) define co-destruction of value as, “An interactional process between service systems that results in a decline in at least one of the system’s wellbeing (which, given the nature of a service system, can be individual or organizational)” (p. 431). They declare that the decline in the system’s wellbeing results from the misuse of resources by the system’s itself, or by another related service system, which leads to failed integration of operant and/or operand resources. They further suggest that the misuse of resources by the systems might stem from accidental or intentional behaviors. Their proposed model of value co-destruction can be observed in Figure 7.

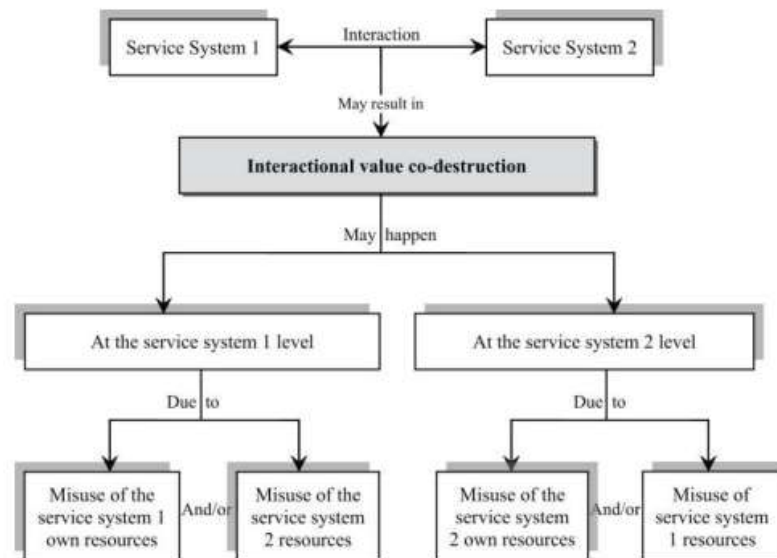


Figure 7. Value co-destruction model (Ple & Chumpitaz-Caceres, 2010)

Echeverri and Skalen (2011), on their exploratory study conducted in the context of public transportation services based on practice theory, defined co-destructive dimension of five different practices separately. In the practice of “informing”, co-destruction occurs “when interactants disagree with each other, obstruct responses, and /or misinterpret or keep information to themselves, displaying disappointment about poor performance” (Echeverri & Skalen, 2011, p. 358). In the practice of “greeting”, co-destruction occurs “when the provider and the customer do not agree on which elements of practices should be drawn on in order to conduct a particular greeting” (Echeverri & Skalen, 2011, p. 360). In the practice of “delivering”, co-destruction occurs when “drivers comply with procedures or apply them too strictly” (Echeverri & Skalen, 2011, p. 361). In the practice of “charging”, co-destruction occurs due to failure in buying a ticket. Lastly, in the practice of “helping”, co-destruction occurs when “provider’s and customer’s presupposed procedures of helping do not level out; the skills and actions of helping do not connect properly

with the other’s needs and procedural understanding, e.g. making a fuss or losing one’s temper when assisting” (Echeverri & Skalen, 2011, p. 364). Even though the definitions provided in this study are quite specific to its context with limited applicability in other contexts, in general we can deduce that the co-destruction behaviors might stem from the service provider or the customer, intentionally or unintentionally, and for various reasons based on the practice. They further explain the resulting behaviors after co-creative and co-destructive incidents with such terms as reinforcing value co-creation (happens after value co-creation and ends with reinforced value), recovery value co-formation (happens after co-creation and co-destruction and ends with recovered co-created value), reductive value co-formation (happens after co-creation and co-destruction and ends with reduced value), and reinforcing value co-destruction (happens after value co-destruction and ends with reinforced co-destructed value). The model that leads to either co-creation or co-destruction of value that is proposed by Echeverri and Skalen (2011) can be observed in Figure 8.

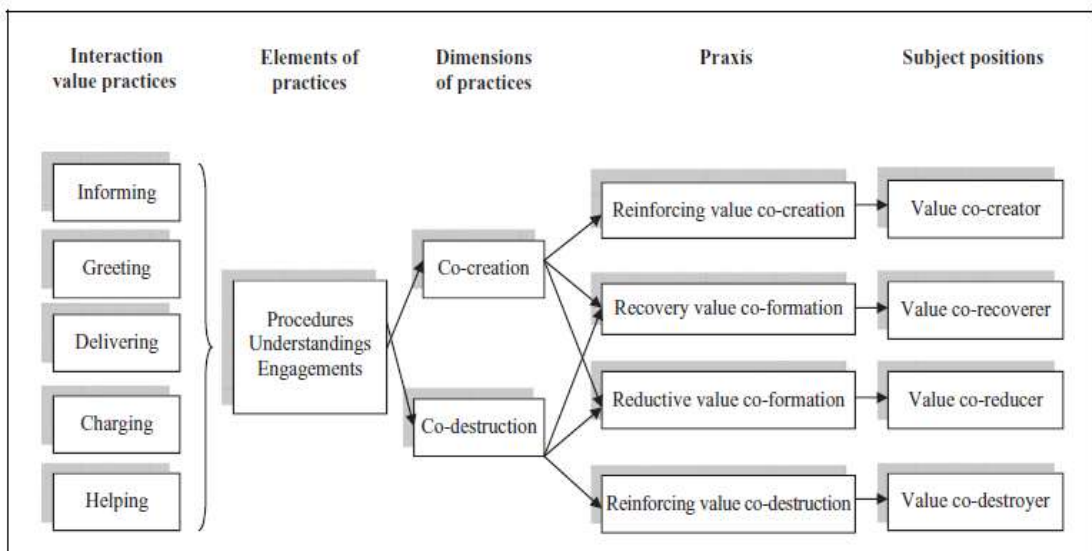


Figure 8. Value co-creation and co-destruction based on practice theory (Echeverri & Skalen, 2011)

Smith (2013) applied COR theoretical approach to analyzing value co-destruction concept in her exploratory study conducted in three shopping centers in the UK. According to the theory of COR, resource loss causes a psychological stress (Hobfoll, 1989) leading to the reactions of people to the situations when there is “a) the threat of a net loss of resources, b) the net loss of resources, or c) a lack of resource gain following the investment of resources” (Smith, 2013, p. 1892). Using a customer resource perspective and the value co-destruction definitions in the literature, the author defines co-destruction as customer’s (system 1) resource misuse and loss of well-being which is caused by one or a combination of the following reasons; “the organization (system 2) unexpectedly fails to fulfill its resource offer (value proposition) by failing to offer expected resources, the resource integration process fails to co-create desired (expected) value in the form of resource gain for the customer, the customer experiences an unexpected loss of stored resources” (Smith, 2013, p. 1893). In other words, there are three levels in which failure in expectation-meeting might occur: 1) fulfillment of resource offer, 2) customer resource gain, and 3) anticipated resource loss. She suggests that the result will be a discrepancy between desired and actual states that will further lead to such emotions that negatively affect customer wellbeing as worry, anxiety, anger, sadness etc. Moreover, the organization’s well-being will also be affected as customers who experience negative emotions will likely to engage in behaviors such as switching, complaining, negative WOM etc. The conceptual model that illustrates the relationships between the variables that is proposed by Smith (2013) is depicted in Figure 9 (wherein “+” implies positive relationship, “-” implies negative relationship).

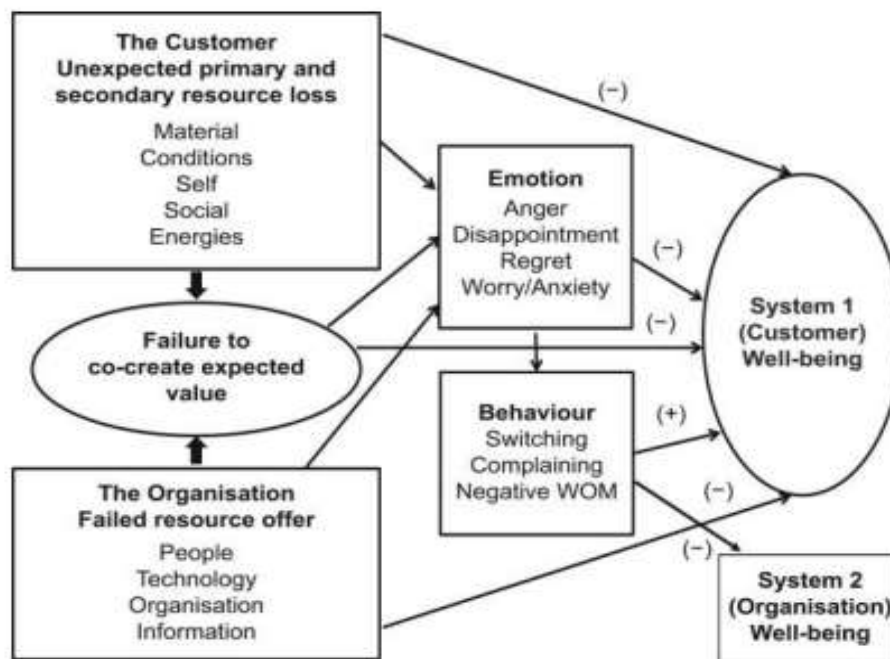


Figure 9. Value co-destruction based on COR theory (Smith, 2013)

The dimensions under the first construct “the customer unexpected primary and secondary resource loss” are mainly adopted from COR by Hobfoll (1989).

Accordingly, material resources refer to “tangible and intangible objects which offer the capacity to achieve a goal or perform some function” (Smith, 2013, p. 1896). For instance, material resource loss happens when a public transport arrives late, a computer found to be defective etc. Esteem (condition/self) resource loss refers to “lack of status or esteem conferred onto the customer” (Smith, 2013, p. 1897). The customers feel “ignored”, “lied to”, “insulted”, or made to “feel bad” when employees behave in manners such as “rude”, “unfriendly”, or “disrespectful”. Self-efficacy (self) related resource loss refers to “not knowing”, “inability to make a decision”, and confusion as a result of failure to receive information.

Support/relationship benefits (social) related resource loss implies lack of

“helpfulness”, “care”, or “concern” that customers experience. Time (energy) related resource loss could be described with such examples as “unexpected time expenditure included queuing” (in person or by telephone), “waiting” for transport or repairs. Money (energy) related resource loss stems from those reasons as “unexpected charges, paying for benefits which were not received / not wanted or failing to receive the required product after the payment was made”. Knowledge (energy) related resource loss implies “need for information to know what was happening”. For instance, people who do not know what they are waiting for in the case of a service delay have a knowledge loss. Physical and emotional effort (energy) resource loss is related to “waiting, frequent visits (in person or by telephone) to the organization” which leads customers to be “tired”, “worn out”, “had to keep going back”. Resource loss related to leisure refers to the lost or spoiled occasions, wasted holidays or free time etc. Resource loss, which is related to hope, happens when customers are given up with no further intentions to try again to gain a resource from the organization. As a result, the subjective wellbeing of the customers is affected through experience of negative emotions such as anger, disappointment, regret, worry etc.

The second construct, which is “the organization’s failed resource offer” are adapted from the resource classification of Maglio and Spohrer (2008). Failed resource offer in people dimension are those such as employee’s negative attitudes and behaviors which causes reduced customer self-esteem, inadequate number of employees which results in time and effort related resources loss for customers etc. In the technology dimension, the organization fails to offer resources such as effective product and system technologies, which causes material resource loss for customers or waste of time and leisure. Failed resource offer in organization

dimension is related to the policies and procedures, which lead to waste of money and reduction in self-efficacy for customers. Lastly, failing in information resource offer implies inefficient communication systems, which result in lack of information and reduced self-efficacy for customers.

The author also identifies the difference between primary and secondary resource loss. After the experience of primary resource loss, the customers are likely to use or integrate other resources to compensate for the primary resource loss. This is called as “protection mechanism” by the author, which is likely to cause a secondary resource loss. In theory of COR, it is called as loss “cycles” (Hobfoll, 1989), or “spirals” (Bacharach & Bamberger, 2007). In other words, the customer who experienced a primary resource loss engage in such coping behaviors as negative word of mouth for social support, switching behavior etc. which restores customer wellbeing while resulting in resource loss for the firm in terms of financial, reputational etc. In this way, the loss cycles between the customer and the firm, while the customer regains resources, the company loses.

A few more studies attempt to explain and explore value co-destruction. One of them is the study of Prior and Marcos-Cuevas (2016) which is based on the actor engagement styles in B2B context that categorizes the type of value co-destruction as “goal prevention” and “net deficit”. The former means that “actor desires are not realized”, and the latter means that “actor experiences excessive (psychological, emotional, and other) costs” (Prior & Marcos-Cuevas, 2016, p. 541). Another study is based on the behavior maintenance theory and applied in the context of social marketing by Zainuddin et al. (2017). They explain the destroyed value (functional, emotional, epistemic) as caused by barriers to physical and mental health such as physical and mental discomfort, time and effort. Finally, yet importantly, Lintula et

al. (2017), after a thorough literature search on the concept, suggest a framework of value co-destruction in three phases; before, in-use, and after; with explanations based on orientation, resources, and perceptions. According to these authors, the co-destruction dimensions in the “before” phase are “lack of resources” and “expectations”, in the “in-use” phase are “goals and intentions”, “misuse and non-integration of resources”, “loss of resources”, “incongruence of applied practices”, “insufficient perceived value”, and “contradictions of value”, and lastly in the “after” phase is “attempt to restore resource”.

Based on value co-destruction discussions in the literature, it can be argued that there is a high level of consensus on the term ‘co-destruction’. In most studies, it is indicated that interactions between consumers and company would result in either positive or negative consequences for at least one party’s well-being. Positive consequences support value co-creation whereas negative consequences cause value co-destruction. Those co-destroyed values found in the limited co-destruction studies are such that functional, emotional, epistemic values (Zainuddin et al., 2017), esteem, self-efficacy, support and relationship benefits (social), material, and energies (those are described as the resources lost as a result of co-destruction by Smith, 2013) etc. Moreover, Quach and Thaichon (2017) identify four types of resources that are either co-created or co-destroyed based on social resource theory; i.e. love, status, information, and services.

3.4 Conservation of resources theory

COR theory (Figure 10) is developed by Hobfoll (1989) to conceptualize stress. This theory is mainly adopted in the context of workplace stress from the employees’ perspective in the literature (e.g. Hobfoll & Shirom, 1993; Ng & Feldman, 2012;

Ojedokun, 2014). The basic tenet of COR theory is that “individuals strive to obtain, retain, foster, and protect those things they centrally value” (Hobfoll, 2011, p. 117).

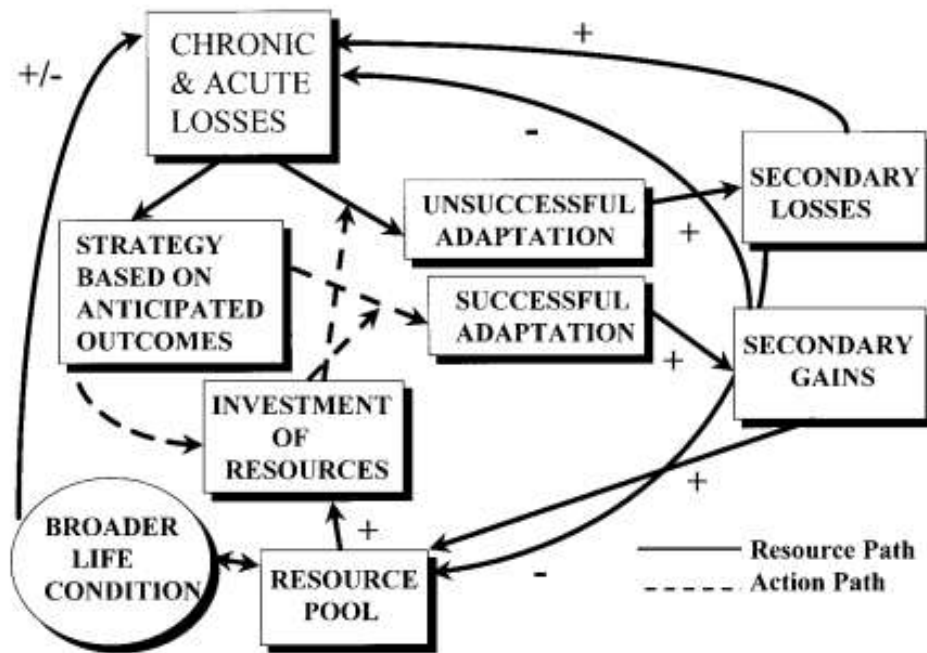


Figure 10. Model of conservation of resources theory (Hobfoll, 2011)

There are two main principles of COR theory:

“Principle 1: The Primacy of Resource Loss. The first principle of COR theory is that resource loss is disproportionately more salient than resource gain” (Hobfoll, 2011, p. 117). This principle tells that losses affect individuals to a greater extent than gains do, assuming the loss and the gain is at the same extent. Furthermore, Hobfoll (2011) claims that resource gains are evaluated by individuals in light of their loss. In other words, gains acquire more importance in the context of losses. This principle is consistent with the prospect theory which claims that the slope of loss is steeper than the slope of gain (Tversky & Kahneman, 1974).

According to the prospect theory, individuals involve in more risk-taking behaviors when an event is taken as a loss than when the same event is taken as a gain.

Furthermore, the COR theory posits that it is not only the actual resource loss but also the risk of resource loss that put individuals in stress.

“Principle 2: Resource Investment. The second principle of COR theory is that people must invest resources in order to protect against resource loss, recover from losses, and gain resources” (Hobfoll, 2011, p. 117). Hobfoll (2011) further suggests that those invested resources are not only economical, but also such abstract resources as time, energy, and trust.

Furthermore, according to the COR theory, there might be two consequences as an outcome of the first two principles: (1) Secondary gains might occur as a result of successful adaptation which brings new resources and offset the conditions related to the primary loss. (2) Secondary losses might occur as a result of unsuccessful adaptation which results in a further diminishment of resources and negative functional and emotional outcomes (Hobfoll, 2011).

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 Research Design

The current dissertation applies a descriptive study with quantitative research design with an intention to investigate the relationships between primary resource loss, resource conservation effort, service quality, secondary resource loss and secondary resource gain constructs in an AS-S context. The study explores relationships in a single point in time, therefore represents a cross-sectional study design. Primary data is collected through distribution of self-administered and structured questionnaires to the target population.

4.2 Measurement Development

As suggested by Hair, Black, Babin, and Anderson, (2018), when there is not a rich theoretical history of the constructs under scrutiny, new scale development is appropriate. Having been based on organizations literature, primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain constructs have not been measured in the marketing field before. In the marketing field, Smith (2013) proposed value co-destruction model and Surachartkumtonkun et al. (2015) analyzed customer rage by utilizing COR theory. Even though these studies explore the applicability of COR theory in a consumption context, they do not provide a scale to measure these constructs. Therefore, the aim of the studies undertaken in this part is to develop multi-item scales of primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain constructs.

Churchill (1979) suggests a procedure to develop multi-item measures for marketing constructs. Multi-item constructs have several advantages over single-item constructs. Churchill (1979) explains the reasons why we need multi-item scales. First, single items tend to have low correlation with the construct being measured due to its narrowness and specificity. Second, single-item scales classify the sample into rather small groups. Third, single-item scales usually have substantial measurement error; therefore, do not produce reliable results. In order to overcome those three measurement difficulties, multi-item scales are suggested (Churchill, 1979). Accordingly, this study applies the suggested procedure for multi-item scale development for marketing constructs by Churchill (1979) to develop scales for primary resource loss, resource conservation effort, secondary resource loss and secondary resource gain in the context of AS-S.

Churchill (1979) suggests that, “Critical incidents and focus groups also can be used to advantage at the item-generation stage” (p. 67). Consumers’ critical incidents are mostly used as data for content analysis in service research (Gremler, 2004). For the purpose of item generation, two studies are conducted. In study 1, consumers’ stories as critical incidents were collected from şikayetvar.com complaint website and subsequently content analysis was employed on these incidents. In study 2, three focus group interviews were conducted. In the current section, these two studies are explained, the generated items are proposed, and their validity and reliability are discussed.

4.2.1 Study 1: content analysis

Content analysis is defined as “a research technique for making replicable and valid inferences from texts or other meaningful matter to the contexts of their use”

(Krippendorff, 2018, p. 18). The current study conducted a content analysis of the stories of customers as critical incidents. Critical incident is described by Gremler (2004) as, “One that makes a significant contribution, either positively or negatively, to an activity or phenomenon” (p. 66). Furthermore, Flanagan (1954) describes critical incident technique as, “Consists of a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles” (p. 327).

The use of critical incidents in service research increased in the last decades due to many advantages it brings; such as its representativeness of the respondent’s perspective with his/her own words, its inductive nature, its ability to generate accurate and detailed record of events, and its ability to provide a rich set of data (Gremler, 2004). Churchill (1979) suggests that the aim at the early stages of item generation is to develop set of items for each dimension of the construct under study. Accordingly, several stages are taken for content analysis to identify dimensions and items for the three constructs at issue; i.e. primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain.

4.2.1.1 Data collection method

Data is collected from a crowd-based complaint website (www.sikayetvar.com) in Turkey, which receives approximately four thousand complaints daily for brands from all sectors. The primary aim of this website is to provide a tool for consumers to voice their complaints so that the targeted company and other consumers will hear them. This tool has become very popular in Turkey among consumers, specifically who have very unfavorable experiences and unresolved problems with the

companies. They explain the critical incidents which disappoint them hoping that they could find support from the company representatives, who are difficult to be reached in other ways. Some companies have turned this website into an opportunity by getting in touch with these disappointed customers and resolving their problems so that they can retain more of their dissatisfied customer base. Those customers, who are delighted by the received services that recover them from their unfavorable situations, re-write on the website to explain what impressed them to the public as a thank you message to the company. This website has become so popular in Turkey that companies have launched new complaint-handling divisions, which handle complaints posted on this website.

The selection of şikayetvar.com as a database for content analysis has several advantages for the current study. Labrecque, vor dem Esche, Mathwick, Novak, and Hofacker (2013) suggest that investigation of how value creation occurs in consumer crowds, specifically those in which consumers try to destroy brands on anti-branding pages, is a valuable research avenue. Analysis of content at şikayetvar.com will provide insights into this avenue. Moreover, consumers explain their experiences in detail publicly on this website. This provides us the opportunity to read and analyze consumers' critical incidents from which we will be able to retrieve information regarding our investigated dimensions. Lastly, it will be possible to collect data with minimum observer effect, which is also known as Hawthorn effect, which may have biased our results. Consumers post their messages without any intention to make a specific impression on the researcher, as they have no previous information about whether they will be investigated. Furthermore, one of CIT method's disadvantages is stated as its retrospective nature as a research method (Gremner, 2004). Hence, this method is criticized for its tendency to be flawed by recall bias (Michel, 2001). It is

possible to overcome this disadvantage to a great extent by collecting data from this complaint website where consumers write their stories right after they experience them.

4.2.1.2 Content selection

The company, regarding which the consumer complaints are content analyzed, is selected based on three criteria. The first criterion is the identified industry, which is “white goods”. The reason for the particular interest in this industry stems from several characteristics of the product category. First, white goods necessitate receiving AS-S when broken, as it is hard for the consumer to fix them due to such special requirements as technical skills, spare parts etc. that should be provided by a professional services company. Moreover, “white goods are high involvement/high risk and functional products” (Eisend, 2009, p. 194). Therefore, these services are demanded from producers’ AS-S division or another private technical service company. Second, consumers usually possess only one unit of each white goods, which results in a bigger impact of its loss. In other words, consumers do not have a back-up solution to satisfy their immediate and necessary needs when they lose their products in the category of white goods. For this reason, the effectiveness of AS-S in the context of recovery of white goods is critical in consumers’ lives. As a result, a filter is used that only selects messages regarding companies that provide white goods.

The second criterion is related to the rate of consumers’ satisfaction messages to complaint messages. Şikayetvar.com is a crowd-based complaint website. Thus, the primary motivation of consumers to write on this website is to post their complaints regarding their unfavorable experiences. When the company resolves

consumers' problems in a way that satisfies or delights them, they also write about it under the category of a satisfaction message. As our focus is to analyze consumers' both favorable and unfavorable experiences in the context of aftersales services, high rate of satisfaction messages to complaint messages is identified as the second criteria. In this way, minimum bias towards unfavorable events in the collected content is aimed. Accordingly, the first hundred companies, which provide white goods, are listed from highest to lowest based on the rate of satisfaction messages to complaint messages they receive from consumers.

Finally, the third criterion that is applied to our company selection is the number of posted stories by the consumers. In order to improve the sample's representativeness of the population, companies that have less than one thousand consumer stories posted on the website are eliminated. As a result, we obtained three producer companies of white goods, which provide AS-S for their products, received the highest satisfaction messages, and received more than one thousand complaints. Among them, one company that provides AS-S in the white goods industry with the highest amount of both complaint and satisfaction messages (17501 complaint messages, 2711 satisfaction messages) is selected.

4.2.1.3 Sample size

The complaint and satisfaction messages for the selected company are randomly selected. These customer stories posted for the selected company at şikayetvar.com were selected by applying simple random sampling to a population of 5391 comments registered during a period of one year (June 2017 - May 2018). The sample size is determined based on the formula suggested by Yamane (1967) as the following;

$$n = \frac{N}{1 + N(e^2)}$$

Where n = sample size; N = Population size; e = margin of error.

At confidence level of 95% and margin of error of less than 5% ($e = 0.05$), the sample size is calculated to be 372 out of the population of 5391 customer stories registered during one year for the selected company. The content of 372 customer stories was analyzed with the utilization of QDA Miner as a tool for coding process in the content analysis.

4.2.2 Study 2: focus group interviews

4.2.2.1 Sample

The participants of focus group interviews were selected from consumers who have either very positive or very negative ASS experiences. A screening question was asked to recruit participants to the focus group. The screening question was “Have you ever experienced a very good or very bad experience with the after-sales services for a broken or failed product?”. In total 18 participants who said yes to the screening question agreed to attend to the focus group interviews.

In total, three focus group interviews were conducted. The size of the first group was 5, the second group was 6, and the third group was 7. The size of the groups was rather small as Morgan (1996) suggests it is more useful to have small groups if the researcher intends to get a full grasp of each participant’s opinion regarding the topic as small groups let each participant talk more. After conducting the third focus group, the data collected so far was deemed adequate as there was no

new information being generated any further. In other words, the saturation was reached after the third interview where it was seen that there was no need for a new one.

The groups were formed based on “acquaintanceship”. The members of each group knew each other. One group consisted of neighbors, one group consisted of colleagues from work, and one group consisted of relatives. Morgan (1996) asserts participants will feel more comfortable to expose their real opinions to the ones they have an acquaintanceship with than the ones who are total strangers. Since the discussion will be on critical incidents that people experience and the way they behave in those instances, it was important to make all participants feel comfortable. Furthermore, homogeneity in terms of age was ensured within each group. As Turkey is a high context culture, talking comfortably with people older than them is not easy. Therefore, the age difference between each participant was kept 7 years at maximum within each group. It is important to ensure not only the homogeneity of the group members based on their background but also the heterogeneity of them based on their attitudes (Morgan, 1996). It is necessary to recruit people with different attitudes towards the subject so that a productive discussion might occur. Therefore, each group consisted of participants that have negative experiences and positive experiences.

4.2.2.2 Conducting interviews

As the participants were not strangers, one of the participants’ house is decided to be the most appropriate site to conduct interviews. Participants would feel comfortable to talk in an environment like home without any disturbance from outside. Therefore,

one of the participants in each group was volunteer to offer his/her home as a site for focus group interviews.

The interview questions were prepared based on the items and dimensions generated as a result of the literature review and content analysis in the previous stages. Therefore, there was a strict agenda for the discussions. Morgan (1996) suggests that both a standardized interview and a higher level of moderator involvement is useful if there is strong preexisting agenda for the research. Morgan (1996) asserts that:

Standardized interview will make sure that all the groups discuss these issues in a relatively comparable fashion. In addition, a higher level of moderator involvement will keep the discussion concentrated on the topics that interest the researchers rather than extraneous issues. (p. 39)

Hence, the level of interview standardization and the moderator involvement could be said to be rather high.

The interview started with taking each participant's consent about the use of an audio-taping device to record the interview. After all agreed, a brief and general introduction about the topic was provided. Instead of conducting fully standardized interviews, funnel method is aimed. Therefore, in the first half of the interviews each participant was allowed to explain their experiences in the way that they want with very little intervention by the moderator. However other participants were allowed to intervene whenever they wanted to add something. Then, in the second part more structured questions were asked. The disadvantage of using this method was that it resulted in long hours of interview sessions. Each interview took approximately 3-4 hours.

4.2.3 Generation of the sample of Items

Stages taken through item generation process are depicted in Figure 11.

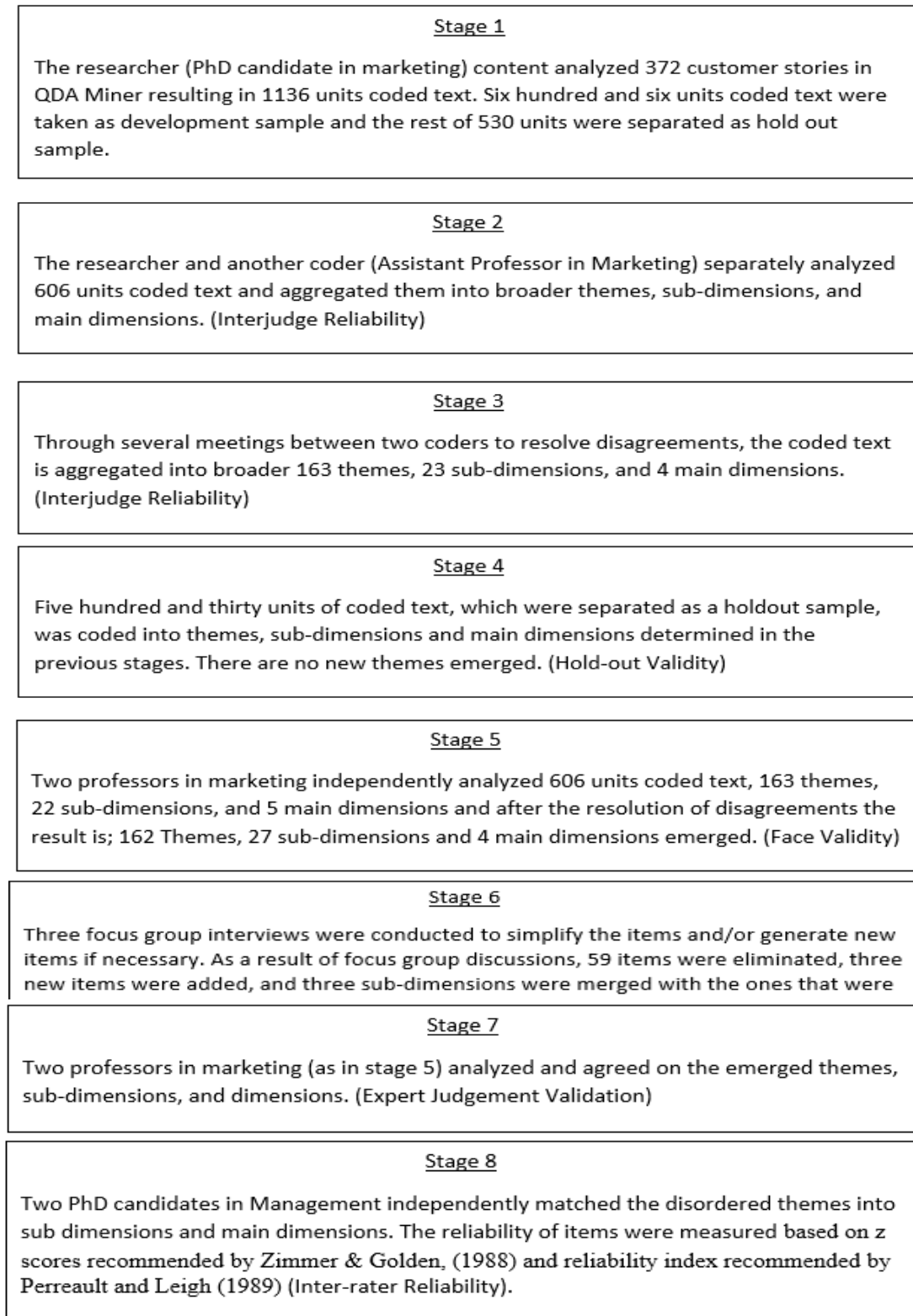


Figure 11. Item generation stages

4.2.3.1 Stage 1 – generation of coded text through content analysis

Churchill (1979) submits that similar statements might embrace several different meanings; thereby produce different answers. Furthermore, Churchill (1979) proposes that double-edged statements should be divided into two parts to make sure each statement has a single idea. Therefore, in the first stage, all statements with even slight differences in meanings are included in the item tool so that the eventual measure can have better grounds. Moreover, all statements are partitioned into parts of single-meaning statements so that each statement can only be coded under one dimension.

QDA Miner is utilized as a tool for coding process in the content analysis. The content of 372 customer stories that incorporate both customers' complaints and satisfaction messages was analyzed. As a result of the first stage, 1136 single-meaning statements are generated. Out of 1136 items, 530 items were set aside as a hold-out sample which would be used for validation at stage 4.

4.2.3.2 Stage 2 – aggregation of coded text into themes, dimensions, and sub dimensions

Reliability analysis is strongly recommended for all CIT studies that use content analysis approach (Gremler, 2004). Reliability analysis could be carried out in two ways; intrajudge reliability and interjudge reliability. The former detects the consistency of judgments over time by the same judge, while the latter detects the level of agreement of two or more coders on coding the statements in a particular way (Perreault & Leigh, 1989). As Gremler (2004) reports that most of the content analytic CIT studies employ interjudge reliability, current study attends to ensure reliability through an interjudge coding process.

The first coder is the researcher that conducts the current study, therefore has a better knowledge about the context. The second coder has a Ph.D. in marketing; therefore, she is very familiar with the marketing concepts. However, since she did not have any prior knowledge about the study, training was necessary to get her familiar with the coding scheme and operational definitions, which is strongly recommended to increase reliability (Gremler, 2004; Kolbe & Burnett, 1991). Accordingly, the second judge was trained by giving the operational definitions and domain of each construct at issue and providing information regarding the categories and sub-categories applied for these constructs previously in the literature. An information sheet is provided to the second coder for that purpose, and a discussion session is conducted so as to make sure that two judges have the same background knowledge before starting the coding separately (Appendix D).

Krippendorff (2018) proposes to confirm semantic validity for content analysis. Semantic validity is defined as “the degree to which the analytical categories of texts correspond to the meanings these texts have for particular readers or the roles they play within a chosen context” (Krippendorff, 2018, p. 323). In order to ensure semantic validity, two coders agreed that they would attempt to interpret statements based on the categories found in the literature that had a basis on COR theory, and add new ones with a lens of COR theory if the statement did not fit in any categories from the literature.

4.2.3.3 Stage 3 – interjudge reliability

The coding process, which involves aggregating 606 units of statements into dimensions and sub-dimensions, took approximately 4 months (June 2018 – October 2018). In this period, two coders came together to share and discuss their findings. At

the end of these meetings held to resolve disagreements, the items were aggregated into 163 themes, 23 sub-dimensions, and four main dimensions.

4.2.3.4 Stage 4 – holdout validity

Gremler (2004) suggests that employing holdout samples is a way to pretest a classification pattern. It entails dividing the incidents into two parts and using one part for the development of categories and the other part for validation. Krippendorff (2018) also suggests split-half technique where sample is divided into two parts of equal size randomly to check whether these two parts give the same results. In several CIT studies, holdout sample is integrated as a part of the analysis (e.g. Mangold, Miller, & Brockway, 1999; Michel, 2001, Ponsignon, Smart, Williams, & Hall, 2015). Therefore, initially generated 1136 units of coded text was divided into two parts where 606 units of coded text was employed as a development sample, and 530 units of coded text were set aside to validate the results.

4.2.3.5 Stage 5 – expert judgment

Expert judgment is employed to ensure face validity of the themes emerged as a result of the previous coding process. Krippendorff, (2018) defines face validity as ““obvious” or “common truth”” (p. 313). For the purpose of confirming face validity of the constructs to make sure that emerged dimensions, sub-dimensions, and themes “make sense” (Krippendorff, 2018, p. 313), 606 units of statements, 163 themes, 23 sub-dimensions, and four main dimensions were sent to two professors in marketing at Boğaziçi University. Both professors are specialized in and giving lectures on services marketing. Among them, one professor has a special knowledge of AS-S as she conducted various studies in this context. Therefore, their expert opinions were

deemed important for the face validity of the constructs. The content was shared with them by sending an e-mail in an excel sheet with the above-mentioned information. This process took approximately two months (October 2018 – December 2018). After 2 months, the researcher and two professors came together to discuss the constructs. At this meeting, all disagreements were resolved. As a result of this stage, 162 themes, 27 sub-dimensions, and four main dimensions emerged.

However, according to expert opinions of two professors, there was one concern that limited the generalizability of emerged themes: The data had a bias on negative experiences of consumers, as it was retrieved from a complaint website. Therefore, we agreed on the necessity of conducting another study that would equally incorporate consumers who experienced critical incidents at positive and negative edges. For this reason, three focus group interviews were conducted, which will be explained in the following section.

4.2.3.6 Stage 6 - focus group interviews

Morgan (1996) explains different uses of focus groups by linking them with other studies. One benefit of focus groups lies in their contribution to the generation of survey items. Morgan (1996) proposes three ways that focus groups contribute to the item generation process, “(a) by capturing all the domains that need to be measured in the survey, (b) by determining the dimensions that make up each of these domains, and (c) by providing item wordings that effectively convey the researcher’s intent to the survey respondent” (p. 25).

Consistently, the purpose of conducting focus group interviews was threefold. The first reason for focus group interviews was to resolve the limitation of content analysis in its representativeness of the positive edge of the critical incidents.

Accordingly, the aim was to make sure that all domains and dimensions were captured with the measurement items developed in the previous stages. Second, the emerged themes were pre-tested to see whether these measures were perceived by the consumers in a way that was intended by the researcher. Churchill (1979) suggests that the item generation process should proceed with item editing near the end to make sure that the wording of the statements would be precise. Based on the focus group discussion with consumers, the wording of the statements were refined. Finally, the third reason for conducting focus group interviews was to simplify items. When those items, with low frequency in the content analysis, were not also found relevant in the focus group interviews, they were deleted or merged with other items if they were perceived to have same meanings. Morgan (1996) suggests that focus groups help researchers have a full picture of consumer's perceptions instead of relying on their own assumptions about what is relevant. Hence, instead of deleting or merging items with low frequencies at content analysis stage based on my own assumptions, observing focus group participants' thinking provided more reliable information about what is relevant.

All interviews were transcribed by the researcher. These transcriptions were coded as it was done in the content analysis stage previously. There are three ways to code focus group transcripts as proposed by Morgan (1996), "To note (a) all mentions of a given code, (b) whether each individual participant mentioned a given code, and (c) whether each group's discussion contained a given code" (p. 60). The third one was applied for coding these transcripts: it was noted if all the items generated in previous stages were mentioned in each focus group transcript. If an item with low frequency derived from the content analysis was not also mentioned in any of the focus groups, it was eliminated. When those items that had close meanings

to each other were perceived as the same question and generated the same answers by all the groups they were either eliminated or merged.

As a result, in total 59 items were deleted, and 3 items were added.

Nevertheless, no new sub dimensions were generated. The resulting dimensions, themes and frequencies and illustrative quotations are depicted in Table E1 for Primary Resource Loss construct, in Table E2 for Resource Conservation Effort construct, in Table E3 for Secondary Resource Loss construct, and in Table E4 for Secondary Resource Loss construct in Appendix E.

4.2.3.7 Stage 7- face validity of emerged items

After finalization of the item generation process, the generated items were provided to the judgment of two professors (as in stage 5) to make sure that revised wordings and simplified statements make sense. After receiving their consent regarding the relevancy of the finalized items, it is proceeded with the reliability analysis in stage 8.

4.2.3.8 Stage 8 - reliability analysis of emerged items

For the inter-rater reliability, two researchers (Ph.D. candidates in Management), who had not been involved with the study before, independently coded 108 themes into 24 sub-dimensions and 4 main dimensions. Reliability was measured based on the following formula proposed by Perreault and Leigh (1989);

$$R = \sqrt{\left(\left(\frac{F}{N}\right) - \left(\frac{1}{k}\right)\right) \left(\frac{k}{k-1}\right)}$$

Where F = number of agreed themes; N = total number of themes; k = number of categories.

The reliability of the primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain categories are found to be acceptable with scores of, respectively, 0.88, 0.91, 0.85, 0.81 between Coder 1 and Coder 2; 0.88, 0.95, 0.93, 0.87 between Coder 2 and Coder 3; and 0.88, 0.91, 0.80, 0.90 between Coder 2 and Coder 3 (Table 2). The average Perreault and Leigh's reliability index of 22 studies investigated by Gremler's (2004) systematic review of CIT studies in service research, is calculated as 0.85. Gremler (2004) indicates that there is an informal but generally accepted rule of thumb that the lower limit for the coding decisions to be reliable is 0.80. Therefore, based on the Perreault and Leigh's reliability index, the coding decisions in this study can be concluded as being reliable.

Furthermore, z scores are calculated based on the following formula explained by Zimmer and Golden (1988);

$$Z = \frac{k-E}{\sqrt{np(1-p)}}$$

Where n = total number of themes, k = number of matching out of n, E = expected number of matches or (E = n / number of categories), p = probability that two judges will assign a theme to the same category by chance or (1/number of categories) (Alvarez, Yarcán, & Inelmen, 2006).

The z scores are found for primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain categories as, respectively, 3.92, 10.25, 12.54, 7.42 between Coder 1 and Coder 2; 3.92, 11.37, 15.27, 8.50 between Coder 1 and Coder 3; 3.92, 10.25, 11.17, 9.03 between Coder 2 and Coder 3. Zimmer and Golden (1988) suggest that the probability that different judges would assign themes to the same category by chance is very low with a z-score of at least 2.33 as it corresponds to an alpha of .01. Since the z score achieved for each construct exceeds 2.33, it can be concluded that the three pairs of judges' number of matches for each construct is significantly higher than would be attributable to chance alone (Table 2).

Table 2. Reliability Analysis between Three Coders

Coder 1 and Code 2	Primary Loss	Conservation Effort	Secondary Loss	Secondary Gain	Total
Total Number of Themes	13	26	44	25	108
Number of Matches	11	22	33	18	84
Number of Categories	3	7	8	6	24
Percentage Matching	0.85	0.85	0.75	0.72	0.78
Z score	3.92	10.25	12.54	7.42	38.28
R	0.88	0.91	0.85	0.81	0.88
Coder 1 and Code 3	Primary Loss	Conservation Effort	Secondary Loss	Secondary Gain	Total
Total Number of Themes	13	26	44	25	108
Number of Matches	11	24	39	20	94
Number of Categories	3	7	8	6	24
Percentage Matching	0.85	0.92	0.89	0.80	0.87
Z score	3.92	11.37	15.27	8.50	43.10
R	0.88	0.95	0.93	0.87	0.93
Coder 2 and Code 3	Primary Loss	Conservation Effort	Secondary Loss	Secondary Gain	Total
Total Number of Themes	13	26	44	25	108
Number of Matches	11	22	30	21	84
Number of Categories	3	7	8	6	24
Percentage Matching	0.85	0.85	0.68	0.84	0.78
Z score	3.92	10.25	11.17	9.03	38.28
R	0.88	0.91	0.80	0.90	0.88

4.2.3.9 Results of the item generation process

Study 1 and study 2 propose empirical support for the role of four main dimensions derived from the COR theory in the context of AS-S. Accordingly, consumers' AS-S experience starts with the consumers' usage disruptions and resulting losses in product's value-in-exchange, value-in-use, and value-in-context (primary resource loss). Consumers, subsequently, devote such kinds of effort as financial, legal, mental, physical, punitive, relational, and temporal to conserve their possessions (resource conservation effort). As a result, they end up with various types of losses and gains (secondary resource loss and secondary resource gain). The secondary losses that they incur are loss of trust in the brand, loss of consumer rights, financial loss, material loss, psychological loss, self-esteem loss, lack of social support, and time loss. On the other hand, the secondary gains they receive are convenience gain, financial gain, material gain, self-esteem gain, social support gain, and time gain. Tables E1, E2, E3, and E4 in Appendix E illustrates related sub-dimensions, items, illustrative quotations and frequencies mentioned by consumers generated for the constructs Primary Resource Loss, Resource Conservation Effort, Secondary Resource Loss, and Secondary Resource Gain respectively.

4.2.4 Data collection and purification of items

A questionnaire is developed based on the items generated via content analysis and focus group interviews and distributed to the consumers in secondary gain (value co-creation) and in secondary loss (value co-destruction) situations. In total 215 answers are collected from consumers who are in secondary gain situations, and 207 answers are collected from consumers who are in secondary loss situations in the end

of after-sales service processes. The data is analyzed through exploratory and confirmatory factor analysis on SPSS version 25.

4.2.4.1 Exploratory factor analysis

Exploratory Factor Analysis is applied to the loss and gain sample separately. All dimensions in the model, namely primary resource loss, resource conservation effort, secondary resource loss, service interaction quality, and satisfaction for the conceptual model of loss; and primary resource loss, resource conservation effort, secondary resource gain, service interaction quality, and satisfaction for the conceptual model of gain, are included in the factor analysis. For both samples, principal component analysis based on Eigen Values greater than 1 as an extraction method and Varimax as rotation method is applied.

The factor loadings which are below 0.4 are defined as insignificant (Hair et al., 2018). Hair et al. (2018) suggest that factor loadings which are not significant, which have cross-loadings or unacceptable communalities necessitate re-specification of the factor analysis through various options; such as deleting the item, using another rotation technique, decreasing the number of factors, or simply ignoring the cross-loading and insignificant factor loading. In order to solve issues of items which are insignificant or have cross-loading, these recommended options were utilized. Other rotation techniques (Quartimax, Equamax, Promax, and Direct Oblimin) were applied and the number of factors were fixed to a smaller amount (instead of using Eigenvalues greater than 1). However, these options did not eliminate the problem. Ignoring cross-loading and keeping the problematic items is an option that is mostly recommended when there is strong theoretical evidence for the existence of the item within the factor so that the construct validity will not be

jeopardized. Since all items in the dataset are generated in this study from the field through content analysis and focus group interviews, and the aim of the factor analysis at this stage is purification and simplification of the items, the option of deleting those items which have cross-loadings and insignificance has finally been applied. Before deleting each item, reliability analysis is conducted for the related factor and the scale if item deleted scores are checked. It was observed that Cronbach's Alpha scores of the factors increase when those problematic items are deleted. As a result, all items which are insignificant and have issue of cross-loading are deleted.

Exploratory factor analysis is conducted again with the remaining items by applying principal component analysis based on Eigen Values greater than 1 as an extraction method and Varimax as rotation method. The remaining items under each factor are successfully loaded into the related factor without cross-loadings (none of the items are loaded into another factor with over 0.5) which shows discriminant validity. Furthermore, convergent validity can be said to be attained as all items have loadings over the recommended threshold, which is 0.6. Furthermore, AVE (which is recommended to be over 0.5 for convergent validity) and composite reliability (which is recommended to be over 0.7 for reliability) is calculated for each factor with the following formula;

$$\text{Average Variance Extracted (AVE)} = \frac{\sum \lambda^2}{n}$$

$$\text{Composite Reliability (CR)} = \frac{(\sum \lambda)^2}{(\sum \lambda)^2 + (\sum \varepsilon)}$$

The results show that the data has successfully passed convergent validity and composite reliability tests as well with all the AVE's over 0.5 and all the composite reliabilities over 0.7. As a result of factor analysis, 79.44% of the variance in the loss sample, and 75.11% in the gain sample is explained.

As a result of item deletion process, the generated factors and the items are depicted in Table F1 for secondary gain conceptual model and in Table F2 for secondary loss conceptual model in Appendix F.

4.2.4.2 Evaluation of latent structure: confirmatory factor analysis

After the generation of factors in the exploratory factor analysis, these factors are tested through confirmatory factor analysis with the utilization of SPSS AMOS. The secondary resource loss and gain samples are investigated separately, as it was in the exploratory factor analysis.

The constructs of the AS-S experiences with secondary gain model that illustrates the correlations between the dimensions and the items related to those dimensions are depicted in Appendix G. The standardized regression weights of all items under each construct in the secondary gain model are depicted in Appendix H. Furthermore, the constructs of AS-S experiences with secondary losses model that illustrates the correlations between the dimensions and the items related to those dimensions is depicted in Appendix I. The standardized regression weights of all items under each construct in the secondary loss model are depicted in Appendix J.

The secondary resource gain model fit values are represented in Table 3, and the secondary resource loss model fit values are depicted in Table 4 with the threshold values proposed by Hair et al. (2018) for models with the number of observed variables (m) over 30.

Table 3. Model Fit of the Constructs in the Secondary Loss Model

Measure	Threshold (for m > 30)	Model values
X ²	Significant values expected	0.000
Chi-square (CMIN)		809.503
Degrees of Freedom (df)		448
Chi-square / df (cmin/df)	< 3 good; < 5 sometimes permissible	1.807
CFI	> .90	.907
SRMR	< .08 or less	.0574
RMSEA	Values < .7 with CFI of .90 or higher	.061

Table 4. Model Fit of the Constructs in the Secondary Gain Model

Measure	Threshold (for m > 30)	Model values
X ²	Significant values expected	0.000
Chi-square (CMIN)		803.815
Degrees of Freedom (df)		417
Chi-square / df (cmin/df)	< 3 good; < 5 sometimes permissible	1.928
CFI	> .90	.903
SRMR	< .08 or less	.0613
RMSEA	Values < .7 with CFI of .90 or higher	.067

Furthermore, the Secondary Gain measurement model GFI value is .867, and AGFI value is .813, and the Secondary Loss measurement model GFI value is .830, and AGFI value is .780. The GFI values between 0.8 and 0.9 means acceptable fit (Greenspoon & Saklofske, 1998; Forza & Filippini, 1998; Al-Mamary & Shamsuddin, 2015). It is only the AGFI value of the conceptual model with secondary losses that is below the recommended range (below .80). This should be noted as a limitation for the secondary loss conceptual model fit. However, taken all indicators together, the measurement model fit values of both conceptual models indicate acceptable fit.

4.2.5 Results of the Measurement Development Process

In order to develop constructs of primary resource loss, resource conservation effort, secondary resource loss and secondary resource gain, Churchill's (1979) multi-item scale development model is utilized in the current study. While the items are generated through literature review, content analysis, and focus group interviews, they are purified with the collection of survey data and application of exploratory and confirmatory factor analysis. As a result, sub-dimensions and multi-item scales for each sub-dimension are generated. Sub-dimensions for each construct are depicted in Figure 12.

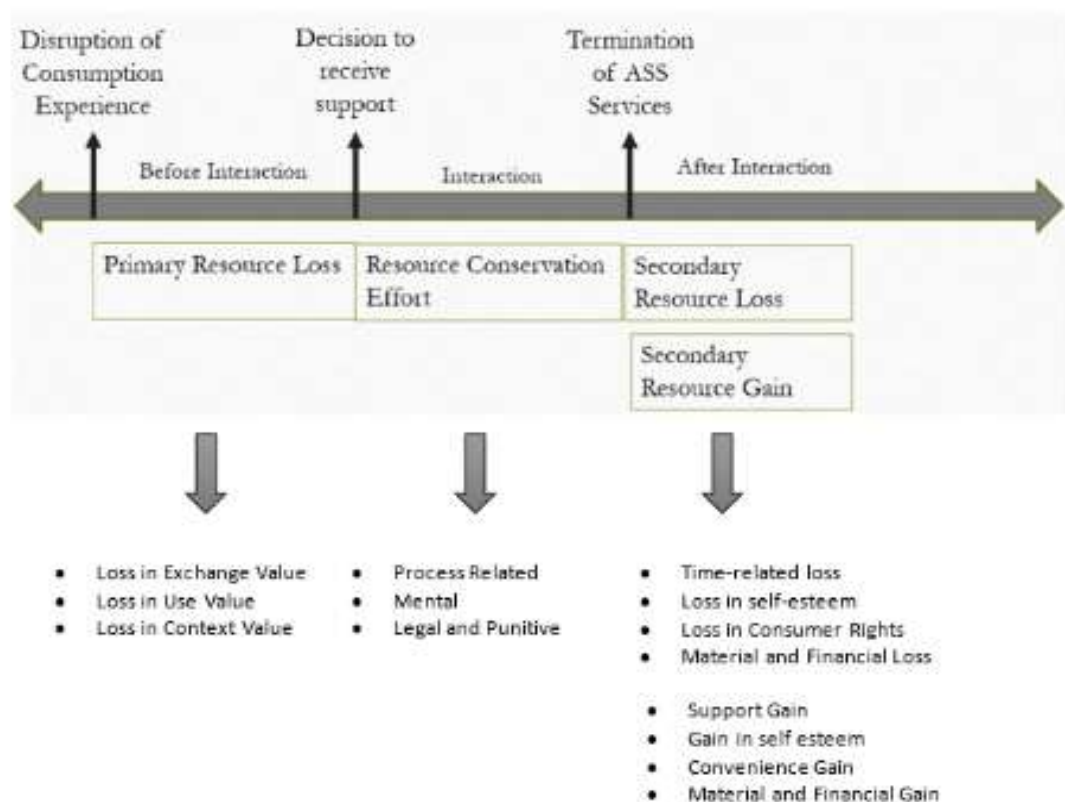


Figure 12. Generated sub-dimensions of COR theory constructs in AS-S context

According to the SDL that is suggested by Vargo and Lusch (2004, 2008), all products are service tools that provide value to the consumers in three ways: value-

in-exchange, value-in-use, and value-in-context (for further information, please see literature review chapter). Correspondingly, the results of content analysis of stories registered on şikayetvar.com complaint website and three focus group interviews, and subsequent exploratory and confirmatory analysis of survey results revealed that when consumers come across with a problem in their products, they experience three kinds of losses, namely loss in exchange value, loss in use-value, and loss in context value. Those losses that consumers encounter as a result of product break-down are called primary losses in this study. Primary losses are distinct from secondary losses. While the former refers to the initial losses that consumers experience that push them to engage in recovery efforts, the latter refers to the losses that emerge as a result of an unsuccessful recovery process of AS-S.

Hence, it is found that primary resource loss construct entails sub-dimensions of loss in exchange value, loss in use-value, and loss in context value.

Exchange value refers to the value of the product that is expected by the customer at the point of purchase. Loss in exchange value refers to the failure in receiving this value. For instance, consumers expressed those losses through these words: “It has been only a month since I bought the TV. I am sorry for the money I paid for it”; “I bought it with a warranty of 7 years. However, suddenly it decreased to 5 years”. Loss in use value refers to the diminished usage experiences with the product. Those expressions such as “I cannot use it with full performance and quality anymore”; “The fridge has been giving the same failure repeatedly for the last 2 years” indicate consumers losses in use-value. Finally, loss in context value refers to the losses that result in diminished contextual situation of the consumers. Value-in-context is defined as the value dependent on time, location, lack of alternatives, and uncertain conditions (Gummerus & Pihlström, 2011). Consistently, loss depending

on time and lack of alternatives is evident on a women's expression on a wintertime: "My child is sick, and we don't have anything else to warm the house"; and uncertain conditions that stem from lack of money is evident on a consumer's expression, which is "I cannot afford service fee they asked me to pay. I am looking for a cheaper way to resolve the situation".

Furthermore, the current study also reveals that resource conservation effort construct is separated into three sub-dimensions, which are process-related, mental, and legal and punitive. Process related effort refers to the consumers' actions in AS-S process in interaction with the service personnel. Those efforts entail such actions as calling the call center, waiting for the service personnel etc. Mental effort refers to the effort that consumers put in order to comprehend the situation cognitively either by making external search, e.g. searching the blogs to find a solution to their problems or trying to understand the problem by asking the service personnel. Consumers intend to decrease their tension by acquiring information about the situation. In other words, as a coping strategy for their losses, their intention is to gain knowledge. Lastly, legal/punitive effort occur as a result of consumer's incurrence of secondary losses and their resulting motivation to conserve those secondary resources by taking the issue to the third parties.

Moreover, secondary resource loss construct involves time-related loss, loss in self-esteem, loss in consumer rights, and material and financial loss. Time-related loss refers to the consumers' perceived waste of their time or other opportunities due to excessive time spent on the service. Loss in self-esteem refers to the feelings of diminishment with regards to the self as a result of negative service experiences (e.g. feeling invaluable as a customer, feeling blamed or deceived). Loss in consumer rights refers to the consumers' perceived violation of their rights by the company or

the service (e.g. rights related to the sale of defected product, rights that come with a warranty). Finally, material and financial loss refer to the further diminishment of customer's monetary (e.g. unnecessary or excessive payment of service fee) and/or material resources (e.g. unresolved technical problems of the product).

Lastly, secondary resource gain construct has sub-dimensions of support gain, gain in self-esteem, convenience gain, and material and financial gain. Support gain refers to the help, support, and understanding that consumers feel through the process from the service and the firm (e.g. someone who is in touch with the customer and who provides constant support through the process). Self-esteem gain refers to the positive feelings with regards to the self as a result of positive service experiences (e.g. feeling like a priority customer, feeling special). Convenience gain refers to the relief that consumers feel by the availability of solutions to the troublesome and bothersome situation that they are in (e.g. provision of a temporary product until the problem with the customer's product is resolved). Finally, material and financial gain refers to the compensation of customer's problem through monetary (e.g. refund) and material terms (e.g. replacement with a higher version).

4.3 Operationalization of the Constructs

Utilizing the procedure proposed by Churchill (1979) for new scale development of marketing constructs, the scales of the constructs of primary resource loss (i.e. loss in exchange value, loss in use-value, loss in context value), resource conservation effort (i.e. mental, process-related, legal and punitive), secondary resource loss (i.e. loss in self-esteem, loss in consumer rights, time loss, material and financial loss), and secondary resource gain (gain in convenience, gain in support, material and financial gain, gain in self-esteem) are developed. Even though some of these issues such as

loss in self-esteem and loss in time are already existing in the literature, they do not fit into the AS-S context, therefore required measurement development.

Furthermore, service quality and satisfaction measures are adapted from the literature. Service interaction service proposed by Brady and Cronin (2001) deemed to be the most appropriate quality scale in this study for several reasons. First, the joint sphere in the model, which is developed based on SDL, encompasses joint attempts of customers and the service provider in interaction for AS-S value co-creation. Accordingly, the quality of these service interactions is in our primary focus in the joint sphere. Second, the service quality scale developed by Brady and Cronin (2001) integrates, synthesizes, and consolidates different service quality scales in the literature: the Nordic Model (Grönroos, 1984), the SERVQUAL model (Parasuraman et al., 1988), the Three-Component Model (Rust & Oliver, 1994), and the Multi-level Model (Dabholkar, Thorpe, & Rentz, 1996). Considering the appropriateness of the interaction service quality scale's appropriateness for the current study and the scale's theoretical foundation on renowned quality scales in the literature, interaction service quality dimensions, i.e. attitude, behavior and expert quality, are included in the joint sphere part of the conceptual model. Lastly, satisfaction is a one-dimension multi-item scale, which is adapted from Voss, Parasuraman and Grewal (1998).

All variables under scrutiny are latent therefore cannot be directly observed. Observable items need to be identified for latent variables to be measured. For latent variables, multi-item scales that would include two or more items are suggested so that accurate measures of these constructs can be obtained (Jensen & Hansen, 2006). Therefore, it is ensured in the development of constructs through exploratory study that there are two to four items for each dimension of the main constructs. Each construct and its corresponding items are demonstrated in Tables 5-10.

Table 5. Primary Resource Loss Measure

PRIMARY RESOURCE LOSS	
Loss in Value-in-Exchange	Developed in the current dissertation
<ol style="list-style-type: none"> 1. Loss in monetary value of the product 2. Loss in product guarantees (warranty period etc.) 3. Actual loss of or the risk of losing the product itself 	
Loss in Value-in-Use	Developed in the current dissertation
<ol style="list-style-type: none"> 1. Repeated failures while using the product 2. Failures in some of the functions while using 3. Damage / fear of damage that the broken product causes on personal belongings / food and beverages / personal health etc. 	
Loss in Value-in-Context	Developed in the current dissertation
<ol style="list-style-type: none"> 1. Facing harder living conditions due to lack of budget for replacement 2. Facing harder living conditions due to lack of budget to afford service fee to fix the problem 	

Table 6. Resource Conservation Effort Measure

RESOURCE CONSERVATION EFFORT	
Process related effort	Developed in the current dissertation
<ol style="list-style-type: none"> 1. I spent time waiting for the service team assigned to my case 2. I spent time explaining the problem to the service provider 3. I spent time waiting for the service provider to fix the problem 4. I tried to get in touch with the service team assigned to my case 	
Mental Effort	Developed in the current dissertation
<ol style="list-style-type: none"> 1. I tried to understand the product's problem by searching about it 2. I tried to understand the problem service providers identified 3. I tried to come up with solutions to fix the problem 	
Legal/Punitive Effort	Developed in the current dissertation
<ol style="list-style-type: none"> 1. I took legal actions to protect my rights 2. I searched about my consumer rights to fight for them 3. I posted / threatened the company about posting complaint messages on social media 	

Table 7. Secondary Resource Loss Measure

SECONDARY RESOURCE LOSS	
Time Related Loss	Developed in the current dissertation
<ol style="list-style-type: none"> 1. I fell behind of my jobs when I had to wait / deal with the service provider 2. I wasted time when the solution process was kept longer than expected 3. I wasted time when I waited for the service provider to get in touch with me 4. I wasted time when I was trying to get in touch with someone authorized 	
Material and Financial Loss	Developed in the current dissertation
<ol style="list-style-type: none"> 1. The warranty was ended / shortened after replacement or repair 2. Service provider placed spare parts with poor quality 3. The spare parts needed to repair the product were not available 4. I sustained a monetary loss as I had to pay to the service provider that did not take any action to fix the problem 	
Consumer Rights Loss	Developed in the current dissertation
<ol style="list-style-type: none"> 1. My consumer rights regarding product replacement or refund was violated 2. My consumer rights regarding the defected products was violated 3. My consumer rights regarding the product warranty was violated 	
Self-Related Loss	Developed in the current dissertation
<ol style="list-style-type: none"> 1. I feel that I was deceived by the company and / or the service provider 2. I feel that I was blamed by the company and / or the service provider 3. I felt worthless as a customer of this company 	

Table 8. Secondary Resource Gain Measure

SECONDARY RESOURCE GAIN	
Material and Financial Gain	Developed in the current dissertation
<ol style="list-style-type: none"> 1. I was given a refund for the broken / defected product 2. I was given a gift to make up for the problems that I have been experiencing 3. I was given a refund for the unnecessary service fee 4. I was given an improved model in replacement for the broken / defected product 	
Convenience Gain	Developed in the current dissertation
<ol style="list-style-type: none"> 1. My living conditions were improved by the back-up product provided by the service provider and/or the company during repair 2. My living conditions were improved by the solutions provided by the service provider / company 3. I feel that continuous notifications about the process provided some relief from my distress about uncertainties 4. I feel that my psychological distress was relieved when the service personnel approached my problematic situation with understanding 	
Support Gain	Developed in the current dissertation
<ol style="list-style-type: none"> 1. I feel I was provided with support by the company regarding my problems with the product 2. I feel I was provided with support by the company regarding my problems with the service 3. I feel that I had always someone from the company / service provider whom I can easily get in touch with during the whole process 4. I feel that the customer representatives were very helpful to me 	
Self-Related Gain	Developed in the current dissertation
<ol style="list-style-type: none"> 1. I feel that I contributed to the service quality as a consumer 2. I feel that I was provided with a special and individualized care 3. The service personnel approached very kindly to me 	

Table 9. Service Interaction Quality Measure

SERVICE INTERACTION QUALITY	
Attitude Quality	Adapted from Brady and Cronin (2001)
<ol style="list-style-type: none"> 1. You can count on the employees at XYZ being friendly. 2. The attitude of XYZ's employees demonstrates their willingness to help me. 3. The attitude of XYZ's employees shows me that they understand my needs. 	
Behavior Quality	Adapted from Brady and Cronin (2001)
<ol style="list-style-type: none"> 1. I can count on XYZ's employees taking actions to address my needs 2. XYZ's employees respond quickly to my needs 3. The behavior of XYZ's employees indicates to me that they understand my needs 	
Expertise Quality	Adapted from Brady and Cronin (2001)
<ol style="list-style-type: none"> 1. You can count on XYZ's employees knowing their job. 2. XYZ employees are able to answer my questions quickly 3. The employees understand that I rely on their knowledge to meet my needs 	

Table 10. Overall Service Satisfaction Measure

Overall Service Satisfaction	
Service Satisfaction	Adapted from Voss, Parasuraman and Grewal (1998)
<ol style="list-style-type: none"> 1. I was satisfied with the service provided. 2. I was delighted with the service quality provided. 3. I was unhappy with the level of service provided 	

In the questionnaire, all items are measured on a five-point Likert scale as shown in

Table 11.

Table 11. Scale Type and Intervals of the Main Constructs

Latent Variables	5-Point Scale Intervals
Variables of Primary Resource Loss Construct	Likert scale from 1 (<i>never</i>) to 5 (<i>too much</i>)
Variables of Resource Conservation Effort	Likert scale from 1 (<i>never</i>) to 5 (<i>too much</i>)
Variables of Interaction Service Quality	Likert scale from 1 (<i>definitely do not agree</i>) to 5 (<i>definitely agree</i>)
Variables of Secondary Resource Loss	Likert scale from 1 (<i>never</i>) to 5 (<i>too much</i>)
Variables of Secondary Resource Gain	Likert scale from 1 (<i>never</i>) to 5 (<i>too much</i>)
Satisfaction	Likert scale from 1 (<i>definitely do not agree</i>) to 5 (<i>definitely agree</i>)

4.4 Questionnaire Development and Design

In order to test the reliability and validity of the constructs emerged in this study and answer the related research questions with regards to the relationships between constructs of primary resource loss, resource conservation effort, secondary resource loss, secondary resource gain, service quality and satisfaction, quantitative research design is applied and a standardized questionnaire is prepared for data collection .

The questionnaire (Appendix K) is composed of six main sections that form the main constructs of the conceptual model: namely primary resource loss, resource conservation effort, secondary resource loss, secondary resource gain, service quality, and satisfaction. Along with the sections related to the main constructs of the conceptual model, another section in the questionnaire is devoted to the participants' demographical profile. Questions are asked about age, gender, education, marital status, occupation, monthly salary, number of households, social media usage habits, neighborhood and city where they live.

All items that are originally English (service quality and satisfaction scale items) are translated to the Turkish language. Other construct measures (primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain) are primarily developed in Turkish in the exploratory study; therefore, original statements were used in the survey for those items.

4.5 Target population

The unit of analysis of this study is individuals who have recently received AS-S for one of their products in the white-goods category. Accordingly, one screening question is asked at the beginning of the survey for the respondents to be able to continue with the questionnaire: "Have you recently received an after-sales service

for your product in white-goods category?” Any respondent who gave “no” as an answer to this question was kindly asked to terminate the survey.

Furthermore, the study has two conceptual models that investigate after-sales service experiences that end up with secondary losses and those that end up with secondary gains separately. Therefore, target population and sample is also divided into two: people who define themselves in the gain situation (co-created value) and those who define themselves in the loss situation (co-destructed value) at the end of the after-sales service interactions. Hence, near the end of the questionnaire, respondents are asked to choose whether they believe that they are in a gain or a loss situation as a result of their after-sales service interactions. Respondents who select gain continue with the secondary gain questions and skip secondary loss questions, while those who select loss continue with the secondary loss questions and skip secondary gain questions.

4.6 The method of data collection and sampling

Primary data is collected through a self-administered survey technique, which posed the respondents sets of standardized, structured questions. As a sampling method, non-probability snowball sampling is utilized to reach the target population.

Snowball sampling is typically used to access hard-to-reach populations (Atkinson & Flint, 2011). Customer information is hard to reach in Turkey since enactment of Turkish Personal Data Protection Law in 2016. With this law, companies and any other agencies are forbidden sharing customers’ contact information with the third parties and even calling them without their consent. Therefore, as a researcher it is not possible to access any customer database that involves customers who have received AS-S from companies. At this point, snowball-sampling method was of

great help. Applying this method, initially participated respondents were asked to find people in the target population around their personal network and distribute the survey. This way, it was possible to reach target population that settles in diverse locations and occupied with various jobs.

After the questionnaires are distributed, it took one month to reach the desired sample size. In non-probability samples, the sample sizes are determined mainly through intuitive judgment based on past experiences or industry standards (Hair et al., 2018). This way, the target sample size is determined as 200 qualified respondents for each of two conceptual models, which requires 400 respondents in total (adequacy of the sample size is examined and will be discussed in data analysis chapter). Sixty-five respondents are initially found through convenience sampling and all participated in the survey. From them 22 respondents agreed to pass the survey to the people in their network. In total, 600 questionnaires are printed and distributed via those respondents. Therefore, in total 665 questionnaires are distributed. 247 respondents who experience secondary gains and 255 respondents who experience secondary losses have filled the questionnaire, which makes the response rate as 75.4% (502 out of 665). After the deletion of missing data, data of unengaged respondents, and outliers (method of deletion is discussed in data analysis chapter), 215 qualified responses for secondary gain model, and 207 qualified responses for secondary loss model remained for further analysis.

4.7 Sample demographics

The sample demographics are important in deciding how representative is the sample in the study to the whole target population. Therefore, sample profile is presented in Table 12.

Table 12. Demographic Profile of the Respondents

Characteristics	Secondary Loss Sample		Secondary Gain Sample	
	Frequency	Percentage	Frequency	Percentage
Gender				
Female	112	54.1	133	61.9
Male	93	44.9	81	37.7
Age				
15-24	12	5.8	8	3.7
25-44	103	49.8	121	56.3
45-65	86	41.5	77	35.8
66-80	4	1.9	7	3.3
Marital Status				
Married	160	77.3	146	67.9
Single	45	21.7	68	31.6
Education				
Primary-Secondary	12	5.8	29	13.5
High School	73	35.3	76	35.3
University	111	53.6	93	43.3
Master's Degree/PhD	9	4.3	16	7.4
Occupation				
Government Employee	63	30.7	54	25.12
Private Company Employee	106	51.7	126	58.60
Housewife	8	3.9	13	6.05
Student	12	5.8	8	3.72
Retired	16	7.8	14	6.51
City				
Istanbul	168	81.2	172	80
Other	39	18.8	43	20
Number of People at the Household				
1	15	7.2	22	10.2
2	63	30.4	58	27.0
3-4	120	58	124	57.7
5-7	9	3.4	10	4.7
Monthly Salary (in TRY)				
< 2000	28	13.5	33	15.3
2000-3999	82	39.6	124	57.7
4000-6999	61	29.5	39	18.1
7000-10000	22	10.6	9	4.2
> 10000	12	5.8	7	3.3
Duration of Product Usage (in years)				
< 1	62	30	28	13.0
1-3	58	28	67	31.2
4-6	52	25.1	65	30.2
7-10	32	15.5	33	15.3
> 10	3	1.4	22	10.2
Product Type				
Refrigerator / Deep Freeze	65	31.4	53	24.7
Washing Machine / Dryer	45	21.7	65	30.2
Dish Washer	44	21.3	35	16.3
Kombi / Water Heater	23	11.1	34	15.8
Other	40	14.4	28	13
Availability of Warranty				
Yes	128	61.8	105	48.8
No	179	38.2	110	51.2
Type of Service Firm				
Authorized	195	94.2	206	95.8
Unauthorized	12	5.8	9	4.2

In terms of gender, females (58%) were represented more than males (42%) in the sample with slight difference. The majority of the sample is between ages 25 and 55. Moreover, the respondents identify the number of households mostly as 3-4. While 70% of the respondents declared themselves as married, 30% selected single as the marital status. The majority of the respondents stated that they earn between 2000-3999 TRY monthly net income. Therefore, it can be argued that the sample represents people with low-middle income. On the other hand, respondents' education level can be claimed to be high as majority has a university degree. Finally, for the demographics, customers are asked to express their social media usage habits. Over half of the respondents (57%) declared that they use social media every day and 18% expressed that they use social media every 2-3 days. Therefore, it can be concluded that the participant profile is mostly composed of people who are active on social media.

Besides questions regarding demographics, the questionnaire also involved questions regarding the product and service type. Customers are asked to select the type of product for which they have recently received AS-S. If there is more than one product, then they are asked to select one that made the most impact on them, either positively or negatively. Then, they are requested to think of those after-sales service experiences they received for the product that they selected at this question. Table 12 also shows the frequency of the types of products that are selected by the respondents. It appears that refrigerators, washing machines, and dishwashers are products for which customers experience after-sales service experiences most frequently.

Customers, furthermore, are asked to indicate the product's overall lifetime with them when the product was broken down. Furthermore, in Table 12,

percentages of the product's duration of use can be observed. It can be argued that most AS-S that have great impact on customers are for the products that are one to six years old.

Moreover, in the questionnaire customers have also indicated whether the products were under warranty when after-sales service was called. According to the results, 55% of the respondents had a warranty, while 44% did not.

Customers, furthermore, answered whether they received services from the company's authorized after-sales service agencies or any other independent technical agencies. The results show that 95% of the respondents received services from the company's authorized after-sales service agency.

CHAPTER 5

HYPOTHESES DEVELOPMENT

Based on the theoretical insights discussed in Chapter 2 and Chapter 3, and the knowledge obtained through measurement development stage in the previous chapter, this chapter proposes various hypotheses for the two conceptual models developed: AS-S experiences with secondary losses (Figure 3) and AS-S experiences with secondary gains (Figure 4). In the first section, the effect of consumers' primary losses on their resource conservation effort will be discussed and the related hypotheses will be proposed. It is suggested in this study that the primary losses and resource conservation efforts are common dimensions observed in both co-creative (that ends with secondary gains) and co-destructive (that ends with secondary losses) AS-S processes. As the primary resource loss corresponds to the disruption of consumers' regular consumption experiences, it is when the need for AS-S support emerges. Furthermore, for the AS-S interactions to begin, the customer must initiate AS-S process through resource conservation effort. Therefore, no matter how AS-S process ends up, it can be assumed that all AS-S processes involve primary resource loss and resource conservation effort. Hence, first, these dimensions and the relationships between them will be discussed. Later, in the second section, hypotheses related to the conceptual model with secondary loss will be discussed. Afterwards, hypotheses regarding the conceptual model with secondary gains will be deliberated.

5.1 The relationship between primary loss and resource conservation effort

The COR theory (Hobfoll, 1989, 2011) posits that the basic motivation of people is to acquire, retain, protect, and enhance their resources (Davidson et al., 2010). Those resources, in COR theory, encompass various types such as personal characteristics (e.g. self-efficacy), objects (e.g. computers), conditions (e.g. support), and energies (e.g. time) (Davidson et al., 2010). Furthermore, Hobfoll (2002) emphasizes that once a resource loss occurs, acquiring a resource gain becomes critical. Smith (2013) makes an explanation based on COR theory that when people experience a critical negative event that causes a decline in their resources, they will apply coping behaviors to compensate for those losses. Furthermore, according to the COR theory, losses are more prominent than gains, and resource gains are evaluated by individuals in the light of their loss (Hobfoll, 2011). This proposition is also evident in renowned prospect theory (Tversky & Kahneman, 1974) which suggests that individuals involve in more risk-taking behaviors when an event is taken as a loss than when the same event is taken as a gain. In other words, individuals put more effort, including risk-taking behaviors, into the situation when their main motivation is to recover from a loss than when it is to acquire a new gain.

Consumers who receive service for their broken products in AS-S context are in a situation of loss. In the construct development study conducted and explained in the previous chapter, types of losses when consumers' products are broken were investigated based on customer stories collected from a complaint website and three focus group interviews. Eventually, three types of primary loss were originated with the application of exploratory and confirmatory factor analysis: loss in value-in-exchange, loss in value-in-use, and loss in value-in-context.

The COR theory, further, posits “people must invest resources in order to protect against resource loss, recover from losses, and gain resources” (Hobfoll, 2001, p. 349). Based on COR theory and prospect theory which were discussed earlier, it is expected that consumers in AS-S context would engage in various types of efforts, which are probably different and bigger in potency from those when their intention was to purchase something new. In the measurement development process conducted and explained in the previous chapter, it is explored that there are three types of effort that consumers engage in when their products break down as a recovery strategy; namely mental effort, process-related effort, and legal and punitive effort. From those, legal and punitive effort is found to have emerged as a result of secondary losses, which will be explained later in this chapter. Therefore, consumers primarily devote mental effort and process-related effort after primary losses they encounter with their products.

Consistent with the COR theory, content analysis and focus groups interviews revealed that there might have a positive relationship between consumers primary losses in exchange, use and context value and their effort to recover from those losses. Furthermore, no matter how consumers end up with, either secondary loss or secondary gain, consumer’s primary motivation to engage in AS-S in the context of broken products is to recover from a primary loss situation. Accordingly, both in secondary loss and secondary gain situations of consumers, the process starts with a primary loss (a failed product) and subsequent consumer effort to start the recovery process.

Based on the discussion above, the following hypothesis is proposed;

H1: There is a positive relationship between consumer’s primary resource losses and their resource conservation efforts.

Furthermore, distinctions between AS-S experiences with secondary losses and with secondary gains are observed in terms of the type of resource conservation effort. Indeed, neither in content analysis nor in focus group interviews, relationship between mental effort and secondary gains is observed. The mental effort comes into the view more as a trigger of secondary losses, but not of secondary gains. In correspondence, mental processing is associated with the service failures in the literature. It is suggested by Collins and Bell (1997) and Bushman (2002) that cognitive processing of the service failures such as continuous thinking of firm's failure boosts consumers' destructive thoughts and feeds their aggressive feelings towards the situation. McCullough et al. (2007) posit that these increases aggressive feelings decrease consumers' ability to forgive. Accordingly, the current study suggests that mental effort during unsuccessful AS-S interactions with the service firm may have direct impact on secondary losses. On the other hand, no effect of mental effort is expected on the secondary gains. There is also no supporting theory that could have been found in the literature that supports a probable relationship between mental effort and secondary gains in an after-sales service context. Therefore, mental effort was excluded from the secondary gain model. Then, it is only the process-related effort that generates secondary gains when successful adaptation with the service's efforts is achieved. On the other hand, both mental and process-related efforts are expected to have direct effects on secondary losses when unsuccessful adaptation with service's efforts comes out.

A consumer states that:

I will never use the dryer of this machine again. It feels like this machine has just been produced and they are testing it on us [loss in exchange value]. I searched and read about the complaints on this site and realized that it is not

only me who is experiencing the same problem [Mental Effort].

Another consumer declares that:

When an electronic device is broken, I get disenchanted with it [loss in exchange value]. No matter what a great product it is or whether it is repaired or not, I don't give the same value once it is broken. When I have this problem, I searched for it on the internet a lot. I wanted to learn what kinds of problems other consumers experience. I learned that they are having the same problems as me. I saw there are many people who are complaining about it [Mental Effort].

Based on the discussions above with regards to the COR theory and prospect theory, and related consumer declarations found in content and focus group analysis, it is proposed that;

H1a: There is a positive relationship between losses in exchange value of the product and consumers' mental effort to cope with those losses in secondary loss AS-S experiences.

Furthermore, expressions from consumers signal a positive relationship between the loss in use-value and mental effort. A consumer states that:

When I watch the TV right across it, the display image is normal. But when you watch it from the sides, the image gets indistinct [loss in use value].

Then, I searched about it to see whether there are others who suffer from the same situation with this product [mental effort].

Another consumer declared that:

This [combi boiler] is an important need, the need for hot water [loss in use value]. I tried hard to figure out where the problem stems from. I thought it might be because I am heating the water at 90 degrees. The service personnel

should know it. I am not an expert; they should now and solve it [Mental Effort].

Furthermore, another consumer explains that;

Since I live alone, TV is a sound for me at home. When it broke down, I felt like the voice of a child was gone away [loss in use-value]. Since I didn't want to be left without a TV, I searched what I can do about it when they take the TV for repair [Mental Effort].

Therefore, based on the theoretical discussions above and consistent findings from consumers' expressions, it is suggested that;

H1b: There is a positive relationship between losses in use value of the product and consumers' mental effort to cope with those losses in secondary loss AS-S experiences.

It is detected in the exploratory analysis that consumers devote mental effort in case of contextual value losses such as depreciated financial situation or living conditions due to lack of alternatives. Furthermore, it is observed that depending on the severity of the failure and the contextual loss, mental effort either cause abandonment of the process or more increased process effort. If the contextual loss (e.g. resulting depreciated financial situation) is more severe than the failure, consumer abandons or postpones the process and live with the failed product. On the other hand, if the severity of the failure is bigger than the contextual loss, they put more process-related effort to recover from the failure with minimum contextual loss. A consumer states that;

I woke up in a bad way in the morning, thinking that I don't have money to repair the combi boiler [loss in context value]. I tried to figure out how much it would cost me [mental effort]. Then I thought that I can handle my

life without it until I have my salary the next month in cold weather.

Likewise, other consumer states that:

The fan of my dishwasher was broken. My son grabbed and broke it. Spare parts are expensive. The dollar has appreciated which increases the cost of spare parts (loss in context value). [When I couldn't afford it] I searched on the internet about what happens if I continue using my dishwasher without a fan [Mental Effort]. I learned nothing happens. I still use it without a fan.

Therefore, consumers are inclined to make a loss analysis through a mental effort by calculating the severity of the failure and their contextual situation. It is consistent with the prospect theory which suggests that people engage in risk averse behaviors to minimize their losses (Tversky & Kahneman, 1974). In this context, consumers put mental effort to find the solution with minimized losses. Accordingly, it is suggested that;

H1c: There is a positive relationship between losses in context value of the product and consumers' mental effort to cope with those losses in secondary loss AS-S experiences.

As well as mental effort, consumers devote process-related effort in case of primary loss situations to engage in relationships with the service personnel so that they make sure their problems would be resolved. As suggested by the COR theory, it is more important for individuals to acquire gains in situations of loss (Hobfoll, 2001). And as suggested by the prospect theory, people engage in more risk-taking behaviors in situations of loss than in situations of gain (Tversky & Kahneman, 1974). Therefore, it is expected that the more severe is the problem, the bigger effort consumers would make.

The positive relationship between the loss in exchange value and consumers' process-related effort is also evident in the following customer's expression:

I paid pots of money to buy it. It is not easy to earn money. I don't deserve such a machine [loss in exchange value]. I am fed up with it. I have been trying to find a solution for a year. I took videos of the problem, I showed it to the representatives [Process Effort].

Accordingly, it is suggested that;

H1d: There is a positive relationship between losses in exchange value of the product and consumers' process-related efforts.

Moreover, it is observed that there might be a positive relationship between loss in use-value and consumers' process-related effort. A consumer states that:

I cannot sleep in the room with the TV. It constantly makes a weird sound in every 5-6 seconds. Even when I shut it down, it makes this sound for half an hour and it distresses me [loss in use value]. I can share its video if you want. [Couple of days later] As you asked me, I took the video of the TV and sent it to you via WhatsApp to the number you gave [Process Effort].

Therefore, it is suggested that;

H1e: There is a positive relationship between losses in use value of the product and consumers' process-related efforts.

Finally, consumers with higher contextual loss situations are expected to put higher process-related efforts so that they can recover from their loss situation with minimum contextual diminishment (such as financial loss or loss stemming from lack of alternatives). For instance, a consumer in a contextual loss situation that stems from time (winter) and lack of alternatives (for heating) states that:

We had to live without hot water and heating in November [winter]. I washed

my kids heating the water in the kettle. I went to my husband's family to take a shower. It took 28 days. The radiators did not work as well because of the combi boiler. We were so cold, it was November [loss in context value]. I was calling the service almost every day for 28 days to make them repair my combi boiler. They were starting at 7 pm and working until midnight. I made them work until midnight [Process Effort].

Another consumer in a situation of lack of money states that:

I am fed up with calling the service for the same problem over and over again [Process Effort]. My food spoils each time. Last night, it stopped again and the food inside stinks. I cannot afford a new fridge now. [Talking about her neighbor who bought a new fridge when hers was broken instead of calling the service] She had money to buy a new one. If she didn't have, she would have struggled with the service as me. I couldn't afford to buy a new one. I would have been damaged both financially and emotionally [loss in context value].

Therefore, it is suggested that;

H1f: There is a positive relationship between losses in context value of the product and consumers' process-related efforts.

5.2 Secondary loss model hypotheses

As described by Hobfoll (2011), secondary losses occur as a result of unsuccessful adaptation which results in a further diminishment of resources and negative functional and emotional outcomes. On the other hand, secondary gains occur as a result of successful adaptation which brings new resources and offset the conditions related to the primary loss (Hobfoll, 2011). Resource investments may be considered

as tools that take consumers to either gain or loss (Halbesleben et al., 2014). Ng and Feldman (2012) study employees' voice behaviors as a method of resource conservation effort and find that it can either cause depletion in resources or lead to further resources in the work environment. As conservation effort's relation with secondary losses and secondary gains is a complex phenomenon (Halbesleben et al., 2014), consumers' conservation effort's impact on their secondary losses and secondary gains will be investigated separately. For this reason, two different conceptual models are drawn to depict distinct journeys that consumers in secondary loss situations and consumers in secondary gain situations go through. In this part, conceptual model related to consumers in secondary loss situations will be explained. In the following part, conceptual model related to consumers in secondary gain situations will be explained.

5.2.1 Consumers' conservation efforts and secondary losses

With an argument based on COR theory, Davidson et al. (2010) claim that individuals try to gain resource surpluses to improve their positive well-being. Therefore, they try to minimize the depletion in their resources by investing in more resources. Smith (2013) calls it as a "protection mechanism" and explains that investing other resources to compensate for the (primary) losses might result in secondary losses or, even worse, loss spirals which refer to the situation when losses cause future losses.

In the joint sphere, consumers and the service are in direct interactions and play their own roles for a co-created experience (for SDL and co-creation, please see literature review chapter). As consumers devote effort as a "protection mechanism" for their losses of resources (i.e. their products), company also engages in coping

behaviors to compensate for consumer's losses as a protection mechanism for their own losses of resources (i.e. customers). In other words, while the consumers devote various kinds of efforts to conserve their resources i.e. their products, the company engages in AS-S with its customers to conserve its own resources i.e. its customer base by satisfying the customers through its quality services. As a result, a co-created experience emerges. When this co-creation process goes wrong due to unsuccessful adaptation of customer and service's resources, it will cause secondary losses (also called as co-destruction by Smith, 2013. For more information for value co-destruction, please see literature review chapter). Resources are limited and ineffective use of those resources would mean a "lost opportunity" (Halbesleben et al., 2014) and will cause secondary losses.

Accordingly, it is hypothesized that;

H2: There is a positive relationship between consumers' resource conservation efforts and their perceived secondary losses as a result of co-destructive AS-S experiences.

The measurement development process (see the previous chapter for more detail) revealed four ways of depletion in resources as a result of futile conservation efforts that consumers devote, namely; loss in self-esteem, loss in consumer rights, loss in time, and loss in material and financial resources.

In the content derived from the complaint website and focus group interviews, the relationships between consumers' conservation effort and their secondary losses can be observed. For instance, when convincing efforts of the company take too long that lead consumers to put too much mental effort to understand the company's solution, consumers start feeling being fooled or deceived which results in loss in self-esteem. In the following expression, it can be observed

that a consumer takes it personal by thinking that the company abuses her goodwill by insisting on a non-effective solution: “They have been trying to convince us for a repair [mental effort]. We showed our goodwill and accepted their repair option for 2 times already. However, we are experiencing the same problem for the third time. [self-esteem loss]”.

Another consumer states depletion in her self-esteem through mental effort that comes after dealing with the product and the service for a long time as:

I never forget that day. It was snowing outside, it was cold. I called the head office and told them enough is enough. What an inconsiderateness it is! But I have called them many times before. For one year. Each time they tell me they cannot give a replacement but will repair it. They say they will do this and that. But nothing worked. I finally freaked out. Assume that I have a family or a baby. I live alone now and try to handle the cold by myself. But what if I had a family? How would we get heated? It is a matter of health. What if I get sick? They don't mind your health [mental effort → self esteem loss].

Therefore, the following hypothesis is proposed;

H2a: There is a positive relationship between consumers' mental effort to cope with their losses and their perceived loss in self-esteem.

Furthermore, when consumers start searching for their problems, they become more aware of their rights as a consumer. When they make an external search, they find social support from others who have experienced the same problem and won the fight for their rights. When they try to understand the situation through service personnel, they form certain attributions for the fault (to the company or to the consumer himself/herself). It is stated by McColl-Kennedy and Sparks (2003),

“When customers experience a negative event (service failure), they commence an assessment of the situation, making attributions as to whether the service provider could (in terms of conduct) and should (in terms of moral principles) have done something more to remedy the situation” (p. 262). As a result of this evaluation after a mental effort devoted to the situation, if the consumer thinks that the company could have done something more to prevent this failure, they feel the rights as a consumer have been violated. For instance, a consumer states that;

I asked the service whether I was responsible for the problem. I would have accepted to pay whatever it costed if I believed that I caused the problem [Mental Effort]. However, the service personnel told me that users usually have the same problem. Seeing that many customers are complaining about the same problem, why doesn't it [the brand] accept their own fault and show their goodwill by repairing it for free? [Con. Rights loss].

Another consumer states that;

They [the brand] have replaced my broken TV but didn't renew my warranty. I asked for a new warranty period for my replaced TV, but they didn't accept it. Then I made a search for it on the internet [Mental Effort]. I found that there are lawsuits about this issue and consumers won the cases [loss in consumer rights].

Therefore, the following hypothesis is suggested;

H2b: There is a positive relationship between consumers' mental effort to cope with their losses and their perceived loss in consumer rights.

Besides mental effort, it is observed in the previous measurement development process that consumers' process-related effort might also cause secondary losses in time, self-esteem, and consumer rights. The following consumer

complaints demonstrate how impractical process efforts cause loss in time. A consumer, whose warranty was registered shorter than it was supposed to be, states that:

I reminded the service that my warranty period is 7 years. They told me they would correct it. I have been calling them [the brand's call center] since then. I have called them tens of times (process effort]. When the last time I called them, it was still written as 3 years on their records. Each time I call them, they tell me that they will correct it and call me back, but they never do. They are wasting my time [time loss].

Another consumer, whose combi boiler was broken down in a wintertime, declares that:

I tried to call the authorities working in the main office. I constantly called them. I was calling almost every day. It is very hard to reach them [process effort]. They told me that they would send an email to the person in charge. They will send e-mail to him, he will receive and read it, then he will get back to me. Once in a blue moon. I will wait all this time for him to call me. It is an emergent need. They have to solve it emergently [time loss].

Therefore, it is expected to find a positive relationship between process-related effort and time loss and following hypothesis is suggested;

H2c: There is a positive relationship between consumers' process-related effort in after-sales service interactions and their perceived loss in time.

5.2.2 Service's co-creative efforts and secondary losses

Service quality has dominantly been analyzed in the AS-S literature in relation with satisfaction (Negash et al., 2003; Rigopolou et al., 2008; Potluri & Hawariat, 2010;

Hussain et al., 2011; Murali et al., 2016; Albors-Garrigos et al., 2017), loyalty (Murali et al., 2016; Albors-Garrigos et al., 2017), repurchase / retention (Rigopolou et al., 2008; Murali et al., 2016), and WOM (Rigopolou et al., 2008). These studies show that service quality has a direct effect on attitudinal and behavioral outcomes in AS-S interactions.

In correspondence with these studies, it is observed in the content analysis that low interaction service quality provided to the customers in terms of attitude, behavior and expertise may have secondary losses in customers' self-esteem, consumer rights, time, and material and financial resources.

Therefore, the following hypothesis is proposed;

H3: There is a negative relationship between consumers' perceived service interaction quality and their perceived secondary losses.

More specifically, low attitude quality is expected to result in loss in consumers' self-esteem. Correspondingly, a consumer states that, "Their attitude felt like they were making fun of us" (Attitude quality \rightarrow Self-esteem loss). Another customer declares that, "I feel like the service treats us like we are a fool" (Attitude quality \rightarrow Self-esteem loss).

Therefore, the following hypothesis is suggested;

H3a: There is a negative relationship between perceived attitude quality of service of service and consumers' perceived loss in self- esteem.

Furthermore, analysis of customer expressions revealed that there may be a negative relationship between behavior quality and secondary losses in consumer's time, consumer rights, and material and financial resources.

The following quotations show that when service employee behaves in a way that does not meet customer needs (low behavioral quality), it results in time loss. A consumer explains that:

After I registered my complaint, weeks passed. One day they called me and told me they were coming in half an hour. I wasn't at home and told them why they didn't make an appointment the day before. They didn't answer. I have been waiting at home for two days now and they didn't show up [behavior quality]. I canceled all my work to stay at home and wait for the service. It has been two days. What an irresponsible behavior! [time loss].

Another consumer emphasizes that:

They don't work with an appointment. They hold me captive at home the whole day [behavior quality]. I may have things to do outside. They come on the day they promise but I have to stay at home the whole day. I can't leave home; I can't do my things outside [time loss].

Accordingly, following hypothesis is suggested;

H3b: There is a negative relationship between perceived behavior quality of service and consumers' perceived loss in time.

Moreover, content analysis of customer expressions in after-sales service context revealed that there may be a negative relationship between expertise quality and secondary losses. A customer expresses how expert quality of the service caused a time loss by stating that;

Every time the service took the machine and brought it back, they told me they repaired it. However, it gave the same error each time and I had to call the service back [expert quality]. I have been waiting for the TV to be repaired for a month [time loss].

Accordingly, the following hypothesis is proposed;

H3c: There is a negative relationship between the expert quality of service and consumers' perceived loss in time.

Finally, when service delivers low expert quality, it is observed that it may cause further material and financial losses. The following customer quotations illustrate the possibility of this relationship. A consumer asserts that:

Even though the service came many times in a five-year period, they couldn't solve the problem [expert quality]. The dishes still come out dirty.

Moreover, dirty water stays in it [material loss].

Another consumer stresses that:

The service charged me first 300 TRY for a new compressor, and then 80 TRY for water leakage. However, the problem wasn't solved. I have called many times, but they do not come any more to repair it [expert quality → financial loss].

Moreover, another consumer declares that, "The service is for solving the problems. However, they came and caused new problems on the machine [expert quality → material loss]".

Therefore, the following hypothesis is suggested;

H3d: There is a negative relationship between the expert quality of service and consumers' perceived material and financial loss.

5.2.3 Loss spirals: the relationship within secondary losses

According to COR theory, when resources interact with each other, resource caravans transpire. Resource caravans arise when resources are related to each other and therefore occur together (Hobfoll, 2001; Halbesleben et al., 2014). In other

words, when development or diminishment in one resource results in development or diminishment in other resources, those resources generate a resource caravan. When those resources in the same caravan diminish together, it is called loss spirals. When, on the other hand, those resources in the same caravan aggregate together, it is called gain spirals (Hobfoll, 2001). Hobfoll (2001) explains two corollaries of the main COR principles through loss and gain spirals: while initial losses bring future losses, initial gains will bring future gains. There is strong evidence in the organizational literature about resource caravans. For instance, low self-efficacy, poor social support, low self-esteem, and less adequate coping styles are the resources that are found to be associated and move together, therefore making a loss spiral (Kobasa & Puccetti, 1983; Thoits, 1994).

Correspondingly, related evidence can be traced in the stories of customers who are in secondary loss situations which indicate that the customers' secondary losses may be interrelated and comprise a loss spiral. The evidence was found specifically with regards to the relationship of loss in time with other loss types. It seems that perceived loss in time moves together with perceived loss in self-esteem and consumer rights. The following expressions signal the probability of this relationship;

They made an appointment on Thursday between 11:00-14:00. For this reason, I took the day off from work and waited at home, but nobody showed up. They didn't notify me about any delay, so I waited for them until 15:30. I finally called the call center. They told me that they were very busy and couldn't make it today (Time Loss). I felt so sorry seeing that the service abuses my patience and politeness (self-esteem loss).

The panel of my TV was broken. I registered my complaint about three times. Each time I called, the customer service representative told me that my complaint was sent to the main office and I should wait for their call. They have never called me back so far (Time loss). If this is the value that such a big company gives to its customers, I cannot even imagine how others would approach you. (Self-esteem loss)

They wasted my time until my warranty period has ended in May (Time loss). Now my fridge is giving the same error, it doesn't work, and I don't have warranty anymore (Con. Rights loss)

Therefore, it is hypothesized that;

H4: Secondary losses have positive effects on other secondary losses.

More specifically;

H4a: There is a positive relationship between consumers' perceived loss in time and perceived loss in self- esteem.

H4b: There is a positive relationship between consumers' perceived loss in time and perceived loss in consumer rights.

5.2.4 Outcomes of after-sales service experiences with secondary losses

5.2.4.1 Secondary losses and satisfaction

As discussed earlier, secondary losses emerge as a result of unsuccessful co-creative efforts of the customers and the service in interaction, which brings further losses to the customer over the initial losses. As the consumer's negative state (due to incurred initial loss) is brought somewhere even more negative with further losses (secondary losses), and it causes decreased well-being in consumers' lives (Smith, 2013), secondary losses would indicate a negative critical incident. Those negative

outcomes of service experiences were measured through service quality scales previously in after-sales service context in the literature (Negash et al., 2003; Rigopoulou et al., 2008; Potluri & Hawariat, 2010; Hussain et al., 2011; Murali et al., 2016; Albors-Garrigos et al., 2017). The main and majorly investigated proposition in these studies which measured service quality was its relationship with customer satisfaction. In other words, high service quality is related to high customer satisfaction and vice versa. In this dissertation, the negative outcomes of customer's after-sales service experiences are investigated through their resulting losses in resources based on COR theory. Those losses, as indicated in the hypothesis above, are result of failed co-creative efforts of consumers (i.e. conservation effort) and service (i.e. interaction quality). Therefore, different from other studies that analyze direct relationship of service quality with satisfaction, in the current dissertation secondary losses' role as a mediator between service quality (i.e. interaction service quality in this study) and satisfaction is investigated. Those secondary losses are expected to be triggered by low service quality and failed customers' conservation efforts and result in low service satisfaction (dissatisfaction).

Accordingly, the following hypothesis is proposed;

H5: There is a negative relationship between secondary losses and satisfaction.

In the content analysis of consumers expressions regarding their negative after-sales service experiences that are collected from a complaint website and focus group interviews (see the previous chapter for further details), consumers' secondary losses are found to be loss in time, loss in self-esteem, loss in consumer-rights, and loss in material and financial resources.

For instance, a consumer expresses his dissatisfaction regarding time loss by stating that; “I postponed my work and wait at home for the technical service. I already wasted time on the phone to get an appointment, now I waste time for this” (time Loss → satisfaction).

Another consumer, likewise, says that “Yes, they take care of my problem, thanks. But it took so long that I finally stormed at them” (time loss → satisfaction).

Therefore, the following hypothesis is proposed;

H5a: There is a negative relationship between consumers’ perceived loss in time and satisfaction.

Furthermore, it is observed in the content analysis that when co-creative efforts in the interaction phase go wrong and result in a loss in self-esteem, it may also cause dissatisfaction with the service. We can see this situation from a soldier who feels his self-esteem is damaged by being deceived by the company, which makes him dissatisfied with the service: “I feel like I am deceived. You suffered someone who serves for his country” (self-esteem loss → satisfaction).

Accordingly, the following hypothesis is proposed;

H5b: There is a negative relationship between consumers’ perceived loss in self- esteem and satisfaction.

Moreover, when consumers feel that the company does not fulfill its legal obligations towards the customer which results in loss of consumer rights, they get dissatisfied with the service. It can be observed by the following customer’s expressions:

You are obliged to have spare parts in stock for at least five years and provide it to the consumers no matter who is responsible for the product breakdown.

If you do not fulfill your legal obligations, then you have to find a solution for

the benefit of the consumer. However, you offer me a new TV in return for a payment of 1500 TRY [loss in consumer rights → satisfaction].

Therefore, the following hypothesis is proposed;

H5c: There is a negative relationship between consumers' perceived loss in consumer rights and satisfaction.

Lastly, when the service results material and/or financial loss in consumer resources, it causes dissatisfaction. A consumer expresses his dissatisfaction by indicating that:

They offer me a replacement fridge with one-year of warranty in return for 825 TRY and my old fridge. I can buy a new fridge with a two-year warranty at a price of 899 TRY [material and financial loss]. They [the brand] didn't make any discount in the price and didn't provide any solution. I am dissatisfied with the service. They didn't care customer satisfaction [dissatisfaction].

Accordingly, it is hypothesized that;

H5d: There is a negative relationship between consumers' perceived material and financial loss and satisfaction.

5.2.4.2 Secondary losses and legal/punitive actions

Yi and Baumgartner (2004) suggest that negative word of mouth is a mechanism for people who seek social support as a coping strategy. Furthermore, it is suggested by Grégoire et al. (2018) that companies' repeating failures in their recovery attempts trigger customers to engage in revenge behaviors with an intention to restore justice. In other words, customers who get convinced that their failure situation will not be resolved by the company, they seek different ways to attain justice and consequently

engage in revenge taking behaviors. Furthermore, Bowen and Johnson (1999) and Surachartkumtonkun et al. (2015) suggest that customers apply maladaptive behaviors when they feel they lack sense of control over a situation. Consumers' AS-S experiences with secondary losses represent a repeating failure situation. Consumers who are in primary loss situation due to broken products interact with the company's AS-S division, and when this interaction also fails, they incur secondary losses. Therefore, they experience repeated failure situation. Consumers who experience repeating failures in the recovery context and feel lack of sense of control over the situation start engaging in maladaptive behaviors such as legal and punitive actions to restore justice.

Hence, one of the dimensions emerged under consumer's resource conservation effort in the measurement development process is the legal and punitive actions that are taken by the customers. In the content analysis of the customer stories related to the negative experiences with AS-S, it is observed that when customer's primary losses cannot be recovered as a result of all the effort devoted in the joint sphere, they get stuck in a loss spiral. The more effort they put in a failed service interaction, the further losses they incur. Being convinced that his/her primary loss incident wouldn't be resolved by the service after a while, the customer decides to abandon the process. As the individuals are motivated to minimize the net loss of their resources through various other resource investments (Davidson et al., 2010), customers look for other ways of resource investment to compensate for their secondary losses. The type of resource investment that comes into the scene at this point is the legal and punitive actions: Customers try to compensate for their losses in time, self-esteem, consumer rights, and material and financial resources that emerge as a result of failed co-creative efforts, by taking or threatening the company

about taking such actions as suing the company, making negative publicity about the brand, making public complaints about the brand etc. The aim of the consumers by doing these behaviors is to acquire new gains that compensate for their losses either in material terms (through suing the company in expectation of financial or material gain), or in conditional terms by gaining support from others (through making negative publicity about the brand). Therefore, those customers who are left with secondary losses after the termination of after-sales service interactions invest further resources to acquire new gains so that net loss would be minimized.

Based on the discussion above, the following hypothesis is suggested;

H6: There is a positive relationship between consumers' secondary losses and their legal / punitive actions towards the company.

The illustrative quotations below show how secondary loss in time make consumers take legal and punitive actions in the end of the process. For instance, a consumer states that:

I am fed up with this process. Even though I accept the price you charge, you continue your torture. No one is calling back for a week [time loss]. Do you like giving us pain? I will finally go to the factory building [of the brand] and burn this TV in front of them. I will put you in the news [legal/punitive effort].

Another consumer speaks out that:

I called the service and they told me they would be able to come 15 days later. What kind of customer service is it? What a shame for such a big company! [time loss]. I expect an urgent call, otherwise I will sue you in consumer court [legal/punitive effort].

Hence, the following hypothesis is suggested,

H6a: There is a positive relationship between consumers' perceived loss in time and their legal / punitive actions towards the company.

Furthermore, when consumers feel that damage occurs in their self-esteem, they are inclined to take legal and/or punitive actions, as it is in the following cases:

The employee's attitude was so arrogant to me on the phone (self-esteem loss). I will reach as many consumers as possible to talk about employees' bad manners on social media. Everybody should know. (Leg/Punitive Eff).

On top of everything I have gone through, I am scolded by the employees. I haven't seen such a shame (Self-esteem loss). I will sue you ... I will not leave you unpunished (Leg/Punitive Eff).

Therefore, it is hypothesized that;

H6b: There is a positive relationship between consumers' perceived loss in self- esteem and their legal / punitive actions towards the company.

Moreover, it is observed in the customer stories that when customers feel that their consumer rights are violated by the firm which doesn't fulfill its legal obligations, they decide to take legal and/or punitive actions. The expressions of the consumers in the following examples show this situation:

You are legally obliged to provide a replacement product for a machine with a manufacturing defect under warranty (Con. Rights Loss). If you do not fulfill your obligations, I will sue you (Leg/Punitive Eff).

I will sue you in the consumers' court (Leg/Punitive Eff), because you do not fulfill your legal service obligations by not keeping spare parts in stock for five years (Con. Rights loss).

Accordingly, it is hypothesized that;

H6c: There is a positive relationship between consumers' perceived loss in consumer rights and their legal / punitive actions towards the company.

Finally, when consumers think that they are under material or financial loss due to service's blame on the consumer, for instance, if the service rejects giving replacement or repair under warranty by claiming it is the customer's fault, consumers decide taking legal and/or punitive actions. A customer articulates that:

Where in the world would a product under warranty be out of use 17 hours later it is purchased? Take my TV for inspection [material loss]. If you prove I caused the problem, I will accept it. If you claim that it is my fault and reject giving a replacement, I will sue you in the consumers' court [legal/punitive effort].

Therefore, the following hypothesis is suggested;

H6d: There is a positive relationship between consumers' perceived material and financial loss and their legal / punitive actions towards the company.

5.2.4.3 Service quality and satisfaction

There is a strong support in the literature with regards to the direct relationship between service quality and satisfaction in the context of AS-S (Negash et al., 2003; Rigopoulou et al., 2008; Potluri & Hawariat, 2010; Hussain et al., 2011; Murali et al., 2016; Albors-Garrigos et al., 2017). Therefore, the current study examines the effect of service interaction quality in the joint sphere on consumers' satisfaction with their AS-S experiences. Indeed, it is expected that high level of service interaction quality will increase customer's overall satisfaction with the AS-S received.

Accordingly, the following hypothesis is suggested;

H7: There is a positive relationship between perceived service interaction quality and satisfaction.

In the content analysis, the direct effect of attitude, behavior, and expert quality on satisfaction is observed. More specifically, when consumers evaluate the service's interaction quality as low, their satisfaction with the service seems to decrease.

In the passage below, a consumer complains about being provided with low attitude and behavior quality by the service and expresses her dissatisfaction regarding the situation:

They sold a defected product to me [loss in exchange value], one week passed without any solution [behavior quality], and I had to deal with very disrespectful employees [attitude quality]. Unfortunately, this is the summary of service I was provided with [dissatisfaction].

Another consumer complains about the service personnel' unskillfulness, which refers to the low expert quality of the service: "The technical service personnel who came to repair my fridge broke some parts of the fridge [expert quality]. What an amateurishness it is! [dissatisfaction]".

Another consumer also expresses her dissatisfaction with the provided service due to low expert quality:

You are producing such a great machine. However, you do not train your service employees so that they can understand its technical specifications to repair it. Why are all these technical people inexperienced in their jobs? I have been thinking of this [expert quality → dissatisfaction].

Therefore, the following hypotheses are proposed which suggest negative relationship between service's attitude, behavior, and expert quality with dissatisfaction.

H7a: There is a positive relationship between attitude quality of service interactions and satisfaction.

H7b: There is a positive relationship between behavior quality of service interactions and satisfaction.

H7c: There is a positive relationship between the expert quality of service interactions and consumers' satisfaction.

5.2.4.4 Service quality and legal/punitive actions

It is realized in the content analysis that low levels of service interaction quality also make the customers take the legal and punitive behaviors, because customers try to compensate for the losses incurred as a result of failed services. The following quotations demonstrate how various forms of services failures result in legal and punitive actions. For instance, a consumer asserts that, "The service personnel were very unconcerned towards me [attitude quality]. I will sue you in consumers' court. I will also tell everybody on social media about your attitudes [legal/punitive effort]".

Another consumer declares that:

We have been calling the service for a while for the same problem. They either come late or they don't show up at all [behavior quality]. When they come, the only thing they do is to change the motor which also doesn't work [expert quality]. I am not satisfied with this brand's services. I constantly deal with service personnel. I feel so suffered and angry. I will finally take the issue to the consumers' court [legal/punitive effort].

Moreover, another consumer states that:

I am fed up with this machine. Enough is enough. You either take this machine and bring me a working one or solve its problem. I will finally break it and put it on YouTube. I will make negative publicity about you [expert quality → legal/punitive effort].

Accordingly, the following hypotheses are proposed;

H8: There is a negative relationship between service interaction quality of service interactions and consumers' legal/punitive actions.

More specifically,

H8a: There is a negative relationship between attitude quality of service interactions and consumers' legal/punitive actions.

H8b: There is a negative relationship between behavior quality of service interactions and consumers' legal/punitive actions.

H8c: There is a negative relationship between the expert quality of service interactions and consumers' legal/punitive actions.

5.3 Secondary gain model hypotheses

Different from other after-sales service related studies in the literature, this study explores the impact of co-creative efforts based on COR theory. To this end, new dimensions called secondary gains (as suggested by Hobfoll, 1989) are developed that are suggested to stem from successful co-creative efforts. Contemplating on the COR theory, it is expected that secondary gain dimensions behave as a mediator between co-creative efforts and satisfaction in the after-sales service context. To put it differently, as the motivation of consumers is to recover from their primary losses, the satisfaction will emerge as a result of a successful co-creative process in the joint

sphere as long as the process brings new gains which will eventually minimize the net loss of consumers (Davidson et. al., 2010).

5.3.1 Consumer's co-creative efforts and resource gains

While the unsuccessful adaptation of resource recovery strategies results in secondary losses, as discussed previously, successfully adapted recovery procedures end up with secondary gains (Hobfoll, 2001). Content analysis of positive customer stories related to after-sales service experiences (see previous chapter for more detail) revealed four types of consumer gains that emerge as a result of successfully managed co-creative efforts of AS-S: convenience gain, support gain, material, and financial gain, and self-esteem gain.

COR theory claims that successful adaptation of recovery strategies will result in secondary gains (Hobfoll, 2001). Consistently, the probable relationships between consumers' conservation effort and their secondary gains are observed in the content analysis of consumer stories with positive AS-S experiences. In the expressions below, it can be observed that after initiation of the service process through customer's effort (called as process effort) at various forms (from a mere request to a big struggle with the service), consumers end up with some secondary gains. For instance, a consumer explains that:

I told them to come in the evening. They wanted to come earlier. However, I explained to them I was working and cannot take a day off [process effort]. They finally accepted it. The service came after working hours for me [convenience gain].

Another consumer declares that:

I made a complaint about my washing machine [process effort]. The service

came and solved it. I would like to thank to the service personnel who gave great support to me through this process. She assured that I could call her any time in case of any problems I encounter with the machine. She proved the company's support to its customers [support gain].

Accordingly, the following hypotheses are proposed;

H9: There is a positive relationship between consumers' resource conservation efforts and their perceived secondary gains as a result of AS-S experiences.

More specifically;

H9a: There is a positive relationship between consumers' process-related effort in after-sales service interactions and their perceived gain in convenience.

H9b: There is a positive relationship between consumers' process-related effort in after-sales service interactions and their perceived gain in support.

5.3.2 Service's co-creative effort and resource gains

In the joint sphere, both consumers and the service have their own roles. While consumers devote process-related effort to initiate the process and explain their needs, service requires providing a high level of interaction service quality. When these co-creative efforts are managed successfully, as COR theory suggests, secondary gains are expected to emerge. It is revealed in the content analysis of positive customer experiences that high attitude, behavior, and expertise quality provided by the service have links with some secondary gains.

Therefore, the following hypothesis is suggested;

H10: There is a positive relationship between perceived service interaction quality and consumers' perceived secondary gains.

In the content, there is evidence with regards to the link between attitude quality and self-esteem gain. For instance, a consumer states that, “I must say that the intimate approach that the service personnel showed to me compensated for my previous negative experiences with the other service personnel [attitude quality]. He made me feel like I am someone from his family [self-esteem gain]”.

Therefore, the following relationship is hypothesized;

H10a: There is a positive relationship between perceived attitude quality of service and perceived gain in self-esteem.

Furthermore, the links between behavior quality and perceived gain in convenience and support are observed in the measurement development process. Those links can be traced in the following customer expressions. A consumer states that:

The service told us that they had to take the TV for inspection, and it will last for a week. However, they were so nice to provide us a temporary TV on the same day so that we wouldn't be deprived without a TV [behavior quality → support gain].

Another consumer expresses that:

It is very pleasing to see that you employ such service personnel who are so helpful and considerate [behavior quality]. I would like to thank to the service personnel who gave great effort to help me. My problem wasn't solved, but I am grateful for the support that she provided to me [support gain].

Accordingly, the following hypotheses are suggested;

H10b: There is a positive relationship between perceived behavior quality of service and perceived gain in support.

Finally, expert quality of the service appears in the content as to have links with convenience, support, and material and financial gains. The following quotations are examples that demonstrate those links. A consumer asserts that:

I want to acknowledge the service personnel for being able to solve the problem in such a short time [expert quality]. I want to thank him for saving me from hardships that I have been going through [convenience gain].

Another consumer declares that:

Our washing machine was brought back from the service repaired free of charge and all its problems were solved [expert quality]. I am very grateful to the service team who listened to me and gave a full support to solve my problems through this process [support gain].

Furthermore, another consumer expresses that:

I am thankful for the service who proved that my machine had some technical defects [expert quality]. Thanks to them the company replaced my machine with a new one [material gain].

Therefore, the following hypotheses are suggested;

H10c: There is a positive relationship between perceived expert quality of service and perceived gain in convenience.

H10d: There is a positive relationship between the perceived expert quality of service and perceived gain in support.

H10e: There is a positive relationship between perceived expert quality of service and perceived material and financial gain.

5.3.3 Gain Spirals: the relationship within secondary gains

As it is explicated above in loss spirals discussion, COR theory claims that initial losses bring future losses while initial gains bring future gains (Hobfoll, 2011). Those resources that move together (downwards or upwards) constitute resource caravans (Hobfoll, 2011; Halbesleben et al., 2014). Based on resource caravan proposition of COR theory, it is expected to observe in consumers' AS-S experiences that when customers receive secondary gains from the process, those gains will be accumulated on each other. More specifically, it is expected that secondary gain in one resource will influence further gains in other resources positively.

Therefore, the following hypothesis is suggested;

H11: Secondary gains have a positive impact on other secondary gains.

Consistent with the COR theory, as well as resource loss caravans and spirals, resource gain caravans and spirals are apparent in the analyzed content in previous chapter. In the customer expressions below and the hypotheses that follow them, the related links within resource gains are depicted. An old lady, whose fridge has broken down, asserts that:

I was in a very difficult situation. Whom else could I have asked for help? I didn't even have a warranty. But they came and did me a favor as if I had a warranty. I still think of those days and pray for the man who helped me [support gain]. He made my life easier, which is what I am grateful about most. I have too much food in the fridge. I couldn't take all of them to my neighbor's fridges. They also have limited capacity. They saved me from a very troublesome situation [convenience gain].

Another consumer states that:

The lady in the call center was in touch with me for four days day and night and handled all the process with me. Thank you for giving me such support. [support gain]. It was a big relief to me [convenience gain].

Accordingly, the following hypothesis is proposed with regards to the relationship between support and convenience gains.

H11a: There is a positive relationship between consumers' perceived gain in support and perceived gain in convenience.

Another customer expresses how special she felt when the service provided a TV for temporary usage when they took hers to repair. She feels so happy that she uses this information (consumers' right to ask for a temporary product during repair process) as a contribution to other's lives:

When my TV was broken, they brought a temporary one to ease my life [convenience gain]. They made me so happy. It was the first time I had such an experience. I felt myself important. I told everyone about this so that they also know their rights [self-esteem gain].

Accordingly, the following hypothesis is proposed;

H11b: There is a positive relationship between consumers' perceived gain in convenience and perceived gain in self-esteem.

Another consumer thanks to the service personnel for his support. She describes how this support made her feel like a priority:

I specifically want to thank to the service personnel. Positive approach with understanding and support always works [support gain]. Every person wants to be a priority. When the service approaches the customers this way, then I say it is a quality service. Thanks for that [self-esteem gain].

Hence, the following hypothesis is suggested;

H11c: There is a positive relationship between consumers' perceived gain in support and perceived gain in self-esteem.

5.3.4 Outcomes of after-sales service experiences with secondary losses

5.3.4.1 Secondary gains and satisfaction

As elucidated above, the secondary gains are expected to behave as a mediator between the customer and service's co-creative efforts and the outcome as customer satisfaction. Therefore, as well as the impact of customer's efforts and service interaction quality on secondary gains, the impact of secondary gains on satisfaction is investigated. Indeed, AS-S experiences that end with secondary gains represent successfully co-created service context, thus is expected to result in satisfying outcomes.

Therefore, the following hypothesis is suggested;

H12: There is direct relationship between secondary gains and satisfaction.

For instance, a customer describes how satisfied he feels due to relief and convenience that is provided by the service: "I am very happy that the brand's service has relieved me from my sufferings with this machine" (convenience gain → satisfaction).

Therefore, the following hypothesis is suggested;

H12a: There is a positive relationship between consumers' perceived gain in convenience and satisfaction.

Another customer expresses her gratitude to the personnel who gave great support under limited authority and facilities provided by his service company:

Thanks to the service personnel for his efforts. There is no systematized service in this company. However, he struggled to help me in such poor conditions. So, I want to thank him. [support gain → satisfaction].

Therefore, it is hypothesized that;

H12b: There is a positive relationship between consumers' perceived gain in support and satisfaction.

Furthermore, the following expression of a consumer demonstrates that when the service process goes so well and the customer feels special, she thinks it is a kind of contribution to the service quality: "I am pleased to contribute to the service quality of the company" (self-esteem gain → satisfaction).

Accordingly, a positive link between self-esteem gain and satisfaction is expected.

H12c: There is a positive relationship between consumers' perceived gain in self-esteem and satisfaction.

Moreover, consumers also express their satisfaction when the service process ends with material and financial gains. A customer expresses this by stating that, "The service offered me an upgraded version of my machine in return for a very decent price. Thank you." [material gain → satisfaction].

Accordingly, a positive link between material and financial gain and satisfaction is hypothesized as in the following;

H12d: There is a positive relationship between consumers' perceived material and financial gain and satisfaction.

5.3.4.2 Service interaction quality and satisfaction

As the service quality's direct impact on satisfaction is well evidenced in the AS-S literature (Negash et al., 2003; Rigopolou et al., 2008; Ahn & Sohn, 2009; Potluri & Hawariat, 2010; Murali et al., 2016; Albors-Garrigos et al., 2017), the direct effects of service quality on satisfaction is examined as well in the current study.

Thus, the following relationship is hypothesized;

H13: There is a positive relationship between perceived service interaction quality and satisfaction.

Direct links of service interaction quality on satisfaction is traced on the quotations. A consumer asserts that, "I would like to thank to the service personnel who had a smiling and cheerful attitude. Greetings to the company's smiley face" (attitude quality → satisfaction). Another consumer expresses that, "I would like to give my special thanks to the service personnel for being very concerned about my case and being solution-oriented" (behavior quality → satisfaction). Moreover, another consumer states that, "They have such technical service personnel that when they come and start talking to you, you would think a software specialist is talking. They have a deep understanding of technical issues" (expert quality → satisfaction).

Accordingly, the positive and direct relationships between attitude, behavior, and service quality on satisfaction are hypothesized as in the following;

H13a: There is a positive relationship between attitude quality of service interactions and satisfaction.

H13b: There is a positive relationship between behavior quality of service interactions and satisfaction.

H13c: There is a positive relationship between the expert quality of service interactions and consumers' satisfaction.

CHAPTER 6

DATA ANALYSIS AND RESULTS

In order to test the hypothesized relationships in the previously developed conceptual models in this dissertation that illustrate value creation (model of secondary gains) and destruction (model of secondary losses) during consumers' aftersales-service experiences, Structural Equation Modelling (SEM) in SPSS AMOS version 20 is conducted. SEM is deemed as the most appropriate multivariate technique for this study, as it is useful when there are series of dependence relationships in the same model and all these relationships need to be examined simultaneously (Hair et al., 2018). In other words, when there are variables in the model which are hypothesized as dependent variable in one dependence relationship and independent variable in another in the same model, and these relationships explain the theory altogether, then SEM is the only multivariate technique that is able to examine these relationships concurrently (Hair et al., 2018). Considering both conceptual models (model of secondary loss and model of secondary gain) have this kind of relationships, SEM has been conducted to test the hypothesized relationships.

6.1 Data Screening

6.1.1 Outliers and Missing Data

Missing data arises as an important issue to be taken into consideration before analyzing the data. As a missing data remedy approach, complete case (list wise deletion) approach is utilized. With this approach, the respondent is eliminated from the dataset if there is any missing data on any variable. The advantages of this

approach are (1) X^2 shows little bias, (2) effective sample size is known, and (3) easy to implement (Hair et. al., 2018). Besides missing values, unengaged responses, which involve respondents who give exact same values for all questions, are investigated in the data by checking standard deviations that equal to 0. Those respondents are also eliminated via list wise deletion technique. Furthermore, outliers are examined through the probabilities of Mahalanobis Distance. No outliers are detected as all probability values were higher than 0.001.

6.1.2 Common Method Bias and Multicollinearity

Harman's single factor test is performed to assess common method bias. The percentage of variance explained when all items are forced into a single factor is expected to be less than 50% (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). All items are forced into a single factor and it is observed that the variance explained by a single factor in secondary loss model is 19.62% and in secondary gain model 17.84%. Therefore, common method bias can be argued to be not existing in the sample.

Furthermore, the multicollinearity is assessed with variance inflation factor (VIF). To confirm lack of multicollinearity in the sample, VIF values are expected to be lower than ten (Mason & Perreault, 1991). As VIF values of all items are below ten, it can be suggested that there is no multicollinearity issue in the sample (Appendix L).

6.1.3 Multivariate Normality

Skewness and Kurtosis values for all variables were checked whether there were any skewness or kurtosis in the distribution of the data which might violate the normal

distribution assumption. Skewness refers to the lack of symmetry in a distribution whereas kurtosis indicates the extent that the distribution is gathered at the center. Values of a normal distribution for skewness and kurtosis is zero and values above that signify departures from normality. Hair et al., (2018) suggest values between -1 and +1 are acceptable, as values below -1 and greater than +1 might signify an extreme non-normality. In the sample all variables are in between -1 and +1, therefore the distribution is close to the normal distribution. The descriptive statistics with regards to the sample for secondary loss conceptual model is depicted in Table M1 and descriptive statistics with regards to the sample for secondary gain conceptual model is depicted in Table M2 in Appendix M.

6.1.4 Sample Size

Finally, the sample size shall be discussed, as SEM is very sensitive to sample size. It is suggested by Hair et al. (2018) that when the data depart from normal distribution assumption, it is recommended to increase the sample size. Having a normal distribution and having sample size over 200 (215 for the model of secondary gains, and 207 for the model of secondary losses), it can be argued that sample size is adequate to conduct SEM analysis. However, it should be noted that the sample size is still lower than the recommended level given the complexity of the conceptual model. Hair et al. (2018) suggest having minimum of 500 sample size for models with large number of constructs (more than seven). Therefore, the samples size should be noted as the limitation of this study.

6.2 Defining individual constructs

Exogenous variables (latent, multi-item independent variables, Hair et al., 2018) and endogenous variables (latent, multi-item dependent variables, Hair et al., 2018) of both models of secondary loss and secondary gain are depicted in Table 13.

Table 13. Exogenous and Endogenous Variables of Secondary Loss and Gain Models

Model of Secondary Loss		Model of Secondary Gain	
Exogenous Variables	Endogenous Variables	Exogenous Variables	Endogenous Variables
Loss in Exchange Value Loss in Use Value Loss in Context Value Attitude Quality Behavior Quality Expert Quality	Mental Effort Process-related Effort Loss in Self-esteem Loss in Consumer Rights Time Loss Material and Financial Loss Legal and Punitive Actions Customer Dissatisfaction	Loss in Exchange Value Loss in Use Value Loss in Context Value Attitude Quality Behavior Quality Expert Quality	Process-related Effort Gain in Convenience Gain in Support Material and Financial Gain Gain in Self-esteem Customer Satisfaction

6.3 Developing and specifying the measurement model

As all scale items are specified at the first stage, now the measurement model will be drawn by assigning all indicator variables (items) to the latent constructs in the model. Appendix N represents the fourteen-construct measurement model of secondary loss, and Appendix O represents the twelve-construct measurement model of secondary gain. The complete measurement model is suggested to have (1) measurement relationships for the items and constructs, (2) correlational relationships among constructs, and (3) error terms for the items (Hair et al., 2018). All these relationships can be observed in the figures depicted in Appendix N and O, and standardized regression weights (loadings) can be observed in Appendix P and Q.

6.4 Assessing measurement model validity

After the specification of the measurement model, dealing with research design issues, and estimation technique is selected, the most fundamental stage of SEM analysis comes; the measurement model validity. For validity and an acceptable model fit to be established, Hair et al. (2018) suggest various threshold values for models with different levels of parameters (m). As the models in the current study have over 30 parameters, the threshold values for $m > 30$ have been taken into consideration for comparison with the model values.

In Table 14, the model fit indices for the conceptual model of secondary loss, and in Table 15 model fit indices for the conceptual model of secondary gain is provided. Comparing the model values with threshold values, except the AGFI values of each conceptual model which are slightly below the acceptable range (between .80 and .90), it can be argued that sufficient model validity for the measurement model is achieved.

Table 14. Model Fit for the Secondary Loss Measurement Model

Measure	Threshold (for $m > 30$) (Hair et al., 2018)	Model values
X^2	Significant values expected	0.000
Chi-square / df (cmin/df)	< 3 good; < 5 sometimes permissible	1.905
CFI	> .90	.90
SRMR	< .08 or less	.0574
RMSEA	Values < .7 with CFI of .90 or higher	.066
GFI	Between 0.8 and 0.9 means acceptable fit (Greenspoon and Saklofske, 1998; Forza and Filippini, 1998; Al-Mamary & Shamsuddin, 2015).	.830
AGFI		.780

Table 15. Model Fit for the Secondary Gain Measurement Model

Measure	Threshold (for m > 30) (Hair et al., 2018)	Model values
X ²	Significant values expected	0.000
Chi-square / df (cmin/df)	< 3 good; < 5 sometimes permissible	1.997
CFI	> .90	.90
SRMR	< .08 or less	.0647
RMSEA	Values < .7 with CFI of .90 or higher	.068
GFI	Between 0.8 and 0.9 means acceptable fit (Greenspoon and Saklofske, 1998; Forza and Filippini, 1998; Al-Mamary & Shamsuddin, 2015).	.801
AGFI		.751

6.4.1 Convergent Validity

The method of confirmatory factor analysis provides verification of scale reliability and allows examination of convergent and discriminant validity (Fornell & Larcker, 1981; Hair et al., 2018; Netemeyer, Bearden, & Sharma, 2003).

Convergent validity indicates the degree to which measurement items of a specific construct have a high ratio of variance in common (Hair et. al., 2018). Convergent validity is confirmed by examining the factor loadings, construct reliability, and average variance extracted for each construct. Hair et al. (2018) suggest that all standardized loading estimates should be more than 0.5, construct reliabilities for each construct should be over 0.7, and lastly the average variance extracted should be over 50%. Furthermore, to confirm convergent validity, composite reliability of all constructs is suggested to be greater than 0.7 (Bagozzi & Yi, 2012) The related scores of the constructs used in this study is depicted in Appendix R, Table R1 for secondary loss conceptual model and in Appendix R, Table R2 for secondary gain conceptual model. Cronbach's Alpha of all constructs exceed 0.7 (Appendix S). All average variance extracted scores exceed 50%, and all

composite reliability scores are greater than 0.7. Based on the evidence provided, it can be suggested that the measurement model has convergent validity.

6.4.2 Discriminant Validity

Discriminant validity refers to whether each construct differs significantly from other constructs in the model (Hair et. al., 2018). To confirm discriminant validity, the square root of average variance extracted of each construct should be greater than the inter-construct correlations (Hair et. al., 2018). In Appendix R, the inter-construct correlations (the diagonal) is compared with the square root of the AVE values for each construct. It is observed that the square root of all AVE values is greater than inter-construct correlations. Based on this analysis, it can be suggested that the measurement model has discriminant validity.

6.5 Specifying the structural model

Different from the measurement model, structural model involves single-headed, directional arrows that represent hypothesized relationships among constructs. In other words, dependence relationships are depicted and tested in structural model.

For simplicity in the structural model, only constructs and hypothesized relationships between those constructs that are accepted at significance level of $p < 0.05$ are demonstrated for the conceptual model of secondary loss (Appendix T) and conceptual model of secondary gain (Appendix U). Significant relationships between constructs and regression weights can be observed in Table 16 for the model of secondary loss and in Table 17 for the model of secondary gain. The non-significant relationships of the rejected hypotheses are shown in Appendix V, Table V1 for

secondary loss conceptual model, and in Appendix V, Table V2 for secondary gain conceptual model.

Table 16. Significant Relationships in the Secondary Loss Structural Model

			Estimate	S.E.	C.R.	P
Time Loss	←	Expertise Quality	0.382	0.068	5.646	***
Time Loss	←	Process Related Effort	0.578	0.073	7.929	***
Self-related Loss	←	Mental Effort	0.523	0.082	6.339	***
Consumer Rights Loss	←	Mental Effort	0.737	0.108	6.81	***
Self-related Loss	←	Time Loss	0.275	0.064	4.315	***
Consumer Rights Loss	←	Time Loss	0.368	0.085	4.325	***
Satisfaction	←	Time Loss	0.11	0.042	2.594	***
Legal / Punitive Actions	←	Self-related Loss	0.301	0.06	5.006	***
Legal / Punitive Actions	←	Consumer Rights Loss	0.14	0.037	3.811	***
Satisfaction	←	Expertise Quality	0.388	0.051	7.584	***

Table 17. Significant Relationships in the Secondary Gain Structural Model

			Estimate	S.E.	C.R.	P
Support Gain	←	Expertise Quality	0.545	0.163	3.334	***
Convenience Gain	←	Expertise Quality	0.676	0.194	3.484	***
Convenience Gain	←	Support Gain	0.356	0.092	3.877	***
Satisfaction	←	Convenience Gain	0.239	0.037	6.372	***
Satisfaction	←	Expertise Quality	0.565	0.102	5.522	***
Self-Related Gain	←	Support Gain	0.474	0.083	5.697	***
Self-Related Gain	←	Convenience Gain	0.177	0.058	3.077	***
Satisfaction	←	Support Gain	0.089	0.041	2.145	***

All hypothesized relationships and their results are listed in Table 18 for the conceptual model of AS-S experiences with secondary losses, and in Table 19 for the conceptual model of AS-S experiences with secondary gains.

Table 18. Results of AS-S Experiences with Secondary Loss Model

Hypothesis	Antecedent Variable	Outcome Variable	Direction	Result
H1	Primary Loss	Conservation Effort	Positive	Rejected
H1a	Exchange value	Mental Effort	Positive	Rejected
H1b	Use value	Mental Effort	Positive	Rejected
H1c	Context Value	Mental Effort	Positive	Rejected
H1d	Exchange value	Process Effort	Positive	Rejected
H1e	Use value	Process Effort	Positive	Rejected
H1f	Context Value	Process Effort	Positive	Rejected
H2	Conservation Effort	Secondary Loss	Positive	Accepted
H2a	Mental Effort	Self-esteem loss	Positive	Accepted
H2b	Mental Effort	Con. Rights loss	Positive	Accepted
H2c	Process Effort	Time Loss	Positive	Accepted
H3	Interaction Quality	Secondary Loss	Negative	Partially Accepted
H3a	Attitude Quality	Self-esteem loss	Negative	Rejected
H3b	Behavior Quality	Time Loss	Negative	Rejected
H3c	Expert Quality	Time Loss	Negative	Accepted
H3d	Expert Quality	Material Loss	Negative	Rejected
H4	Secondary Loses	Secondary Losses	Positive	Accepted
H4a	Time loss	Self-esteem loss	Positive	Accepted
H4b	Time loss	Con. Rights loss	Positive	Accepted
H5	Secondary Loss	Satisfaction	Negative	Partially Accepted
H5a	Time Loss	Satisfaction	Negative	Accepted
H5b	Self-esteem loss	Satisfaction	Negative	Rejected
H5c	Con. Rights loss	Satisfaction	Negative	Rejected
H5d	Material Loss	Satisfaction	Negative	Rejected
H6	Secondary Loss	Legal/Punitive Actions	Positive	Partially Accepted
H6a	Time Loss	Leg/Punitive Eff.	Positive	Rejected
H6b	Self-esteem loss	Leg/Punitive Eff	Positive	Accepted
H6c	Con. Rights loss	Leg/Punitive Eff	Positive	Accepted
H6d	Material Loss	Leg/Punitive Eff	Positive	Rejected
H7	Interaction Quality	Satisfaction	Positive	Partially Accepted
H7a	Attitude Quality	Satisfaction	Positive	Rejected
H7b	Behavior Quality	Satisfaction	Positive	Rejected
H7c	Expert Quality	Satisfaction	Positive	Accepted
H8	Interaction Quality	Legal/Punitive Actions	Negative	Rejected
H8a	Attitude Quality	Leg/Punitive Eff	Negative	Rejected
H8b	Behavior Quality	Leg/Punitive Eff	Negative	Rejected
H8c	Expert Quality	Leg/Punitive Eff	Negative	Rejected

Table 19. Results of AS-S Experiences with Secondary Gain Model

Hypothesis	Antecedent Variable	Outcome Variable	Direction	Result
H1	Primary Loss	Conservation Effort	Positive	Rejected
H1d	Exchange value	Process Effort	Positive	Rejected
H1e	Use value	Process Effort	Positive	Rejected
H1f	Context Value	Process Effort	Positive	Rejected
H9	Conservation Effort	Secondary Gain	Positive	Rejected
H9a	Process Effort	Convenience Gain	Positive	Rejected
H9b	Process Effort	Support Gain	Positive	Rejected
H10	Interaction Quality	Secondary Gain	Positive	Partially Accepted
H10a	Attitude Quality	Self-esteem Gain	Positive	Rejected
H10b	Behavior Quality	Support Gain	Positive	Rejected
H10c	Expert Quality	Convenience Gain	Positive	Accepted
H10d	Expert Quality	Support Gain	Positive	Accepted
H10e	Expert Quality	Material Gain	Positive	Rejected
H11	Secondary Gains	Secondary Gains	Positive	Accepted
H11a	Support Gain	Convenience Gain	Positive	Accepted
H11b	Convenience Gain	Self-esteem Gain	Positive	Accepted
H11c	Support Gain	Self-esteem Gain	Positive	Accepted
H12	Secondary Gain	Satisfaction	Positive	Partially Accepted
H12a	Convenience Gain	Satisfaction	Positive	Accepted
H12b	Support Gain	Satisfaction	Positive	Accepted
H12c	Self-esteem Gain	Satisfaction	Positive	Rejected
H12d	Material Gain	Satisfaction	Positive	Rejected
H13	Interaction Quality	Satisfaction	Positive	Partially Accepted
H13a	Attitude Quality	Satisfaction	Positive	Rejected
H13b	Behavior Quality	Satisfaction	Positive	Rejected
H13c	Expert Quality	Satisfaction	Positive	Accepted

6.6 Assessing the structural model validity

The final stage is the test of the validity of the final structural model. The Table 20 demonstrates the structural model values in comparison with the threshold values for the model of secondary loss, while Table 21 demonstrates the structural model values in comparison with the threshold values for the model of secondary gain as proposed by Hair et al. (2018).

Table 20. Model Fit for the Secondary Loss Structural Model

Measure	Threshold (for m > 30)	SEM Model values
X ²	Significant values expected	0.000
Chi-square / df (cmin/df)	< 3 good; < 5 sometimes permissible	2.3
CFI	> .90	.910
SRMR	< .08 or less	.0745
RMSEA	Values < .7 with CFI of .90 or higher	.080
GFI	Between 0.8 and 0.9 means acceptable fit (Greenspoon and Saklofske, 1998; Forza and Filippini, 1998; Al-Mamary & Shamsuddin, 2015).	.849
AGFI		.808

Table 21. Model Fit for the Secondary Gain Structural Model

Measure	Threshold (for m > 30)	SEM Model values
X ²	Significant values expected	0.000
Chi-square / df (cmin/df)	< 3 good; < 5 sometimes permissible	2.38
CFI	> .90	.924
SRMR	< .08 or less	.080
RMSEA	Values < .7 with CFI of .90 or higher	.0676
GFI	Between 0.8 and 0.9 means acceptable fit (Greenspoon and Saklofske, 1998; Forza and Filippini, 1998; Al-Mamary & Shamsuddin, 2015).	.880
AGFI		.832

Furthermore, the final Secondary Loss structural model GFI value is .849, and AGFI value is .808, and the final Secondary Gain structural model GFI value is .880, and AGFI value is .832. GFI that is equal to or greater than 0.9 means satisfactory fit, between 0.8 and 0.9 means acceptable fit (Greenspoon & Saklofske, 1998; Forza & Filippini, 1998; Al-Mamary & Shamsuddin, 2015). Having all values in the recommended range, it can be suggested that the final structural model with accepted hypothesized relationships have adequate level of validity.

The final conceptual models with the accepted relationships are demonstrated in Figure 13 for the secondary loss conceptual model and in Figure 14 for the secondary gain conceptual model.

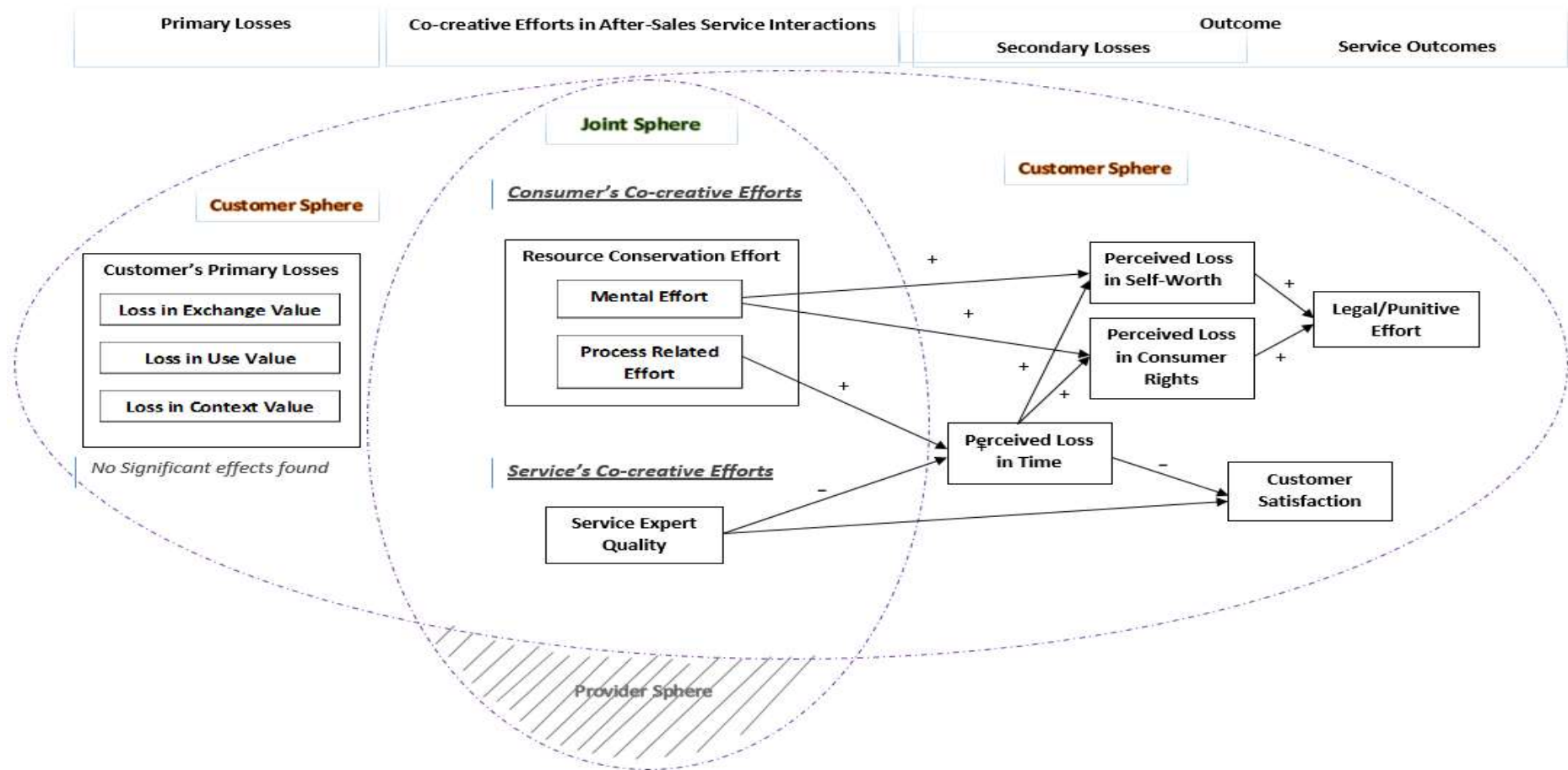


Figure 13. Final model of AS-S Experiences with Secondary Losses

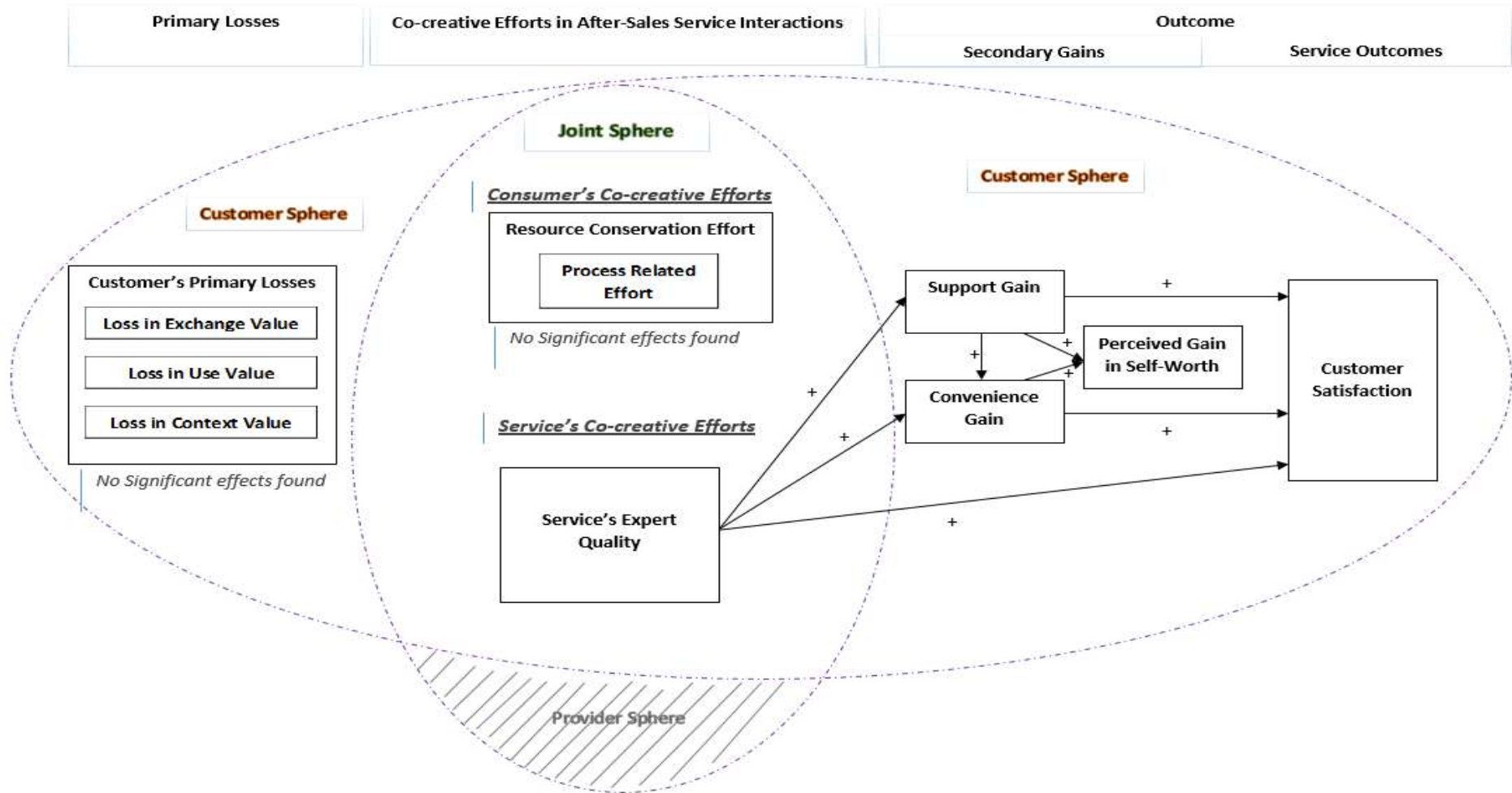


Figure 14. Final model of AS-S experiences with secondary gains

CHAPTER 7

DISCUSSION

7.1 Discussion of the results

In the present dissertation, the focus has been dedicated to the investigation of consumers' AS-S experiences in three spheres: before, during, and after interaction with AS-S. The flow of AS-S experiences, in this study, is examined based on SDL. Accordingly, before and after phases constitute customer spheres, whereas the during phase involves joint actions taken by the customer and the service provider in interaction. This approach is also consistent with the service recovery journey model proposed by Van Vaerenbergh, Varga, De Keyser, and Orsingher (2019). Considering service recovery process as a journey, the authors suggest that recovery consists of multiple phases that requires a systematic perspective instead of assessing it as a single event. From this viewpoint, the current study investigates the customers' product recovery journeys taking multiple phases that consumers go through into consideration. Accordingly, AS-S is not a kind of service that happens one point in time, but resembles more like a journey that involves various stages: (1) customer sphere before AS-S when consumers' consumption experiences and value co-creation processes are disrupted due to a product failure, (2) joint sphere during AS-S when consumers and services get in interactions for a joint purpose of co-creating AS-S value, and (3) customer sphere after AS-S when customers continue with the new value co-created / co-destroyed as a result of their AS-S journeys.

Furthermore, the recovery systems are context-sensitive and, therefore, there is an underlying goal heterogeneity in customers' recovery journeys (De Keyser,

Lemon, Klaus, & Keiningham, 2015, Van Vaerenbergh et al., 2019). Based on this perspective, the current study proposes and investigates two AS-S models to comprehend different paths of customer journeys that result in negative and positive outcomes: AS-S experiences with secondary losses which indicates co-destroyed AS-S customer journeys, and AS-S with secondary gains which refers to co-created AS-S customer journeys.

COR theory (Hobfoll, 1988, 1989) constitutes the foundation of the constructs developed for the AS-S models proposed in this study. According to this theory, when people come across with actual or potential risk of losing the resources that they value (primary resource loss), they engage in behaviors to conserve those resources at risk. As a result of those efforts, they either end up with secondary losses or with secondary gains. The main argument of this theory is that losses influence individuals at a greater extent than gains. In congruence, prospect theory proposed by Tversky and Kahneman (1974) suggests that individuals involve in more risk-taking behaviors when an event is taken as a loss than when the same event is taken as a gain. As customers who are dealing with product failures are in a potential or actual loss situation in an AS-S context, their primary goal is to disentangle the risk of losing their possessions. Therefore, their interactions and the outcomes of those interactions are investigated based on COR theory.

Through a comprehensive literature review, it is observed that COR theory constructs are not developed in a consumer context. Having its basis on organizational literature, it is primarily used to identify employees' resources and interpret their work-place behaviors accordingly. On the other hand, there are few studies found in the literature that applies COR theory in a consumer context. Smith (2013) develops a value co-destruction model, and Surachartkumtonkun et al. (2015)

analyze customer rage in service failure and recovery context based on COR theory. Even though these studies identify various type of consumer resources and provide the first evidence of the applicability of the theory in a consumer context, the main constructs of COR theory, i.e. primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain, are not developed in a way that enables replicability in other studies. Unavailability of those constructs in a consumer context has necessitated a construct development process.

Accordingly, the main investigation process of consumer's AS-S experiences started with developing the main constructs by applying Churchill's (1979) suggested model of generating multi-item measures for marketing constructs. To this end, first qualitative study is undertaken by collecting data from a complaint website and conducting three focus group interviews. After applying several stages of content analysis, main dimensions and potential items to measure those dimensions are generated. Later, quantitative study is conducted for item purification and assessing reliability and validity of the developed constructs. Finally, the relationships between those constructs are investigated in two models to interpret the main influencing dimensions that turn consumers' AS-S experiences into a co-created (i.e. AS-S with secondary gains) or a co-destructed (i.e. AS-S with secondary losses) experience.

Through these investigations, eleven sub-questions developed to answer the main research question are aimed to be answered. The research questions, the theories applied to answer those questions, focus of investigation and the main findings are summarized in Appendix W.

7.1.1 Development of conservation of resources theory constructs in AS-S context

In the first four sub-questions, four main constructs of AS-S experience models that are adapted from COR theory are aimed to be developed: i.e. primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain.

From the methods that are suggested by Churchill (1979) for item generation process, three of them are utilized: literature search, analyzing critical incidents (through content analysis of consumers' AS-S related stories on a complaint website), and focus group interviews. For the primary resource loss construct generation, literature on SDL and value co-creation is utilized, as the consumers face actual or potential risk of losing the value of their products with disrupted consumption experiences. As a result, primary losses that consumers incur in a product breakdown incident are categorized in three sub-dimensions: loss in value-in-exchange, loss in value-in-use, and loss in value-in-context.

Furthermore, analysis of the customer stories revealed that consumers devote three kinds of resource conservation efforts in an AS-S context: process-related effort, mental effort, and legal/punitive effort. Mental and process related efforts are in consistence with mental and physical participation, respectively, that is suggested by Koc, Ulukoy, Kilic, Yumusak, and Bahar (2017) who analyze types of customer participation in service failure situations. Furthermore, there are many studies in the services literature that analyze customer rage or revenge that transpire as a result of failed service recovery attempts (Grégoire & Fisher, 2008; Huefner & Hunt 2000; Grégoire et al., 2018). Legal and punitive actions that emerge as a result of co-destructive AS-S experiences is also in consistence with these studies.

It should be noted that while process effort is observed in both AS-S contexts that end up with secondary gains and secondary losses, mental effort and

legal/punitive effort transpire only in co-destructive AS-S interactions that end up with secondary losses. It indicates that consumers start being mentally involved in the product recovery process when they feel that the service is not delivering the value that they expect. On the other hand, when consumers are supplied with the desired level of service with high expert quality and they believe they receive secondary gains from the process (such as convenience and support), they let the service do their jobs with confidence. They do not devote any mental resources to the process. This finding can be explained by the studies that suggest that continuous thinking of firms' failures pinnacles consumers' destructive thoughts and feeds their aggressive feelings (Bushman 2002; Collins & Bell 1997) which result in decreased ability to forgive (McCullough et al., 2007). Similarly, in the current study, the mental processing is only observed in the AS-S experiences with secondary losses that represents a recovery failure context with increased aggressive feelings.

Likewise, legal and punitive actions are not observed in co-creative AS-S environment. Legal/punitive effort occurs as a result of consumer's incurrence of secondary losses and their resulting motivation to conserve those secondary resources by taking the issue to the third parties. Customers involve in revenge behaviors as a means to justice restoration after repeating failures of recovery attempts (Grégoire et al., 2018). Furthermore, maladaptive behaviors are also suggested to result from a lack of sense of control over a situation (Bowen & Johnston 1999; Surachartkumtonkun et al., 2015). In co-destructive AS-S experiences, customers are in situations in which they are not being compensated for their primary losses (i.e. their product failures) despite their efforts. Therefore, it represents repeating failures from consumers' perspective, and they look for new ways to restore justice. Moreover, feeling they have no control over their failed

product's recovery, as it is the duty of service provider, they start engaging in maladaptive behavior such as taking legal and punitive actions.

Finally, the customer stories are further investigated to find secondary losses that emerge as a result of co-destructive AS-S incidents and secondary gains that emerge as a result of co-creative AS-S incidents. According to the results, four sub-dimensions of secondary losses are categorized as: time loss, loss in self-esteem, loss in consumer rights, and material and financial loss; and four sub-dimensions of secondary gains are categorized as: support gain, gain in self-esteem, convenience gain, and material and financial gain. These findings are also congruent with Surachartkumtonkun et al. (2015) who suggest that customer resources that are under threat of being lost in a service failure situation are self-esteem, sense of justice, sense of self-control, and economic resources such as time and money.

7.1.2 Impact of Primary Resource Loss on Consumers' Resource Conservation Efforts in AS-S context

After the development of constructs, hypotheses are developed and the correlations between the constructs depicted in the secondary loss and secondary gain models are tested. The first correlational question that is answered is "how do consumers' primary losses affect their resource conservation effort?" More specifically, the focus of investigation is to see whether there is a direct and positive relationship between consumers' level of primary losses and level of resource conservation efforts. All hypotheses proposed in this section are rejected. No direct effects are found regarding the impact of consumer's primary loss on their process-related and mental effort. Mental and process-related efforts are found to be independent of consumers' level of primary loss, i.e. loss in exchange, use, and context value. It indicates that

consumers, regardless of the level of their loss in exchange, use, and context value, initially devote a similar level of effort. This effort consists of necessary actions needed to start the interactions with AS-S which is expected to recover them from the primary loss situation. While there is no significant impact of primary losses found on the level of efforts devoted by the consumers, it can be suggested that observed resource conservation efforts transpire as a result of interactions with the AS-S's at the joint sphere.

7.1.3 Co-destructed AS-S Experiences that result in Secondary Losses

The next question that is tackled under correlational investigation is “how do consumers’ and service’s co-creative efforts affect consumers’ secondary losses?” The hypotheses developed to answer this question are partially supported.

First, it is found that consumers’ mental effort has positive impact on their perceived loss in self-esteem and consumer rights, while process-related effort has positive impact on perceived loss in time. This indicates that when consumers start mentally evaluating their secondary losses in an AS-S experience that is not going well, they start feeling being deceived by the company and feel worthless as a consumer. Threats to self-esteem and justice are found to be primary appraisal of rage in service failure situations by Surachartkumtonkun et al., (2015). Self-esteem is a resource that indicates individual’s sense of self-worth (Rosenberg, 1965). In a service context, customers’ self-esteem is enriched through the quality of interpersonal interactions (Patterson, McColl-Kennedy, Smith, & Lu, 2009). Furthermore, justice indicates a sense whether the individual has received no less than what she/he thinks she/he deserves (Lerner, 2003). Loss in consumer rights will, thus, signify a situation in which consumers have violated sense of justice. Increased

mental processing, on the other hand, through continuously thinking of the failing services results in more intense negative feelings (Bushman 2002; Collins & Bell 1997). The co-destructing service experiences with failed interactions in the joint sphere, therefore, result in feelings of decreased sense of self-worth and increased loss in consumer rights when consumers involve in more mental efforts.

Furthermore, it is found that there is a direct and positive relationship between consumers' process related efforts and perceived loss in time. It indicates that prolonged process-related efforts are interpreted by the consumers as loss of time. From the service's side, it is found that when the service fails delivering desired level of expert quality, consumers' perceived loss in time increases. Service providers' misuse of customer time resources (Smith, 2013) result in feelings of loss in time. Therefore, an inverse relationship between service's expert quality and consumers' perceived loss in time is found. Altogether, the results indicate that consumer's perceived loss in time is determined by service's expert quality (negatively) and consumer's process-related efforts (positively).

In scrutiny of the main research question, the next sub-question investigated and answered is "what are the relationships between consumers' different types of secondary losses?". In other words, the emerging loss spirals are investigated in the context of AS-S. The results partially supported the developed hypotheses in this section. According to the results, perceived loss in time has positive impact on perceived loss in self-esteem and consumer rights. This finding suggests that when consumers experience time-related losses with extended service processes, they start feeling that the company does not value their emergent need of the product to be maintained. Or else, with long periods of waiting times, they start feeling that the company does not value their engagements and obligations in life. This results in

feelings of worthlessness and loss of self-esteem. On the other hand, by time passing consumers lose some of their rights as a consumer: such as coming to the end of the warranty period due to prolonged service delivery or right to file a complaint within a certain period of time. Therefore, loss in time increases the likelihood of consumers' perceptions of loss in consumer rights. To sum up, loss spiral is found in co-destructive AS-S interactions among loss in time, loss in self-esteem and loss in consumer rights. In congruence with these findings, Smith (2013) assert that companies' misuse of customers' resources, such as charging excessive amounts of money or causing excessive waiting times, are interpreted by the customers as they are undervalued by the company and this may cause decreased self-esteem of customers. The current study's findings support this argument.

The last correlational question with regards to the secondary loss conceptual model is identified as "how do failed co-creative efforts have an impact on consumer's service satisfaction and their legal/punitive efforts?" The aim of this investigation is to analyze the outcomes of consumers' AS-S experiences that end up with secondary losses. The hypotheses developed in relation to this question are partially supported. The results indicate that consumers' service satisfaction is determined by perceived loss in time (negatively) and service's expert quality (positively), while legal and punitive efforts that consumers make as a result of co-destructive AS-S experiences are determined by perceived losses in self-esteem and consumer rights. This finding suggests that the path that takes consumers to dissatisfaction versus the path that encourages consumers take legal/punitive actions in a failed AS-S experience have separate driving forces. Indeed, dissatisfaction is derived from failed co-creative efforts that are related to the service process. More specifically, low expert quality and high process-related efforts increase perceived

loss in time, and perceived loss in time eventually decreases service satisfaction. Furthermore, expert quality is also found to have direct positive effect on satisfaction. On the other hand, legal and punitive behaviors are derived from failed co-creative efforts that are related to the service process together with consumers' mental processing. More specifically, high perceived time loss - that is the result low expert quality and high process-related effort - and high mental effort increase perceived losses in consumer rights and self-esteem which eventually trigger consumers to take legal/punitive actions.

Ranking of the importance of resources is based on consumers' hierarchy of goals, and when customer's valuable resources are lost or damaged, consumers become less forgiving (Surachartkumtonkun et al., 2015). In this study, it is found that self-esteem and consumer rights are more important resources than time resource. While the former results in legal and punitive actions, the latter cause dissatisfaction. It is found that when negative experiences are related to the service process, the resulting outcome is mere customer dissatisfaction. However, if the negative service experiences make consumers feel that they incur secondary losses in consumer rights and self-esteem, they continue devoting efforts to conserve their secondary loss resources by taking legal and punitive actions. Justice and self-esteem are related to the meaning of self and, when damaged, are difficult to restore or regain (Surachartkumtonkun et al., 2015). Moreover, ego threats cause self-regulation failures (Baumeister & Heatherton, 1996), and the sense of lack of control causes maladaptive behaviors (Bowen & Johnston 1999; Surachartkumtonkun et al., 2015). In congruence, the current study finds that damage to sense of self-worth and justice (i.e. consumer rights loss) result in legal and punitive actions.

Negative word of mouth is suggested as a mechanism that consumers apply to receive social support as a coping strategy (Yi & Baumgartner, 2004; Smith, 2013). Moreover, revenge behaviors that customers engage in is explained as a means to restore justice and regain self-worth (Grégoire et al., 2018). Furthermore, according to COR theory, receiving gains in a situation of loss becomes imperative (Hobfoll, 2002). Therefore, it can be inferred that by taking punitive actions such as making negative publicity of the company on social media, consumers tend to gain a new resource, i.e. social support and justice, in compensation for their loss in self-esteem. Moreover, losses in consumer rights are also compensable, therefore trigger consumers to make further resource conservation efforts. Those behaviors involve punitive actions that are aimed to damage company image and make pressure on the company to take corrective actions and give their rights. Or else, it involves taking legal actions that are aimed to make company legally obliged to give consumers what their rights are.

7.1.4 Co-created AS-S experiences that result in secondary gains

The rest of the questions in this study are related to the secondary gain conceptual model. The first question with regards to the consumers' AS-S experiences that end up with secondary gains is identified as "how do consumers' and service's co-creative efforts affect consumers' secondary gains?" The results partially support the developed hypotheses. Accordingly, there is no significant effect found between consumers' process effort and their perceived gain in convenience, support, and material. As previously indicated, consumers in successful co-creative service experiences seem to have no mental and legal/punitive efforts, but only process-related efforts. Findings here extend this argument by suggesting that those process-

related efforts devoted to the co-creative service interactions do not have any positive or negative impact on outcomes. It can be inferred that consumers interpret their actions within process (i.e. process-related effort) as their role to initiate the interactions in the joint sphere. In other words, they continue their process-related efforts to enable the service provider to take actions for AS-S value creation. Therefore, it causes neither positive nor negative outcomes on secondary gains. On the other hand, secondary gains are perceived to be the outcome of service's expert quality. A significant positive effect is found between service's expert quality and consumers' perceived convenience and support gain. Altogether, the findings infer that, in a successfully co-creative AS-S experiences, regardless of the extent of consumers' process effort devoted in the joint sphere, if the expert quality is deemed to meet or exceed expectations, consumers retrieve secondary gains from the process which are convenience and support.

The next question regarding the secondary gain model investigates the emerging secondary gain spirals through answering the question "what are the relationships between consumers' different types of secondary gains?" The proposed hypotheses with regards to these questions are also partially supported. Accordingly, significant positive relationships between perceived gain in support and gain in convenience, gain in support and gain in self-esteem, and finally gain in convenience and gain in self-esteem are found. This finding suggests that perceived gain in support from the service/company results in consumers' feelings of improved living conditions (that was disrupted due to product failures) with resolved distress which eventually increases their perceptions of convenience gain. Furthermore, support gain and convenience gain supplied by the service/company to the consumers' lives result in feelings of being important and special as a consumer. Hence, consumers

experience secondary gain in self-esteem as a result of secondary gains in convenience and support. To sum up, gain spiral is found in successfully co-creative AS-S interactions among gains in support, convenience and self-esteem.

Final sub-question investigates the outcomes in the secondary gain model by answering the sub-question that is identified as “how do successful co-creative efforts have an impact on consumer’s service satisfaction?” The results partially support the hypothesis related to service satisfaction. The inquiry of this research question revealed three main findings: First, at the end of successfully co-created AS-S experiences, customer’s service satisfaction is found to be derived from consumers’ perceived gains in convenience and support, and service’s expert quality. Additionally, the emerging gain spiral infers that perceived convenience and support gains do not only result in satisfaction but also bring consumers secondary gains in self-esteem. Moreover, there is no significant effect of material gain found on satisfaction. Indeed, this implies the primary need and motivation of consumers in an AS-S context: receiving support and convenience. No matter how their products end up with in material terms, if they feel that they are supplied with necessary support and convenience by the company, they feel satisfied. Finally, the results reveal that service’s expert quality has a direct positive effect on consumers’ service satisfaction, while attitude and behavior quality seem to have no significant effects on the outcome. It implies that without perceived expert quality of service personnel, neither polite attitudes (attitude quality) nor actions are taken to resolve the issue (behavior quality) have any significant satisfying effects on consumers. The necessary attribute that consumers seek in a successfully co-creating AS-S interaction is expertise and professionalism. The relationship between service quality and satisfaction have previously been proposed by various AS-S related studies

(Negash et al., 2003; Rigopoulou et al., 2008; Ahn & Sohn, 2009; Potluri & Hawariat, 2010; Murali et al., 2016; Albors-Garrigos et al., 2017). The current study supports and extends this knowledge with the finding that the type of service quality that has direct impact on satisfaction in successfully co-creating AS-S experiences is the expert quality.

The findings with regards to the secondary gain model are in congruence with many studies found in the literature. Social support is suggested as the determinant of self-esteem in various studies (Mruk, 1995; Rosenberg, 1979; Hoffman, Ushpiz, & Levy-Shiff, 1988; Kong & You 2013; Kong, Zhao, & You, 2012). There are also evidences regarding the direct and indirect relationships within support, self-esteem, and satisfaction (Kong & You 2013; Kong et al. 2012; Yarcheski, Mahon, & Yarcheski, 2001; Kong, Ding, & Zhao, 2015). Taking altogether, the significant relationships found in the model that represent consumers' co-creative AS-S experiences that end up with secondary gains support the knowledge in the literature. More specifically, gains in support and convenience are found to be two resources that increase customer's self-esteem and satisfaction in an AS-S context.

7.2 Conclusion and Implications

7.2.1 Theoretical contributions

The main findings of this research contribute to the growing body of knowledge in the literature. These contributions will be explained under two categories: (1) contributions to the COR theory literature, and (2) contributions to the service literature.

7.2.1.1 Contribution to the conservation of resources theory literature

The contributions of this research to the COR theory is three-fold. First, this research conducts a multi-dimensional exploratory investigation into main COR theory constructs, namely primary resource loss, resource conservation effort, secondary resource loss, and secondary resource gain. By utilizing Churchill's (1979) suggested model for the development of multi-item measures for marketing constructs, measures are developed for each dimension of the main constructs. Despite the prominence of COR Theory in organizational literature that has progressively grown into one of the frequently cited theories over the past 30 years (since Hobfoll, 1989), there is still an ongoing debate regarding how resources are conceptualized and how they are conserved and acquired by individuals (Halbesleben, 2014). Furthermore, Davidson et al., (2010) posit that in the COR research, researchers do not measure resources or measured only once, therefore lack rigor. Correspondingly, Halbesleben et al. (2014) claim that the future of COR research lies in the ability to measure resources properly. Therefore, this research contributes to the theory by developing measurable COR theory constructs.

Second, the current research contributes to the COR theory by applying it in a consumer context in which consumers engage in resource conservation effort for the recovery of a tangible product. As previously discussed, COR theory has its basis on organizational literature. Other than Smith (2013) and Surachartkumtonkun et al. (2015), there is no study found in the literature that have analyzed consumer resources from COR theory perspective. These studies signify the relevance of COR theory in a marketing context. Applying COR theory in a different field in the marketing context (i.e. AS-S) and finding evidence in relation to its applicability in a

consumption setting has a potential contribution to the COR theory. This shows the generalizability, therefore reliability, of the theory.

Third, this research focuses on the resource value while developing primary resource loss construct by adapting value co-creation perspective of SDL. Another debate in COR literature is the difficulty of determining the value of resources. There are criticisms related to the view that anything that has value for individuals is taken as a resource (Halbesleben et al., 2014). Halbesleben et al., (2014) recommends focusing on the value of resources to improve research by stating that “we encourage COR researchers to take up the challenge of developing a concise, valid measure of resource value and apply it to several of the designs” (p. 1354). Through conceptualization of primary resource loss construct in three sub-dimensions, namely exchange value, use-value, and context value, it is aimed to shed some light into this debate.

7.2.1.2 Contribution to the service literature

The research findings also have significant implications for the service literature. By developing two product recovery journey models, one that ends up with secondary gains and other that ends up with secondary losses, this research has zoomed in customer’s positive and negative experiences in a service context which has not been analyzed from the customer’s point of view before. As delineated in the literature review discussion, AS-S service literature has primarily focused on the service process development and innovation, therefore made organization-level investigations. On the other hand, those studies that scrutinize AS-S experiences by analyzing customers as the unit of analysis, primarily focus on the relationship between service quality and customer satisfaction. Value co-creation perspective has

not been adapted to any of those studies. However, as stated by Professor Jay Kandampully (Jaakkola, Helkkula, & Aarikka-Stenroos, 2015), the service environments should focus on shared experiences that involve consumers as well:

Traditionally, the concept of a service climate, as defined in the literature, is confined to the service organization and the employees within it. However, in the context of a shared experience and co-creation of value, the climate must encompass the customers' perspective. An engaging service climate both within and outside the firm is therefore essential if customers and employees are to co-create service innovations far in advance of their competition. (p. 199)

Accordingly, one of the main contributions of the current research to the service literature is the perspective developed from customers' point of view and the focus on the shared experiences by developing a journey model that encompasses both customer and joint spheres.

Second, the findings have theoretical contributions to the SDL in the service literature. As discussed in the literature review chapter, value co-destruction argument has been developed in the SDL literature with the claim that value is not only co-created but also co-destroyed (Ple & Chumpitaz-Caceres, 2010). After this claim, various researchers attempted to develop value co-destruction models by applying different theoretical frameworks (e.g. Echeverri & Skalen, 2011; Smith, 2013; Robertson et al., 2014; Stieler et al., 2014; Kashif & Zarkada, 2015; Heidenreich et al., 2015; Makkonen & Olkkonen, 2017). The current research contributes to this research avenue by proposing AS-S model with secondary losses as a type of value co-destruction. Differently from other studies that propose value co-destruction models, this research investigates both value co-creation and value co

–destruction processes based on the common theoretical framework: COR theory.

Even though there is an increasing interest in the SDL literature for the development of value co-destruction model, the current research is argued to be distinguished from others by taking and investigating both co-creation and co-destruction at the same ground. This is also in response to the recommendation of Smith (2013) who states that future research should assess value co-creation process from the COR theory perspective to see whether it mirrors the value co-destruction process.

Last but not least, as a contribution to the AS-S literature, the current research develops constructs and scrutinizes the relationships between those constructs with an attempt to comprehend the whole AS-S process in the means-end approach starting from customer sphere before AS-S, then continuing with joint sphere, and finally investigating the customer sphere after AS-S. Smith (2013) proposes researchers as a future research avenue to examine relationships between resource losses in various categories and to investigate the meaning in the process through means-ends chains. Accordingly, the current research aimed to investigate and provide some insights into the research gap identified by Smith (2013).

7.2.2 Managerial implications

The practical importance of this research is that it provides insights for firms in relation to the value co-creation and value co-destruction paths that take consumers to different outcomes during after-sales service delivery.

First, managerial implications with regards to value co-destruction path will be discussed. When the service process is not handled successfully and resulted in a co-destroyed value, consumers incur secondary losses in the end. These secondary losses are identified in the current research as time loss, loss in consumer rights, loss

in self-esteem, and material and financial loss. There are two negative outcomes of a co-destructive AS-S environment from the consumers' point of view. First is the customer dissatisfaction which is derived from service' low expert quality and perceived time loss. Considering that perceived time loss is the consequence of low expert quality and consumers' high process-related efforts, it can be inferred that customer dissatisfaction is related to the service processes that do not operate as customers expect. In other words, customer dissatisfaction occurs as a result of disconfirmation between what customers expect from the service process and what they actually receive. The second outcome is the legal and punitive actions that are derived from consumers' perceived loss in consumer rights and perceived loss in self-esteem. The findings suggest that both of these secondary losses – consumer rights and self-esteem – are derived from consumer's mental effort and perceived loss in time. It refers that when consumers start being cognitively engaged in co-destructive processes through mental processing, they start recognizing further secondary losses: consumer rights and self-esteem which encourage them to take further actions: legal and punitive actions. As discussed previously, these actions are taken by the consumers in an effort to conserve their resources. First through making negative publicity of the firm on social media or other media channels, their aim is to gain social support. Second, by taking legal actions, their aim is to protect their rights as a consumer. These implications would be fruitful for the AS-S managers so that they would better understand the driving forces for consumers' attitudes and actions during and after AS-S interactions. Accordingly, they should better keep the process from going through the path that results in legal and punitive actions.

Second, managerial implications with regards to value co-creation path will be discussed. When the service process is handled successfully and resulted in a co-

created value, consumers retrieve secondary gains in the end. Those secondary gains that are identified in the current research are support gain, convenience gain, self-esteem gain, and material / financial gain. There are two positive outcomes of a co-creative AS-S environment from the consumers' point of view. First is the customer satisfaction which is derived from the service's expert quality and consumers' secondary gain in support and secondary gain in convenience. Accordingly, these findings reveal the satisfying factors for the consumers in an AS-S context: receiving expected level of expert quality, being provided with convenience and support. AS-S customers are the individuals who deal with hardships in their lives as a result of disrupted value co-creation experiences. Therefore, AS-S customers' primary motivation is to resolve their problematic situation to continue with their regular consumption experiences again. Accordingly, it is suggested to AS-S managers to understand their customers' primary motivation to engage in service interactions with them and design their services in a way that will provide their customers the support and convenience that they urge for. This is how service managers can have a successfully co-created service environment with satisfied customers. As a result of consumers' perceived secondary gains in convenience and support, a gain spiral occurs and gain in self-esteem emerges as a result. The gain in self-esteem is the second outcome of co-creative service interactions, which is derived from support and convenience gains. Individuals' self-related beliefs are suggested to have two aspects: one that arises as a stable personality trait which develops since childhood, and the other is mental and emotional state that alters in relation to the specific tasks or situations (Axelrod, 2017). The self-esteem mentioned in this research is the second one which represents a changing mental and emotional state. In the AS-S context, it is observed that consumers do not only experience mere satisfaction, but

they also experience self-esteem-related gains. The vulnerability of consumers in an AS-S context due to hardships they are in and service's ability to touch consumers' lives when they are having troubles make this service context special and more personal. Therefore, it is suggested to the AS-S managers to design their services more personal and customized to the customer's specific needs. In this way, they do not only feel satisfied but through the support and convenience gains that they receive, they will experience self-esteem related gains as well.

As the final implication for the managers, service quality attributes will be discussed. In this research, attitude and behavior quality are not found significantly related to any of positive and negative outcomes that occur as a result of a co-creative and co-destructive service experiences. Considering that the primary expectation of consumers is to receive a technical service (expert quality) so that they can continue their value co-creation processes with their products from where it is disrupted, they get satisfied (dissatisfied) when their expectations are (not) met by the expert quality provided. Expectancy disconfirmation paradigm postulates that customer satisfaction is derived from customer's judgments regarding customer's expected service and the actual service received (Oliver 1989). As the customers' expected service is the service' provision of expertise so that their technical issues can be resolved, when consumers (do not) see the expected expertise during AS-S process their expectations are (not) met and they get satisfied (dissatisfied). On the other hand, attitude and behavior quality, which are the other two dimensions of service's interaction quality, do not have any significant positive or negative effect on the main outcomes of a co-creative and co-destructive service experiences. It infers that politeness (attitude quality) and / or taking actions (behavioral quality) do

not result in any significant differences in customers' experiences, as long as those quality attributes do not bring support and convenience that they urge.

7.3 Limitations and future research

I acknowledge that my approach to studying co-creative and co-destructive AS-S experiences from consumers' point of view also has some limitations. The first limitation that should be mentioned is related to data collection of the content analysis. Customer stories with regards to after-sales service experiences are collected from a complaint website in Turkey (sikayetvar.com). Even though customers explain both negative and positive after-sales service events that they experience on the website, the stories almost always start with a complaint.

Therefore, although those stories at one point in time turn into positive experiences and taken as a gain situation in this research, the sample might have a bias towards customer stories that usually have at least one negative event in it. In order to minimize this bias, focus group interviews were conducted which included participants who had entirely positive, entirely negative, and both negative and positive after-sales service experiences to check whether generated items explain all of their stories. Furthermore, survey data collection for the generated items and conducting exploratory and confirmatory factor analysis helped purification of the data and test validity and reliability. Therefore, even though this limitation should be noted while interpreting the results, it can be argued that it is managed to a great extent. However, further quantitative studies in various AS-S contexts are also recommended to test the reliability of the measures and increase their rigor.

Another limitation of this research is the use of non-probability sampling method in selecting participants for the focus group interviews and the survey due to

restrictions in time and budget. Therefore, the sampling error limitation of the current methodology should be taken into consideration while interpreting the results.

Sampling error, from a theoretical perspective, is any type of bias that can either occur during the selection process of prospective sample units or while determining the sample size (Hair et al., 2018). The probabilistic sampling methods, such as simple random sampling where every single sampling unit has equal chances of being selected, gives the researcher opportunity to estimate the sampling error related to the study. However, applying non-probability sampling method (i.e. snowball sampling) in this study eliminated the possibility of sampling error assessment which limited the generalizability of the sample to the whole population. Large sample sizes, on the other hand, increases data quality and generalizability. With an effort to include large amount of people in the questionnaire, it is aimed to eliminate possible sampling errors and increase the quality and generalizability of the research.

However, considering the complexity of the conceptual models of this research, and suggestion of Hair et al. (2018) for complex models that have more than seven constructs to use very large sample sizes, i.e. over 500, the sample size that is reached in this study (207 for the loss model and 215 for the gain model) still poses limitation. Therefore, for the future research it is recommended to test the model by collecting data applying simple random sampling method and reaching a larger sample size.

Furthermore, another limitation that is worth mentioning is the one type of product category used in the analysis: white goods. Both in the item generation process and later in the correlational investigations, consumers who have received AS-S in the product category of white goods are selected. It resulted in limited primary resource loss variance. Primary resource loss dimensions which are loss in

value-in-exchange, loss in value-in-use, and loss in value-in-context do not vary enough among different types of white goods products. As a result, the relationship between primary resource loss and resource conservation effort constructs couldn't be observed. For future research, it is recommended for the researchers to repeat the study by including various product categories with diversified level of urgencies for the consumers to see primary loss' effect on resource conservation effort.

Besides, it is recommended for the future research to test the secondary gain and secondary loss models in different service contexts which involve other types of primary losses: such as losses derived from a failed service. The current research only focuses on product break-down situations and conceptualizes primary resource loss in terms of tangible products. Investigation of consumer experiences when they incur primary losses in intangible products, such as failed services or destroyed experiences, would be an interesting research avenue. Furthermore, the current study investigates paths to secondary losses and secondary gains separately, but not together. Consumers may encounter both secondary losses and secondary gains at the same service encounter and the interplay between them may shape their experiences. Therefore, future research may scrutinize the mutual effect of secondary losses and secondary gains in customers' satisfaction with their product recovery experiences. Finally, the findings of the current study carry implications about the likely effect of consumers' justice perceptions in their AS-S evaluations. Therefore, it is recommended for future research to investigate the role of consumers' justice perceptions in their secondary loss and secondary gain related evaluations in AS-S contexts.

APPENDIX A

RESOURCES PROPOSED IN CONSERVATION OF RESOURCES THEORY

Resources from COR-Evaluation

Personal transportation (car, truck, etc.)	Ability to organize tasks
Feeling that I am successful	"Extras" for children
Time for adequate sleep	Sense of commitment
Good marriage	Intimacy with at least one friend
Adequate clothing	Money for "extras"
Feeling valuable to others	Self-discipline
Family stability	Understanding from my employer/boss
Intimacy with one or more family members	Companionship
Clothing that is more than what I need	Savings or emergency money
Sense of pride in myself	Motivation to get things done
"Free time"	Spouse/partner's health
Time for work	Support from co-workers
Feelings that I am accomplishing my goals	Adequate income
Hope	Feeling that I know who I am
A good relationship with my children	Adequate credit (financial)
Time with loved ones	Feeling independent
Necessary tools for work	Financial assets (stocks, property, etc.)
Children's health	Knowing where I am going with my life
Stamina/endurance	Affection from others
Necessary appliances for home	Financial stability
Personal health	Feeling that my life has meaning or purpose
Feeling that my future success depends on me	Positive feelings about myself
A positively challenging routine	People I can learn from
Housing that suits my needs	Money for transportation
Sense of optimism	Help with tasks at work
Status/seniority at work	Medical insurance
Adequate food	Involvement with church, synagogue, etc.
Home that is more than what I need	Retirement security (financial)
Stable employment	Help with tasks at home
Intimacy with spouse or partner	Loyalty of friends
Adequate furnishing for home	Help with childcare
Feeling that I have control over my life	Financial help if needed
Sense of humor	Health of family/close friends
A role as a leader	Involvement in organizations with others who have similar interests
Ability to communicate well	Money for advancement or self-improvement (education, starting a business)
Essentials for children	Advancement in my education or training
Feeling that my life is peaceful	
Acknowledgment for accomplishment	

Figure A1. Resources from COR Evaluation
(Hobfoll & Lily, 1993)

Personal transportation (car, truck, etc.)	Adequate food	Adequate financial credit
Feeling that I am successful	Larger home than I need*	Feeling independent
Time for adequate sleep	Sense of humor	Companionship
Good marriage	Stable employment	Financial assets (stocks, property, etc.)
Adequate clothing	Intimacy with spouse or partner	Knowing where I am going with my life
Feeling valuable to others	Adequate home furnishings	Affection from others
Family stability	Feeling that I have control over my life	Financial stability
Free time	Role as a leader	Feeling that my life has meaning/purpose
More clothing than I need*	Ability to communicate well	Positive feeling about myself
Sense of pride in myself	Providing children's essentials	People I can learn from
Intimacy with one or more family members	Feeling that my life is peaceful	Money for transportation
Time for work	Acknowledgment of my accomplishments	Help with tasks at work
Feelings that I am accomplishing my goals	Ability to organise tasks	Medical insurance
Good relationship with my children	Extras for children	Involvement with church, synagogue, etc.
Time with loved ones	Sense of commitment	Retirement security (financial)
Necessary tools for work	Intimacy with at least one friend	Help with tasks at home
Hope	Money for extras	Loyalty of friends
Children's health	Self-discipline	Money for advancement or self-improvement (education, starting a business)
Stamina/endurance	Understanding from my employer/boss	Help with child care
Necessary home appliances	Savings or emergency money	Involvement in organisations with others who have similar interests
Feeling that my future success depends on me	Motivation to get things done	Financial help if needed
Positively challenging routine	Spouse/partner's health	Health of family/close friends
Personal health	Support from co-workers	
Housing that suits my needs	Adequate income	
Sense of optimism	Feeling that I know who I am	
Status/seniority at work	Advancement in education or job training	

Note: * Although luxury resources, groups repeatedly admitted investing more in these two luxury resources than other resources they deemed more important.
From S.E. Hobfoll (1998).

Figure A2. List of Resources
(Hobfoll, 2001)

APPENDIX B

AFTER SALES SERVICES LITERATURE REVIEW

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Mathe and Shapiro, (1990)	Empirical / Qualitative	N/A	Preparation, Customer information and training, maintenance of durable equipment (all-interrelated elements for ASS)	To articulate on strategic service mix in organizations	<u>Organizations:</u> Case Study of a medical equipment firm	Proposed a policy for strategic service mix which requires the integrated strategies before, during and after sale.
Cohen and Lee, (1990)	Empirical / Qualitative	“Activity that supports products after they are delivered to customers” (p. 55)	Design for serviceability and service delivery	Service delivery strategies on managing the flow of spare parts	<u>Organizations:</u> Case Study of a mainframe computer firm and an automobile manufacturer	Effective spare parts management requires changes in the design of the facility network, location and stocking rules for parts, measurement and management of service, and data management and parameter estimation
Knecht, Leszinski, and Weber, (1993)	Conceptual	N/A	N/A	To provide recommendations for <u>industrial companies</u> to capture value and recognize dangers in AS-S	N/A	Value of aftersales services to be captured depends on factors such as pricing and business system adjustments. There are potential risks as well that are categorized as lower attractiveness, insufficient information, negative spillover effects, and lack of skills

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Lomba (1996)	Empirical / Qualitative	“After-sales service support entails all activities undertaken by service support providers to ensure that consumers continue to obtain trouble-free use of the product over its life cycle.” (p. 4)	warranty provision, extended service contract provision, availability of repair service, loan availability, toll-free phone support etc.	To find out what distribution and service support channel structure(s), either centralized or decentralized, is(are) most suitable for a manufacturer in a particular industry	<u>Organizations:</u> Case study of two computer manufacturing firms through in-depth interviews	The results provide that product distribution and after-sales service support strategies are closely linked to each other. Furthermore, these case studies suggest that the channel selection criteria for product distribution and service support strategies in the computer-equipment industry are dependent on specific attributes of the products that a firm offers; the firm itself; and the industry in which a firm operates.
Asugman et al. (1997)	Empirical / Quantitative	“those activities in which a firm engages after purchase of its product that minimize potential problems related to product use and maximize the value of the consumption experience.”(p. 12)	Installation and start-up, replacement parts, repair services, technical support and consultation, and warranties	comparative study of A-Ss levels at home and export markets for same durable products	<u>Organizations:</u> Interviews and surveys in the industry of durable goods	The intensity of competition, product quality, and power in the distribution channel moderate the relationship between the importance of and the actual offer of AS-S in the foreign market
Lele (1997)	Conceptual	N/A	Services that are related to Product-design, support-system, and reducing or minimizing customer risk	Segmentation of ASS	N/A	Based on fixed and variable costs that customers incur for the failure of different product types, four after-sales service segments are: (1) disposable, (2) repairable, (3) rapid response and (4) never fail

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Lomba (1998)	Empirical / Quantitative	“After-sale service support issues entail all activities undertaken by service support providers (manufacturers, retailers, and/or independent servicers) to ensure that a product is available for trouble-free use to consumers over its useful life span.” (p. 143)	warranty provision, extended service contract option, availability of repair service, loaners, toll-free phone service, etc.	to explore empirically the linkages between product distribution and after-sales service support function in a particular industry	Organizations: secondary data from Computer Select (1992) database of all manufacturing firms (including computer hardware, software, and telecommunication firms) in the US computer equipment industry.	For computer equipment firms, the choice of a service support channel is partially associated to both the type of product offered and to the distribution channel choice.
Davenport and Klahr (1998)	Conceptual	N/A	N/A	To describe why managing customer support knowledge is important to organizations and to give several examples of clear benefits that have already been achieved (in variety of industries but focuses heavily on the information technology Industry)	N/A	Benefits of customer support knowledge share: improving quality of solutions delivered to the customer, establishing consistency, increasing first-call resolutions, reducing cost per call, reducing calls to the support desk, reducing field service costs, moving to a less technical, more customer-oriented front-line staff, accelerating training, increasing staff satisfaction, increasing customer satisfaction

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Fortuin and Martin (1999)	Conceptual	N/A	N/A	To examine service parts inventory control for non-repairable service parts in the normal phase	N/A	New concepts aimed to reduce the problem of slow moving parts are described, for example: suppliers leasing service parts; standardization of parts for the group of machines in a factory or over a complete sector of industry; a ``broker" between suppliers and customers who makes the service parts inventories transparent and facilitates pooling of parts.
Goffin (1999)	Empirical / Qualitative	“assistance to help them [customers] obtain maximum value from their purchases.” (p. 374)	Customer installation; user training; documentation; maintenance and repair; on-line support; warranty; and upgrades.	Distribution channels of ASS	<u>Organizations:</u> Case study of five companies in five different industries: telecommunications, automobiles, vending machines, aircraft and domestic appliances	Identified Five Types of Distribution Channel: Direct from factory, Own (direct) field support organization, Approved dealers (indirect), Customers’ own resources (trained engineers), Combinations
Verstrepen et al. (1999)	Empirical / Qualitative	“all activities related to enabling existing customers to quickly locate, contact and activate the supplier's resources that are needed in order to create satisfactory product-related services, answers to inquiries or solutions to problems.” (p. 539)	installation, repair, maintenance, quality control, complaints handling, ... and all other activities that take place after an initial sales transaction.	after sales service trends in the Belgian automotive industry	<u>Organizations:</u> Interviews with nearly twenty Belgian professionals from various automotive corporations and distribution channels	“Service after sales efforts are generally perceived to help build a strong company image and a lot of goodwill from customers and distribution channels”

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Wetzels, de Ruyter, and Lemmink (1999)	Empirical / Qualitative	N/A	N/A	The role stress experienced by after-sales service personnel	<u>Organizations:</u> Longitudinal survey to the service employees in customer contact in the after-sales service department of a large Dutch manufacturer of office equipment.	Four organizational influences to role stress (formalization, empowerment, supervisory behavior, and perceived group cohesiveness) have impact on job satisfaction
Wilson, Boström, and Lundin (1999)	Empirical / Qualitative	N/A	installation, training, routine maintenance, emergency repair, parts supply, and software services	differences that develop in the provision of AS-S through a distribution network across cultures	<u>Organizations:</u> In-depth interviews with management level employees in a Swedish international capital goods manufacturer	It is a key success factor to retain flexibility in operations - tailoring to the market
Cohen et al. (2000)	Empirical / Qualitative	N/A	N/A	Supply chain effectiveness in ensuring the availability of parts	<u>Organizations:</u> Case study of a car company – Saturn	Proposes two effective supply chain strategies: (1) Distributed for products that have high level of service criticality, and (2) Centralized for products that have low level of service criticality
Anell and Wilson (2001)	Empirical / Qualitative	“After-sales services are those services provided to customers after a purchase” (p. 96)	installation and set-up assistance, training, parts and repair access	Exploring to which degree organizational architecture plays a role in after-sales service success	<u>Organizations:</u> through in-depth interviews by senior individuals, comparative case study is conducted on two firms supplying to international markets— one directly and the other through a network	No apparent effect of organizational architecture on AS-S success is found. It suggests that if after-sales service systems are market driven, quite different distribution structures might be equally effective

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Goffin and New (2001)	Empirical / Qualitative	Customer support (taken synonymously as AS-S) is – “assistance to help them [customers] gain maximum value from their purchases” (p. 275)	installation, documentation, maintenance and repair services, user training, on-line support, warranty, and upgrades	To identify how customer support is typically evaluated at the design stage of new product development in different industries and for simple versus complex products.	<u>Organizations:</u> Case study through semi-structured interviews with the customer support manager and other informants in five different industries, namely telecommunications, the car industry, vending machines, aircraft and domestic appliances.	It suggests the need to allocate adequate resources to integrating customer support requirements into new product development.
Leo and Philippe (2001)	Empirical / Quantitative	Describes after-sales service and maintenance as “where the sale of a product ultimately involves the provision of a service” (p. 92)	All services transferred with goods to foreign countries are after-sales service, technical assistance, transport, installation and fitting, maintenance and servicing, training, technical consultancy, advertising, administrative work, equipment rental, insurance & financial services, temporary staff, patent & license transfers, management consultancy, information transfers, security, surveillance catering	To evaluate the significance of services in the export of French industrial products to foreign countries	<u>Organizations:</u> Questionnaire is sent out to the firms exporting material goods	The mainspring of the tertiarization trend in French exporting firms is the complexity of the product, which concerns sectors to differing degrees. The level of organization and the type of export are also relevant. The services which are the most closely linked to the product (AS-S, technical assistance, transportation, machine setting or maintenance services) are the more commonly provided by exporters.

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Van Dolen, Lemmink, Mattsson, and Rhoen (2001)	Empirical / Qualitative & Quantitative	N/A	N/A	Explores the effect of emotion on satisfaction with AS-S	<u>Business Customers</u> : Content analysis of descriptions of longitudinal customer satisfaction survey at a Dutch office equipment manufacturer	Emotions explain customer satisfaction to a significant extent. Both the basic emotions and the intensity of emotions play substantial role in customer satisfaction.
Van Birgelen, de Ruyter, de Jong, and Wetzels (2002)	Empirical / Quantitative	N/A	N/A	Examines the moderating effect of national culture on the perceived service quality–customer satisfaction relationship for three after-sales service contact modes; face-to-face, voice-to-voice, and bit-to-bit,	<u>International business customers</u> of a major multinational office equipment manufacturer in eleven different countries were examined through sending questionnaires.	The results suggest that, in contrast to the traditional face-to-face service encounter, the perceived quality–satisfaction relationship is particularly moderated by national culture in the case of an after-sales service contact mode mediated by technology.
Graessler, (2003)	Conceptual	N/A	N/A	Discusses the necessity of close cooperation between an OEM and supplier, and the interrelated business processes and information flows in AS-S.	N/A	To ensure a meaningful share of increasing after-sales service business, an effective customer relationship management is required. Based on a detailed customer’s profile, individualized AS-S can be offered which fulfill each customer’s unique requirements and thus significantly contribute to the company’s revenue as well as to high customer loyalty rates.

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Markeset and Kumar, (2003)	Empirical / Qualitative	“is a recovery process that attempts to resolve a customer problem, which, if not resolved, causes dissatisfaction and a less satisfied customer.” (p. 382)	maintenance, service and repair, installation, commissioning, training, maintenance and repair services, documentation, spare parts supply and logistics, product upgrading and modifications, software, and warranty, schemes, telephone support, etc	examines various issues such as reliability, availability, maintainability, and supportability (RAMS), etc., which directly or indirectly affect product support, maintenance needs and related costs	<u>Organizations:</u> Case study conducted in a manufacturing company of industrial products	The paper emphasizes that the strategy for product support should not be centered only on “product”, but should also take into account important issues such as the service delivery capability of the manufacturers, service suppliers, the capability of users’ maintenance organization, etc.
Oliva and Kallenberg, (2003)	Empirical / Qualitative	AS-S provided by manufacturing firms is called as IB services which refers to “the range of product- or process related services required by an end-user over the useful life of a product in order to run it effectively in the context of its operating process.” (p. 163) where IB refers a product’s installed base “which is the total number of products currently under use”. (p. 163)	Documentation, transport to client installation, product-oriented training, Help desk, Inspection, Repairs/spare parts, Product updates/upgrades, Refurbishing, Recycling/machine, brokering, Preventive maintenance, Condition monitoring, Spare parts management, Full maintenance contracts, Process-oriented engineering (tests, optimization, simulation), Process-oriented R&D, Spare parts management, training and consulting, managing maintenance function, Managing operations.	Identifies the dimensions when creating a service organization in the context of a manufacturing firm, and successful strategies to navigate the transition.	<u>Organizations:</u> Interviews with 11 capital equipment manufacturers developing service offerings for their products (for B2B), and a detailed archival assessment of the organizations’ experience in integrating services into their product offering	The transition involves a deliberate developmental process to build capabilities as firms shift the nature of the relationship with the product end-users and the focus of the service offering

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Johansson and Olhager, (2004)	Conceptual	AS-S is named as industrial service which refers to “the supply of after-sales services, including tangibles such as spare parts and consumables, related to the maintenance of industrial goods” (p. 309)	Products are disassembled, cleaned, specific parts are replaced, and products are reassembled and shipped; spare parts, knowledge, and on-site personnel are supplied.	To develop a framework for categorizing and positioning the industrial services through suppliers’ viewpoint.	N/A	The industrial service profiling (ISP) framework is developed for analyzing and positioning industrial service, allowing for more aspects on the type of service provided and executed.
Cohen, Agrawal, and Agrawal (2006a)	Conceptual	“The after-sales service products customers buy are equivalent to entitlements for response to a support need within a specified time, at a specified level of reliability and for a specified price.” (p. 260)	Includes a network of resources that include material (service parts), people (service engineers, call-center staff, repair staff, warehouse staff, and transportation staff), and infrastructure (for moving and storing materials, repair, transportation, information systems, and communication).	To answer the questions (1) how an organization should optimally position and manage service-supply-chain resources to deliver after-sales service; and (2) What is the most cost-effective and service effective way to provide service?	N/A	Firms should adopt dynamic asset deployment (DAD) to design their service products and to manage the deployment and use of service resources. Effective and profitable service delivery depends on managing service assets and fulfilling service demand in a flexible and integrated manner.

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Saccani et al., (2006)	Empirical / Qualitative	N/A	installation packages, technical advice for use, maintenance/repair, spare parts delivery, product upgrading etc.	It addresses the role of after-sales service in durable consumer goods industries, and the related after-sales performance measurement issues.	<u>Organizations:</u> Exploratory case study of 48 firms in the automotive, household appliance, IT and consumer electronics industries with after-sales operations in Italy.	Data show that different after-sales roles and different performance measurement practices are pursued in different industries; which are categorized as marketing focus, sales and profitability focus, and product and process development focus.
Cohen et al., (2006b)	Conceptual	N/A	conducting repairs; installing upgrades; reconditioning equipment; carrying out inspections and day-to-day maintenance; offering technical support, consulting, and training; and arranging finances	To provide strategies and challenges in the aftersales market that should be comprehended by the firms to be successful.	N/A	Discusses the challenges in the aftersales market, strategies to manage service networks, the business model of AS-S based on service priority, creating and providing service as a product.
Cavalieri et al., (2007)	Empirical / Qualitative	“taking up those activities occurring after the purchase of the product and devoted to supporting the customer in the usage and disposal of the goods” (p. 437)	N/A	To investigate the relation and consistency between business strategy, service chain configuration and performance measurement systems; and the alignment between strategic, tactical and operational levels of after-sales services.	<u>Organizations:</u> Case study of three companies in Italy; (1) an automaker company, offering a full range of models from mini-vehicles to large trucks, (2) a carmaker positioned in the premium market niche, (3) a motorbike company positioned in premium market.	Provides a framework that relates corporate after-sales strategic and tactical performances with those requested at more operational levels, identifies the key processes to manage and evaluate, and provides specific performance models for monitoring and control the after sales service effectiveness and efficiency assessing the cause and effect relationship between operational drivers and financial and competitive results

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Gaiardelli et al., (2006)	Empirical / Qualitative	“those activities taking place after the purchase of the product and devoted to supporting customers in the usage and disposal of the goods” (p. 146)	N/A	To define a structured business performance measurement system for AS-S	<u>Organizations</u> : four case studies in durable consumer goods – automotive, home appliances and consumer electronics	proposes an integrated framework for AS performance measurement consisting of four levels (business, process, activity, and development and innovation) that addresses several performance areas at each level, giving emphasis to both efficiency and effectiveness performance, and at the same time, addresses internal and customer-oriented measures.
Gaiardelli et al., (2007)	Empirical / Qualitative	“those taking place after the purchase of the product and devoted to support customers in the usage and disposal of goods” (p. 698)	N/A	To define a structured business performance measurement system for AS-S	<u>Organizations</u> : Case studies in two car manufactures in Italy	Provides empirical evidence for the framework developed by Gaiardelli et al., 2006 with case studies of two automotive companies
Kim and Park, (2008)	Empirical / Quantitative	N/A	N/A	investigating the role of EOL (end of life) services in enhancing sales and pricing optimally	<u>Organization</u> : Numerical Case analysis of mobile phone manufacturing industry	The relationship between optimal EOL warranty period and failure rate (defect rate) is concave: when the defect rate is moderate, the company has to increase its EOL warranty period as the defect rate increases so as to compensate for the deteriorating quality; but, when the defect rate is beyond a threshold level, the company needs to curtail its EOL warranty commitment as the defect rate increases in order to avoid excessive cost to service the failed parts.

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Rigopoulou et al., (2008)	Empirical / Quantitative	“services that are provided to the customer after the products have been delivered” (p. 514)	Transport/delivery to clients, the installation, the product-related training, the hot line and advice by the help desk, any repairing service and the recycling process.	To understand whether service quality of “delivery” and “installation”, which are the first AS-S that are offered to customers just after the sales stage, have an impact on their overall satisfaction and on their behavioral intentions to re-purchase and to recommend (WOM).	<u>Customers</u> : a questionnaire, was administered via phone interviews to the customers of a large retail chain marketing electrical appliances in Greece and (with 420 usable responses)	After-sales service quality affect satisfaction, which in turn affects behavioral intentions.
Ahn and Sohn, (2009)	Empirical / Quantitative	N/A	Technical advice, maintenance/repair, spare parts delivery and product upgrading	To find the satisfying after sales service characteristics for different groups of customers, since customers’ needs for AS-S are not homogeneous.	<u>Customers</u> : Survey is conducted to the customers of two companies: (1) a company which produces a water purifier and a water softener, and (2) a company which produces home appliances such as TV’s, refrigerators, and air conditioners	A framework is proposed that consists of the clustering of customers in terms of customer satisfaction index toward the after-sales service provided, as well as extracting the association of the preferred kind of after-sales service for each clustering of customers.

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Legnani, Cavaleri, and Ierace (2009)	Empirical / Qualitative	“Customer support entails all activities to ensure that a product is available for trouble-free use to consumers over its useful life span.” (p. 113)	maintenance, service and repair, installation, commissioning, training, documentation, spare parts supply and logistics, product upgrading and medications, software patches, warranty schemes, phone support, etc.	To propose a framework, which provides a common representation of the after-sales service processes and activities according to a configuration model that links different typologies of assistance with product characteristics for service operations.	<u>Organizations</u> : Case study is conducted to three companies <u>in industrial context</u>	provides a comprehensive mapping of the AS service processes and activities according to a configuration model which links different customer supports with product characteristics for service operation
Shaharudin, Yusof, Elias, and Mansor (2010)	Empirical / Quantitative	“services that are provided to the customer after the products have been delivered; “product support activities, meaning all activities that support the product-centric transaction” (Lele and Karmarkar, 1983); “customer support elements where all activities that ensure that a product is available to consumers over its useful lifespan for trouble-free use” (Loomba, 1998). (p. 12)	installation, warranties, extended warranties, maintenance service contracts, provision of spares, training programs, product upgrades and etc	To investigate the factors in after-sales service; i.e. delivery, installation, and warranty that affect customer satisfaction.	<u>Business Customers</u> : questionnaire is distributed to a sample selected from engineering, marketing and purchasing department of the customers of the electronics companies in Malaysia.	AS-S such as delivery, installation and warranty significantly influence customer satisfaction.

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Kurata and Nam, (2010)	Conceptual	N/A	N/A	To analyze whether the after- sales service that both a retailer and a manufacturer offer to maximize their profit is equivalent to the after-sales service that would most satisfy customers	N/A	Equilibrium service levels determined by maximizing the firm’s profit (i.e., the best after-sales service from an operations perspective) are generally lower than the optimal levels that satisfy customers the most (i.e., the best after-sales service from a marketing perspective).
Levrik, Fahy, and Easterby-Smith (2010)	Empirical / Qualitative	N/A	spares, repairs, maintenance and upgrades of customer installations	To find out whether and how temporal aspects of technology, customer rhythms and work-life conventions influenced individual learners’ ability to draw upon relevant resources and relations.	<u>Organization:</u> (in B2B sector) In-depth interviews over a two-year period with senior managers, service managers, service engineers, customer representatives, and other staff working in ASS roles.	Propose that external temporal structures influence the nature of learning within organizations.
Potluri and Hawariat, (2010)	Empirical / Quantitative & Qualitative	“recovery process that attempts to resolve customer problem” (p. 78)	Provision of information, service delivery, maintenance and repair, billing service, and complaint handling service.	To assess and review fixed-line telecom customers’ perception of the quality of AS-S provided by Ethiopian Telecom.	<u>Customers:</u> questionnaires sent to a sample of 450 telecom customers. <u>Organizations:</u> interviews were conducted with managers and selected employees to provide supporting data.	The reasons for Ethiopian telecom customers’ dissatisfaction about the service delivery are identified

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Fazlzadeh, Bagherzadeh and Mohamadi, (2011)	Empirical / Quantitative	“those taking place after the purchase of the product and devoted to support customers in the usage and disposal of goods” (p. 7658)	N/A	To investigate the effect of AS-S on customers’ satisfaction as well as on their behavioral intentions	<u>Customers:</u> customers of a large retail chain of home appliances in Iran	After-sales service quality, affect satisfaction, which in turn affects behavioral intentions.
Hussain et al., (2011)	Empirical / Quantitative	N/A	N/A	To investigate after sales service quality of Pakistan’s automotive battery manufacturer and its impact on satisfaction	<u>Customers:</u> Questionnaire was sent to the customers of the company Atlas Battery in Pakistan	The main variables effecting customer satisfaction are product quality and social responsibility. The results reveal that customer satisfaction increases with better service delivery
Pakdil, Işın, and Genç (2012)	Empirical / Qualitative & Quantitative	N/A	N/A	To investigate the customer expectations and needs for AS-S based on a real-life problem of leading international construction machinery manufacturing firm	<u>Business Customers:</u> Content analysis followed by a questionnaire was applied to the customers of a leading international construction machinery manufacturing firm’s after sales services department	The most important customer expectations are identified as; competency and experience of employees, immediate identification of product defects, and good customer service during the warranty period. Moreover, repair time, the duration of customer interaction, employees’ attention, and spare parts availability are the most critical technical requirements in after sales services.

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Kurata and Nam (2013)	Conceptual (based on a Nash equilibrium)	N/A	N/A	As an extension of Kurata and Nam's (2010) work, they explore how uncertainty in understanding customers' real needs for after-sales service can influence a firm's decisions on after-sales service offers.	N/A	They present the possibility that the equilibrium after-sales service level of the uncertainty model will become closer to the optimal service level than that of the certainty model which is referred to as accidental outperformance.
Raychaudhuri and Farooqi (2013)	Empirical / Qualitative & Quantitative	Service definition for industrial markets: "is associated with an interaction with the product itself, as well as service firm's personnel, anything that increases the value of the products to buyers" (Singh, 1990). (p. 508)	N/A	(1) Identification of relevant customer requirements and service attribute items for ASS; (2) conceptualization of service quality construct in the field of IT hardware industry signifying service interactions, improvements and preparedness; and (3) to examine the relationship between service quality dimensions and customer satisfaction	<u>Business customers</u> : Interviews with IT in-charge or IT head of the clients of three computer service provider company in Delhi followed by a questionnaire.	Developed items for four after-sales service quality dimensions namely; after-sales service performance (equivalent to technical quality of Grönroos, 1988), service improvements (new dimension proposed in this study), technical preparedness (new dimension proposed in this study), and behavioral skills (equivalent to functional quality of Grönroos, 1988)

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Gupta et al., (2016)	Empirical / Quantitative	N/A	N/A	Examines the dark side of using reseller networks to provide AS-S; specifically, the dark side of manufacturer-reseller relationships	<u>Organizations</u> : Resellers of technology brands in India	Unsuccessful delivery and failure of Value-Added Retailers to provide after-sales services put brand performance at risk and, as a consequence, negatively influences perceptions of other resellers concerning the brand. Thus, a VAR's inability to support customers can discourage resellers from offering the brand to their customers.
Murali et al., (2016)	Empirical / Quantitative	"entails all of the activities that take place during the product use cycle – from the time of purchase to the time when a product is taken out of service by the customer." (p. 69)	technical advice, maintenance/repair, spare parts delivery and product upgrading, and so on	to evaluate the ASS quality by measuring the level of customer satisfaction, customer retention, and customer loyalty through the SERVQUAL dimensions	<u>Customers</u> : who avail after sales services offered by the various home appliances manufacturing firms.	The study has identified the service quality dimensions that significantly correlated with satisfaction, retention, or loyalty and proposed that those attributes that are significantly correlated with all dependent variables are service winners, while those that are correlated one or two variables are service qualifiers.
Rezapour et al., (2016)	Empirical / Quantitative	N/A	N/A	To develop a mathematical model for integrated flow planning in forward and after-sales supply chains of a company supplying repairable product-warranty packages to markets.	<u>Organizations</u> : the developed model is solved for an example in the automobile industry	a mathematical model is developed to determine the best marketing strategies, the best (price, warranty, and service levels) triple, and the best flow plan in its SCs to support marketing strategies against uncertainties.

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Tavakoli, Feyz Arefi, Heidari, and Mirjafari (2016)	Empirical / Qualitative	“include all the activities that occur after the product is purchased and are allocated to ensure continuous availability of goods, by reestablishing its capabilities after the appearance of imperfections; solving problems that customers are facing at the end of using goods; supporting customers in the design, management and control of activities and the processes related to the use of the product; supporting customers at the end of product life (reverse logistics); increasing the levels of customer satisfaction; and helping to create a competitive advantage for the entire supply chain” (Pezzotta et al., 2008) (p. 127)	<u>Main dimensions:</u> (1) Transport, installation and storage; (2) Maintenance and repair; (3) Management of end of product life; <u>Support Dimensions:</u> (1) Training; (2) Documentation; (3) Accountability and complaint handling; (4) Management Information System of AS-S	To develop and design a model for the after-sale services system according to the importance and necessity of AS-S policies.	<u>Organizations & Business Customers:</u> In depth interviews with the producers and their business customers (in B2B market)	The identification of dimensions for the AS-S model and the designing of a conceptual model in both sections of enablers and results. The enabler section of the proposed model includes seven dimensions, three main sectors and four support sections.

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Wickramasinghe and Mathusinghe, (2016)	Empirical / Quantitative	“include support services that are provided to the customer after the product has been sold and delivered such as technical advice for use, maintenance and the provision of spare parts and repair services (Saccani et al., 2007; Low, 2013) to ensure a trouble-free use over the useful lifespan of the appliance” (Loomba, 1998; Rigopoulou et al., 2008).”(p. 115)	Such services as technical advice for use, maintenance and the provision of spare parts and repair services.	to investigate different dimensions of the provision of AS-S of home appliances from the perspective of service engineers, service technicians and customers	<u>Organizations & Customers:</u> data collected from service engineers, service technicians and customers of a home appliance firm’ after-sales service department in Sri Lanka	The dimensions of the perceptions of service engineers (resources, departmental systems, material management, and delivery to the customer), service technicians (knowledge, skills and attitudes, training & support,) and customers (demonstrated expertise, call center, and warranty) about the provision of AS-S have been identified and classified.
Albors-Garrigos et al., (2017)	Empirical / Quantitative	N/A	N/A	To investigate the impact of national culture in the after sales service in the automotive sector.	<u>Customers:</u> Online survey is conducted to the customers of automobile companies in China.	Perceived service quality significantly leads to after-sales service satisfaction, which itself is a strong predictor of workshop loyalty which leads to brand loyalty. The impact of culture on these dimensions, except customer satisfaction, is empirically verified.
Borchardt et al., (2018)	Empirical / Qualitative	“After-sales could be understood like a set of roles: product support, manifestation of the brand and customer’s relationship.” (p. 1688)	N/A	to analyze after-sales quality management practices adopted by leader car dealerships	<u>Organizations:</u> Case study with leader car dealerships in Brazil	Succeeding processes proposed as: continuous improvement management; warranties and stock management; services scheduling; offer bonuses to customers; and customers service that emphasizes focus on technical and commercial expertise.

Authors	Scientific Approach / Method	Definition of AS-S	Classification of the Components of AS-S	Study Purpose	Unit of Analysis	Key Outcome
Trang and Tho, (2019)	Empirical / Quantitative	Differentiated reactive vs proactive AS-S with the following definitions. "Reactive post sales services... refer to post sales services that are initiated by customers; that is, services are provided in reaction to customer requests or complaints.... In contrast, proactive post sales services... refer to services initiated by suppliers; that is, suppliers proactively contact their customers to provide assistance..." (p. 249-250)	Forms of proactive AS-S are proposed: proactive prevention, proactive education, and proactive feedback seeking.	To investigate the effect of proactive post sales services on supplier innovativeness and customer satisfaction	<u>Customers:</u> Car and laptop customers in Vietnam is surveyed	Proactive post sales services effect supplier innovativeness and customer satisfaction positively. Furthermore, product category moderates the relationship between PPS and both supplier innovativeness and customer satisfaction.

APPENDIX C

MAIN VARIABLES ANALYZED IN AS-S SERVICES LITERATURE

	Authors	Customer Outcomes
<p>Negash et al. (2003)</p>	<p>Service Quality (SERVQUAL)</p> <p>Tangible Reliability</p> <ul style="list-style-type: none"> • Has a modern looking interface • Has visually appealing features • Has visually appealing materials • Provides the right solution to my request • Presents a useful alternative to solve my problem • Dependable <p>Assurance</p> <ul style="list-style-type: none"> • I trust the Web-based support interface • I feel safe when making transactions <p>Responsiveness</p> <ul style="list-style-type: none"> • Tells me exactly when services will be performed • Gives me prompt service <p>Empathy</p> <ul style="list-style-type: none"> • Does not give me individual attention • Not a good interface to communicate my needs • Does not have convenient operating hours <p>Information Quality</p> <p>Informativeness</p> <ul style="list-style-type: none"> • Accurate source of information • Provides timely information • Has up-to-date information <p>Entertainment</p> <ul style="list-style-type: none"> • Entertaining • Enjoyable • Fun to use <p>System Quality</p> <p>Interactivity</p> <ul style="list-style-type: none"> • Provides quick feedback • Gives me a variety of alternatives for solving my problem • Has a natural and predictable screen changes <p>Access</p> <ul style="list-style-type: none"> • Responds quickly during the busy hours of the day • Makes it easy to contact the customer support manager • Makes it easy to get to customer support information 	<p>User Satisfaction</p>
<p>Rigopoulou et al. (2008)</p>	<p>Service Quality:</p> <p>Delivery:</p> <ul style="list-style-type: none"> • Reliability in delivery times • Quality of the product packaging when delivered • Transfer of product • Quality of the product itself when delivered • Reception of the proper invoice/delivery papers • Kindness and friendliness of the delivery • Personnel • Appearance of the delivery personnel <p>Installation:</p> <ul style="list-style-type: none"> • Accurate information about time of installation • Time elapsed between delivery and installation • Attentiveness of installation personnel in order to avoid damages • Flawless of the installation • Kindness and friendliness of the installation personnel • Advice and instructions given by the technicians 	<p>Overall Satisfaction</p> <p>Repurchase Intention</p> <p>Word of Mouth</p>

<p>Ahn and Sohn (2009)</p>	<p>Perceived Service Quality Call Center services</p> <ul style="list-style-type: none"> • Convenience of use • Speed of Access • Specialty of Service Representative • Speed of answering and handling • Positiveness of Service Representative • Kindness of Service Representative <p>Home visiting service:</p> <ul style="list-style-type: none"> • Convenience of use • Timing of Appointment • Visiting technician's Ability • Speed of handling • Visiting technician's Positiveness • Visiting technician's kindness and neatness <p>Claim / Complaint Handling:</p> <ul style="list-style-type: none"> • Simple method of inquiry, claim contacts • Simple compensation procedure • Providing information on handling procedure continuously • Speed of answer and handling • Speed of registration • Providing adequate response, • Speed of compensation procedure • Mediation from consumer protection board, • possession of a certification for protecting customer rights, • attentiveness to employee reaction to claim <p>Customer Complaints Customer Expectations Customer Satisfaction Customer Loyalty Perceived Value</p>	<p>Customer Segments of ASS</p>
<p>Potluri and Hawariat (2010)</p>	<p>Service Quality Service Delivery (After-sales service process and procedural easiness)</p> <ul style="list-style-type: none"> • To get information about after-sales service • Registration for after-sales service • Application procedure and its easiness <p>Maintenance services</p> <ul style="list-style-type: none"> • Timeliness, accuracy and completeness of maintenance • Accuracy and completeness of repair of telephone lines <p>Billing Services</p> <ul style="list-style-type: none"> • Queue for bill payment • Issuance of bill according to the schedule • Price calculation on the bill • Clarity and understandability of the bill <p>Complaint handling services</p> <ul style="list-style-type: none"> • Reception and treatment of customers during complaints • Response on complaints • Fair judgment on complaints 	<p>Customer Satisfaction Customer Dissatisfaction</p>
<p>Hussain et al. (2011)</p>	<p>- Core service or service product - Human element of service delivery - Systematization of service delivery: non-human element - Tangibles of service (service escapes) - Social responsibility</p>	<p>Customer Satisfaction</p>
<p>Murali et al. (2016)</p>	<p>Service Quality (SERVQUAL Dimensions) Reliability:</p> <ul style="list-style-type: none"> • Consistency of service quality • Choice and range of service • Provision of needed spare parts • Provision of service as promised <p>Responsiveness</p> <ul style="list-style-type: none"> • Reasonable warranty policy • Responsiveness to customer complaints • Time taken for resolving the complaint 	<p>Customer Satisfaction Customer Loyalty Customer Retention</p>

	<ul style="list-style-type: none"> • Reasonable servicing cost <p>Assurance</p> <ul style="list-style-type: none"> • Handling of customers • Professionalism of service people • Technical competence of service people • Interpersonal behavior of service people <p>Empathy</p> <ul style="list-style-type: none"> • Accessibility of service people • Easiness to contact service people • Understanding the needs of customers <p>Tangibles</p> <ul style="list-style-type: none"> • Provision of service tools/equipment • Accessibility of service center • Complaint registration facilities • Quality and availability of technical manuals / service documents • Availability of information and advice at service center 	
Wickramasinghe and Mathusinghe (2016)	<p>Customer Perceptions of ASS</p> <p>Demonstrated expertise (Repair & Maintenance)</p> <ul style="list-style-type: none"> • Faults in the products were diagnosed without delay • The product is in use/operation after the repair Repair/replacement was completed as promised • Repaired/replacement product was delivered as promised • The problem diagnosed was correct • Competence shown by the after-sales service department during the job was appreciable • Time taken for the repair was reasonable • The way job was handled by the after-sales service department was trustworthy <p>Call center</p> <ul style="list-style-type: none"> • Operating hours of the call center is satisfactory • Call center personnel gave good attention to my complaint • Call center personnel showed appreciable willingness to help me • Call center personnel were aware about my needs • After-sales service department responded to my complaint promptly • Conflicts occurred between call center personnel and myself were negligible • Call center personnel recoded/documentated my complaint correctly <p>Warranty</p> <ul style="list-style-type: none"> • Charging procedure of repair/replacement was reasonable • Warranty period provided for the product is sufficient • Warranty terms provided for the product is satisfactory 	NOT EXAMINED
Albors-Garrigos et al. (2017)	<p>- Perceived Service Quality</p> <p>- Culture Construct</p>	ASS Satisfaction Loyalty

APPENDIX D

SECOND JUDGE TRAINING DOCUMENT

Primary Resource Loss:

- Primary resource loss refers to the value of the loss for customer which is directly related to product failure / breakdown.
- This loss is independent from losses / failures that result from After-Sales Services interactions.
- These are the product related variables, which determine the value of product loss when failure occurs.
- In the literature there are three types of value (see below with their sub-dimensions)
- We can categorize value of product-related losses based on these three dimensions.
 - 1- Loss in Value-in-Exchange
 - Price related variables
 - 2- Loss in Value-in-Use
 - Emotional Value
 - o Expressing Emotions
 - o Fun
 - Esteem Value
 - o Social Acceptance
 - o Self-respect
 - o Embarrassment avoidance
 - Convenience Value
 - o Speed
 - o Ease of Use
 - o Unobtrusiveness
 - Performance Value
 - o Accuracy
 - 3- Loss in Value-in-Context
 - Time
 - o Lack of time
 - o Excess of time
 - o Allocation of time
 - Location
 - o Unfamiliar location
 - o Geographical location
 - Lack of Alternatives
 - o Lack of alternative product / service
 - o Lack of Cash
 - o Lack of personal contact
 - Uncertain conditions
 - o Changing conditions
 - o Spatial Uncertainty
 - o Sense of urgency

Secondary Resource Loss:

- Secondary resource loss refers to what customer perceives as being lost as a result of after-sales service-interactions.
- This is related to the cumulative losses at the end of the service taken.
- There are 7 types of resources found in the literature (in conservation of resources theory)
 - 1- Material resources: Functional tangible or intangible objects (products and warranties in my sample)
 - 2- Self-related resources: Subjective feelings focusing on “I”; e.g. feeling good about oneself, feeling lied to, self-esteem etc.
 - 3- Social resources: Perceptions of receipt of support, degree of helpfulness and concern
 - 4- Energy resources: Time, money, knowledge.
 - 5- Conditions: Respondent’s own status in the eyes of others, e.g. marriages, relationships etc.
 - 6- Leisure resources: Play, fun, leisure that have an intrinsic value; e.g. loss of an expected experience
 - 7- Hope: Goal directed determination; planning ways to meet goals; e.g. no longer pursuing attempts to gain lost resources from the organization

Resource Conservation Effort:

- Resource Conservation Effort refers to the types of effort that customers put into conserving what they are about to lose with the product failure / breakdown. These are customer related variables
- Types of effort in the literature (in conservation of resources theory);
 - 1- Mental (Cognitive) effort
 - 2- Physical Effort
 - 3- Financial Effort
 - 4- Temporal (Time-related) Effort
 - 5- Relational Effort

APPENDIX E

EMERGED DIMENSIONS AND SUBDIMENSIONS

AFTER FOCUS GROUP INTERVIEWS

Table E1. Emerged Sub-Dimensions and Themes for Primary Resource Loss

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
Primary Resource Loss	Loss in Value-in-Exchange	Loss in monetary value of the product	27	"It has been only a month since I bought the TV. I am sorry for the money I paid for it."
		Loss in product warranty (warranty period etc)	17	"I bought it with a warranty of 7 years. However, suddenly it decreased to 5 years."
		Actual loss of or the risk of losing the product itself	36	"I don't believe I can use it with comfort any more from now on."
	Loss in Value-in-Use	Diminished performance of the product	38	"I cannot use it with full performance and quality anymore"
		Unable to use the product due to its dysfunction	43	"I haven't been able to use it at all for two months"
		Repeated failures while using the product	67	"The fridge has been giving the same failure repeatedly for the last 2 years."
		Failures in some of the functions while using	56	"Internet function of my TV is not working."
		Damage / fear of damage that the broken product causes on personal belongings / food and beverages / personal health etc	48	"My washing machine has been ripping my clothes" "My dish washer leaves stains on my dishes"
		Diminished quality of life due to broken product	24	"The air conditioner has been working so loud and disturbing that we cannot sleep comfortably at night" "I haven't paid this money to wash my dishes by myself with my hands"
	Loss in Value-in-Context	Hardships in providing needs of the households as there is no alternative of the product	31	"My child is sick, and we don't have anything else to warm the house."
		Increased discord between the households due to discomfort that is caused by the broken product	24	"I am ashamed of my husband as I cannot clean our clothes." "As I am complaining each time when I use it, I cause increased tension at home."
		Facing harder living conditions due to lack of budget for replacement	38	"I cannot afford buying a new one soon. You know what do I do instead? I clean the floor with my hands."
		Facing harder living conditions due to lack of budget to afford service fee to fix the problem	46	"I cannot afford service fee they asked me to pay. I am looking for a cheaper way to resolve the situation."

Table E2. Emerged Sub-dimensions and Themes for Resource Conservation Effort

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
Resource Conservation Effort	Financial Effort	I paid the price difference for replacement	12	"They offered me a replacement in return for 1500 TRY"
		I paid the service fee	14	"I paid 200 TRY as a service fee"
		I paid for the new / alternative product as the problem was not solved	17	"I sold it to the junk shop and bought a new one"
		I paid for the spare parts	18	"I found the spare part at a price of 100 TRY, the service asked me to pay 350 TRY. "
		I paid to unauthorized service providers to receive extra service	12	"I found another service provider to fix the spare part"
		I tried to bargain with the company / service provider for price reduction	18	"They told me they would make a price reduction in the service fee" (as a result of the consumers' insistence on it)
	Legal Effort	I took legal actions to protect my rights	63	"I will apply to the Consumer Court to seek justice"
		I searched about my consumer rights to fight for them	36	"I struggle for getting service reports from the service provider to apply to the Consumer Court"
	Mental Effort	I tried to understand the product's problem by searching about it	46	"When I realized product has a problem, I searched people who use this product to understand the kinds of problems they have"
		I tried to understand the problem service providers identified	32	"The service provider explains me what is wrong with the panel, I doubt about it as his first diagnosis was also wrong"
		I tried to come up with solutions to fix the problem	24	"I searched about my options, as I didn't want to be left without a TV when they took it to the service"
		I tried to make a decision over different solution alternatives	12	"They offered me different alternatives but replacement. They told me to choose between repairing the product together with a house appliance as a gift and selling me a higher version with a price difference"
	Physical Effort	I made a physical effort to go to the technical service	9	"I am tired of going to the technical service so many times."
		I made an effort to explain the problem to the service provider (by calling etc)	21	"To be able to explain the problem, I called and talked to the customer services two times and call center one time."
		I made an effort to convince the service provider to	37	"I try to convince them to provide me a replacement product, however they insist on repairing it."

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
		solve the problem as requested (to receive refund, replacement, free-of-charge service etc)		
		I made an effort to fix the problem by my own	15	"I tried solve the problem by myself by pressing the button below and pumping water in it."
		I made an effort to find the spare parts needed	8	"How hard it is to find a spare part even though it is a domestic product."
	Punitive Actions	I took / threatened the company about taking such actions that would ruin the company reputation	54	"Eventually, I decided to call the media and put this product into fire in front of them."
		I posted / threatened the company about posting complaint messages on social media	65	"I will write my complaint about this company to the local newspaper."
	Relational Effort	I tried to get in touch with call center	29	"I started calling the call center in the morning continuously until noon, they took up the phone in the afternoon."
		I tried to get in touch with someone authorized from the company other than call center	21	"Please do not bother me with the services, I want to talk to someone from the company."
		I tried to get in touch with the service team assigned to my case	16	"They didn't show up at the day of appointment, and I couldn't reach the service team since then."
	Temporal Effort	I spent time waiting for the service team assigned to my case	38	"I have been waiting for the service to come for a month."
		I spent time explaining the problem to the service provider	17	"It took so much time to be able to explain the problem to the service."
		I spent time waiting for the service provider to fix the problem	38	"I have been waiting for the service to fix the problem and bring it back to me for 2 weeks."
		I tried to find time from work / other occupations as the service provider can only make appointment in inconvenient hours	42	"Service couldn't give an appointment at a day that is convenient for me. They came home when I was at work and went back as they couldn't find anyone at home."

Table E3. Emerged Sub-dimensions and Themes for Secondary Resource Loss

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
Secondary Resource Loss	Trust in Brand	I lost trust in the service quality provided by the service provider	43	“Ok I accept the fact that products might fail time to time. My problem is not about the product's failure but the service which doesn't fix it. I don't believe this service will ever be helpful to me when my product fails again.”
		I feel that my loyalty to the brand has diminished	54	“I have bought all my white goods at home from [the brand]. But I don't feel the same way towards it anymore.”
		I lost trust in the product quality provided by the company	42	“How can I trust [the brand]'s product quality anymore. It has failed 3 times in a 4-year period since I bought it.”
		I lost hope in service provider's ability to fix product's problem	47	“I do not believe that the service will be able to find any solution. They do not understand what the problem is.”
	Consumer (Legal) Rights	My consumer rights regarding product replacement or refund was violated	52	“I have a 15-day legal return right. But they kept delaying my questions so that this 15-day period had passed.”
		My consumer rights regarding the defected products was violated	24	“They sold me a defected product, but my right to return it has been hindered as the company did not accept it.”
		My consumer rights regarding the product warranty was violated	35	“They asked to pay for the repair, even though the product was still in warranty period.”
		Service reports was filled with incomplete / incorrect information by the service provider	50	“They lied in the service reports. They wrote there that the problem was fixed even though it wasn't.”
		My consumer rights regarding company's obligation to provide spare parts was violated	50	“According to the law, they were supposed to provide spare parts to the customers for 5 five years. If they did not produce spare parts, then they had to solve the situation in a way that wouldn't put the consumer in any hardship.”
	Financial Loss	I was obliged to pay an excessive amount of service fee	57	“They charged me a service fee that is as much as the amount of a new TV price.”
		I was obliged to pay service fee for a product in warranty period	56	“They claimed that I caused the failure and asked me to pay for the product that was in a warranty period.”
		I sustained a monetary loss due to wasted service	30	“I paid 295 TL service fee. However, the same problem continues. My

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
		fee as the problem still continued after the service		money was wasted with wrong diagnosis.”
		I sustained a monetary loss due to a damage that is caused by the broken product (spoiled food, ruined laundry)	13	“In three-year period when the fridge was giving failures, the resulting loss was around 1000 TRY due to spoiled foods.”
		I sustained monetary loss as I had to spend money to fix a problem that is caused by the service provider	18	“The service team made something wrong and they made me pay for it when they came to fix it.”
		I sustained a monetary loss as I had to pay to the service provider that did not take an action to fix the problem	32	“The service team left home without taking any action and charged me 50 TRY for doing nothing.”
	Psychological Loss	I experienced distress when I was unable to use the product until a solution is found	32	“What am I going to do with all this food now. They took my fridge.”
		I experienced uncertainties when my questions were not answered by the service provider	16	“You cannot leave your customers unanswered and in uncertainty!”
		I experienced uncertainties when the service provider didn't notify my about the process	16	“I have been waiting for 2 weeks. I do not know how long they will keep me waiting. They don't say anything.”
		I experienced uncertainties because I wasn't informed about service price when I called the service	21	“Can you not say how much it costs at once? I don't know how much I will pay at the end.”
		I experienced psychological distress during the time when I had to deal with the broken product and/or problematic service process	29	“The fridge put me in a depression.” “I was so much in anger at such a late time at night due to problems on my TV.”
		I experienced psychological distress due to excessive service price charged by the service provider	20	“I believe they try to depress me by charging me such a high price. I think they want me to quit asking for help from them.”
	Material Loss (Goods and services)	The expected life of the product was diminished	33	“Our fridge started giving problems in 1.5 years after we bought it. I think we will not use it too long.”

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
		The failure of the product continued after the service	30	"In three years, service came home 15 times, they took it to the service 3 times. However, the problem still continues."
		The product was dysfunctioning after the service	21	"After the service, it was not functioning at all. The service told that it is not repairable anymore."
		The value of the new product was diminished as the service insisted on repairing defected product instead of providing replacement or refund	30	"They opened up my TV which I bought just 2 days ago. It is not new anymore; it is like a second-hand."
		Service provider caused new problems on the product	25	"They charged me 300 TRY for the spare part. However, they broke it while fitting it to the machine. Now it makes too much noise."
		Service provider made a damage on my other belongings	23	"They made a damage on my walls, while trying to fix it."
		Service provider placed spare parts with poor quality	32	"They changed the spare part, but it was such a poor quality that it was broken very fast."
		The warranty was ended / shortened after replacement or repair	26	"They replaced my machine with a new one, but it didn't have any warranty."
		The replacement product was with poor quality	15	"They replaced my air conditioner. However, it wasn't working."
		The spare parts needed to repair the product were not available	28	"Service provider avoids sending me any team, because they do not have necessary spare parts to fix it."
	Self-esteem loss	I feel that I was deceived by the company and / or the service provider	37	"They claim that the spare part, which was an obviously used one, they brought was new. They tried to fool me."
		I feel that I was blamed by the company and / or the service provider	43	"You put all the blame on the customer. Please do not send me any service anymore."
		I felt worthless as a customer of this company	44	"I will try to find a company which makes their customers feel valuable the next time."
		I feel I was mistreated by the service provider	19	"The service personnel yelled at my wife. She was so scared."
	Lack of Support	I couldn't find support from the company regarding my problems with the product	17	"The company didn't provide any help to me regarding my complaints."
		I feel that the service provider did	28	"The service personnel came and told me that there wasn't any problem with the machine and that what I was

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
		not help me to solve my problem		experiencing was normal. They avoided giving any support.”
		I couldn't find support from the company regarding my problems with the service provider	30	“I made a complaint about the service to the company two times. However, they didn't respond. They cannot even do anything about the service personnel working for them.”
		The service provider did not help me fix the problem that they caused	16	“They broke my machine's door and told me that they did not have any warranty for it and so they could not fix it.”
	Time loss	I fell behind of my jobs when I have to wait / deal with the service provider	14	“I had to wait the whole day at home. I might have other things to do outside instead of spending all my time waiting for them at home”
		I wasted time when the solution process was kept longer than expected	13	“They have been trying to understand why the machine is not working for 3 weeks. What a loss of time.”
		I wasted time when I waited for the service provider to get in touch with me	43	“They got back to me 1.5 months after I made my complaint. What a long time.”
		I wasted time when I was trying to get in touch with someone authorized	47	“Service told me to talk to someone authorized from the company. I called them and sent them e-mail too many times. I have been trying to reach someone for a long time.”

Table E4. Emerged Sub-dimensions and Themes for Secondary Resource Gain

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
Secondary Resource Gain	Convenience Gain	My living conditions were improved by the back-up product provided by the service provider and/or the company during repair	22	“They told me that it would take a long time to repair it as they had to order spare parts, they gave me a back-up TV to use while waiting.” “I haven't experienced any hardship, as they brought a back-up product the same day, they took mine to the service.”
		My living conditions were improved by the solutions provided by the service provider / company	20	“They solved my problem and saved me from a big problem in such a holy day.”
		I feel that continuous notifications about the process provided some relief from my distress about uncertainties	46	“Thanks to the customer representative who have shared information about the process instantly, I was relieved.” “I am relieved to be provided with honest and transparent information about the problem and its solution.”

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
		I feel that my psychological distress was relieved when the service personnel approached my problematic situation with understanding	46	"I want to say how thankful I am to the customer representative who put me on ease by keeping in touch with me day and night with a helpful approach."
		I was relieved when I noticed that the service personnel had good level of technical knowledge	37	"The service personnel are so good at their jobs. They talk by using such a high level of technical knowledge that you feel relaxed." "They were so good. You would think he was the CEO of the company by hearing how knowledgeable he was."
	Financial Gain	I was provided with free-of-charge service even though the product was out of warranty	37	"The spare parts did not have any warranty. However, they provided them free of charge."
		I was provided with free-of-charge service for my product with warranty	28	"Our machine with warranty was repaired without any problem and delivered back to me free of charge."
		I was given a refund for the unnecessary service fee	48	"We requested the service fee charged us and we received it back."
		I was given a refund for the broken / defected product	38	"I gave the product and received its money back." "Thank you for refunding my money."
	Material Gain	I was given an improved model in replacement for the broken / defected product	28	"My broken product will be replaced with a higher version in return for a very insignificant amount of money."
		I was given the same model in replacement for the broken product	46	"They replaced my broken product with a new one with the same model."
		The warranty period was extended	37	"They made me so happy by lengthening my warranty."
		The problem of the product was fixed	35	"They made my product work again. Thank you."
		I was given a gift to make up for the problems that I have been experiencing	32	"They will give me a coffee machine as a gift to compensate for the problem I experienced." "They replaced the product with a new one and sent sneakers as a gift."
	Self-esteem gain	The company called me to apologize and make it up for me	22	"The company called me and apologized."

Main Dimension	Sub-dimension	Themes	Frequency	Illustrative Quotations
		I feel that I contributed to the service quality as a consumer	19	"I am flattered about being able to contribute to the company's service quality."
		I feel that I was provided with a special and individualized care	43	"The service provided me a special care about my problem." "The customer representative made me feel like I was one of her close friends."
		The service personnel approached very kindly to me	27	"I felt happy with the way that the customer representative talked to me. He was so kind."
	Support	I feel I was provided with support by the company regarding my problems with the product	26	"They provided me such a big attention even though my problem with the product was not very serious."
		I feel I was provided with support by the company regarding my problems with the service	43	"The company sent a new team when I complained about the team in charge for my case."
		I feel that I had always someone from the company / service provider whom I can easily get in touch with during the whole process	18	"Mrs ensured that I was able to call her any time when I had a question in the repair process."
		I feel that the customer representatives were very helpful to me	13	"I was happy about how helpful the customer representative is. He ensured that the problem would be solved soon."
		I feel that the service personnel was very helpful to me	29	"I didn't know how to use one function of my machine. The service personnel were very helpful to me by explaining it in detail."
	Time	I feel that I saved time because my problem was solved so fast	43	"They got back to me so fast that my problem solved almost immediately." "My problem was solved in such a short time like a day."
		I feel that I saved time because the service personnel was able to come when it is convenient for me	13	"I asked them to come in the evening, because I was working during the day. Even though it was out of their working hours, they accepted."

APPENDIX F

EXPLORATORY FACTOR ANALYSIS RESULTS

Table F1. Exploratory Factor Analysis for AS-S with Secondary Gain Model

Construct/Item	Factor Loading	Reliability (Cronbach's Alpha)	Average variance Extracted (AVE)	Composite Reliability (CR)
Loss in Value-in-Exchange		.841	0.65	0.85
Loss in monetary value of the product	.880			
Loss in product warranty	.855			
Actual loss of or the risk of losing the product itself	.672			
Loss in Value-in-Use		.798	0.58	0.81
Repeated failures while using the product	.836			
Failures in some of the functions while using	.731			
Damage / fear of damage that the broken product causes on personal belongings / food and beverages / personal health etc.	.722			
Loss in Value-in-Context		.863	0.79	0.88
Facing harder living conditions due to lack of budget for replacement	.890			
Facing harder living conditions due to lack of budget to afford service fee to fix the problem	.882			
Process-Related Effort		.897	0.69	0.90
I spent time waiting for the service team assigned to my case	.865			
I spent time explaining the problem to the service provider	.837			
I spent time waiting for the service provider to fix the problem	.819			
I tried to get in touch with the service team assigned to my case	.798			
Mental Effort		.819	0.67	0.86
I tried to understand the product's problem by searching about it	.882			
I tried to understand the problem service providers identified	.845			
I tried to come up with solutions to fix the problem	.722			
Legal/Punitive Effort		.700	0.51	0.76
I took legal actions to protect my rights	.806			
I searched about my consumer rights to fight for them	.705			
I posted / threatened the company about posting complaint messages on social media	.627			
Material and Financial Gain		.845	0.72	0.91
I was given a refund for the broken / defected product	.910			
I was given a gift to make up for the problems that I have been experiencing	.849			
I was given a refund for the unnecessary service fee	.844			

I was given an improved model in replacement for the broken / defected product	.786			
Convenience Gain		.891	0.69	0.90
My living conditions were improved by the back-up product provided by the service provider and/or the company during repair	.889			
My living conditions were improved by the solutions provided by the service provider / company	.845			
I feel that continuous notifications about the process provided some relief from my distress about uncertainties	.806			
I feel that my psychological distress was relieved when the service personnel approached my problematic situation with understanding	.774			
Support Gain		.859	0.63	0.87
I feel I was provided with support by the company regarding my problems with the product	.843			
I feel I was provided with support by the company regarding my problems with the service	.827			
I feel that I had always someone from the company / service provider whom I can easily get in touch with during the whole process	.769			
I feel that the customer representatives were very helpful to me	.731			
Self-related Gain		.727	0.51	0.76
I feel that I contributed to the service quality as a consumer	.763			
I feel that I was provided with a special and individualized care	.698			
The service personnel approached very kindly to me	.673			

Note: Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .816; Sig = .000; Total Variance Explained = 75.12 %

Table F2. Exploratory Factor Analysis for AS-S with Secondary Loss Model

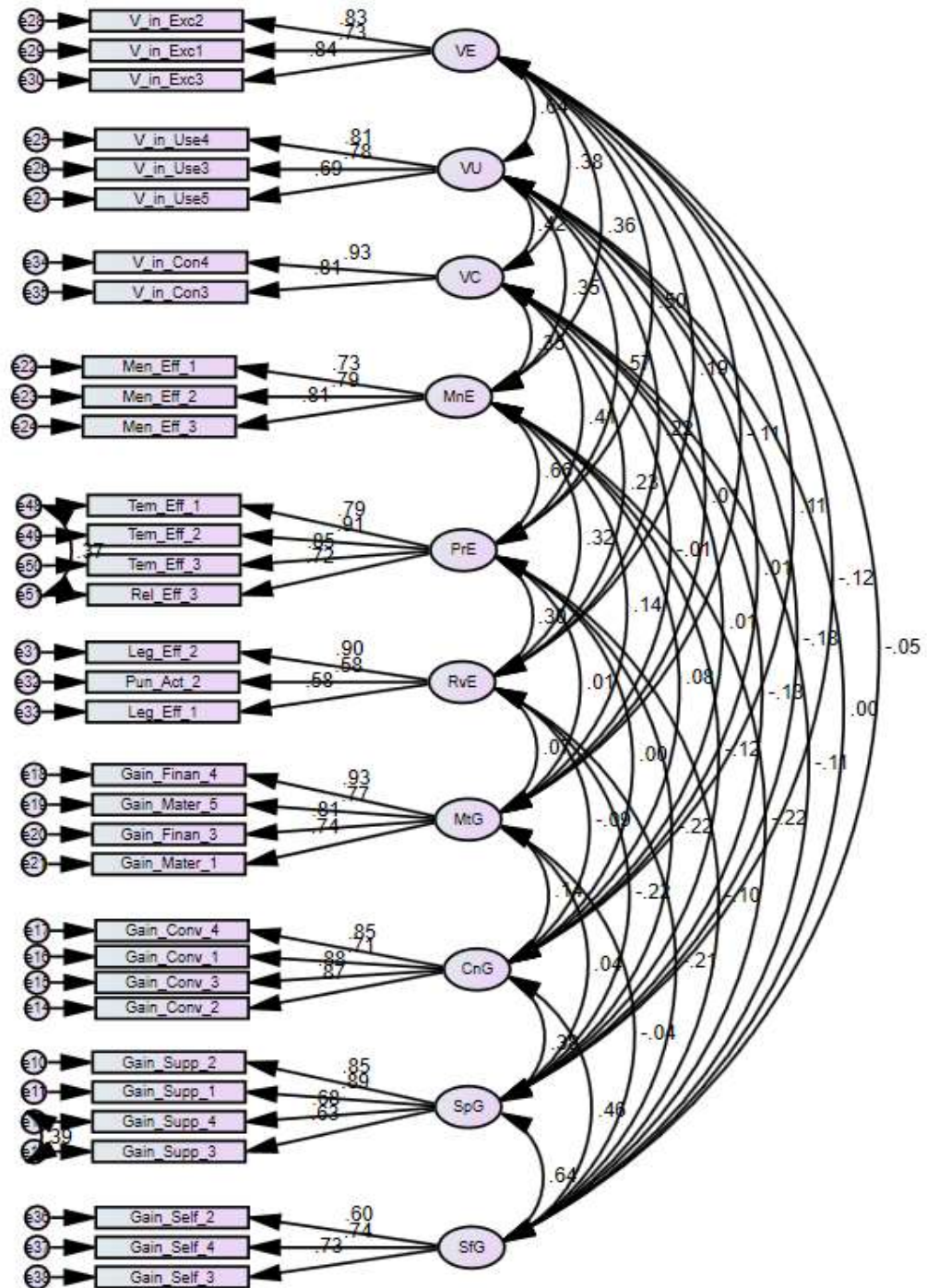
Construct/Item	Factor Loading	Reliability (Cronbach's Alpha)	Average variance Extracted (AVE)	Composite Reliability (CR)
Loss in Value-in-Exchange		.816	0.65	0.85
Loss in monetary value of the product	.878			
Loss in product warranty	.853			
Actual loss of or the risk of losing the product itself	.670			
Loss in Value-in-Use		.774	0.59	0.81
Repeated failures while using the product	.837			
Failures in some of the functions while using	.732			
Damage / fear of damage that the broken product causes on personal belongings / food and beverages / personal health etc.	.723			
Loss in Value-in-Context		.861	0.78	0.88
Facing harder living conditions due to lack of budget for replacement	.888			

Facing harder living conditions due to lack of budget to afford service fee to fix the problem	.880			
Process-Related Effort		.897	0.68	0.89
I spent time waiting for the service team assigned to my case	.922			
I spent time explaining the problem to the service provider	.820			
I spent time waiting for the service provider to fix the problem	.806			
I tried to get in touch with the service team assigned to my case	.739			
Mental Effort		.890	0.77	0.91
I tried to understand the product's problem by searching about it	.908			
I tried to understand the problem service providers identified	.900			
I tried to come up with solutions to fix the problem	.826			
Legal/Punitive Effort		.735	0.52	0.76
I took legal actions to protect my rights	.834			
I searched about my consumer rights to fight for them	.675			
I posted / threatened the company about posting complaint messages on social media	.638			
Time Related Loss		.926	0.72	0.91
I fell behind of my jobs when I have to wait / deal with the service provider	.921			
I wasted time when the solution process was kept longer than expected	.870			
I wasted time when I waited for the service provider to get in touch with me	.829			
I wasted time when I was trying to get in touch with someone authorized	.768			
Material and Financial Loss		.854	0.64	0.88
The warranty was ended / shortened after replacement or repair	.834			
Service provider placed spare parts with poor quality	.832			
The spare parts needed to repair the product were not available	.805			
I sustained a monetary loss as I had to pay to the service provider that did not take any action to fix the problem	.722			
Consumer Rights Loss		.843	0.64	0.84
My consumer rights regarding product replacement or refund was violated	.844			
My consumer rights regarding the defected products was violated	.828			
My consumer rights regarding the product warranty was violated	.715			
Self-Related Loss		.843	0.59	0.81
I feel that I was deceived by the company and / or the service provider	.801			
I feel that I was blamed by the company and / or the service provider	.771			
I felt worthless as a customer of this company	.736			

Note: Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .812; Sig = .000; Total Variance Explained = 79.45 %

APPENDIX G

STRUCTURAL MODEL OF SECONDARY GAIN AS-S EXPERIENCES



Note: VE: Loss in value-in-exchange, VU: Loss in value-in-use, VC: Loss in value-in-context, MnE: Mental Effort, PrE: Process Effort, RvE: Legal and Punitive Actions, MtG: Material and Financial Gain, CnG: Convenience Gain, SpG: Support Gain, SFG: Self-related Gain.

APPENDIX H

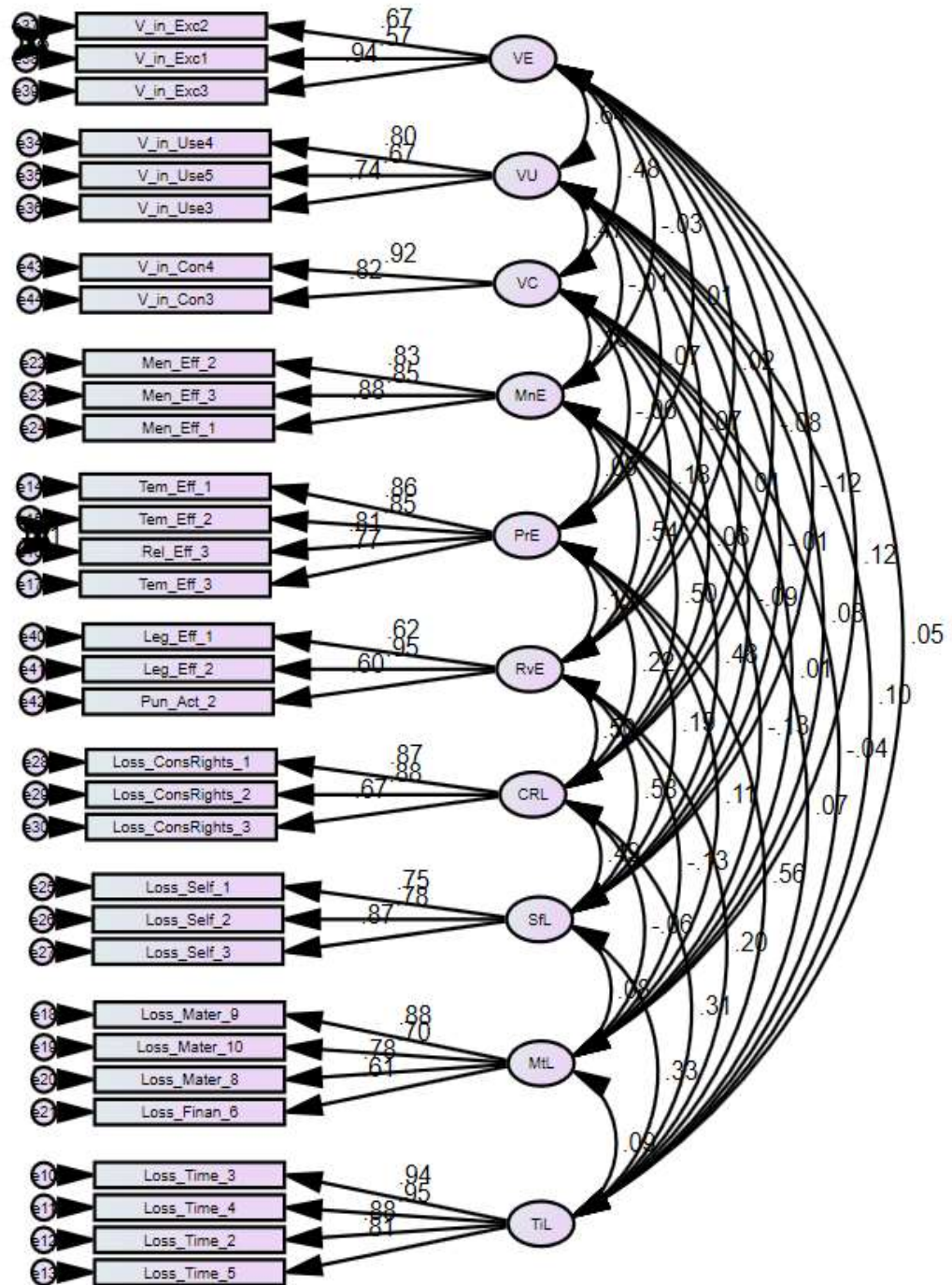
STANDARDIZED REGRESSION WEIGHTS OF CONSTRUCTS IN
SECONDARY GAIN AS-S EXPERIENCES

			Estimate	P
Gain_Supp_2	<---	SpG	.852	***
Gain_Supp_1	<---	SpG	.885	***
Gain_Supp_4	<---	SpG	.683	***
Gain_Supp_3	<---	SpG	.628	***
Gain_Conv_2	<---	CnG	.866	***
Gain_Conv_3	<---	CnG	.884	***
Gain_Conv_1	<---	CnG	.714	***
Gain_Conv_4	<---	CnG	.854	***
Gain_Finan_4	<---	MtG	.928	***
Gain_Mater_5	<---	MtG	.773	***
Gain_Finan_3	<---	MtG	.808	***
Gain_Mater_1	<---	MtG	.739	***
Men_Eff_1	<---	MnE	.727	***
Men_Eff_2	<---	MnE	.788	***
Men_Eff_3	<---	MnE	.810	***
V_in_Use4	<---	VU	.813	***
V_in_Use3	<---	VU	.777	***
V_in_Use5	<---	VU	.687	***
V_in_Exc2	<---	VE	.830	***
V_in_Exc1	<---	VE	.727	***
V_in_Exc3	<---	VE	.836	***
Leg_Eff_2	<---	RvE	.895	***
Pun_Act_2	<---	RvE	.576	***
Leg_Eff_1	<---	RvE	.577	***
V_in_Con4	<---	VC	.934	***
V_in_Con3	<---	VC	.812	***
Gain_Self_2	<---	SfG	.598	***
Gain_Self_4	<---	SfG	.740	***
Gain_Self_3	<---	SfG	.734	***
Tem_Eff_1	<---	PrE	.789	***
Tem_Eff_2	<---	PrE	.907	***
Tem_Eff_3	<---	PrE	.848	***
Rel_Eff_3	<---	PrE	.715	***

Note: *** means P<0.001

APPENDIX I

STRUCTURAL MODEL OF SECONDARY LOSS AS-S EXPERIENCES



Note: VE: Loss in value-in-exchange, VU: Loss in value-in-use, VC: Loss in value-in-context, MnE: Mental Effort, PrE: Process Effort, RvE: Legal and Punitive Actions, CRL: Consumer rights loss, SFL: Self-related loss, MTL: Material and Financial loss, and TiL: Time-related Loss.

APPENDIX J

STANDARDIZED REGRESSION WEIGHTS OF CONSTRUCTS IN
SECONDARY LOSS AS-S EXPERIENCES

			Estimate	P
Loss_Time_3	<---	TiL	.943	***
Loss_Time_4	<---	TiL	.954	***
Loss_Time_2	<---	TiL	.882	***
Loss_Time_5	<---	TiL	.813	***
Tem_Eff_1	<---	PrE	.859	***
Tem_Eff_2	<---	PrE	.854	***
Rel_Eff_3	<---	PrE	.813	***
Tem_Eff_3	<---	PrE	.774	***
Loss_Mater_9	<---	MtL	.877	***
Loss_Mater_10	<---	MtL	.700	***
Loss_Mater_8	<---	MtL	.778	***
Loss_Finan_6	<---	MtL	.611	***
Men_Eff_2	<---	MnE	.832	***
Men_Eff_3	<---	MnE	.854	***
Men_Eff_1	<---	MnE	.876	***
Loss_Self_1	<---	SfL	.753	***
Loss_Self_2	<---	SfL	.785	***
Loss_Self_3	<---	SfL	.869	***
Loss_ConsRights_1	<---	CRL	.868	***
Loss_ConsRights_2	<---	CRL	.882	***
Loss_ConsRights_3	<---	CRL	.669	***
V_in_Use4	<---	VU	.796	***
V_in_Use5	<---	VU	.672	***
V_in_Use3	<---	VU	.744	***
V_in_Exc2	<---	VE	.669	***
V_in_Exc1	<---	VE	.575	***
V_in_Exc3	<---	VE	.941	***
Leg_Eff_1	<---	RvE	.618	***
Leg_Eff_2	<---	RvE	.948	***
Pun_Act_2	<---	RvE	.596	***
V_in_Con4	<---	VC	.917	***
V_in_Con3	<---	VC	.824	***

Note: *** means P<0.001

APPENDIX K
QUESTIONNAIRE

Dear Participant,

This survey is prepared to collect data for an academic study I conduct in the Faculty of Economics and Administrative Sciences in Boğaziçi University. This study, in general, investigates customer experiences during after-sales service interactions in incidents of product failures. Through the findings of the collected data, it is aimed to make contributions both to the academic literature and to the practitioners in after-sales service industry. Therefore, the answers you give to each question is very important. I appreciate your time and attention to give complete and correct answers to all questions.

The survey will last approximately 15-20 minutes. Your ID will not be asked, and your answers will be kept confidential.

Best regards

Ebru Kuzgun

For inquiries, e-mail address: kuzgunebru@gmail.com

* 1. Have you received after-sales service support within the last couple of years for a broken product in white-goods category?

Yes

No (If you give this answer, please do not continue with the next questions. Thank you for your interest.)

* 2. Now, please think about the service experiences you had for your broken product in white-goods category. Then choose one service experience that have the most impact on you, either positive or negative. Please identify the type of product in the service experience that you chose by selecting the relevant answer from the following list.

Refrigerator / Deep Freeze

Washing Machine / Dryer

Dish Washer

Combi Boiler / Water Heater / Geyser

Oven / Microwave / Stove

Air Conditioner

Water Purifying Equipment

Other (please specify in the box below)

Note Hereinafter please refer to the product that you have selected above whenever you are asked a question about “the product”. In other words, the rest of the questions will be related to the product that you have chosen above.

* 3. When the product broke down, for how long had you been using it?

Less than 1 year

1-3 years

4-6 years

7-10 years

More than 10 years

* 4. Was the product within warranty period?

Yes

No

* 5. Was the service you called an authorized one from the company?

Yes

No



* 6. Please think about the problems you experienced when the product broke down. Please read the following statements and indicate to what extent you experienced each.

	Never	Little	Neither little nor much	Much	Very Much
Loss in monetary value of the product					
Loss in product warranty (warranty period etc)					
Actual loss of or the risk of losing the product itself					
Diminished performance of the product					
Unable to use the product due to its dysfunction					
Repeated failures while using the product					
Having some functions of the product out of order while using					
Damage / fear of damage that the broken product causes on personal belongings / food and beverages / personal health etc					
Diminished quality of life due to broken product					
Hardships in providing needs of the households as there is no alternative of the product					
Increased discord between the households due to discomfort that is caused by the broken product					

Facing harder living conditions due to lack of budget for replacement					
Facing harder living conditions due to lack of budget to afford service fee to fix the problem					

* 7. Please think about the efforts you exert for the recovery of the product failure. Please read the following statements and indicate to what extent you did each.

	Never	Little	Neither little nor much	Much	Very Much
I paid the price difference for replacement					
I paid the service fee					
I paid for the new / alternative product as the problem was not solved					
I paid for the spare parts					
I paid to unauthorized service providers to receive extra service					
I tried to bargain with the company / service provider for price reduction					
I took legal actions to protect my rights					
I searched about my consumer rights to fight for them					
I tried to understand the product's problem by searching about it					
I tried to understand the problem service providers identified					
I tried to come up with solutions to fix the problem					
I tried to make a decision over different solution alternatives					
I made a physical effort to go to the technical service					
I made an effort to explain the problem to the service provider (by calling etc)					
I made an effort to convince the service provider to solve the problem as requested (to receive refund, replacement, free-of-charge service etc)					
I made an effort to fix the problem on my own					
I made an effort to find the spare parts needed					
I took / threatened the company about taking such actions that would ruin the company reputation					
I posted / threatened the company about posting complaint messages on social media					

I tried to get in touch with call center					
I tried to get in touch with someone authorized from the company other than call center					
I tried to get in touch with the service team assigned to my case					
I spent time waiting for the service team assigned to my case					
I spent time explaining the problem to the service provider					
I spent time waiting for the service provider to fix the problem					
I tried to find time from work / other occupations as the service provider can only make appointment in inconvenient hours					

8. Below are the statements regarding interaction and environment quality of the received service. Please read the following statements and indicate to what extent you agree or disagree with each statement.

	Definitely disagree	Disagree	Neither agree nor disagree	Agree	Definitely agree
Overall, I'd say the quality of my interaction with this firm's employees is excellent.					
I would say that the quality of my interaction with XYZ's employees is high.					
You can count on the employees at XYZ being friendly.					
The attitude of XYZ's employees demonstrates their willingness to help me.					
The attitude of XYZ's employees shows me that they understand my needs.					
I can count on XYZ's employees taking actions to address my needs					
XYZ's employees respond quickly to my needs					
The behavior of XYZ's employees indicates to me that they understand my needs					
You can count on XYZ's employees knowing their job.					
XYZ employees are able to answer my questions quickly					
The employees understand that I rely on their knowledge to meet my needs					

I would say that XYZ's physical environment is one of the best in its industry					
I would rate XYZ's physical environment highly					
At XYZ, you can rely on there being a good atmosphere					
XYZ's ambience is what I'm looking for in a service environment					
XYZ understands that its atmosphere is important to me					
This service provider's layout never fails to impress me					
XYZ's layout serves my purposes					
XYZ understands that the design of its facility is important to me					
I find that XYZ's other customers consistently leave me with a good impression of its service					
XYZ's other customers do not affect its ability to provide me with good service					
XYZ understands that other patrons affect my perception of its service					



* 9. Below are the statements regarding outcome quality of the received service. Please read the following statements and indicate to what extent you agree or disagree with each statement.

	Definitely disagree	Disagree	Neither agree nor disagree	Agree	Definitely agree
I always have an excellent experience when I visit XYZ					
I feel good about what XYZ provides to its customers					
Waiting time at XYZ is predictable					
XYZ tries to keep my waiting time to a minimum					
This service provider understands that waiting time is important to me					
I am consistently pleased with the appearance of service personnel at XYZ					
I like XYZ because the employees have the professional look that I want					
XYZ knows the kind of service personnel appearance its customers are looking for					
Directions: These questions refer to whether you think the outcome of your experience was good or bad. Please choose the number which best reflects your					

perception of whether your experience was good or bad.					
When I leave XYZ, I usually feel that I had a good experience.					
I believe XYZ tries to give me a good experience					
I believe XYZ knows the type of experience its customers want					
I would say that XYZ provides superior service					
I believe XYZ offers excellent service					
I feel good about what XYZ provides to its customers					

* 10. Considering all the effort you have devoted for product's recovery and the service you received, would you evaluate the outcome of this after-sales service process as a loss or a gain?

Loss (Please skip question 12 after you answer question 11)

Gain (Please skip question 11 and answer question 12)

11. Below are the statements regarding losses that customers experience as a result of after-sales service interactions. Please read each one and indicate to what extent you experienced the related loss

	Never	Little	Neither little nor much	Much	Very Much
I lost trust in the service quality provided by the service provider					
I feel that my loyalty to the brand has diminished					
I lost trust in the product quality provided by the company					
I lost hope in service provider's ability to fix product's problem					
My consumer rights regarding product replacement or refund was violated					
My consumer rights regarding the defected products was violated					
My consumer rights regarding the product warranty was violated					
Service reports was filled with incomplete / incorrect information by the service provider					
My consumer rights regarding company's obligation to provide spare parts was violated					
I was obliged to pay an excessive amount of service fee					

I was obliged to pay service fee for a product in warranty period					
I sustained a monetary loss due to wasted service fee as the problem still continued after the service					
I sustained a monetary loss due to a damage that is caused by the broken product (spoiled food, ruined laundry)					
I sustained monetary loss as I had to spend money to fix a problem that is caused by the service provider					
I sustained a monetary loss as I had to pay to the service provider that did not take an action to fix the problem					
The expected life of the product was diminished					
The failure of the product continued after the service					
The product was dysfunctioning after the service					
The value of the new product was diminished as the service insisted on repairing defected product instead of providing replacement or refund					
Service provider caused new problems on the product					
Service provider made a damage on my other belongings					
Service provider placed spare parts with poor quality					
The warranty was ended / shortened after replacement or repair					
The replacement product was with poor quality					
The spare parts needed to repair the product were not available					
I experienced distress when I was unable to use the product until a solution is found					
I experienced uncertainties when my questions were not answered by the service provider					
I experienced uncertainties because I wasn't informed about service price when I called the service					
I experienced psychological distress during the time when I had to deal with the broken product and/or problematic service process					
I experienced psychological distress due to excessive service price charged by the service provider					
I feel that I was deceived by the company and / or the service provider					

I feel that I was blamed by the company and / or the service provider					
I felt worthless as a customer of this company					
I feel I was mistreated by the service provider					
I couldn't find support from the company regarding my problems with the product					
I feel that the service provider did not help me to solve my problem					
I couldn't find support from the company regarding my problems with the service provider					
The service provider did not help me fix the problem that they caused					
I wasted time when the service provider took unnecessary actions that didn't help the recovery of the problem					
I wasted time when the solution process was kept longer than expected					
I wasted time when I waited for the service provider to get back to me					
I wasted time when I was trying to get in touch with someone authorized					
I wasted time when the service provider didn't notify me during the process					



12. Below are the statements regarding gains that customers experience as a result of after-sales service interactions. Please read each one and indicate to what extent you experienced the related gain.

	Never	Little	Neither little nor much	Much	Very Much
My living conditions were improved by the back-up product provided by the service provider and/or the company during repair					
My living conditions were improved by the solutions provided by the service provider / company					
I feel that continuous notifications during the process provided some relief from my distress about uncertainties					
I feel that my psychological distress was relieved when the service personnel approached my					

problematic situation with understanding					
I was relieved when I noticed that the service personnel had good level of technical knowledge					
I was provided with free-of-charge service even though the product was out of warranty					
I was provided with free-of-charge service for my product with warranty					
I was given a refund for the unnecessary service fee					
I was given a refund for the broken product					
I was given an improved model in replacement for the broken product					
I was given the same model in replacement for the broken product					
The warranty period was extended					
The problem of the product was fixed					
I was given a gift to make up for the problems caused by the company					
The company called me to apologize and make it up for me					
I feel that I contributed to the service quality as a consumer					
I feel that I was provided with a special care					
The attitude of service personnel was kind					
I feel I was provided with support by the company regarding my problems with the product					
I feel I was provided with support by the company regarding my problems with the service					
I feel that I had always someone from the company / service provider whom I can easily get in touch with during the whole process					
I feel that the customer representatives were very helpful to me					
I feel that the service personnel was very helpful to me					
I feel that I saved time because my problem was solved so fast					
I feel that I saved time because the service personnel was able to come when it is convenient for me					

* 13. Below are the statements regarding the overall satisfaction with after-sales service process. Please read each one and indicate to what extent you agree or disagree with each statement.

	Definitely disagree	Disagree	Neither agree nor disagree	Agree	Definitely agree
I was satisfied with the service provided.					
I was delighted with the service quality provided.					
I was unhappy with the level of service provided					

The rest of the questions are related to your demographic profile. This information will not be shared with the third parties.

14. Gender

Female

Male

15. Marital Status

Married

Single

16. Education

Primary School

High School

University

Masters / PhD

17. Age

15-24

25-44

45-65

66-80

> 80

18. Occupation

19. Monthly net salary

Less than 2.000 TRY

Between 2.000 - 3.999 TRY

Between 4.000 - 6.999 TRY

Between 7.000 - 10.000 TRY

More than 10.000 TRY

20. Number of households

1

2

3 - 4

5 - 7

More than 7

21. District you live in

22. City you live in

23. Social Media Usage Habits

Every day, I check my social media accounts

Every two-three days, I check my social media accounts

Once in a week, I check my social media accounts

Once in two-three weeks, I check my social media accounts

I have a social media account, but I rarely use it

I don't have a social media account

APPENDIX L

COLLINEARITY STATISTICS

Items in Secondary Loss Model	VIF	Items in Secondary Gain Model	VIF
V_in_Exc1	2.328	V_in_Exc1	2.633
V_in_Exc2	2.712	V_in_Exc2	3.714
V_in_Exc3	2.841	V_in_Exc3	4.007
V_in_Use3	2.208	V_in_Use3	2.747
V_in_Use4	2.735	V_in_Use4	2.874
V_in_Use5	2.464	V_in_Use5	3.091
V_in_Con3	3.066	V_in_Con3	3.782
V_in_Con4	3.460	V_in_Con4	4.223
Leg_Eff_1	2.694	Leg_Eff_1	2.019
Leg_Eff_2	3.912	Leg_Eff_2	2.767
Men_Eff_1	5.153	Men_Eff_1	2.705
Men_Eff_2	4.557	Men_Eff_2	3.230
Men_Eff_3	5.063	Men_Eff_3	3.486
Pun_Act_2	2.739	Pun_Act_2	2.048
Rel_Eff_3	4.558	Rel_Eff_3	3.849
Tem_Eff_1	6.788	Tem_Eff_1	4.341
Tem_Eff_2	4.778	Tem_Eff_2	5.392
Tem_Eff_3	3.813	Tem_Eff_3	4.210
Int_Qual_Att_1	4.503	Int_Qual_Att_1	4.319
Int_Qual_Att_2	2.917	Int_Qual_Att_2	6.459
Int_Qual_Att_3	2.576	Int_Qual_Att_3	7.281
Int_Qual_Beh_1	3.085	Int_Qual_Beh_1	6.861
Int_Qual_Beh_2	3.243	Int_Qual_Beh_2	4.726
Int_Qual_Beh_3	5.285	Int_Qual_Beh_3	6.110
Int_Qual_Exp_1	7.951	Int_Qual_Exp_1	5.001
Int_Qual_Exp_2	7.603	Int_Qual_Exp_2	4.088
Int_Qual_Exp_3	5.124	Int_Qual_Exp_3	2.473
Loss_ConsRights_1	4.014	Gain_Conv_1	2.636
Loss_ConsRights_2	4.085	Gain_Conv_2	4.431
Loss_ConsRights_3	2.692	Gain_Conv_3	4.414
Loss_Finan_6	3.063	Gain_Conv_4	5.099
Loss_Mater_8	2.997	Gain_Finan_4	5.151
Loss_Mater_9	3.956	Gain_Mater_1	2.703
Loss_Mater_10	3.858	Gain_Mater_3	2.090
Loss_Self_1	3.999	Gain_Mater_5	3.532
Loss_Self_2	4.024	Gain_Self_2	2.160
Loss_Self_3	5.267	Gain_Self_3	2.472
Loss_Time_2	6.940	Gain_Self_4	2.612
Loss_Time_3	4.237	Gain_Supp_1	4.124
Loss_Time_4	4.319	Gain_Supp_2	3.431
Loss_Time_5	5.282	Gain_Supp_3	3.481
Satisfaction_1	3.035	Gain_Supp_4	3.409
Satisfaction_2	7.862	Satisfaction_1	4.315
Satisfaction_3_re	5.850	Satisfaction_2	3.427
		SAT3_re	2.217

APPENDIX M

DESCRIPTIVE STATISTICS

Table M1. Descriptive Statistics of Secondary Loss Model

	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
V_in_Exc1	207	1	5	1.91	1.076	.071	.066
V_in_Exc2	207	1	5	1.84	1.175	.857	.080
V_in_Exc3	207	1	5	1.88	1.110	.630	.561
V_in_Use3	207	1	5	2.36	1.174	.444	-.013
V_in_Use4	207	1	5	2.23	1.172	.654	-.778
V_in_Use5	207	1	5	2.08	1.226	.943	-.278
V_in_Con3	207	1	5	2.47	1.202	.597	-.628
V_in_Con4	207	1	5	2.15	1.219	.926	-.160
Leg_Eff_1	207	1	5	1.56	1.113	.929	.475
Leg_Eff_2	207	1	5	2.39	1.474	.413	-.376
Men_Eff_1	207	1	5	3.21	1.175	-.767	-.731
Men_Eff_2	207	1	5	3.38	1.175	-.479	-.670
Men_Eff_3	207	1	5	3.42	1.154	-.423	-.709
Phy_Eff_4	207	1	5	2.14	1.179	.812	-.145
Phy_Eff_5	207	1	5	1.54	1.055	.831	.080
Pun_Act_2	207	1	5	2.75	1.537	.146	-.495
Rel_Eff_3	207	1	5	2.61	1.134	.401	-.659
Tem_Eff_1	207	1	5	2.90	1.119	.297	-.897
Tem_Eff_2	207	1	5	3.20	1.096	-.098	-.050
Tem_Eff_3	207	1	5	3.30	1.233	-.165	-.107
Int_Qual_Att_1	207	1	5	2.54	.938	.005	-.569
Int_Qual_Att_2	207	1	5	2.38	1.049	.126	-.079
Int_Qual_Att_3	207	1	5	2.24	1.078	.290	-.122
Int_Qual_Beh_1	207	1	4	2.12	1.064	.474	-.051
Int_Qual_Beh_2	207	1	4	2.10	.985	.358	-.032
Int_Qual_Beh_3	207	1	4	2.10	1.024	.462	-.978
Int_Qual_Exp_1	207	1	4	2.12	1.066	.388	-.176
Int_Qual_Exp_2	207	1	5	2.22	1.059	.223	-.156
Int_Qual_Exp_3	207	1	4	2.25	1.054	.135	-.287
Loss_Trust_2	207	1	5	3.97	1.052	-.903	.135
Loss_Trust_3	207	1	5	3.92	1.190	-.888	-.198
Loss_ConsRights_1	207	1	5	3.09	1.668	-.166	-.625
Loss_ConsRights_2	207	1	5	2.93	1.628	-.012	-.602

Loss_ConsRights_3	207	1	5	2.96	1.661	-.052	-.665
Loss_Finan_3	207	1	5	2.05	1.442	.897	-.820
Loss_Finan_5	207	1	5	1.80	1.280	.214	-.140
Loss_Finan_6	207	1	5	1.68	1.148	.477	.799
Loss_Mater_7	207	1	5	1.92	1.263	.037	-.301
Loss_Mater_8	207	1	5	1.57	1.072	.690	.467
Loss_Mater_9	207	1	5	1.59	1.084	.683	.605
Loss_Mater_10	207	1	5	1.61	1.100	.632	.402
Loss_Time_6	207	1	5	3.05	1.137	-.165	-.758
Loss_Self_1	207	1	5	3.12	1.367	-.154	-.092
Loss_Self_2	207	1	5	2.50	1.458	.494	-.162
Loss_Self_3	207	1	5	3.12	1.272	-.091	-.930
Loss_Time_2	207	1	5	2.96	1.083	-.177	-.761
Loss_Time_3	207	1	5	3.07	1.176	-.114	-.945
Loss_Time_4	207	1	5	2.97	1.202	.039	-.040
Loss_Time_5	207	1	5	3.23	1.180	-.406	-.737
Satisfaction_1	207	1	5	1.90	.865	.047	.090
Satisfaction_2	207	1	5	1.78	.812	.033	.115
Satisfaction_3_re	207	1.00	5	1.90	.83972	.871	.678
Valid N (listwise)	207						

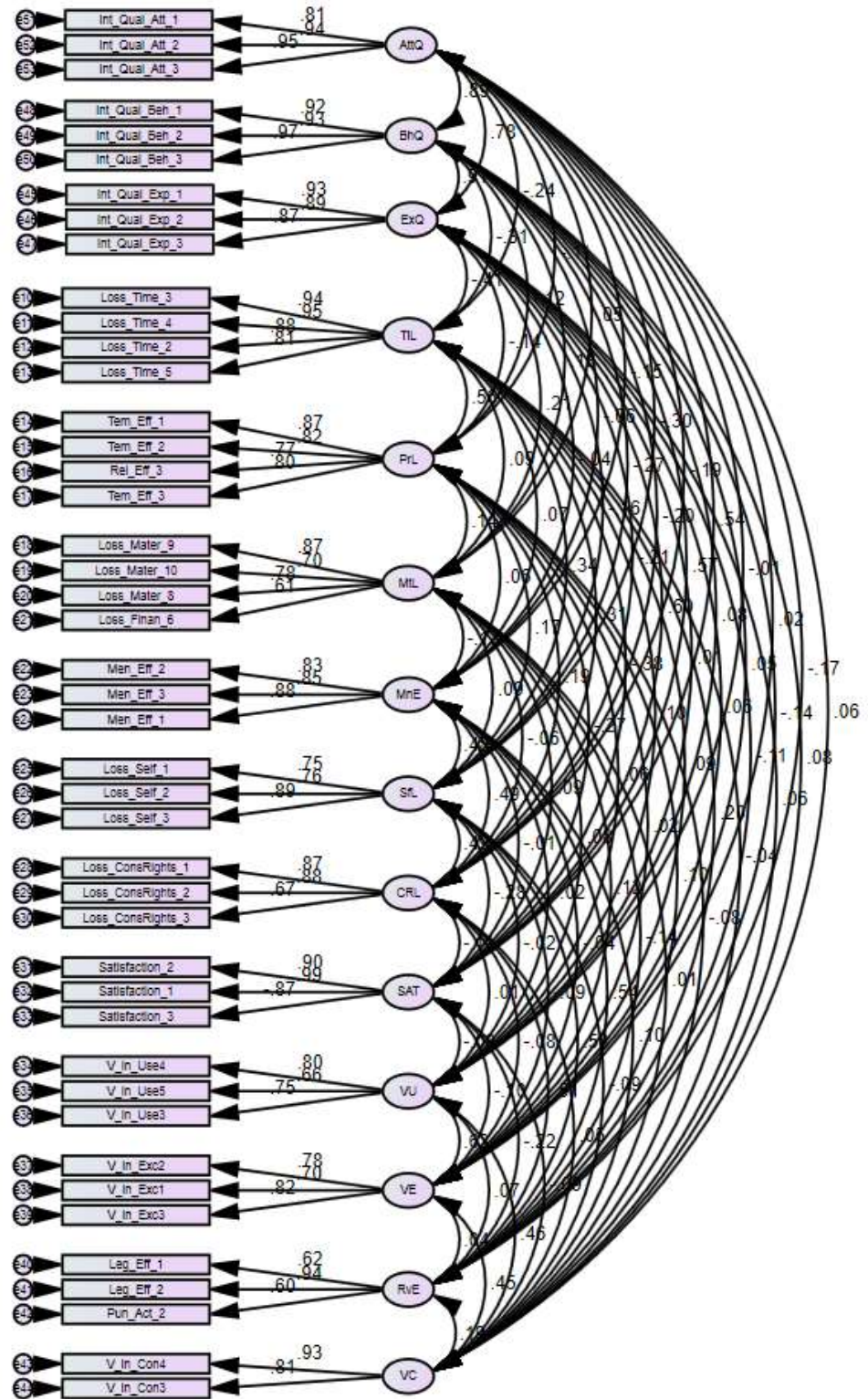
Table M2. Descriptive Statistics of Secondary Gain Model

	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
V_in_Exc1	215	1	5	1.97	1.089	.932	-.032
V_in_Exc2	215	1	5	1.85	1.200	.168	.058
V_in_Exc3	215	1	5	1.92	1.153	.236	.548
V_in_Use3	215	1	5	2.34	1.161	.510	-.873
V_in_Use4	215	1	5	2.25	1.185	.641	-.799
V_in_Use5	215	1	5	2.13	1.233	.889	-.379
V_in_Con3	215	1	5	2.39	1.162	.649	-.480
V_in_Con4	215	1	5	2.11	1.175	.951	-.019
Fin_Eff_1	215	1	5	1.79	1.188	.164	-.133
Fin_Eff_2	215	1	5	2.61	1.248	-.011	-.233
Fin_Eff_3	215	1	5	1.83	1.235	.217	.122
Fin_Eff_4	215	1	5	2.76	1.226	.026	-.992
Leg_Eff_1	215	1	4	1.09	.383	.932	.307
Leg_Eff_2	215	1	5	1.21	.691	.809	.169

Men_Eff_1	215	1	5	2.15	1.105	.835	-.124
Men_Eff_2	215	1	5	2.44	1.091	.674	-.336
Men_Eff_3	215	1	5	2.49	1.203	.455	-.872
Phy_Eff_4	215	1	5	1.64	.946	.642	.352
Phy_Eff_5	215	1	5	1.36	.807	.649	.341
Pun_Act_2	215	1	5	1.18	.626	.111	.045
Rel_Eff_3	215	1	5	2.22	1.075	.889	.105
Tem_Eff_1	215	1	5	2.53	1.036	.798	-.261
Tem_Eff_2	215	1	5	2.27	1.078	.037	.558
Tem_Eff_3	215	1	5	2.56	1.070	.771	-.279
Int_Qual_Att_1	215	1	5	3.76	.782	-.449	.900
Int_Qual_Att_2	215	1	5	3.74	.776	-.457	.884
Int_Qual_Att_3	215	1	5	3.80	.729	-.724	.451
Int_Qual_Beh_1	215	1	5	3.75	.767	-.553	.531
Int_Qual_Beh_2	215	1	5	3.70	.721	-.283	.792
Int_Qual_Beh_3	215	1	5	3.73	.718	-.764	.101
Int_Qual_Exp_1	215	2	5	3.86	.643	-.923	.783
Int_Qual_Exp_2	215	1	5	3.82	.730	-.235	.273
Int_Qual_Exp_3	215	1	5	3.71	.744	-.046	.895
Gain_Conv_1	215	1	5	2.55	1.376	.040	-.635
Gain_Conv_2	215	1	5	3.18	1.164	-.754	-.743
Gain_Conv_3	215	1	5	3.06	1.171	-.444	-.898
Gain_Conv_4	215	1	5	3.36	1.058	-.506	-.716
Gain_Finan_1	215	1	5	1.63	1.032	.480	.071
Gain_Finan_3	215	1	5	1.47	.906	.839	.257
Gain_Finan_4	215	1	5	1.33	.748	.334	.022
Gain_Mater_1	215	1	4	1.35	.800	.220	.729
Gain_Mater_3	215	1	5	1.43	.898	.132	.652
Gain_Mater_5	215	1	5	1.27	.690	.871	.256
Gain_Self_2	215	1	5	3.20	1.182	-.747	-.643
Gain_Self_3	215	1	5	2.72	1.045	-.228	-.761
Gain_Self_4	215	1	5	3.58	.827	-.422	.713
Gain_Supp_1	215	1	5	3.05	.906	-.549	-.144
Gain_Supp_2	215	1	5	3.07	.988	-.512	-.485
Gain_Supp_3	215	1	5	3.46	.879	-.864	.094
Gain_Supp_4	215	1	5	3.20	.966	-.526	-.260
Satisfaction_1	215	1	5	3.88	.630	-.809	.453
Satisfaction_2	215	1	5	3.53	.754	-.088	.050
SAT3_re	215	1.00	5	3.97	.79670	-.901	.449
Valid N (listwise)	215						

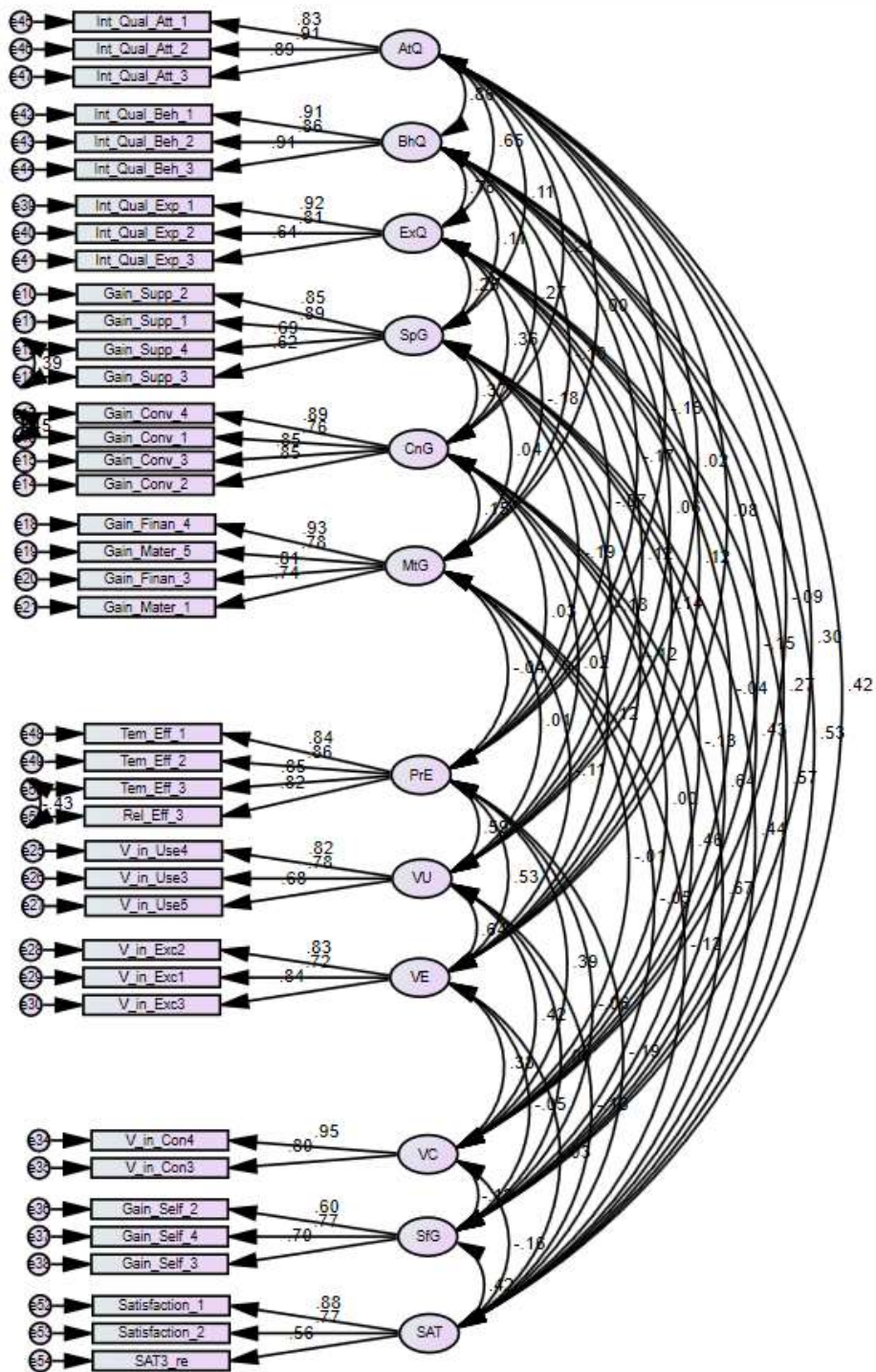
APPENDIX N

MEASUREMENT MODEL OF SECONDARY LOSS AS-S EXPERIENCES



APPENDIX O

MEASUREMENT MODEL OF SECONDARY GAIN AS-S EXPERIENCES



APPENDIX P

STANDARDIZED REGRESSION WEIGHTS OF SECONDARY LOSS AS-S
EXPERIENCES MEASUREMENT MODEL

ITEM		CONSTRUCT	ESTIMATE	P
LOSS_TIME_3	<---	TIME LOSS	0.95	***
LOSS_TIME_4	<---	TIME LOSS	0.95	***
LOSS_TIME_2	<---	TIME LOSS	0.88	***
LOSS_TIME_5	<---	TIME LOSS	0.81	***
TEM_EFF_1	<---	PROCESS RELATED LOSS	0.88	***
TEM_EFF_2	<---	PROCESS RELATED LOSS	0.82	***
REL_EFF_3	<---	PROCESS RELATED LOSS	0.77	***
TEM_EFF_3	<---	PROCESS RELATED LOSS	0.80	***
LOSS_MATER_9	<---	MATERIAL LOSS	0.87	***
LOSS_MATER_10	<---	MATERIAL LOSS	0.70	***
LOSS_MATER_8	<---	MATERIAL LOSS	0.78	***
LOSS_FINAN_6	<---	MATERIAL LOSS	0.61	***
MEN_EFF_2	<---	MENTAL EFFORT	0.83	***
MEN_EFF_3	<---	MENTAL EFFORT	0.85	***
MEN_EFF_1	<---	MENTAL EFFORT	0.88	***
LOSS_SELF_1	<---	SELF-RELATED LOSS	0.75	***
LOSS_SELF_2	<---	SELF-RELATED LOSS	0.76	***
LOSS_SELF_3	<---	SELF-RELATED LOSS	0.89	***
LOSS_CONSRIGHTS_1	<---	CONSUMER RIGHTS LOSS	0.87	***
LOSS_CONSRIGHTS_2	<---	CONSUMER RIGHTS LOSS	0.88	***
LOSS_CONSRIGHTS_3	<---	CONSUMER RIGHTS LOSS	0.67	***
SATISFACTION_2	<---	SATISFACTION	0.90	***
SATISFACTION_1	<---	SATISFACTION	0.99	***
SATISFACTION_3	<---	SATISFACTION	0.87	***
V_IN_USE4	<---	VALUE-IN-USE	0.80	***
V_IN_USE5	<---	VALUE-IN-USE	0.66	***
V_IN_USE3	<---	VALUE-IN-USE	0.75	***
V_IN_EXC2	<---	VALUE-IN-EXCHANGE	0.78	***
V_IN_EXC1	<---	VALUE-IN-EXCHANGE	0.70	***
V_IN_EXC3	<---	VALUE-IN-EXCHANGE	0.82	***
LEG_EFF_1	<---	LEGAL / PUNITIVE EFFORT	0.63	***
LEG_EFF_2	<---	LEGAL / PUNITIVE EFFORT	0.94	***
PUN_ACT_2	<---	LEGAL / PUNITIVE EFFORT	0.60	***
V_IN_CON4	<---	VALUE-IN-CONTEXT	0.93	***
V_IN_CON3	<---	VALUE-IN-CONTEXT	0.81	***
INT_QUAL_EXP_1	<---	EXPERTISE QUALITY	0.93	***
INT_QUAL_EXP_2	<---	EXPERTISE QUALITY	0.89	***
INT_QUAL_EXP_3	<---	EXPERTISE QUALITY	0.87	***
INT_QUAL_BEH_1	<---	BEHAVIORAL QUALITY	0.92	***
INT_QUAL_BEH_2	<---	BEHAVIORAL QUALITY	0.93	***
INT_QUAL_BEH_3	<---	BEHAVIORAL QUALITY	0.97	***
INT_QUAL_ATT_1	<---	ATTITUDE QUALITY	0.81	***
INT_QUAL_ATT_2	<---	ATTITUDE QUALITY	0.94	***
INT_QUAL_ATT_3	<---	ATTITUDE QUALITY	0.95	***

Note: *** means P<0.001

APPENDIX Q

STANDARDIZED REGRESSION WEIGHTS OF SECONDARY GAIN AS-S EXPERIENCES MEASUREMENT MODEL

ITEM		CONSTRUCT	ESTIMATE	P
GAIN_SUPP_2	<---	SUPPORT GAIN	0.847	***
GAIN_SUPP_1	<---	SUPPORT GAIN	0.89	***
GAIN_SUPP_4	<---	SUPPORT GAIN	0.686	***
GAIN_SUPP_3	<---	SUPPORT GAIN	0.624	***
GAIN_CONV_2	<---	CONVENIENCE GAIN	0.855	***
GAIN_CONV_3	<---	CONVENIENCE GAIN	0.854	***
GAIN_CONV_1	<---	CONVENIENCE GAIN	0.764	***
GAIN_CONV_4	<---	CONVENIENCE GAIN	0.891	***
GAIN_FINAN_4	<---	MATERIAL GAIN	0.925	***
GAIN_MATER_5	<---	MATERIAL GAIN	0.776	***
GAIN_FINAN_3	<---	MATERIAL GAIN	0.811	***
GAIN_MATER_1	<---	MATERIAL GAIN	0.736	***
V_IN_USE4	<---	VALUE-IN-USE	0.82	***
V_IN_USE3	<---	VALUE-IN-USE	0.777	***
V_IN_USE5	<---	VALUE-IN-USE	0.681	***
V_IN_EXC2	<---	VALUE-IN-EXCHANGE	0.827	***
V_IN_EXC1	<---	VALUE-IN-EXCHANGE	0.722	***
V_IN_EXC3	<---	VALUE-IN-EXCHANGE	0.841	***
V_IN_CON4	<---	VALUE-IN-CONTEXT	0.952	***
V_IN_CON3	<---	VALUE-IN-CONTEXT	0.798	***
GAIN_SELF_2	<---	SELF-RELATED GAIN	0.598	***
GAIN_SELF_4	<---	SELF-RELATED GAIN	0.766	***
GAIN_SELF_3	<---	SELF-RELATED GAIN	0.703	***
INT_QUAL_EXP_1	<---	EXPERTISE QUALITY	0.916	***
INT_QUAL_EXP_2	<---	EXPERTISE QUALITY	0.813	***
INT_QUAL_EXP_3	<---	EXPERTISE QUALITY	0.637	***
INT_QUAL_BEH_1	<---	BEHAVIORAL QUALITY	0.91	***
INT_QUAL_BEH_2	<---	BEHAVIORAL QUALITY	0.86	***
INT_QUAL_BEH_3	<---	BEHAVIORAL QUALITY	0.911	***
INT_QUAL_ATT_1	<---	ATTITUDE QUALITY	0.832	***
INT_QUAL_ATT_2	<---	ATTITUDE QUALITY	0.913	***
INT_QUAL_ATT_3	<---	ATTITUDE QUALITY	0.892	***
TEM_EFF_1	<---	PROCESS RELATED LOSS	0.835	***
TEM_EFF_2	<---	PROCESS RELATED LOSS	0.864	***
TEM_EFF_3	<---	PROCESS RELATED LOSS	0.851	***
REL_EFF_3	<---	PROCESS RELATED LOSS	0.817	***
SATISFACTION_1	<---	SATISFACTION	0.876	***
SATISFACTION_2	<---	SATISFACTION	0.767	***
SAT3_RE	<---	SATISFACTION	0.563	***

Note: *** means P<0.001

APPENDIX R

CONVERGENT AND DISCRIMINANT VALIDITY STATISTICS

Table R1. Correlation Matrix, CR, and AVE Scores in the Conceptual Model of ASS with Secondary Losses

	CR	AVE	MSV	MaxR(H)	BhQ	TiL	PrE	MtL	MnE	SfL	CRL	VU	VE	RvE	VC	ExQ	AttQ
BhQ	0.959	0.887	0.824	0.966	0.942												
TiL	0.944	0.809	0.314	0.960	-0.309	0.900											
PrE	0.888	0.665	0.314	0.894	-0.118	0.560	0.815										
MtL	0.833	0.559	0.044	0.863	0.180	0.090	0.140	0.748									
MnE	0.890	0.730	0.296	0.892	-0.063	0.066	0.056	-0.128	0.854								
SfL	0.844	0.644	0.338	0.864	-0.271	0.336	0.169	0.088	0.478	0.803							
CRL	0.851	0.659	0.256	0.880	-0.198	0.314	0.191	-0.062	0.495	0.487	0.812						
VU	0.782	0.546	0.396	0.793	0.080	0.100	0.064	0.076	-0.015	-0.021	0.011	0.739					
VE	0.813	0.592	0.396	0.823	0.052	0.087	0.018	0.116	-0.039	-0.085	-0.083	0.629	0.770				
RvE	0.773	0.543	0.338	0.894	-0.135	0.203	0.100	-0.136	0.544	0.581	0.506	0.068	0.041	0.737			
VC	0.866	0.764	0.210	0.897	0.079	-0.041	-0.077	0.007	0.103	-0.088	0.054	0.458	0.453	0.185	0.874		
ExQ	0.924	0.803	0.824	0.930	0.908	-0.413	-0.142	0.209	-0.044	-0.155	-0.214	0.010	0.064	-0.106	0.060	0.896	
AttQ	0.928	0.812	0.799	0.949	0.894	-0.245	-0.115	0.052	-0.151	-0.300	-0.186	-0.014	0.022	-0.174	0.065	0.775	0.901

Note: CR: Composite Reliability, AVE: Average Variance Extracted

Table R2. Correlation Matrix, CR, and AVE Scores in the Conceptual Model of ASS with Secondary Gains

	CR	AVE	MSV	MaxR(H)	PrE	SpG	CnG	MtG	VU	VE	VC	SfG	ExQ	BhQ	AtQ
PrE	0.907	0.709	0.342	0.908	0.842										
SpG	0.851	0.592	0.407	0.887	-0.193	0.770									
CnG	0.907	0.709	0.445	0.914	0.027	0.372	0.842								
MtG	0.887	0.664	0.032	0.913	-0.036	0.035	0.147	0.815							
VU	0.805	0.580	0.408	0.816	0.585	-0.176	0.019	0.006	0.762						
VE	0.840	0.637	0.408	0.850	0.528	-0.120	0.117	-0.107	0.639	0.798					
VC	0.870	0.772	0.173	0.920	0.391	-0.131	0.003	-0.010	0.416	0.383	0.878				
SfG	0.732	0.501	0.407	0.747	-0.058	0.638	0.462	-0.045	0.001	-0.046	-0.127	0.692			
ExQ	0.836	0.635	0.581	0.887	-0.065	0.253	0.357	-0.180	0.121	0.137	-0.038	0.433	0.797		
BhQ	0.923	0.799	0.733	0.926	-0.171	0.110	0.267	-0.096	0.065	0.119	-0.154	0.273	0.762	0.894	
AtQ	0.911	0.774	0.733	0.918	-0.151	0.111	0.245	0.005	0.023	0.076	-0.087	0.304	0.651	0.856	0.880

Note: CR: Composite Reliability, AVE: Average Variance Extracted

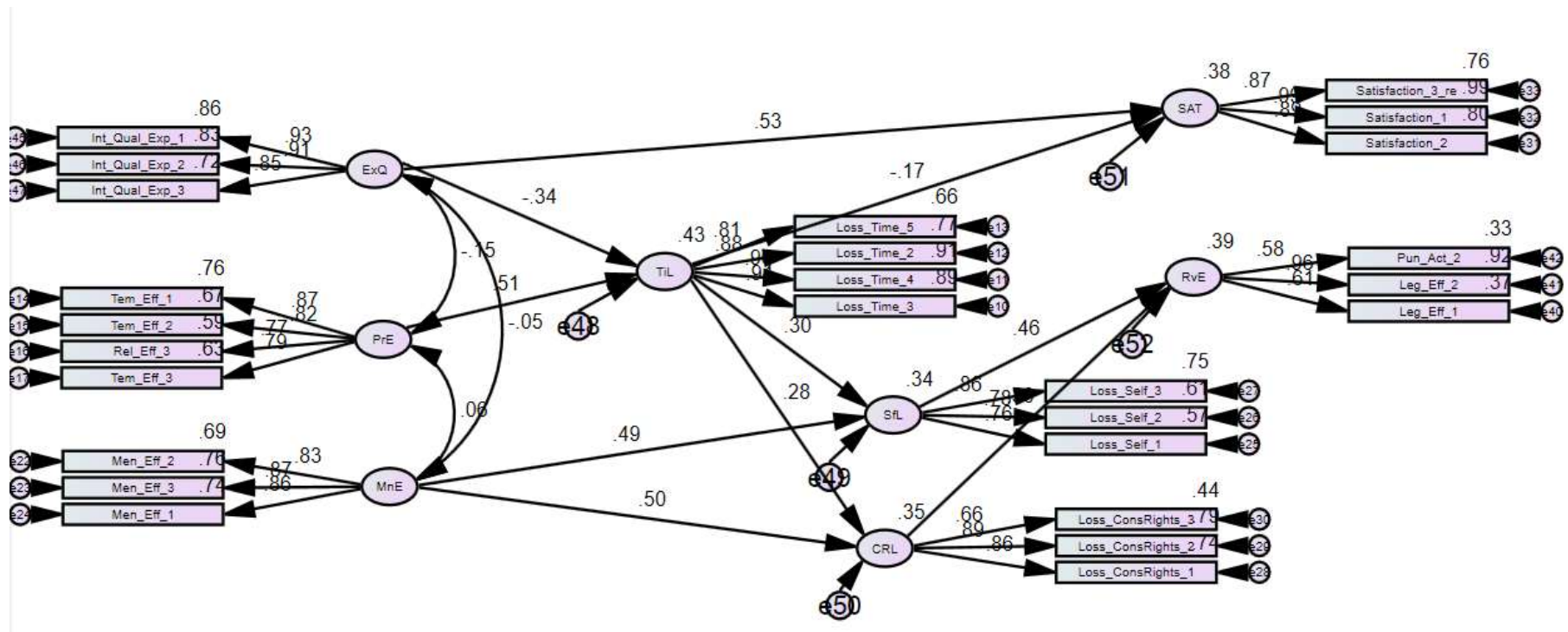
APPENDIX S

CONSTRUCT RELIABILITIES

Constructs	Cronbach's Alpha
Loss in Value-in-Exchange	0.841
Loss in Value-in-Use	0.798
Loss in Value-in-Context	0.863
Process Effort	0.897
Mental Effort	0.89
Legal/Punitive Actions	0.735
Time Loss	0.926
Material Loss	0.854
Consumer Rights Loss	0.843
Self-related Loss	0.843
Material Gain	0.845
Convenience Gain	0.891
Support Gain	0.859
Self-related Gain	0.727
Interaction Quality - Attitude	0.909
Interaction Quality - Expert	0.823
Interaction Quality - Behavior	0.922

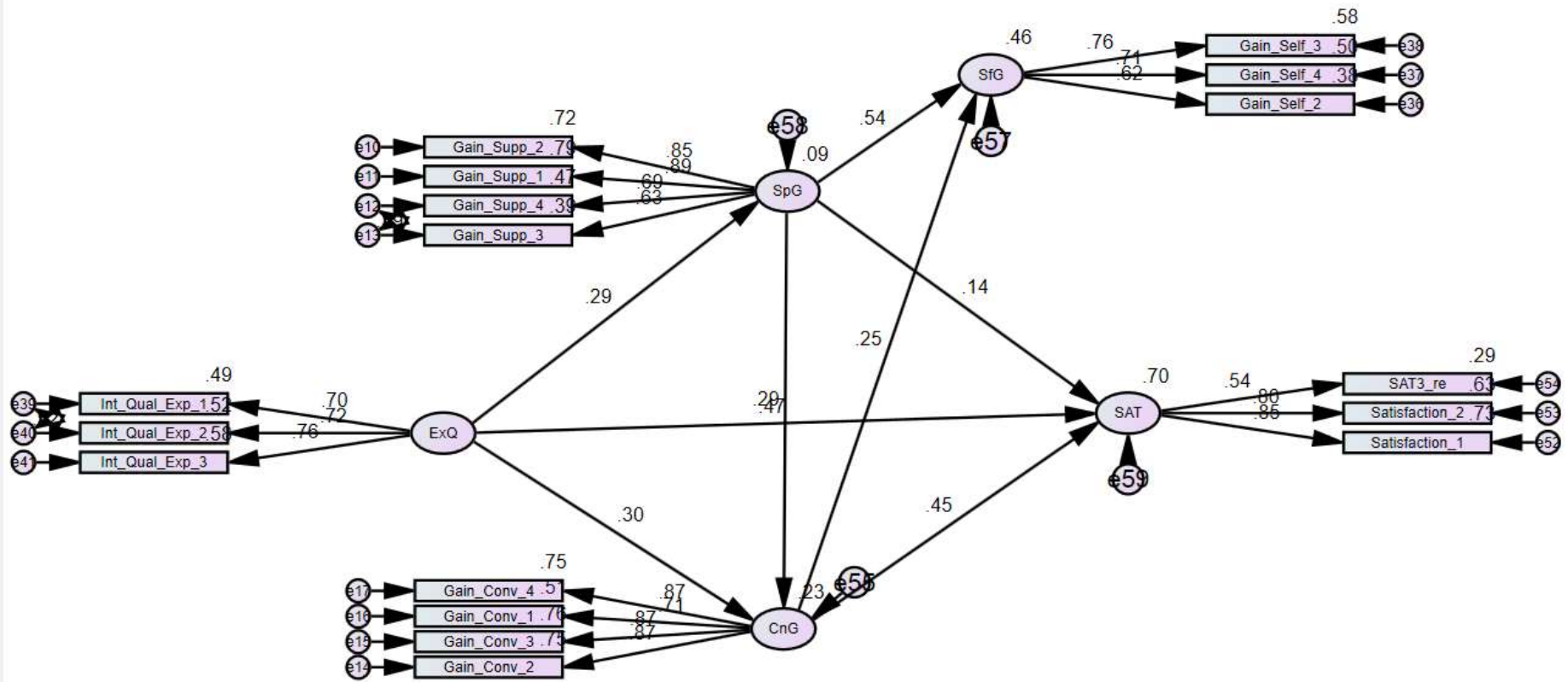
APPENDIX T

ACCEPTED STRUCTURAL MODEL of AS-S EXPERIENCES WITH SECONDARY LOSSES



APPENDIX U

ACCEPTED STRUCTURAL MODEL of AS-S EXPERIENCES WITH SECONDARY GAINS



APPENDIX V
REJECTED HYPOTHESES

Table V1. Rejected Hypotheses in AS-S Experiences with Secondary Losses Model

	Estimate	S.E.	C.R.	P
PrE <--- VE	-.002	.128	-.012	.990
PrE <--- VU	.147	.128	1.148	.251
PrE <--- VC	-.125	.083	-1.506	.132
TiL <--- BhQ	.376	.188	1.996	.066
MnE <--- VE	-.129	.128	-1.010	.312
MnE <--- VU	.008	.126	.062	.951
MnE <--- VC	.124	.082	1.510	.131
SfL <--- AttQ	-.242	.093	-2.592	.060
MtL <--- ExQ	.523	.215	2.428	.065
RvE <--- TiL	-.014	.046	-.298	.766
SAT <--- SfL	-.123	.048	-2.565	.060
SAT <--- MtL	.031	.049	.635	.526
RvE <--- MtL	-.124	.052	-2.389	.067
SAT <--- CRL	.076	.033	2.291	.062
SAT <--- BhQ	-.133	.193	-.690	.490
RvE <--- BhQ	.251	.199	1.261	.207
SAT <--- AttQ	.246	.148	1.665	.096
RvE <--- AttQ	-.192	.153	-1.257	.209
RvE <--- ExQ	-.066	.141	-.466	.641

Table V2. Rejected Hypotheses in AS-S Experiences with Secondary Gains Model

	Estimate	S.E.	C.R.	P
PrE <--- VE	.199	.084	2.367	.068
PrE <--- VU	.353	.092	3.853	.064
PrE <--- VC	.115	.057	2.022	.063
SpG <--- PrE	-.210	.069	-3.055	.052
SpG <--- BhQ	-.285	.148	-1.923	.054
MtG <--- ExQ	-.226	.094	-2.401	.056
CnG <--- PrE	.152	.080	1.901	.057
SfG <--- AtQ	.184	.078	2.375	.068
SAT <--- AtQ	-.078	.108	-.722	.470
SAT <--- BhQ	.310	.123	2.515	.072
SAT <--- MtG	-.116	.046	-2.535	.071
SAT <--- SfG	-.087	.079	-1.091	.275

APPENDIX W

RESEARCH QUESTIONS AND MAIN FINDINGS

Research Question	Related Theories	Hypotheses / Main Constructs under Scrutiny	Main Findings
RQ1: What are the forms of resources that constitute consumers' <u>primary resource loss</u> in a product breakdown situation?	SDL COR Theory	<u>Purpose of Investigation:</u> Primary Resource Loss Construct Generation (Inductive – No Hypothesis)	“Primary Resource Loss” construct is developed with three sub-dimensions: <ul style="list-style-type: none"> - Loss in Value-in-Exchange - Loss in Value-in-Use - Loss in Value-in-Context
RQ2: What are the <u>types of effort</u> that consumers devote to recover from a loss situation in interaction with AS-S?	COR Theory	<u>Purpose of Investigation:</u> Resource Conservation Effort Construct Generation (Inductive – No Hypothesis)	“Resource Conservation Effort” construct is developed with three sub-dimensions: Effective both in secondary loss and secondary gain situations: <ul style="list-style-type: none"> - Process-Related Effort Effective only in secondary loss situation: <ul style="list-style-type: none"> - Mental Effort - Legal / Punitive Effort (re-identified as an outcome variable that emerges as a result of unresolved secondary loss situations)
RQ3: What are the forms of resources that constitute consumers' <u>secondary resource loss</u> as a result of service received from AS-S?	COR Theory	<u>Purpose of Investigation:</u> Secondary Resource Loss Construct Generation (Inductive – No Hypothesis)	“Secondary Resource Loss” construct is developed with four sub-dimensions: <ul style="list-style-type: none"> - Time Loss - Loss in Self-esteem - Loss in Consumer Rights - Material and Financial Loss
RQ4: What are the forms of resources that constitute consumers' <u>secondary resource gain</u> as a result of service received from AS-S?	COR Theory	<u>Purpose of Investigation:</u> Secondary Resource Gain Construct Generation (Inductive – No Hypothesis)	“Secondary Resource Gain” construct is developed with four sub-dimensions: <ul style="list-style-type: none"> - Support Gain - Gain in Self-esteem - Convenience Gain - Material and Financial Gain

Research Question	Related Theories	Hypotheses / Main Constructs under Scrutiny	Main Findings
RQ5: How do consumers' primary losses effect their resource conservation effort?	SDL COR Theory	<u>Related Hypotheses:</u> H1a-H1f) <u>Purpose of Investigation:</u> Examining the impact of consumers' loss in exchange value, loss in use value, and loss in context value on process-related and mental effort devoted to conserve their resources	<u>Result:</u> All hypotheses proposed in this section are rejected. No direct effects found regarding the impact of consumer's primary loss on their process-related and mental effort. <u>Implication:</u> Mental and process-related efforts are found to be independent from consumers' level of primary loss, i.e. loss in exchange, use, and context value. It indicates that consumers, regardless of the level of their loss in exchange, use, and context value, initially devote the same type and level of effort: necessary actions needed to start the interactions with AS-S which is expected to recover them from the primary loss situation through maintenance of the broken product.
RQ6: How do consumers' and service's co-creative efforts effect consumers' secondary losses as a result of co-destructive AS-S interactions?	SDL COR Theory	<u>Related Hypotheses:</u> H2a-H2c; H3a-H3d <u>Purpose of Investigation:</u> Examining the impact of; (1) Consumers' mental and process-related effort on their perceived loss in time, self-esteem, and consumer rights. (2) Service's interaction quality (attitude, behavior and expert quality) on consumers' perceived loss in time, self-esteem, consumer rights, and material and financial.	<u>Result:</u> Partially supported (1) Consumers' mental effort has positive impact on their perceived loss in self-esteem and consumer rights, while process-related effort has positive impact on perceived loss in time. (2) There is an inverse relationship between service's expert quality and consumers' perceived loss in time. <u>Implication:</u> On the consumer's side, when consumers start mentally evaluating their secondary losses in an AS-S experience that is not going well, consumers start feeling being deceived by the company and feel worthless as a consumer (cognition's effect on emotions). Furthermore, they also become aware of their rights as a consumer through investigations (mental effort) which increase their perceived loss in consumer rights. On the other hand, the increased process-related effort results in consumers' perceived loss in time. On the service's side, when the service fail delivering high level of expert quality, consumers' perceived loss in time increase. To sum up, consumer's perceived loss in time is determined by service's expert quality (negatively) and consumer's process related effort (positively), while perceived loss in consumer rights and self-esteem is determined by consumers' mental processes.

Research Question	Related Theories	Hypotheses / Main Constructs under Scrutiny	Main Findings
RQ7: What are the relationships between consumers' different types of secondary losses as a result of co-destructive AS-S interactions? (What are the emerging loss spirals?)	COR Theory	<p><u>Related Hypotheses:</u> H4a-H4b</p> <p><u>Purpose of Investigation:</u> Examining the impact of consumers' time loss on other types of losses (i.e. self-esteem, consumer rights, and material/financial).</p>	<p><u>Result:</u> Partially supported Perceived loss in time has positive impact on perceived loss in self-esteem and consumer rights.</p> <p><u>Implication:</u> When consumers experience time-related losses, they start feeling that the company does not give any value to their lives and keep them waiting. This results in feelings of worthlessness and loss in self-esteem. On the other hand, by time passing consumers lose some of their rights as a consumer: such as coming to the end of the warranty period due to prolonged service delivery or right to file a complaint within a certain period of time etc. Therefore loss in time increases the likelihood of consumers' perceptions of loss in self-esteem and loss in consumer rights. (Loss spiral found between loss in time and losses in self-esteem and consumer rights)</p>
RQ8: How do failed co-creative efforts have impact on consumer's service satisfaction and their legal / punitive efforts?	Service Quality Literature	<p><u>Related Hypotheses:</u> H5a – H5d; ; H6a – H6d; H7a-H7c; H8a-H8c</p> <p><u>Purpose of Investigation:</u> Analyzing the impact of consumers' secondary losses and service's interaction quality on consumer's service dissatisfaction and their legal / punitive efforts.</p>	<p><u>Result:</u> Partially supported Consumer's service satisfaction is determined by perceived loss in time (negatively) and service's expert quality (positively), while their legal and punitive efforts are determined by perceived losses in self-esteem and consumer rights.</p> <p><u>Implications:</u> In a failed AS-S experience that ends up with secondary losses, the path that takes consumers to dissatisfaction versus the path that makes consumers devote legal / punitive efforts are different.</p> <ul style="list-style-type: none"> - Failed co-creative efforts that are related to the service process cause dissatisfaction (low expert quality and high process related effort increase perceived loss in time which eventually decrease service satisfaction, while expert quality also has direct positive effect on satisfaction) - Failed co-creative efforts that are related to the service process together with consumers' mental processing result in legal / punitive efforts (high perceived time loss - that is the result low expert quality and high process-related effort - and high mental effort increase perceived losses in in consumer rights and self-esteem which eventually trigger consumers to take legal/punitive actions)

Research Question	Related Theories	Hypotheses / Main Constructs under Scrutiny	Main Findings
RQ9: How do consumers' and service's co-creative efforts effect consumers' secondary gains as a result of co-creative AS-S interactions?	SDL COR Theory	<u>Related Hypotheses:</u> H9a-H9b; H10a-H10e <u>Purpose of Investigation:</u> Examining the impact of; (1) Consumers' process-related effort on their perceived convenience, support, and material gain, (2) Service's interaction quality (attitude, behavior and expert quality) on consumers' perceived convenience, support, and material gain	<u>Result:</u> Partially supported There is no significant effect found between consumers' process effort and their perceived gain in convenience, support and material. On the other hand, expert quality has a positive direct impact on consumers' perceived convenience and support gain. <u>Implication:</u> (1) Consumers in successful co-creative service experiences seem to have no mental and legal/punitive efforts, but only process related efforts. On the other hand, those efforts devoted to the service process do not have any positive or negative impact on positive outcomes during a successful AS-S experience. (2) Furthermore, regardless of the extent of process effort devoted in interaction phase, if the expert quality is deemed to meet or exceed their expectations, consumers retrieve secondary gains from the process which are convenience and support.
RQ10: What are the relationships between consumers' different types of secondary gains as a result of co-creative AS-S interactions? (What are the emerging gain spirals?)	COR Theory	<u>Related Hypotheses:</u> H11a-H11c <u>Purpose of Investigation:</u> Examining the relationships within consumers' perceived secondary gains: support on convenience, convenience on self-esteem, material on convenience, support on self-esteem, and support on material gains.	<u>Result:</u> Partially supported There is a direct positive relationship (gain spiral) between perceived support gain and convenience gain, support gain and self-esteem gain, and convenience gain and self-esteem gain. <u>Implication:</u> Perceived gain in support from the service / company results in consumers' feelings of improved living conditions (that was disrupted due to product failures) with resolved distress which eventually increase their perceptions of convenience gain. Furthermore, support gain and convenience gain supplied by the service / company to the consumers' lives result in feelings of being important and special as a consumer (self-esteem gain).

Research Question	Related Theories	Hypotheses / Main Constructs under Scrutiny	Main Findings
<p>RQ11: How do successful co-creative efforts have impact on consumer's service satisfaction as a result of co-creative AS-S interactions?</p>	<p>Service Quality Literature</p>	<p><u>Related Hypotheses:</u> H12a-H12d; H13a-H13c</p> <p><u>Purpose of Investigation:</u> Examining the impact of consumers' secondary gains and service's interaction quality on consumers' service satisfaction.</p>	<p><u>Result:</u> Partially supported In a successfully co-creative AS-S interactions, customer's service satisfaction is found to be derived from consumers' perceived gains in convenience and support, and service's expert quality.</p> <p><u>Implication:</u></p> <p>(1) Consumers' perceived convenience and support gains result in two outcomes: satisfaction and gain in self-esteem. Indeed, self-esteem gain emerges as an independent outcome that transpires as a result of positive AS-S experiences that provide secondary gains of support and convenience.</p> <p>(2) There is no significant effect of material gain on satisfaction which implies the primary need of consumers in AS-S interactions: receiving support and convenience. No matter how their products end up with materially, if they feel they are supplied with necessary support and convenience by the company, they feel satisfied.</p> <p>(3) Service's expert quality has a direct positive effect on consumers' service satisfaction, while attitude and behavior quality seem to have no significant effects on the outcome. It implies that without perceived expert quality of service personnel, neither polite attitudes nor actions taken to resolve the issue do not have any satisfying effects on consumers. The necessary attribute that consumers look for in AS-S employees is the expertise and professionalism.</p>

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