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"How can we minimize food waste while maximizing customer satisfaction? – Less production approach in the food service sector."

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DEDICATION

dedicated to my late grandmother

Makbule Öztürk

* 1.1.1930; † 26.10.2019

and

all people who died from

starvation or malnutrition-related diseases.

ABSTRACT

Purpose – The following thesis aims to reduce food waste in the food service sector by guiding managers to avoid purchasing excessive amount of food inventory. It proposes service recovery strategies in case of an out-of-stock service failure situation – that is providing a choice to customers over a compensation item (decisional control) and explaining the cause of the service failure as the effort of the company to reduce food waste (cognitive control). The study has measured the impact of cognitive and decisional control on satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-Intention, fairness, service failure attributions and service failure severity.

Design and methodology – In order to test the hypotheses, a 2 (decisional control) x 2 (cognitive control) between-subjects design was used. Respondents were assigned randomly one of the four scenarios in an out-of-stock service failure situation in a restaurant and then answered the questionnaire. 202 respondents have participated in this study.

Findings – Results show that after an out-of-stock service failure situation, offering compensation with decisional control and explaining the cause of the service failure as the effort of the company to reduce food waste (cognitive control) influence customer reactions positively. Offering only compensation with decisional control has significantly improved outcome variables except service failure attributions and service failure severity. Offering only cognitive control has improved outcome variables significantly except revisit intention and switching intention. Offering both cognitive control and decisional control have significantly increased all of the outcome variables.

Practical implications – Food service companies do not have to purchase excessive amount of food for the inventory. In case of out-of-stock service failure situation occurs, cognitive and decisional control as a service recovery strategy could be deployed. With this way, service recovery paradoxical satisfaction could also be achieved and the negative effect of the out-of-stock service failure situation will be mitigated significantly.

Originality - This study investigates the out-of-stock service failure situation and the use of cognitive and decisional control as service recovery strategy in the food service sector.

Keywords Food Waste, Out-of-stock Service Failure, Service Recovery, Cognitive Control, Decisional Control

ABSTRACT

Zweck - Die folgende These zielt darauf ab, die Lebensmittelverschwendung in der Gastronomie zu reduzieren, indem Manager dazu angeleitet werden, den Kauf einer übermäßigen Menge an Nahrungsmittelinventar zu vermeiden. Sie schlägt Strategien zur Wiederherstellung der Servicequalität im Falle eines Out-of-Stock Service-Fehler vor - einerseits werden die Kunden die Möglichkeit gegeben sich für einer Entschädigung zu entscheiden (Entscheidungskontrolle), andererseits wird die Ursache des Serviceausfalls als das Bemühen des Unternehmens zur Bekämpfung der Lebensmittelverschwendung erklärt (kognitive Kontrolle). Die Studie hat den Einfluss von kognitiver und Entscheidungskontrolle auf die Zufriedenheit mit der Dienstleistung, die Zufriedenheit mit der Service Recovery, die Wiederbesuchsabsicht, die Wechselabsicht, die WOM-Absicht, die Fairness, die Attribution von Dienstversagen und die Schwere des Dienstversagens gemessen.

Design und Methodik - Um die Hypothesen zu testen, wurde ein 2 (Entscheidungskontrolle) x 2 (kognitive Kontrolle) between-subjects design verwendet. Die Befragten wurden nach dem Zufallsprinzip einem der vier Szenarien in einer Out-of-Stock Service-Fehler Situation in einem Restaurant zugeordnet und beantworteten dann den Fragebogen. 202 Befragten haben an dieser Studie teilgenommen.

Ergebnisse - Die Ergebnisse zeigen, dass eine Kompensation mit Entscheidungskontrolle und Erklärung die Ursache des Service-Fehler Situation als zur Bekämpfung von Lebensmittelverschwendung (kognitive Kontrolle) nach einer Out-of-stock Service-Fehler Situation die Kundenreaktionen positiv beeinflusst. Das ausschließliche Anbieten einer Kompensation mit Entscheidungskontrolle hat alle Ausgangsvariablen außer die Attribution von Dienstversagen und die Schwere des Dienstversagens signifikant verbessert. Das ausschließliche Anbieten von kognitiver Kontrolle hat alle Ausgangsvariablen außer der Wiederbesuchsabsicht und der Wechselabsicht signifikant verbessert. Die Erhöhung von kognitiver Kontrolle und Entscheidungskontrolle gleichzeitig haben alle Ausgangsvariablen signifikant erhöht.

Praktische Implikationen - Gastronomiebetriebe müssen keine übermäßige Menge an Lebensmitteln für das Inventar kaufen. Im Falle eines Out-of-stock Service-Fehler könnte kognitive und Entscheidungskontrolle als Service Recovery Strategie eingesetzt werden. Auf diese Weise könnte auch eine Service Recovery paradoxal Zufriedenheit (service

recovery paradoxical satisfaction) erreicht und die negativen Auswirkungen der Out-of-Stock Service-Fehler Situation erheblich gemildert werden.

Originalität - Diese Studie untersucht die Out-of-stock Service-Fehler Situation und den Einsatz von kognitiver und Entscheidungskontrolle als Service Recovery-Strategie in der Gastronomie und Gaststättengewerben.

Schlüsselwörter- Lebensmittelverschwendung, Out-of-stock (nicht am Lager sein) Service-Fehler, Service Recovery, Kognitive Kontrolle, Entscheidungskontrolle

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ABBREVIATIONS

CH4	Methane gas
CO2	Carbon dioxide
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
ÖÖI	The Austrian Institute of Ecology (Österreichische Ökologie Institut)
SDG	Sustainable development goals
UN	United Nations
USD	United States Dollar
WHO	World Health Organization
WOM	Word-of-mouth

1. INTRODUCTION

1,3 billion tons of food waste are being generated globally each year which equals to one third of the global food production (FAO, 2013). The economic cost of the food waste problem can be seen as the most visible negative impact which results in a loss of at least 750 billion USD each year (FAO, 2013). However, visible consequences of food waste can be seen as just the tip of the iceberg and there are many hidden negative consequences of the problem.

Food waste poses a big threat to our environment and accelerates global warming through methane gas (CH4) emissions from the landfills (Edwards and Roberts 2009; Michaelowa and Dransfeld 2008). CH4 green gas emission is 25 times more dangerous than CO2 emission (ÖÖI, 2015). The occurrence of many types of disasters, floods, droughts, heat waves are the immediate consequences of the global warming and according to WHO report (2003), it increases the occurrence of infectious diseases since humans and wild animals come more and more in contact.

Food waste causes loss of biodiversity in the environment because of deforestation and excessive amount of fishing activities for more food production (FAO, 2019). More products need to be stored in the food and retail sector and this would lead to an excessive amount of energy use wastage. Additionally, more water needs to be consumed by animals and plants which lessens the overall groundwater supply in the planet and unnecessary use of land that would have been used in a more productive way (FAO, 2019). It diminishes the efficiency of the planet's natural environment because of unnecessary transportation use adding more emissions, therefore speeding up the climate change process (Oliveria, Mouara and Cunha, 2016).

On the other hand, ethical issues related to the food waste problem is more dramatic. 820 million people suffer from malnutrition globally (WHO, 2019) and 9 million people die every year of starvation and malnutrition-related diseases (FAO, 2002), more than any other infectious diseases combined. Additionally, millions of animals were slaughtered

just to be wasted. Therefore, wasting food is ethically not acceptable (Betz, Buchli, Göbel and Müller, 2015).

Food is wasted at different stages in the supply chain. While in undeveloped and developing countries, food is wasted at the beginning of the supply chain like in production and harvesting, in developed countries food is wasted at consumption level like in the food service sector and households (Calvo-Porral, Medín and Losada-López, 2016). Food that is wasted at later stages of the supply chain have more negative impact than food that is wasted at the beginning stage of the supply chain because of the unnecessary transport, use of labor personnel, material and energy resource (Betz et al., 2015; Hennchen, 2019). Therefore, it is vital to develop strategies to reduce food waste at the later stages of the supply chain.

In Austria, 157.000 tons of avoidable food waste from households can be avoided, 121.800 tons food waste from food production, 110.000 tons food waste from food retailers and 175.000 tons of food waste from food service sector are being generated each year that can be reduced or avoided (Federal Ministry for Sustainability and Tourism, 2019). In the food service sector, 61.000 tons of food waste from common catering, 50.000 tons of food waste in accommodation, 45.000 tons of food waste in gastronomy and 19.000 tons of food waste in coffee houses and in other points of interests are wasted. The food service sector is the second highest food wasting sector in Germany (17%) and third highest sector in Switzerland (18%) (Betz et al., 2015). Wasting food does not only cost money for the food service companies, it has also a serious negative impact on society, environment and ecology (Heikkilä, Reinikainen, Katajajuuri, Silvennoinen and Hartikainen, 2016; Betz et al., 2015), therefore reducing the food waste will increase the efficiency of the food service sector (Heikkilä et al., 2016).

A study done by the United Against Food Waste Austria (2016) shed light to the exact location of the food waste problem in the food service sector in Austria. While food waste occurred 49% in preparation and 33% in plate leftovers in gastronomy (restaurants, guest houses, highway restaurants), plate leftovers with 50% and overproduction with 24% contributed to the food waste in common catering to hospitals, work and university

canteens. In the hospitality sector, hotels, inns, hostels and pensions, 32% of food waste occurred in preparation and 20% plate and buffet leftovers each (United Against Food Waste Austria, 2016). While companies had a limited control over food waste that were caused from customer plate leftovers, foods that are wasted in overproduction, buffet leftovers, storage and preparation would have been avoided, if the food service companies had purchased less amount of food to their inventory.

However, past research has developed strategies mostly for reducing the food waste on plate and buffet leftovers in the food service sector, like small serving plates (Betz et al., 2015), small serving sizes (Halloran et al., 2014), removing "All-you-can-eat" restaurants (Lipinski et al., 2013), removing buffets at fixed prices at restaurants (Stuart, 2009), introduce "Pay by weight" restaurants (Stuart, 2009). The previous literature has not developed strategies to prevent the excessive amount of food purchase that causes food waste.

Ofei et al. (2015) have identified that one of the major causes of food waste is inaccuracy of forecasting the demand in the food service sector. According to Hennchen (2019), anticipation of demand is difficult for companies and this uncertainty in demand creates an excessive amount of food purchase. The food service companies purchase excessive amount of ingredients to inventory that is higher than the expected demand, which creates food waste (Heikkilä et al., 2016; WU Third Mission, Ways 2 Sustain, 2019).

The underlying reason for this excessive amount of food purchase to inventory should be understood thoroughly so that effective strategies can be developed in the future to tackle this problem. The main reason for this excessive amount of food purchase is that food service companies do not want to lose customers due to under production, that may lead to bad customer satisfaction (Waarts et al., 2011). Restaurant managers believe that the out-of-stock service failure should not happen frequently because of the fear that it would impact customer satisfaction negatively (Hennchen, 2019). Instead restaurants should keep their inventory level low to reduce food waste and at this case out-of-stock service failure may occur. However, whether out-of-stock service failure situations in the food service sector had any influence on customer reactions have not been researched in the

previous literatures. Therefore, the impact of out-of-stock service failure situation on customer reactions should be investigated. This leads to the first research question.

RQ1: Do consumers care if their favorite dishes are sold out? Does this out-of-stock service failure situation in the food service sector affect

- satisfaction with the service
- satisfaction with the recovery
- revisit intention and
- WOM intention?

As discussed above, food service companies need to avoid excessive amount of food purchase to inventory as to prevent food waste. When out-of-stock service failure occurs, service recovery strategies can be deployed to mitigate the negative impact of the service failure. Therefore, service recovery research has to find effective recovery strategies in an out-of-stock service failure situation to give companies confidence to buy less food to inventory. The aim of this master's thesis is to fulfill this gap in the service recovery research with the purpose to avoid food waste by seeking an answer to following research question.

RQ2: How does the way out-of-stock service failure situation presented to the customer influences customer reactions?

Service failure and service recovery literature will be investigated in order to find effective strategies to increase customer reactions in out-of-stock service failure situation. As mentioned earlier, the food waste in the service sector is caused by excessive amount of food purchase to the inventory due to the belief of food service companies to avoid stock-out situations that would lead to bad customer satisfaction. On the one hand, recovery research has to measure the impact of out-of-stock items on customer reactions and on the other hand it needs to develop effective recovery strategies to give food service companies confidence to buy less food for inventory.

The core objective of this thesis is to investigate the out-of-stock service failure situation and develop service recovery strategies to mitigate the negative impact of the service

failure situation in the food service sector with the goal to guide managers to avoid purchasing excessive amount of food to the inventory that leads to food waste. This study will focus on providing food service companies service recovery strategies in the out-of-stock service failure situation by including relevant variables that could affect positively customer reactions. The effect of service recovery strategies on satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-Intention, Fairness, service failure attributions and service failure severity will be examined in an out-of-stock service failure situation.

Theoretical contribution: The master's thesis will test the effectiveness of increasing the cognitive and decisional control on measured variables in a service failure situation in the food service sector. It will measure the effect of out-of-stock situations on customer reactions in the food service sector and try to find out service recovery strategies to mitigate the negative impact of the service failure.
Practical contribution: The results of the empirical study will seek to help guide managers of the food service companies whether they need to keep an excessive amount of inventory which leads to food waste. It will provide service recovery strategies to managers in out-of-stock service failure situation in the food service sector.

In the theoretical framework section, key terms and concepts will be defined and literature will be reviewed. Afterwards, hypotheses and the research model will be illustrated. In the methodology section, after the review of preliminary studies and research backgrounds, research design, measurement and scales will be presented. Then, results of the empirical study will be analyzed. There afterwards research limitations, theoretical and managerial implications will be discussed. Further resources like scenarios, survey and statistical results will be provided in the appendix.

2. LITERATURE REVIEW

2.1 Stream 1: Food Waste in the Food Service Sector and Overproduction

Food waste is a global problem and the United Nations sets target in its sustainable development goal (SDG) 12.3. to reduce this phenomenon by half by 2030 (Food and Agriculture Organization of the United Nations (FAO), 2019). According to FAO (2019), food waste can be defined as "the decrease in the quantity or quality of food resulting from decisions and actions by retailers, food services and consumers" and when the decrease of food caused by suppliers, this is referred to as "food loss". Figure 1 shows the stages in the food supply chain (Adapted from FAO, 2019). According to FAO definitions, while food is "lost" in first three stages in the food supply chain, food is "wasted" in food service sector, retail and household consumption level. This thesis focuses on food waste in the food service sector.



Figure 1 Stages in the Food Supply Chain (Adapted from FAO, 2019).

Many different studies have identified that one of the main causes of the food waste in the food service sector is the surplus of food and overproduction (Betz at al., 2015; Beretta and Hellweg, 2019; Papargyropoulou et al., 2016; Hennchen, 2019; Garrone and Melacini, 2013; WU Third Mission, Ways 2 Sustain, 2019). Hennchen (2019) has found that surplus food that creates the food waste in the food service sector is a result of the difference between forecasted number of customers and the actual demand. Food service industry have difficulties in calculating the demand correctly and this results in an excessive amount of food purchase (Ofei et al, 2015). Papargyropoulou et al. (2016) has also concluded that surplus food lead to food waste and recommended that food service companies need to forecast the demand accurately. However, forecasting the demand is

not an easy task for companies because there is an uncertainty in demand due to the spontaneous nature of the food service sector (Hennchen, 2019).

Hennchen (2019) has applied the practice theory to gain understanding of the reason of food waste in the food service sector. Semistructured interviews were conducted with the managers and staff of seventeen food service companies in Germany. Mostly, management of food service companies base their inventory forecasting to their local experiences about the specific market that they operate in (Hennchen, 2019). According to Hennchen (2019), weather, seasonality and daytime are influencing factors in the inventory management decision-making process of the companies in the food service sector and this local experienced based forecasting lead to overproduction. Filimonau et al. (2020a) has found that demand forecasting technique is deployed by food service companies to reduce food waste in the food service sector, however implemented demand forecasting strategies were not always accurate. Therefore, a deeper understanding of the cause of the inaccuracy in forecasting is needed.

The local experienced based forecasting technique, however, is mostly fear driven. Managers of the food service companies have remarked that availability of food is always required because they do not want to dissatisfy customers because of out-of-stock service failure (Hennchen, 2019). Food service managers have prioritized customer satisfaction over wasting food (Ofei et al., 2015). There was also a general lack of knowledge about the food waste problem and the use of experience-based demand anticipation technique with the intention and need to satisfying customers resulted in excessive amount of food purchase for inventory that caused food waste (Hennchen, 2019).

The main cause of the food waste problem could be attributed therefore to the decision-making process of the management of the food service company. Specifically, inventory management decisions of food service companies influence directly the food waste in the food service sector (Heikkilä et al., 2016; Hennchen, 2019). Inventory management in food service companies involve decisions like the quantity of food that needs to be held in inventory, order quantity and timing of ordering (Hennchen, 2019). If the management of the food service company made the right decisions and forecasted the demand

accurately, food waste could have been prevented. Therefore, management of the food service company has to monitor the inventory to reduce the food waste (Heikkilä et al., 2016). When the management of the food service company forecast the demand accurately and optimize the inventory level, companies would also not suffer financially because the money spent on wasted food could have been invested into other resources.

Figure 2 shows a framework of factors that cause food waste in a restaurant environment (Heikkilä et al., 2016). Decision of managers, competitors, society and communication with customers are all important factors in the food waste issue in the food service sector (Figure 2, Heikkilä et al.). According to Ofei et al. (2015), two forms of communication in the food waste framework are distinguished: communication between business employees and communication between business staff and customers. Communication with customers could play an important role to reduce the food waste in the food service sector. In order to increase the customer satisfaction and reduce the food waste, communicating and cooperating with customers are necessary (Heikkilä et al., 2016). Shifting consumer behavior to reduce the food waste in the food service sector can be achieved through creating awareness about food waste (Filimonau et al., 2020a; Filimonau et al., 2020b). Therefore, food waste issue should be communicated and made aware to customers directly in the food service sector. Communicating food waste will increase the cognitive control and this will be introduced in upcoming sections.

Heikkilä, Reinikainen, Katajajuuri, Silvennoinen and Hartikainen (2016) have found that society as a whole has an impact on ethics of wasting food. From the managerial perspective, while some managers of the food service companies were mostly concerned with food waste due to financial costs of the food wastage itself, other managers have concerned over environmental damage that the food waste imposes (Hennchen, 2019). These managers have argued that wasteful companies would be unprofessional and not value the core product of the food service sector (Hennchen, 2019). Therefore, keeping the inventory level low to reduce the food waste could be made acceptable to restaurant managers in the food service sector and when an out-of-stock service failure occurs, this can be communicated to customers.

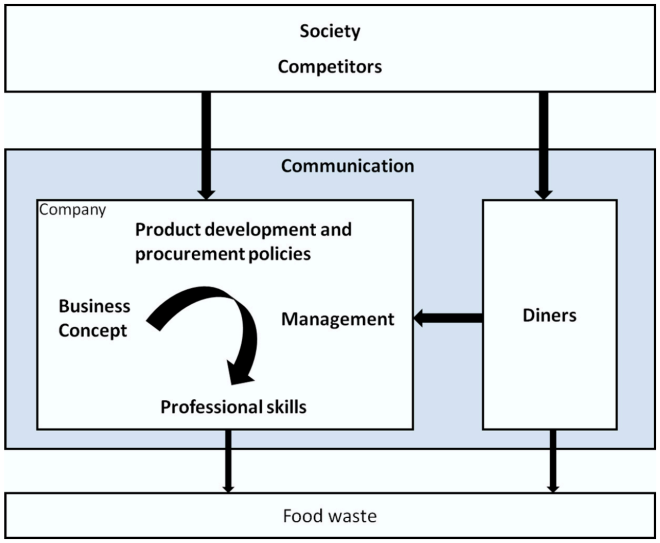


Figure 2 Framework of factors that cause food waste in a restaurant environment (Heikkilä et al., 2016).

It is considered best practice to keep perishable inventory level low to prevent food waste and financial losses (Hennchen, 2019). Therefore, an optimization in the sector can be achieved with minimum waste while creating values and satisfying customers. However, keeping the inventory level low to prevent food waste and financial losses could bring an out-of-stock service failure situation which could harm the customer satisfaction. Restaurant managers would more likely keep their inventory low, when they are convinced that the out-of-stock service failure do not affect customer reactions negatively. Therefore, service failure literature needs to be investigated thoroughly to find out effective recovery strategies in an out-of-stock service failure situation to increase customer reactions positively.

2.2 Stream 2: Service Failure in the Food Service Sector

Service failure can be defined as "the service which does not meet the customer's expectations" (Sparks, 2007). Due to the nature of the service industry, service failures are inevitable in the food service sector. Inevitability of service failure is caused by characteristics of service. Service characteristics are intangibility, inseparability, variability/heterogeneity and perishability (Koc, 2017a). In the food service sector, intangibility refers to that the whole service process and advertised food cannot be tasted

or touched before ordering. Opposite to physical products that are first manufactured, stored and sold, food is ordered, produced, delivered and consumed simultaneously (inseparability) (Koc, 2017a). Because there is no standardized product, service quality, food quality, service experience may vary (variability). Additionally, interaction between restaurant staff and customer cannot be predicted due to differences in psychological state of individuals in each service process (heterogeneity). Lastly, perishability refers to inability of storage in the food service process (Koc 2017a; Kotler et al., 2017).

There are many different ways that service failure can occur in restaurants. Chung and Hoffmann (1998) has conceptualized three service failure categories in a restaurant environment. These service failure categories are "service delivery failure" (e.g. out-of-stock, slow service), "failure in implicit or explicit customer requests" and "unprompted and unsolicited employee actions". The out-of-stock service failure is a sub-category of service delivery failure (Chung, Hoffman, 1998).

In the study of Chung and Hoffmann (1998), reported cases of the out-of-stock failure was the lowest. This could also indicate that food service companies overproduce to avoid an out-of-stock service failure situation that could lead to negative customer reactions. They reported that the "out-of-stock" service failure was after the "seating problems" second highest element that received failure rating (Chung, Hoffman, 1998). Additionally, after facility problem the out-of-stock service failure situation had made long-lasting impression (Chung and Hoffman, 1998). Therefore, authors have suggested managerial intervention in these cases. Chung and Hoffmann (1998) has applied critical incident technique and therefore authors have merely enumerated past service failure experience of reported respondents. Therefore, following a service failure experience of customers, service recovery strategies were not considered at all which could have influenced possible change in service failure ratings of respondents.

Service failure without a subsequent service recovery will lead to negative customer reactions. Many different negative consequences of the service failure were discussed in the previous literature. Without any service recovery, negative affect of service failure on satisfaction with the service (Cranage and Sujan, 2004; Hui and Bateson, 1991; Chang,

2006), revisit intention and WOM-Intention (Chang, 2006; Maxham and Netemeyer, 2002; Kwon and Jang, 2012), fairness perception (McColl-Kennedy and Sparks, 2003) is inevitable. Switching intention could also increase (Keaveney, 1995). After a service failure, customers will also search for a reason why the service failure occurred. The cause of the service failure could be attributed to business without any service recovery (Mattila and Cranage, 2005). As these negative consequences of the service failure threaten the food service sector, service recovery research has gained importance to mitigate the consequences of service failure.

2.3 Stream 3: Service Recovery in the Food Service Sector

Service recovery refers to "the action taken by the service organization in response to a customer's expression of dissatisfaction with some aspect of the service" (Sparks, 2007). Service recovery has a positive effect on satisfaction with the service (Kwang and Jang, 2012; Chang, 2006; Cranage and Sujan, 2004; Joosten, Bloemer and Hillebrand, 2017; Maxham Netemeyer, 2002), satisfaction with the recovery (Boschoff, 1999; Maxham Netemeyer, 20002, Chang, 2006), revisit intention (Kim, Kim and Kim, 2009; Kwon and Jang, 2012), switching intention (Keaveney, 1995), WOM-Intention (Chang, 2006; Maxham and Netemeyer, 2002; Widmier and Jackson, 2002; Smith and Bolton, 1998; Kwon and Jang, 2012), fairness perception (McColl-Kennedy and Sparks, 2003) and service failure attributions (Mattila and Cranage, 2005).

Service failure threaten the retaining existing customers and creating new ones (Keaveney, 1995). Without any service recovery efforts, customers are likely to switch to another service provider (Keaveney, 1995). Losing existing customers will be costly for service companies because of high cost of getting new customers (Chang, 2006). Therefore, it is vital for the bottom line of the service companies not to lose any existing customers. Service recovery plays a major role because of its positive relationship with the customer satisfaction and WOM-intention can also be increased when the service provider recovers the service failure (Widmier and Jackson, 2002; Smith and Bolton, 1998).

The service recovery paradox theory states that after a service recovery, the satisfaction level will be even higher than no service failure and recovery would have happened (Smith and Bolton, 1998). Therefore, if the food service companies explain the cause of the out-of-stock service failure, which is avoidance of food service companies for purchasing excessive amount of food to inventory to avoid the food waste and offer the customers compensations and free items, according to the service recovery paradox theory, customer satisfaction could be even at higher levels than previous levels of customer satisfaction. Influencing factors of this paradox are severity of the service failure, typicality of the service failure, service failure controllability, the amount of previous service failures with the company and whether the service failure is perceived temporarily or permanently (Baker, 2017).

Silber et al. (2009) has researched diverse service failures and most frequent subsequent service recovery strategies in the food service sector. In their exploratory research, in an out-of-stock service failure situation, the study has found that the "apology" was the most common service recovery strategy (43,50%), followed by "no recovery" (21,5%). The third common recovery strategy was "discount" or "replacement" (both 8,5%), followed by "coupon" (6,5%), "management intervention" (5%), "free food" (2,5 %) and "correction" (2,5%). However, service recovery strategies had little or no effect on revisit intention. Therefore, new recovery strategies need to be discovered to increase revisit intention and customer satisfaction after a stock-out-service failure situation.

Out-of-stock service failure situation in the food service sector has not been separately investigated in the service failure and recovery research. Spethmann (2016) has researched out-of-stock situations in the retail industry. He found that service recovery measures after an out-of-stock failure has significantly improved satisfaction levels. On his study, one of the recovery strategies was providing information on the shelf that stated the unavailability of the product. Another recovery strategy was checking the store entirely for a missing product by a retail staff and informing the customer about the stock out situation. Although not mentioned in the study, provided strategies were about cognitive control which will be introduced in the coming sections.

2.4 Stream 4: Justice Theory in the Service Recovery Research and Consumer Control

In the service recovery research, the justice theory is widely accepted and applied in many previous literatures (McColl-Kennedy and Sparks, 2003). After service failure occurred, naturally customer expects a fair treatment and recovery from the business (Blodgett et. al, 1997). The cause of this expectations can be explained by the reactance theory (Joosten et. al., 2017). The reactance theory states that consumer shows reactance and tries to regain the control after a service failure occurs because of the financial transaction for the service (Joosten et. al., 2017).

Three justice theory dimensions are: distributive, procedural and interactional justice (Baker, 2017). In distributive justice, consumers are willing to regain control (Ringberg et. al, 2007) by getting compensation, discounts or free items after a service failure (Baker, 2007). An example of increasing distributive justice after a service failure situation would be offering a free drink in the service recovery (McColl-Kennedy and Sparks, 2003). Satisfaction levels of the customer could be affected positively because the fairness feeling of customers over the result of the process will be increased. Therefore, in order to mitigate the negative effect of the service failure, food service companies should offer compensation, discounts or free items to increase the distributive justice.

Interactional justice can be achieved on the one hand by explaining the true cause of the service failure in a respectfully manner by providing information (McColl-Kennedy and Sparks, 2003), on the other hand by the way customers are treated in a decision-making process (Sparks and McCall-Kennedy, 2000). Food service companies therefore should explain the cause of the service failure for avoiding food waste by purchasing right amount of food to the inventory and offer them choice for a fair decision-making process.

Procedural justice dimension of the justice theory involves the feeling of fairness over the service recovery procedure (Sparks and McCall-Kennedy, 2000). This dimension is related to the ethical and virtuous considerations over a service recovery (Palmer, Beggs

and Keown-McMull, 2000). Therefore, service recovery strategies need to explain the cause of the service failure in an ethical, moral and benign way. If the food service provider explains the cause of the service failure as the effort of the company to reduce food waste by avoiding excessive amount of food purchase to inventory, this explanation could also increase the procedural justice.

Joosten, Bloemer and Hillebrand (2017) has found that justice theory dimensions (distributive, procedural and interactional justice) is affected by consumer control (behavioral, cognitive and decisional control). According to Joosten et. al. (2017), distributive justice is affected mostly by behavioral control and interactional justice control is increased mostly by decisional control. Moreover, Joosten et. al (2017) found that the procedural justice is significantly affected by the cognitive control. If the business offers more control to the customer after a service failure situation, control will be regained and customer satisfaction will increase (Joosten et. al.,2017). In the end, customer satisfaction, loyalty and positive Word-of-Mouth intention were positively affected by increasing the consumer control which affects justice dimensions positively. Therefore, justice theory concept and customer control beliefs should be seen as intertwined in the service failure and service recovery process.

Some of contemporary strategies of service recoveries are offering compensation, freebies, refunds, discount, coupon, management intervention and apology (Silber et al., 2009). Service providers have usually restricted financial resources and there are also other service recovery strategies involving no cost like increasing perceived control (Chang, 2006). According to Chang (2006), utilizing the psychological tool of control could help to leverage the service recovery process. As also discussed above, having control will affect justice dimensions positively (Joosten et. al., 2017).

2.5 Stream 5: Control in the Service Recovery Research – Cognitive Control and Decisional Control

Control is “the belief that one has at one’s disposal a response that can influence the aversiveness of an event” (Thompson, 1981). According to Thompson, some of the

benefits of this definition are that it covers all control types, there is no need for actual control realization and even perceived control is effective (Thompson, 1981). Perceived control is the belief of influencing one's own behavior and environment (Poon, 2004; Joosten et al. 2017). Häusel (2014) distinguished three elements on his subconscious limbic map; dominance, balance and stimulance power (Häusel, 2014). The feeling of control subconsciously occurs when an individual determines what is happening around (dominance power) and when outcomes are predictable and constant (balance power) (Häusel, 2014).

In the service recovery process, having control is very important because "strong perception of loss of control following a service failure is a very unpleasant sensation and provides a strong motivation to try to re-establish control" (Hui and Toffolo, 2002). This can be explained that in a service process, customers exchange money for receiving a certain outcome. When the expected outcome is not fulfilled by the service provider, customers will try to reestablish that control by themselves.

The main advantage of providing the feeling of control is that it empowers customers to feel in command over the situations regardless of the provided outcome actually solves the issue (Chang, 2006). The belief of control affects service satisfaction and loyalty (Namasivayam, 2004) and service outcomes (Wathieu et al, 2002) positively. The service outcome will be perceived more positive if an individual has the feeling of control (Joosten et al., 2017).

In the previous research, three kinds of control were distinguished; cognitive, behavioral and decisional control. An individual can experience control cognitively by receiving information, knowing what is happening around and what will be occurring next (cognitive control). The freedom of action will give an individual a sense of behavioral control and the freedom to choose from available options will give a sense of decisional control (Joosten et al., 2017).

Joosten, Bloemer and Hillebrand (2017) has found that consumer control (decisional, behavioral and cognitive) has a positive effect on service recovery. According to the authors, previous service recovery research has focused mostly on decisional control and

service recovery research should also take other control types into account (Joosten et al., 2017). They suggested that the cognitive, decisional and behavioral control should be implemented in the service recovery research. However, behavioral control is not implemented into this study because service recovery strategies that include freedom of action is not realizable after an out-of-stock service failure situation. Customers could choose between service recovery options (decisional control) and learn about the cause of the out-of-stock service failure (cognitive control). The two control types will be introduced in the following sections.

Decisional control is "the sense of control gained when one is able to decide on important aspects of an experience" (Joosten et al., 2017). There are many field experiments that show the positive effect of increasing decisional control by having a choice. For example, when retirement home residents were given more choice and control on their daily life during a conducted field study, the experimental manipulation resulted in more happiness and low death rates among residents (Rodin and Langer, 1977). In a blood-bank research experiment, donors who were provided with a decisional control on preferred arm for the injection experienced less stress (Mills and Krantz, 1979).

Cognitive control is "the sense of control gained when one is able to interpret and appraise the threatening event in a more benign way" (Joosten et al, 2017). Mills and Kranz (1979) has found also, donors who were provided with information experienced less stress. Averill (1973) discussed that information gain is one of the ways of gaining cognitive control over a situation. Following the results of Averill (1973) and other research done in this field, Thompson (1981) argued that having the cognitive control over a negative experience reduces stress and anxiety. Thompson (1981) has found out that having a cognitive strategy mitigates the negative effect of an 'aversive event' (Thompson, 1981). In the context of service failure and the focus of this study, aversive event can be considered as the out-of-stock service failure situation. Customers order something and they do not get what they want. Therefore, after an out-of-stock service failure, providing information could mitigate the negative effect of the service failure and stress.

As discussed earlier, if the food service provider explains the cause of the out-of-stock service failure as the effort of the company to reduce food waste by avoiding excessive amount of food purchase for inventory (cognitive control), this could increase the procedural and interactional justice (Joosten et al, 2017). Additionally, if the food service provider offers a choice between service recovery strategies (decisional control), interactional justice could be increased (Joosten et al, 2017). The food service provider could offer a compensation with decisional control. It can be expected that the satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-intention, fairness, service failure attributions and service failure severity will be affected positively in favor of the food service provider when it offers both types of control as service recovery strategy than without any recovery at all.

Comparing the effectiveness of both control types after an out-of-stock situation could also be particularly interesting in the service recovery research. Offering compensation with decisional control could be more effective than just explaining the cause of the service failure except in situations where variables of service failure attributions and severity are concerned. By explaining the cause of the service failure, customers will be made aware about the reason of the problem, so they could attribute less the cause of the service failure to the food service provider which could also mitigate the perception of service failure severity.

Therefore, researching the effect of increasing both types of control after an out-of-stock service failure on customer reactions is needed. Satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-intention, fairness, service failure attributions and service failure severity will be now analyzed within the context of control and service recovery research and hypotheses will be developed.

2.6 Hypotheses 1a-d: The Effect of Providing Cognitive and Decisional Control as Service Recovery after an Out-Of-Stock Service Failure on the Satisfaction with the Service

There are enormous advantages of providing cognitive and decisional control to customers in the service recovery context to increase the satisfaction with the whole service process. Hui and Bateson (1991) have found that the satisfaction with the service is affected positively by increasing cognitive control. The advantage of increasing cognitive control as a service recovery strategy is that explaining situation simply does not cost anything (Chang, 2006). Using the control as a recovery strategy can leverage customer reactions positively in many different situations. For example, on the one hand informing customers about the waiting durations in the service industry made the waiting time more acceptable and increased service quality perceptions (Hui and Zhou, 1996) and on the other hand customer satisfaction was improved when the control belief was increased by the service provider by offering a choice to customers (Hui and Bateson, 1991). Leaving the choice to the customer affects the customer reactions positively (Chang, 2006) and even limited number of options could help accelerate the decision process and result in more positive customer reactions (Iyengar and Lepper, 1999).

Other studies have found the positive effect of increasing both cognitive and decisional control. For example, Cranage and Sujan (2004) investigated the effectiveness of having a choice after a service failure situation in a restaurant setting. When customers were provided with a choice and relevant information, this resulted in positive customer reactions after a service failure situation occurred. Joosten et al. (2017) have also found cognitive and decisional control significantly improved customer satisfaction. Therefore, providing information about the cause of the service failure could increase the overall satisfaction after an out-of-stock service failure situation. Heikkilä et al. (2016) have also suggested that the company should communicate to customers about food waste. Communication is also necessary for the overall satisfaction (Heikkilä et al., 2016). Therefore, considerations made above and in previous sections lead to following hypotheses in an out-of-stock service failure in the food service sector:

H1a: Customers who have a decisional control over compensation as a service recovery strategy will have **a higher satisfaction with the service** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H1b Customers who receive cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have **a higher satisfaction with the service** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H1c Customers who receive both decisional control over compensation as a service recovery strategy and cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have **a higher satisfaction with the service** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H1d Customers who have a decisional control over compensation as a service recovery strategy will have **a higher satisfaction with the service** than customers who receive only cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) in an out-of-stock service failure situation.

2.7 Hypotheses 2a-d: The Effect of Providing Cognitive and Decisional Control as Service Recovery after an Out-Of-Stock Service Failure on the Satisfaction with the Service Recovery

The satisfaction with the recovery can be defined as the extent of satisfaction of customers in the recovery process after a service failure (Boshoff, 1999). Boshoff (1999) argues that when the service recovery strategies of a firm do not satisfy customers after a service failure situation, this would mean disappointing customers for the second time. Therefore, satisfaction with the service recovery gain an important aspect after an out-of-stock service failure.

Chang (2006) has analyzed the satisfaction with the service recovery separately from the satisfaction with the overall service. Maxham and Netemeyer (2002) has also investigated separately how service recovery strategies influence the satisfaction with the service recovery and satisfaction with the overall service. However, prior studies did not investigate how cognitive control or decisional control as service recovery strategies affect the satisfaction with the service recovery in the out-of-stock service failure situation. Satisfaction with the service recovery could also be an important indicator of measuring the performance of cognitive and decisional control as a service recovery strategy. Considerations made above lead to following hypotheses.

H2a Customers who have a decisional control over compensation as a service recovery strategy will have **a higher satisfaction with the recovery process** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H2b Customers who receive cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have **a higher satisfaction with the recovery process** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H2c Customers who receive both decisional control over compensation as a service recovery strategy and cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have **a higher satisfaction with the recovery process** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H2d Customers who have a decisional control over compensation as a service recovery strategy will have **a higher satisfaction with the recovery process** than customers who receive only cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) in an out-of-stock service failure situation.

2.8 Hypotheses 3a-d: The Effect of Providing Cognitive and Decisional Control as Service Recovery after an Out-Of-Stock Service Failure on the Revisit Intention

Retention of customers is an important aspect for the profitability of the service companies. Managing the service failure effectively is particularly important because failure to do so could affect retention negatively (Chang, 2006). In the food service sector, retention of customers would imply revisit intention of customers. Maxham and Netemeyer (2002) concluded a positive relationship between satisfaction with the overall service and revisit intention (Chang, 2006; Maxham and Netemeyer, 2002). Additionally, Kwon and Jang (2012) has found that service recovery strategies could increase repurchase intention.

Previous research did not investigate the relationship between the control types and revisit intention in the service failure and service recovery research directly. However, Kim et al. (2009) findings demonstrate service recovery strategies that offer distributive, procedural and interactional justice affects revisit intention positively. Furthermore, Joosten et al. (2017) showed positive relationship between control types (behavioral, cognitive and decisional control) and justice systems in the service recovery. This would indicate that customer revisit intention could be higher when using cognitive and decisional control as a service recovery strategy. Therefore, the variable is also added to the model to investigate the variables in the cognitive and decisional control and in the out-of-stock service failure context. This will lead to following hypotheses:

> **H3a** Customers who have a decisional control over compensation as a service recovery strategy will have a **higher revisit intention** than customers who do not receive any service recovery in an out-of-stock service failure situation.
>
> **H3b** Customers who receive cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have a **higher revisit intention** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H3c Customers who receive both decisional control over compensation as a service recovery strategy and cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have a **higher revisit intention** than those customers who do not receive any service recovery in an out-of-stock service failure situation.

H3d Customers who have a decisional control over compensation as a service recovery strategy will have a **higher revisit intention** than customers who receive only cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) in an out-of-stock service failure situation.

2.9 Hypotheses 4a-d: The Effect of Providing Cognitive and Decisional Control as Service Recovery after an Out-Of-Stock Service Failure on the Switching Intention

A contrasting concept to revisit intention is the switching intention. Keaveney (1995) has investigated the switching intention in the service industry. He has applied the critical incident technique and identified nine key categories for the switching intention in service industry. The major contributor was “core service failure”, followed by “failed service encounters”. After pricing, the fourth largest contributor to switching intention was “response to failed service" (Keaveney, 1995). Service recovery process is necessary to prevent the switching intention of customers (Keaveney, 1995). Therefore, investigating the relationship between service recovery strategies and switching intention is essential in the out-of-stock service failure situation.

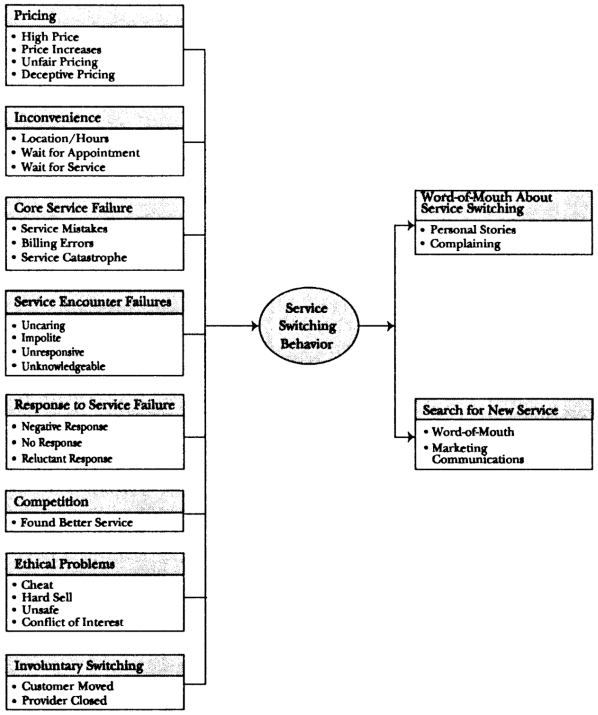


Figure 3 Service Switching Behavior (Keaveney, 1995)

After trying to reestablish the control in a service failure situation, if customers still cannot regain the control feeling, they may become helpless and this can lead to switching intention (Chang, 2006). Investigating the relationship between cognitive and decisional control and switching intention could shed light to undiscovered areas in the service failure and service recovery research. Therefore, discussions made above lead to the following hypotheses:

H4a: Customers who have a decisional control over compensation as a service recovery strategy will have a **less switching intention** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H4b Customers who receive cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have a **less switching intention** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H4c Customers who receive both decisional control over compensation as a service recovery strategy and cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have a **less switching intention** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H4d Customers who have a decisional control over compensation as a service recovery strategy will have a **less switching intention** than customers who receive only cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) in an out-of-stock service failure situation.

2.10 Hypotheses 5a-d: The Effect of Providing Cognitive and Decisional Control as Service Recovery after an Out-Of-Stock Service Failure on WOM- Intention

Maxham and Netemeyer (2002) has found a positive relationship between Word-of-Mouth intention and service recovery (Chang, 2006; Maxham and Netemeyer, 2002). Kwon and Jang (2012) have further discovered that service recovery strategies can increase WOM-Intention. Joosten et. al. (2017) correlated a positive effect of increasing control on WOM-Intention. Therefore, explaining the environmentalist cause of the service failure to customers, which is effort of the food service company to reduce food waste, could trigger word-of-mouth responses. Therefore, investigating the WOM-Intention in the out-of-stock service failure context followed by control type service recovery strategies could be particularly interesting. This leads to following hypotheses:

H5a Customers who have a decisional control over compensation as a service recovery strategy will have a **more WOM intention** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H5b Customers who receive cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have a **more WOM intention** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H5c Customers who receive both decisional control over compensation as a service recovery strategy and cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have a **more WOM intention** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H5d Customers who have a decisional control over compensation as a service recovery strategy will have a **more WOM intention** than customers who receive only cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) in an out-of-stock service failure situation.

2.11 Hypotheses 6a-d: The Effect of Providing Cognitive and Decisional Control as Service Recovery after an Out-Of-Stock Service Failure on Fairness

Dealing with service failure and service recovery require an understanding of customer emotions (McColl-Kennedy and Sparks, 2003). McColl-Kennedy and Sparks (2003) has analyzed the function of emotions in the context of fairness. There is a connection between the justice theory and the perception of fairness. Discussion on distributive, procedural and interactional justice were mentioned in previous chapters. Feeling of unfairness could occur because of injustice and this leads to accountability (McColl-Kennedy and Sparks, 2003). According to the authors, customers will hold accountable the cause of injustice to someone or something when injustice occurs.

Figure 1 shows the fairness theory (McColl-Kennedy and Sparks, 2003). After a service failure situation, according to the fairness theory customers will engage in “counterfactual thinking” and evaluate the service failure making comparisons with an imaginary ideal

situation in which service failure does not occur or the way the service provider should/could react to the situation after a service failure situation (McColl-Kennedy and Sparks, 2003). Therefore, customers fairness evaluation will be based on what could be if the service failure did not occur, how could/should have the service provider have reacted to the service failure situation (McColl-Kennedy and Sparks, 2003).

After an out-of-stock service failure situation in a restaurant setting, customers perceiving an injustice could hold accountable the source of the problem that led to this service failure. According to the fairness theory (McColl-Kennedy and Sparks, 2003), customers will engage in counterfactual thinking and make a comparison with the ideal situation like "What would it have been like if there was no out-of-stock service failure situation?", "How could have and should have the restaurant reacted to this out-of-stock service failure".

When customers evaluate the true cause of the service failure as acceptable, the gap in counterfactual thinking between service failure and imaginary ideal situation could be minimized. This can be achieved by a service failure situation that has an ethical and environmentalist cause. When the service provider explains the true cause of the service failure such as "The reason of the service failure: The restaurant buys no more ingredients to inventory than the expected demand to avoid food waste.", this could lead to lessening the accountability of the service failure for the service provider and subsequently increase the fairness perception.

Additionally, when the service provider offers compensation, the action will signal to the customer that the restaurant puts an "effort" to satisfy the customer and this could lead to more fairness perception (McColl-Kennedy and Sparks, 2003). Customers expectation of "How could have the restaurant reacted differently?" could be fulfilled and therefore fairness perception could increase. Researching the fairness theory in providing a service recovery with decisional and cognitive control context could be particularly interesting.

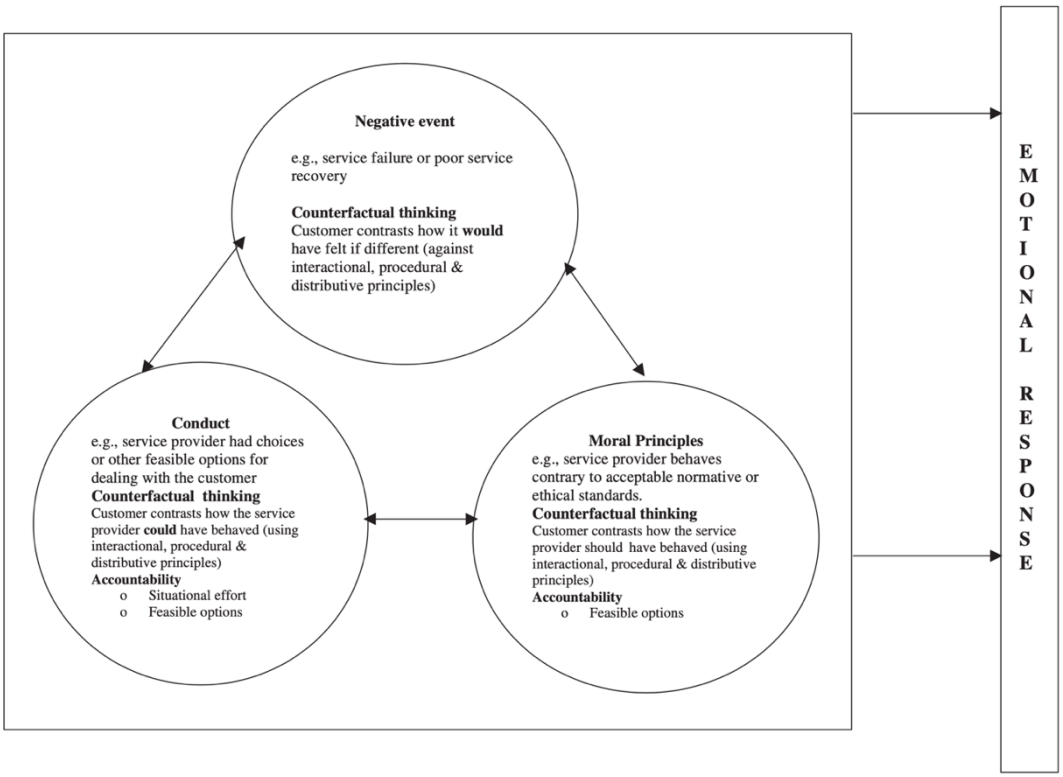


Figure 4 Model of Fairness Theory ("McColl-Kennedy and Sparks, 2003"; the authors have adapted from Folger and Cropanzano, 2001)

Mattila and Cranage (2005) found that providing cognitive control and decisional control have a positive impact on fairness in a restaurant environment. In their 2x2x2 study, they offered respondents an 'informed choice' with cognitive and decisional control or no choice in the seating process. Afterwards, when the service failure happened, experimental groups received compensation and apology (Mattila and Cranage, 2005). Therefore, authors have combined the cognitive control and decisional control in their manipulation setting. Examining the cognitive control and decisional control separately could be particularly interesting to discover the effectiveness of these control types. Additionally, examining how these control types affect the fairness perception in an out-of-stock service failure differently could shed light to service recovery research. Based on this discussion, following hypothesis will be made in an out-of-stock service failure:

H6a Customers who have a decisional control over compensation as a service recovery strategy will have a **more feeling of fairness** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H6b Customers who receive cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have a **more feeling of fairness** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H6c Customers who receive both decisional control over compensation as a service recovery strategy and cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have a **more feeling of fairness** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H6d Customers who have a decisional control over compensation as a service recovery strategy will have a **more feeling of fairness** than customers who receive only cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) in an out-of-stock service failure situation.

2.12 Hypotheses 7a-d: The Effect of Providing Cognitive and Decisional Control as Service Recovery after an Out-Of-Stock Service Failure on Service Failure Attributions

Under attribution one can understand the assignment and association of the particular outcome to its origin or source (Jolibert and Peterson, 1976). In the service failure context, during the process when a customer seeks the cause of the failure, an association will be made between the perceived cause of the problem and the outcome. Weiner (1980) has discussed attribution dimensions. These are “locus of causality”, “controllability” and “stability”.

In the “causality” dimension, attributions will be made based on who is responsible for the service failure. This can be consumer (internal), service provider (external) or externalities (situational). The effort of the company to reduce food waste can be attributed as situational factors when the food service company explains the reason to the customer. In the “controllability” dimension, customers evaluate whether the service failure could have been avoided or not. Therefore, controllability can be considered as the extent of customers attribution of the cause of the service failure to the company. Certainly, customers would consider that if the restaurants could have bought more food to the inventory, the out-of-stock situation would have been avoided. However, customers could justify the situation when the restaurant explains the reason behind the out-of-stock service failure, which is avoiding food waste. Therefore, customers can see the restaurant did not have the full control over the service failure situation. If customers believe that the food service companies had no control over the service failure because they are avoiding food waste, this can reduce the service failure blaming attributions for the company. In the stability attribution dimension, Weiner (1980) distinguishes between temporary and permanent service failure.

According to Loo and Boo (2017), there are three factors that could affect the attribution approach. These are “severity of the service failure”, “customer participation” and “culture”. Severity of the service failure will be discussed in the next section. Koc et al. (2017b) argues that when customers are emotionally and mentally participating in the process, this will mitigate the numbers of negative attributions of the service failure towards the food service provider. Therefore, explaining the environmentally cause of the out-of-stock service failure could be used by food service companies as a service recovery method to mitigate the service failure attributions of the food service provider.

The third factor that effects the service failure attribution is the culture (Loo and Boo, 2017). According to Au et. al. (2001), Asian consumers are more likely to attribute the service failure to the service provider than European consumers because of lack of out-group trust. Considering food waste is one of the ethical issues and problems in EU country Austria, explaining the out-of-stock service failure situation because of avoiding food waste will likely result to blaming less the food service provider.

When customers have a choice, they feel responsible for the occurring result. This may mitigate the negative attributions towards the restaurant after a service failure situation (Mattila and Cranage, 2005). Therefore, offering compensation with decisional control might lessen the service failure attribution. Chang (2006) and Maxham & Netemeyer (2002) have suggested researching attribution in service failure and service recovery context. Therefore, considerations made above lead to the following hypothesis:

H7a: Customers who have a decisional control over compensation as a service recovery strategy will have **less service failure attributions** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H7b Customers who receive cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have **less service failure attributions** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H7c Customers who receive both decisional control over compensation as a service recovery strategy and cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will have **less service failure attributions** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H7d Customers who have both cognitive and decisional control over service recovery will have **less service failure attributions** than customers who receive only decisional control over service recovery in an out-of-stock service failure situation.

2.13 Hypotheses 8a-d: The Effect of Providing Cognitive and Decisional Control as Service Recovery after an Out-Of-Stock Service Failure on Service Failure Severity

There is a negative relationship between the extent of service failure severity and satisfaction (Hoffman, Kelley and Rotalsky, 1995; Baker, 2017). Severity of the service failure is one of the factors that affects the attribution of service failure (Loo and Boo, 2017). The perceived extent of the service failure severity is also one of the major elements of the service recovery paradox (Baker, 2017). The degree of the out-of-stock service failure severity that is perceived by the customer will determine the effectiveness of the service recovery paradoxical satisfaction.

When the food service provider explains the cause of the out-of-stock service failure as the effort of the company to reduce food waste (cognitive control) or offer compensation with decisional control, this could mitigate the service failure severity. In this case, the magnitude of service failure severity could be perceived less and service recovery paradox could occur. Because of "causality", "controllability" (Weiner, 1980) and "culture" (Loo and Boo, 2017) dimensions of service failure attributions, the perceived magnitude of service failure severity could be minimized more in explaining the cause of the service failure (cognitive control) than offering just a compensation with decisional control. Previous research did not investigate the relationship between control and service failure severity. Therefore, service failure severity needs to be examined. The following hypotheses will be made:

> **H8a** Customers who have a decisional control over compensation as a service recovery strategy will perceive **less service failure severity** than customers who do not receive any service recovery in an out-of-stock service failure situation.
>
> **H8b** Customers who receive cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will perceive a **less service failure severity** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H8c Customers who receive both decisional control over compensation as a service recovery strategy and cognitive information about the cause of the service failure (which is the effort of the company to avoid food waste) will perceive **less service failure severity** than customers who do not receive any service recovery in an out-of-stock service failure situation.

H8d Customers who have both cognitive and decisional control over service recovery will perceive **less service failure severity** than customers who receive only decisional control over service recovery in an out-of-stock service failure situation.

3. METHODOLOGY

3.1. Research Design

Kim and Jang (2014) highlights the advantages and importance of scenario-based experiments in the service failure and service recovery research. The use of scenario-based experiment is particularly advantageous when variables require cognitive evaluations (Kim and Jang, 2014). Therefore, a scenario-based survey experiment was deployed to test the hypotheses.

The study conducted by Bambauer-Sachse and Rabeson (2015) has discovered that when there is a moderate involvement and the restaurant is responsible for the service failure instead of customer, compensation of the restaurant by offering "a cup of coffee or a dessert" is appropriate. However, when there is a high involvement situation and either the restaurant or customer responsible for the service failure, they have argued that the credit or refund as a compensation would be more appropriate. Out-of-stock situation service failure is not caused by the customer and in most cases the failure is moderate involvement (unless it is a special anniversary dinner). Therefore, offering coffee or a dessert would be appropriate. Communicating the cause of the out-of-stock service failure as a cognitive service recovery strategy was used. In order to reduce the food waste, communication and cooperating with customers are necessary in the food service sector (Heikkilä et al., 2016).

3.2. Procedure and Sample

2 X 2 (decisional - no decisional control X cognitive - no cognitive control) between-subjects design was used. All of the four different scenarios began with an out-of-stock service failure situation in the restaurant. Respondents imagined entering into a restaurant, ordering their favorite meal. Afterwards the restaurant staff informed them that the chosen meal is not available anymore. In the first scenario (control group), respondents did not receive any service recovery. In the second scenario (experimental group 2), the restaurant staff offered a coffee or chocolate cake of customer's choice. In

the third scenario (experimental group 3), the reason of the out-of-stock service failure was explained (The restaurant buys no more ingredients to inventory than the expected demand to avoid food waste.). In the fourth scenario (experimental group 4), the respondents were offered a coffee or chocolate cake of their choice and additionally the reason of the out-of-stock service failure explained. After reading the scenario, respondents answered the survey questions.

Data was collected from the members of gastronomy and restaurant social media groups in Austria. In order to eliminate any bias, the research questions and hypotheses were not revealed to the respondents. Written PHP code made sure that the respondents were randomly assigned to each scenario and online survey software allocated the respondents in equal numbers to each scenario. In total, 210 respondents have finished the survey to the end. In order to ensure the quality of the data, 6 respondents were eliminated because they took less than 3 minutes which is the minimum expected time. Respondents who did not finish the survey to the end and who do not reside residency in Austria were also excluded from the final data. In the end, the data of 204 respondents (for each cell 51 respondents) were used for the data analysis.

3.3. Measurement

After each scenario, statements were introduced to the respondents to measure accurately the dependent variables “satisfaction with the service”, “satisfaction with the recovery”, “revisit intention”, switching intention”, “WOM intention”, “fairness”, “service failure attributions” and “service failure severity”. The relevant reliable scales for this study were found by extensive literature research and scientifically from the book of Bruner (2017).

Satisfaction with the Service

Satisfaction with the service measured the degree of the satisfaction of the customer with the service. The seven-point Likert scale with 3 items were used to measure the dependent variable. The scale was developed by Voss, Parasuraman and Grewal (1998) with a reliability score .83 and AVA .63. In a different study, alpha was reported .94 (Voss, Godfrey and Seiders, 2010).

Items were:

- „I was satisfied with the service provided."
- „I was delighted with the service provided.",
- "I was unhappy with the service provided (r)."

Satisfaction with the Recovery Process

The satisfaction with the recovery process was measured with a seven-point Likert scale. Items from Roggeveen et al. (2012) used. Reliability score was between .93-.97 and AVEs were minimum .70. Items were;

- "I am satisfied with the way the restaurant handled the situation.",
- "I feel favorably about how the restaurant handled the situation.",
- "I liked how the restaurant handled the situation."

Revisit Intention

Revisit intention was measured with a seven-point Likert scale that was adapted from the research study of Blodgett, Hill, S. Tax (1997). Reliability score was reported .92.
Items were

- "What is the likelihood that you would visit this restaurant in the future?",
- "If this situation had happened to me, I would never visit this restaurant again (r).",
- "If this had happened to me, I would still visit this restaurant in the future."

Switching Intention

The measurement for switching intention was adapted from Brocato, Deanne, Baker, and Voorhees (2015) and it was measured with a seven-point Likert scale. Cronbach's alpha was .86 with an AVE .67. Items were
"I am likely to switch and visit another restaurant.",
"I might be convinced to regularly visit another restaurant under the right conditions.",
"There is no chance that I will switch and regularly visit a different restaurant in the near future (r)."

Word-of-Mouth Intention

WOM-Intention was measured with a seven-point Likert scale that was used in the study conducted by Hutter and Hoffmann (2014). Cronbach's alpha was reported .93 and AVE was .81. Items were;

- "I will recommend the restaurant to my friends.",
- "It is likely that I will tell my friends about the restaurant.",
- "I will tell other persons about the restaurant."

Fairness

Fairness was measured with semantic differentials, using items from Allen, Alexis, Brady, Robinson, and Voorhees (2015). Cronbach's alpha was reported .88 and AVE was .50. Items were;

- "Unfair to me/Fair to me.",
- "Less than I deserved/More than I deserved.",
- "Unequitable to me/Equitable to me."

Service Failure Attributions

To measure the service failure attributions, four, seven-point Likert scale were selected that were originally developed by Dong et al. (2008), which is also used and extended with two additional items in the study of Heidenreich et al. (2015). The reliability of the scale was reported .971 with an AVE .892. The scale measured the extent of the belief in which the customer attributes the service problem to the business. The items were;

- "In my view, the restaurant is fully responsible for the service failure.",
- "The problem that led to the service failure was clearly caused by the restaurant.",
- "The service failure that I encountered was entirely restaurant's fault.",
- "The restaurant is solely responsible for the service failure."

Service Failure Severity

In order to measure the service failure severity, seven-point semantic differentials scale were deployed which was developed by Hess, Jr., Ronald L, Shankar Ganesan and Noreen M. Klein (2003). The scale was used to measure the importance of the service

problem such as mild/severe, minor/major and insignificant/significant service problem. It had a reliability score of .96. Items were;

- "Mild service problem/Sever service problem.",
- "Minor service problem/Major service problem.",
- "Insignificant service problem/Significant service problem"

Table 1 summarizes the items, reliability and AVE scores and displays the scales.

Table 1 Measures

Dependent variable	Items and scales	α	AVE
Satisfaction with the Service (Voss et al, 1998; Voss et al, 2010)	(a) I was satisfied with the service provided. (b) I was delighted with the service provided. (c) I was unhappy with the service provided (r). 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = indifferent, 5 = somewhat agree, 6 = agree, 7 = strongly agree	.94	.63
Satisfaction with the recovery (Roggeveen et al., 2012)	(a) I am satisfied with the way the restaurant handled the situation. (b) I feel favorably about how the restaurant handled the situation. (c) I liked how the restaurant handled the situation. 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = indifferent, 5 = somewhat agree, 6 = agree, 7 = strongly agree	.93-.97	.70
Revisit Intention (Blodgett, Hill, S. Tax, 1997).	(a) What is the likelihood that you would visit this restaurant in the future? (b) If this situation had happened to me, I would never visit this restaurant again (r). (c) If this had happened to me, I would still visit this restaurant in the future. (a) 1=very unlikely to 7=very likely (b and c) 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = indifferent, 5 = somewhat agree, 6 = agree, 7 = strongly agree	.92	not reported

Switching Intention (Brocato et al., 2015)	(a) I am likely to switch and visit another restaurant. (b) I might be convinced to regularly visit another restaurant under the right conditions. (c) There is no chance that I will switch and regularly visit a different restaurant in the near future (r). 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = indifferent, 5 = somewhat agree, 6 = agree, 7 = strongly agree	.86	.67
WOM-Intention (Hutter and Hoffmann, 2014).	(a) I will recommend the restaurant to my friends. (b) It is likely that I will tell my friends about the restaurant. (c) I will tell other persons about the restaurant. 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = indifferent, 5 = somewhat agree, 6 = agree, 7 = strongly agree	.93	.81
Fairness (Allen et al., 2015)	The treatment given to me by the restaurant was: (a) 1=Unfair to me to 7=Fair to me (b) 1=Less then I deserved to 7=More than I deserved (c) 1=Unequitable to me to 7=Equitable to me.	.88	.50
Service Failure Attributions (Dong et al., 2008; Heidenreich et al. (2015)	(a) In my view, the restaurant is fully responsible for the service failure. (b) The problem that led to the service failure was clearly caused by the restaurant. (c) The service failure that I encountered was entirely restaurant's fault. (d) The restaurant is solely responsible for the service failure. Scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = indifferent, 5 = somewhat agree, 6 = agree, 7 = strongly agree	.97	.89
Service Failure Severity (Hess et al., 2003)	Based on your experience with the restaurant, how would you describe being encountered with a service failure of out of stock dish from the given menu? (a) 1=Mild service problem to 7=Sever service problem (b) 1=Minor service problem to 7=Major service problem (c) 1=Insignificant service problem to 7=Significant service problem	.96	not reported

4. PRESENTATION AND ANALYSIS OF RESULTS

In order to test the hypotheses, experimental groups and control group were compared using multivariate analysis of variance (MANOVA) and univariate analysis of variance (ANOVA). The purpose of MANOVA is to identify overall effect and it is a procedure to test more than one dependent variable (Huberty and Morris, 1989). Univariate research questions require multiple ANOVAs (Huberty and Morris, 1989), therefore MANOVA was followed up with univariate two-way independent factorial ANOVAs in order to gain more insight on data (Field, 2009). Explaining the cause of the service failure (increasing the cognitive control) and offering compensation with decisional control serve as the independent variable while satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-Intention, service failure attributions and service failure severity all serve as the dependent variable.

4.1. Description of Measures

Experimental group 2 (which received decisional control over compensation as a service recovery strategy) has significantly differed from the control group (which received no service recovery strategy) in satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-intention and fairness ($p < .05$). However, experimental group 2 did not differ from the control group significantly in service failure attributions and severity ($p > .05$). Overall the control group has the lowest mean value in satisfaction with the service (M= 4.07, SD=1.37), satisfaction with the recovery (M= 4.51, SD=1.57), revisit intention (M= 4.72, SD=1.81), WOM-intention (M= 4.26, SD=1.43), fairness (M= 4.17, SD=1.42) and highest mean value in switching intention (M= 4.24, SD=1.24), service failure attributions (M= 4.81, SD=1.33) and service failure severity (M= 4.13, SD=1.57). Experimental group 3 (which received the cognitive control over the cause of the service failure, which is the effort of the company to avoid food waste) has significantly differed from the control group in satisfaction with the service, satisfaction with the recovery, WOM-intention, fairness, service failure attributions and service failure severity ($p < .05$). However, experimental group 3 did not differ from the control group significantly in switching intention and revisit intention. ($p > .05$). Experimental group 4 (which received both cognitive control over the cause of the service

failure and compensation with decisional control) has significantly differed from the control group in all of the measured variables ($p < .05$). This would indicate that offering both cognitive and decisional control compensates non-significant results between experimental group 2 and control group in service failure attributions and service failure severity and between experimental group 3 and control group in switching intention and revisit intention.

4.2. Multivariate Analysis of Variance (MANOVA)

Pillai's trace multivariate test has showed that there was a significant effect of increasing cognitive and decisional control on the satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-Intention, fairness, service failure attribution and service failure severity, $V = 0.399$, $F(24, 585) = 3.74$, $p < .001$. Other multivariate statistics had also found a significant effect of increasing control on all of the dependent variables, Wilks's Lambda $\Lambda = 0.640$, $F(24, 560) = 3.88$, $p < .001$, Hotelling's trace $T = 0.502$, $F(24, 575) = 4.01$, $p < .001$ and Roy's largest root $\Theta = 0.331$, $F(8, 195) = 8.07$, $p < .001$.

4.3. Univariate Analysis

The main MANOVA was followed up by univariate analysis. Table 2 shows the F value, degrees of freedom, mean square and the significance of the main affects. In the following sub-sections, each outcome will be further analyzed.

Table 2 Results of Univariate Analysis

	F value	(df)	MS	p value
Satisfaction with the service	17.376	3	32.843	.000
Satisfaction with the recovery	13.606	3	26.189	.000
Revisit Intention	9.272	3	20.345	.000
Switching Intention	10.713	3	17.447	.000
WOM-Intention	9.693	3	16.412	.000
Fairness	12.545	3	19.491	.000
Service Failure Attributions	6.030	3	15.763	.001
Service Failure Severity	8.116	3	21.929	.000

4.3.1. Satisfaction with the Service and Satisfaction with the Recovery

The main effect of increasing control in an out-of-stock service failure situation on satisfaction was significant, F (3, 200) =17,376 p < .001. The Games-Howell and Bonferroni post hoc tests revealed that all of the experimental groups were satisfied with the service significantly more than the control group (all ps ≤ .001). Therefore, H1a, H1b and H1c are supported.

The satisfaction with the service will be higher for customers who receive compensation with decisional control (H1a, $M_{\text{decisional control}}$=5,93) or cognitive information about the cause of the service failure (H1b, $M_{\text{cognitive control}}$=5,12) or both cognitive and decisional control (H1c, $M_{\text{cognitive+decisional control}}$=5,54) than customers who do not receive any service recovery ($M_{\text{no recovery}}$ =4,07) in an out-of-stock situation. Customers who received only compensation with decisional control has satisfied with the service significantly more than customers who received only cognitive control (p < .05), therefore H1d is also supported.

H2a, H2b and H2c hypothesized that satisfaction with the service recovery will be higher for customers who receive compensation with decisional control (H2a), cognitive control (H2b) or both cognitive and decisional control (H2c). There was a significant main effect of increasing cognitive or decisional control on satisfaction with the service recovery, F (3, 200) =13,606, p < .001.

Bonferroni post hoc test revealed that all of the experimental groups significantly differed from control groups (p ≤ .001). Therefore, H2a, H2b and H2c are supported. Respondents who received only compensation with decisional control ($M_{\text{decisional control}}$=6,13) were not significantly satisfied with the recovery more than respondents who received only cognitive control ($M_{\text{cognitive control}}$=5,56) or both types of control ($M_{\text{cognitive+decisional control}}$=5,90) (p > .05). Therefore, H1d is not supported. Figure 5 and 6 show the mean and the 95% confidence interval of each variable respectively.

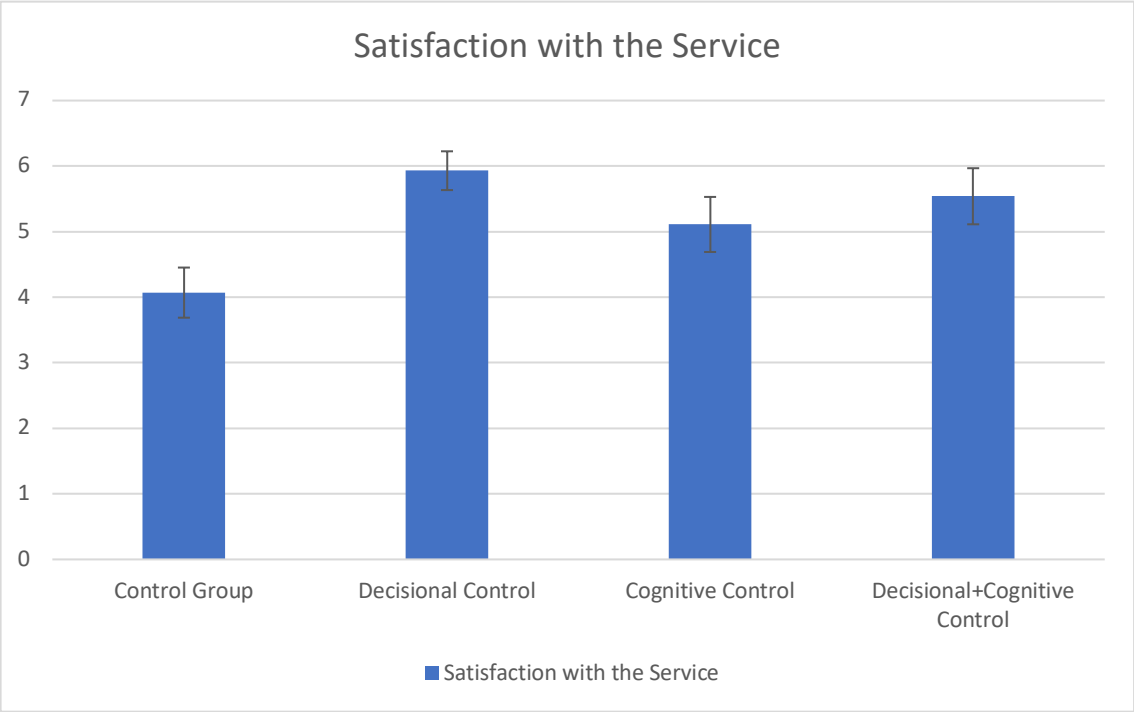


Figure 5 Mean values of "satisfaction with the service" with 95% confidence interval error bars

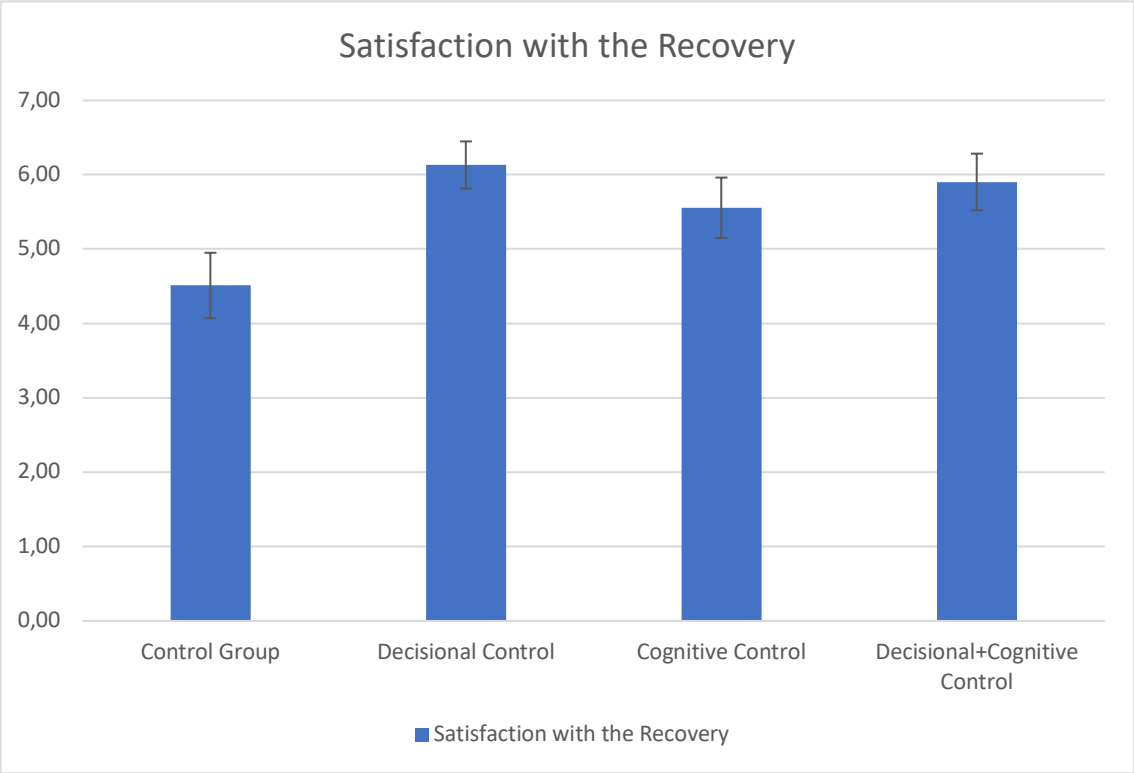


Figure 6 Mean values of "satisfaction with the recovery" with 95% confidence interval error bars

4.3.2. Revisit Intention and Switching Intention

There was a significant main effect of service recovery with control on revisit intention. F (3, 200) =9,272 p < .001. The Bonferroni, Games-Howell and Tukey HSD post hoc tests have revealed that experimental group 3 ($M_{cognitive\ control}$=5,30) was not significantly different from the control group ($M_{no\ recovery}$ =4,72), p >.05. Therefore, H3b is not supported.

Revisit intention was not significantly increased for customers who receive only cognitive control in an out-of-stock service failure. The customer revisit intention was significantly higher for experimental group 2 ($M_{decisional\ control}$=5,93) and experimental group 4 ($M_{cognitive+decisional\ control}$=5,54) than the control group (p < .005). Therefore, H3a and H3c are supported. According to the post hoc tests, respondents who received only compensation with decisional control intended to revisit the restaurant in the future significantly more than respondents who received only explanation of the service failure (p < .05). Therefore, H3d is supported.

In switching intention, a similar pattern to revisit intention was observed. The main effect was significant, F (3, 200) =12,545 p < .001. According to the post hoc tests, respondents who received compensation with decisional control ($M_{decisional\ control}$=2,88) have considered to switch the restaurant significantly less than respondents who did not receive any service recovery ($M_{no\ recovery}$ =4,24, p < .001) and respondents who received only cognitive control ($M_{cognitive\ control}$=3,77, p ≤ .003).

While experimental group 4 ($M_{cognitive+decisional\ control}$=5,54) differed significantly from the control group (p < .001), experimental group 3 did not differ from the control group significantly. Therefore, H2a, H2c and H2d are supported and H2b is not supported. Figure 7 and 8 show the mean and the 95% confidence interval of each variable respectively.

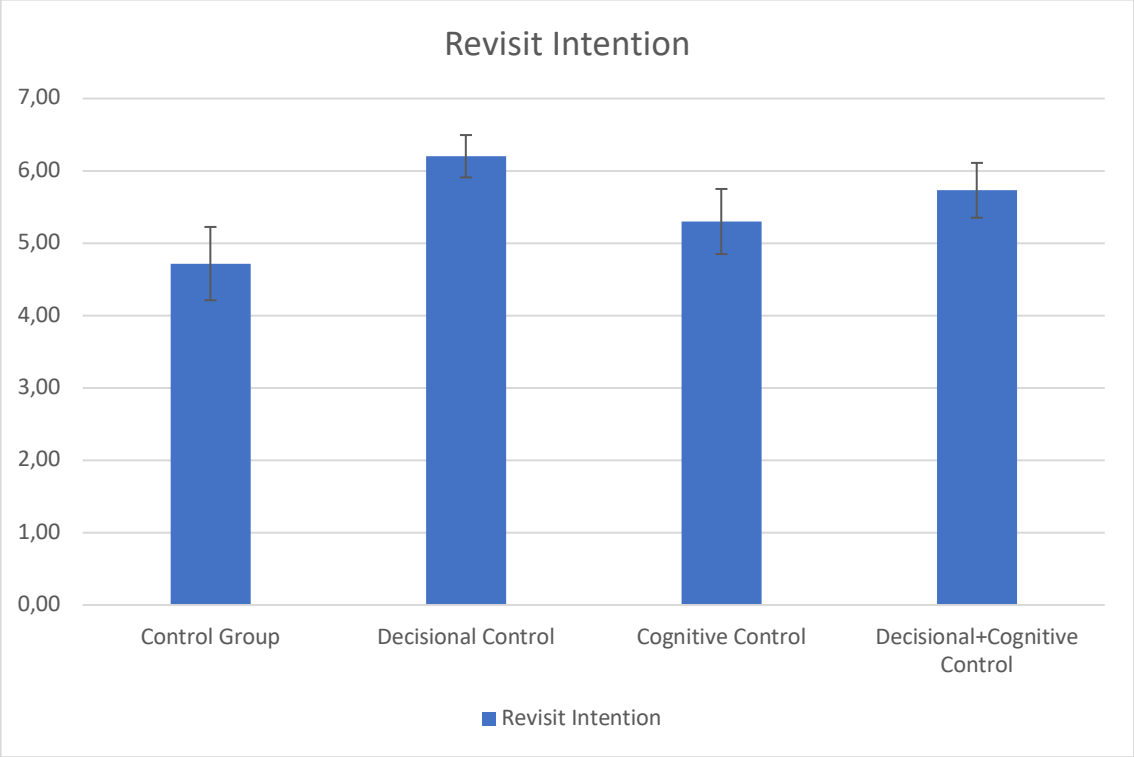


Figure 7 Mean values of "revisit intention" with 95% confidence interval error bars

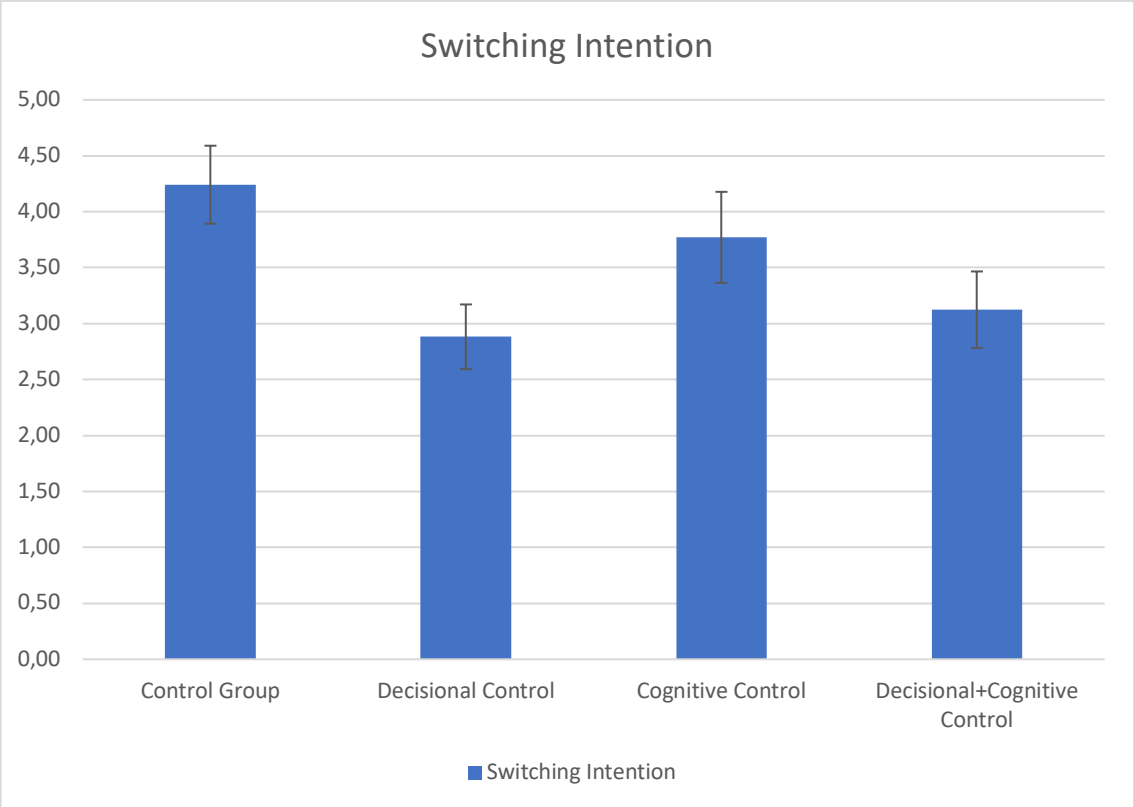


Figure 8 Mean values of "switching intention" with 95% confidence interval error bars

4.3.3. Service Failure Attributions and Service Failure Severity

Comparing to other outcome variables, the results for service failure attributions were quite different. Overall, there was a significant main effect, F (3, 200) =6, 030 < .001. However, according to the post hoc tests experimental group who received compensation with decisional control ($M_{decisional\ control}$=4,387) did not significantly differ from the control group ($M_{no\ recovery}$ = 4,812). Therefore, H7a is not supported.

Experimental group 3 (H7b, $M_{cognitive\ control}$=5,30) and experimental group 4 (H7c, $M_{cognitive+decisional\ control}$=5,54) has attributed the service failure to the business significantly less than the control group ($p < 0.01$). Attributions of service failure to the service provider was significantly lower for experimental group 4 than experimental group 2 ($p = 0.05$). Therefore, H7b, H7c, H7d are supported.

Similar to the service failure attributions, there was a significant main effect of control types on the perception of the service failure severity, F (3, 200) =8,11 p < .001. According to the post hoc tests, control group has perceived the service failure more severe than the experimental groups 3 and 4 ($M_{no\ recovery}$ =4,13, $M_{cognitive\ control}$=2,93, $M_{cognitive+decisional\ control}$=2,71).

Experimental group 2 ($M_{decisional\ control}$=3,66) did not differ significantly from the control group. Additionally, experimental group 2 has perceived the service failure significantly more severe than the experimental group 4 ($p < 0.05$). Therefore, H8a, H8c and H8d are supported and H8b is not supported. Figure 9 and 10 show the mean and the 95% confidence interval of each variable respectively.

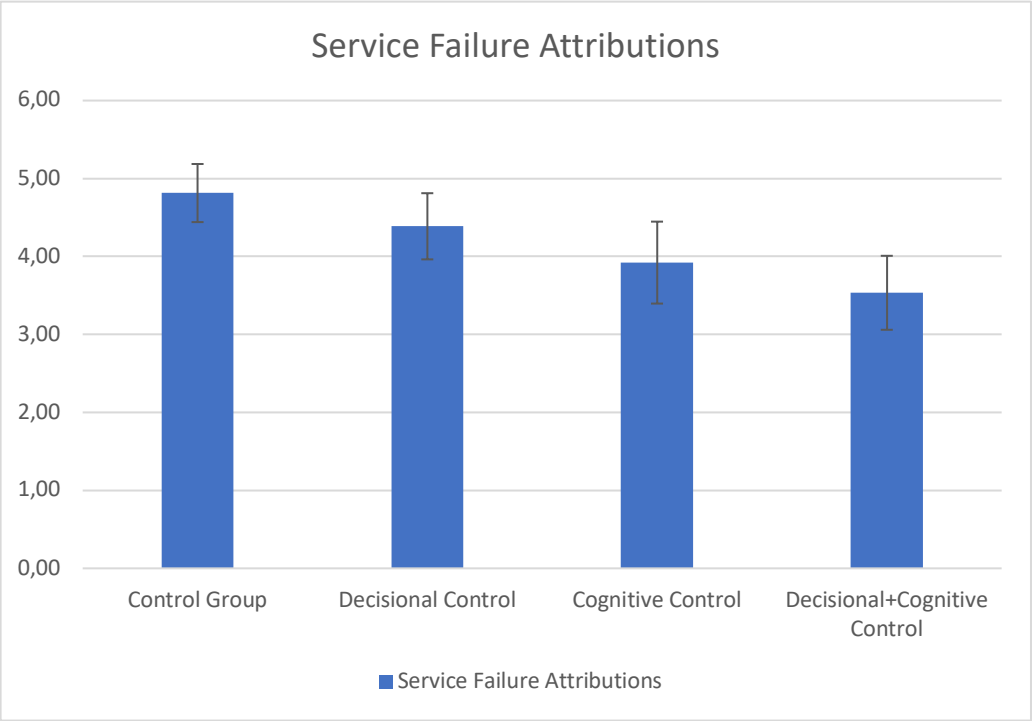


Figure 9 Mean values of "service failure attributions" with 95% confidence interval error bars

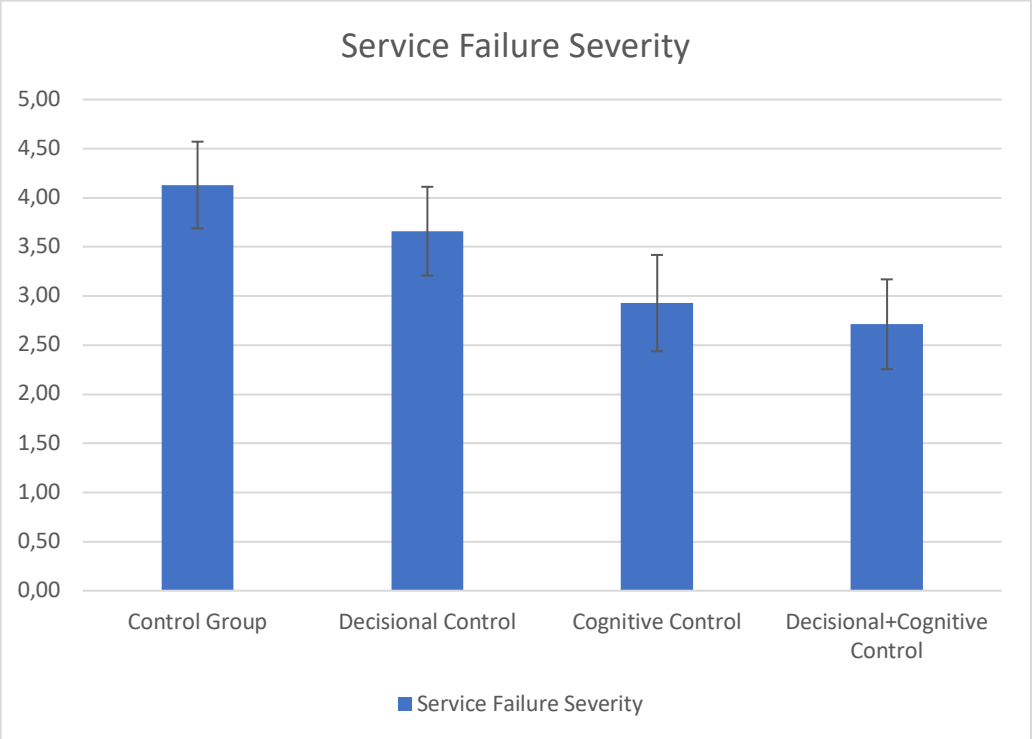


Figure 10 Mean values of "service failure severity" with 95% confidence interval error bars

4.4. Contrasting groups

Table 3 summarizes contrasts between control groups using Tukey HSD. Experimental group 2 had differed significantly from the control group in satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-Intention and fairness ($p < .001$). In satisfaction with the service, revisit intention and switching intention there was a significant difference between the experimental group 2 and 3. Except revisit and switching intention, experimental group 3 had significantly differed from the control group ($p \leq .05$). Experimental group 4, which received both decisional and cognitive control, had differed significantly from the control group in all of the measured outcome variables ($p \leq .001$ for satisfaction with the service and recovery and $p \leq .05$ for others). There was also a significant difference between experimental group 4 and 3 in switching intention and between experimental group 4 and 2 in service failure attributions and severity ($p \leq .05$).

Table 3 Contrast Results: Control Group (n=51) vs. Experimental Groups (n=51 each)

	Control Group vs. Experimental Group 2		Control Group vs. Experimental Group 3		Control Group vs. Experimental Group 4		Experimental Group 2 vs 3		Experimental Group 2 vs 4		Experimental Group 3 vs 4	
Dependent Variables	M	Sig	M	Sig	M	Sig	M	Sig	M	Sig	M	Sig
Satisfaction with the service	4.07 vs. 5.93	**.000**	4.07 vs. 5.11	**.001**	4.07 vs. 5.54	**.000**	5.93 vs. 5.11	**.016**	5.93 vs. 5.54	.476	5.11 vs. 5.54	.404
Satisfaction with the recovery	4.51 vs. 6.13	**.000**	4.51 vs. 5.56	**.001**	4.51 vs. 5.90	**.000**	6.13 vs. 5.56	.159	6.13 vs. 5.90	.839	5.56 vs. 5.90	.589
Revisit Intention	4.72 vs. 6.20	**.000**	4.72 vs. 5.30	.198	4.72 vs. 5.73	**.004**	6.20 vs. 5.30	**.013**	6.20 vs. 5.73	.379	5.30 vs. 5.73	.457
Switching Intention	4.24 vs. 2.88	**.000**	4.24 vs. 3.77	.229	4.24 vs. 3.12	**.000**	2.88 vs. 3.77	**.002**	2.88 vs. 3.12	.761	3.77 vs. 3.12	**.046**
WOM-Intentions	4.26 vs. 5.44	**.000**	4.26 vs. 5.14	**.004**	4.26 vs. 5.56	**.000**	5.44 vs. 5.14	.634	5.44 vs. 5.56	.966	5.14 vs. 5.56	.350
Fairness	4.17 vs. 5.45	**.000**	4.17 vs. 5.07	**.003**	4.17 vs. 5.26	**.000**	5.45 vs. 5.07	.457	5.45 vs. 5.26	.883	5.07 vs. 5.26	.883
Service Failure Attributions	4.81 vs. 4.39	.544	4.81 vs. 3.92	**.030**	4.81 vs. 3.53	**.001**	4.39 vs. 3.92	.467	4.39 vs. 3.53	**.041**	3.92 vs. 3.53	.622
Service Failure Severity	4.13 vs. 3.66	.473	4.13 vs. 2.93	**.002**	4.13 vs. 2.71	**.000**	3.66 vs. 2.93	.114	3.66 vs. 2.71	**.021**	2.93 vs. 2.71	.911

5. DISCUSSION

5.1. Theoretical Implications

This study fills the research gap in service recovery research by investigating the use of cognitive control and decisional control as a service recovery strategy after an out-of-stock service failure situation. The effect of explaining the cause of the service failure as the effort of the company to reduce food waste (cognitive control) and offering compensation with decisional control on satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-Intention, service failure severity and service failure attributions have been investigated.

The results confirm the findings of Hui and Bateson (1991) and Chang (2006) in satisfaction with the service. Offering cognitive control has significantly increased the customer satisfaction. When the food service provider explains the cause of the service failure situation, this will result in more satisfaction with the service. Additionally, leaving the choice to customer with decisional control (Chang, 2006) has also increased the customer satisfaction. Therefore, the results of Cranage and Sujan (2004) have been also confirmed. Offering both cognitive and decision control have increased the satisfaction with the service. The study found satisfaction with the recovery has significantly increased by offering cognitive control, decisional control or both. Explaining the cause of the service failure and offering compensation could be therefore useful service recovery strategies.

By providing service recovery, justice feelings will increase revisit intention (Kim et al., 2009). This study has found that revisit intention will increase when cognitive control or decisional control as a service recovery strategy used after an out-of-stock service failure situation. Offering compensation with decisional control significantly increased revisit intention more than providing just cognitive control alone. In order to increase the revisit intention, offering compensation could be therefore more effective than just explaining the cause of the out-of-stock service failure situation.

In switching intention, the results of this study confirm findings of Keaveney (1995) and Chang (2006). Without any service recovery, switching intention will increase after a service failure (Keaveney, 1995). Therefore, after losing control feelings in a service failure situation, switching intention is prevented by offering control. The study extended the past research by including both control types in an out-of-stock service failure situation. Providing cognitive control and decisional control as a service recovery strategy will increase WOM-Intention. Therefore, the findings of Maxham and Netemeyer (2002) could also be confirmed. McColl-Kennedy and Sparks (2003) has stated that when service provider offers compensation, this could increase the fairness perception. The study confirms the findings of McColl-Kennedy and Sparks (2003). Offering compensation with decisional control or cognitive control have increased the fairness perception significantly.

Mattila and Cranage (2005) have stated that when customers have a choice, this could mitigate negative attributions towards the company. However, the study of Mattila and Cranage offered choice "between" service recovery strategies and this study has offered choice "within" a service recovery option (compensation with decisional control). This study has found that offering compensation with decisional control did not lower the service failure attribution significantly. However, explaining the cause of the service failure as the effort of the food service provider to reduce the food waste have decreased the service failure attribution significantly. Therefore, the company should communicate to customers about food waste (Heikkilä et al., 2016). Explaining the cause of the service failure and offering compensation have significantly mitigated the service failure attribution more than offering compensation with decisional control. Therefore, by explaining the cause of the service failure, awareness of customers could be increased so they will not attribute the reason of the service failure to the business itself.

Service failure severity is an element of service recovery paradox, therefore when customers perceive the service failure less severe, according to the service recovery paradox, more positive customer reactions are expected (Baker, 2017). This study has further found when the food service provider explains the cause of the out-of-stock service failure as the effort of the company to reduce food waste, respondents have

perceived the service failure less severe than no recovery or offering compensation with decisional control.

5.2 Managerial Implications

The research conducted in this study could guide managers of the food service company and give them confidence not to buy excessive amount of food to the inventory that leads to food waste. The aim of the study is to help lower food waste by reducing the inventory of food service companies. Additionally, purchasing less food to inventory will be beneficial for the food service companies because of the financial costs occurred by purchasing excessive amount of food for inventory. The study provides important service recovery strategies in case of out-of-stock service failure.

If out-of-stock service failure situation occurs, the food service provider should offer compensation with decisional control. The customers may experience decisional control when they are offered a choice of the service recovery options after an out-of-stock service failure. By doing so, customers will be able to regain a certain level of control after losing it from the out-of-stock service failure situation. The study found that offering a compensation with decisional control will increase satisfaction with the service, satisfaction with the recovery, revisit intention, WOM Intention after a stock-out-service failure situation. By offering a compensation of choice, the switching intention of customers will be decreased.

Food service companies can increase the cognitive control of customers by explaining the cause of the out-of-stock service failure. The study has found, by explaining the reason of this out-of-stock service failure situation (which is effort of the food service company to lower the food waste), food service companies will benefit with high satisfaction with the service, satisfaction with the recovery and WOM-Intention of customers. Customers will not attribute the cause of the service failure to the business and will additionally perceive the service failure less severe.

Increasing both decisional control (by offering a choice in service recovery) and cognitive control (by explaining the situation), food service providers will benefit most in terms of measured variables. The study has found that all of the measured variables have significantly performed better when the food service provider offers both type of control. By offering only compensation with decisional control, customers may still attribute the service failure to the business and they may perceive the service failure as being severe. By offering only decisional control, switching intention and revisit intention variable might suffer negative impact. Both types of control complement each other to improve customer reactions after an out-of-stock service failure situation. Therefore, it is advisable for the use of both types of control in an out-of-stock service failure situation by food service companies.

5.3 Limitations and Future Research

In this study, participants have read hypothetical created scenarios and answered the questionnaire about satisfaction with the service, satisfaction with the recovery, revisit intention, switching intention, WOM-intention, fairness, service failure attributions and service failure severity. Therefore, future research should also conduct a field study to confirm the result of this study doing real-world situational application. Except fairness perception, the study did not include the role of emotions. Stereotypical perception of the food service provider could also influence the measured variables. Therefore, future research should also include the variable of emotions.

In regard to service recovery strategies, to increase the cognitive control, an explanation about the cause of the service failure (which is the effort of the food service provider to reduce food waste) was deployed. The way in which the company communicates this cause may produce different outcomes. Therefore, future research should explore communication techniques (e.g. through a menu, interactive display, restaurant staff etc.). Additionally, creating associations about the consequences of food waste (e.g. with the global warming) and communicating them to the customer may be an effective cognitive service recovery strategy.

Based on the recommendations of previous studies, a coffee or a dessert was offered with decisional control. Different items might produce different customer reactions. Therefore, future research should also explore other items that could be offered as a service recovery strategy.

6. CONCLUSION

The major conclusion is that food service companies do not have to purchase excessive amount of food for inventory that will lead to food waste. In case of out-of-stock service failure situation occurs, the results suggest that in the recovery process, offering compensation with decisional control (free coffee or chocolate cake) and explaining the situation as the effort of the company to reduce food waste (cognitive control), food service companies will therefore increase customer reactions positively. As service recovery paradox suggests, recovered out-of-stock service failure situation could lead to even more positive customer reactions than without any service failure. Therefore, out-of-stock service failure situation does not necessarily lead to negative customer reactions, when food service companies make use of cognitive and decisional control in the recovery process. Food service companies will be able to cut costs by not buying excessive amount of food for inventory and most importantly less food will be wasted. By avoiding the excessive amount of food purchase to inventory globally as a strong potential solution, the sustainable development goal 12.3 of United Nations reducing food waste by half by 2030 could be reached earlier.

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APPENDICES

Scenario 1

Imagine you enter into a restaurant and order your favorite meal. The restaurant staff informs you that they run out of food that you've just ordered.

The restaurant staff asks you to choose a different meal.

Scenario 2

Imagine you enter into a restaurant and order your favorite meal. The restaurant staff informs you that they run out of food that you've just ordered.

The restaurant staff asks you to choose a different meal and to make it up to you, they offer you a dessert or drink of your choice for free.

Scenario 3

Imagine you enter into a restaurant and order your favorite meal. The restaurant staff informs you that they run out of food that you've just ordered.

The reason: The restaurant buys no more ingredients to inventory than the expected demand to avoid the food waste.

The restaurant staff asks you to choose a different meal.

Scenario 4

Imagine you enter into a restaurant and order your favorite meal. The restaurant staff informs you that they run out of food that you've just ordered.

The reason: The restaurant buys no more ingredients to inventory than the expected demand to avoid the food waste.

The restaurant staff asks you to choose a different meal and to make it up to you, they offer you a dessert or drink of your choice for free.

Table 4 - Satisfaction with the Service

I was satisfied with the service provided.	1	2	3	4	5	6	7
I was delighted with the service provided.	1	2	3	4	5	6	7
I was unhappy with the service provided.	1	2	3	4	5	6	7

Voss, Glenn B., Andrea Godfrey, and Kathleen Seiders (2010), "How Complementarity and Substitution Alter the Customer Satisfaction-Repurchase Link," Journal of Marketing, 74 (6), 111-127. CR=.94 AVE=.63

Table 5 - Satisfaction with the Recovery Process

Please indicate how strongly you disagree or agree with the following statements about the restaurant.	***Disagree***						***Agree***
I am satisfied with the way the restaurant handled the situation.	1	2	3	4	5	6	7
I feel favorably about how the restaurant handled the situation.	1	2	3	4	5	6	7
I liked how the restaurant handled the situation.	1	2	3	4	5	6	7

Roggeveen, Anne L., Michael Tsiros, and Dhruv Grewal (2012), "Understanding the Co-creation Effect: When Does Collaborating with Customers Provide a Lift to Service Recovery?" Journal of the Academy of Marketing Science, 40 (6), 771-790. CR=.93-.97; AVE=.80

Table 6 Revisit intention

Please indicate the extent with the following statement about the restaurant.	***Very unlikely***						***Very likely***
What is the likelihood that you would visit this restaurant in the future?	1	2	3	4	5	6	7

Please indicate how strongly you disagree or agree with the following statements about the restaurant.	***Disagree***						***Agree***
If this situation had happened to me, I would never visit this restaurant again.	1	2	3	4	5	6	7
If this had happened to me, I would still visit this restaurant in the future.	1	2	3	4	5	6	7

(Adapted) Jeffrey G. Blodgett, Donna J. Hill, Stephen S. Tax (1997), "The effects of Distributive, Procedural and Interactional Justice on Postcomplaint Behavior" Journal of Retailing, Volume 73(2), pp. 185-210, ISSN: 0022-4359 CR=.92

Table 7 Switching Intention

Please indicate how strongly you disagree or agree with the following statements about the restaurant.	***Disagree***						***Agree***
I am likely to switch and visit another restaurant.	1	2	3	4	5	6	7
I might be convinced to regularly visit another restaurant under the right conditions.	1	2	3	4	5	6	7
There is no chance that I will switch and regularly visit a different restaurant in the near future.	1	2	3	4	5	6	7

Brocato, E. Deanne, Julie Baker, and Clay M. Voorhees (2015), "Creating Consumer Attachment to Retail Service Firms Through Sense of Places," *Journal of the Academy of Marketing Science*, 43 (2), 200-220. CR=.86; AVE=.67

Table 8 WOM Intention

I will recommend the restaurant to my friends.	1	2	3	4	5	6	7
It is likely that I will tell my friends about the restaurant.	1	2	3	4	5	6	7
I will tell other persons about the restaurant.	1	2	3	4	5	6	7

Hutter, Katharina and Stefan Hoffmann (2014), "Surprise, Surprise. Ambient Media as Promotion Tool for Retailers," *Journal of Retailing*, 90 (1), 93-110. CR=.93; AVE=.81

Table 9 Fairness

The treatment given to me by the restaurant was:								
Unfair to me.	1	2	3	4	5	6	7	Fair to me.
Less than I deserved.	1	2	3	4	5	6	7	More than I deserved.
Unequitable to me.	1	2	3	4	5	6	7	Equitable to me.

Allen, Alexis M., Michael K. Brady, Stacey G. Robinson, and Clay M. Voorhees (2015), "One Firm's Loss is Another's Gain: Capitalizing on Other Firms' Service Failures," *Journal of the Academy of Marketing Science*, 43 (5), 648-662. CR=.88 AVE=.50

Table 10 Service failure attributions

Please indicate how strongly you disagree or agree with the following statements about the restaurant.	***Disagree***						***Agree***
In my view, the restaurant is fully responsible for the service failure.	1	2	3	4	5	6	7
The problem that led to the service failure was clearly caused by the restaurant.	1	2	3	4	5	6	7
The service failure that I encountered was entirely restaurant's fault.	1	2	3	4	5	6	7
The restaurant is solely responsible for the service failure.	1	2	3	4	5	6	7

Heidenreich, Sven, Kristina Wittkowski, Matthias Handrich, and Tomas Falk (2015), "The Dark Side of Customer Co-Creation: Exploring the Consequences of Failed Co-Created Services," *Journal of the Academy of Marketing Science*, 43 (3), 279-296. CR=.971; AVE=.892

Table 11 Service Failure Severity

Based on your experience with the restaurant, how would you describe being encountered with a service failure of out of stock dish from the given menu?								
Mild service problem	1	2	3	4	5	6	7	Sever service problem
Minor service problem	1	2	3	4	5	6	7	Major service problem
Insignificant service problem	1	2	3	4	5	6	7	Significant service problem

Hess, Jr., Ronald L, Shankar Ganesan, and Noreen M. Klein (2003), "Service Failure and Recovery: the Impact of Relationship Factors on Customer Satisfaction," *JAMS,* 31 (2), 127-145. CR=.96; AVE=unknown

Gender: ◯ female ◯ male					
Age: _____years					
Net Income: ◯800€ ◯801-1500 € ◯1501-2500 € ◯2500€ - 4000€ ◯ above 4000€					
Highest Level of Education:	◯ Less than high school	◯ High school	◯ 2-year college	◯ 4-year college	◯ Master's degree or above
Nationality: ◯ Austrian ◯ Other (please indicate):					



Figure 11 Scenarios in German

2. Bitte geben Sie an, inwieweit Sie folgenden Aussagen über das Restaurant zustimmen oder nicht zustimmen.

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	weder noch	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich bin zufrieden damit, wie das Restaurant mit der Situation umgegangen ist.	○	○	○	○	○	○	○
Ich begrüße es, wie das Restaurant mit der Situation umgegangen ist.	○	○	○	○	○	○	○
Es hat mir gefallen, wie das Restaurant mit der Situation umgegangen ist.	○	○	○	○	○	○	○

25% ausgefüllt

1. Bitte geben Sie an, inwieweit Sie folgenden Aussagen über das Restaurant zustimmen oder nicht zustimmen.

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	weder noch	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich bin mit dem erbrachten Service zufrieden.	○	○	○	○	○	○	○
Ich bin vom geleisteten Service begeistert.	○	○	○	○	○	○	○
Ich bin mit dem geleisteten Service unzufrieden.	○	○	○	○	○	○	○

17% ausgefüllt

3. Bitte geben Sie an, inwieweit Sie folgenden Aussagen über das Restaurant zustimmen oder nicht zustimmen.

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	weder noch	stimme eher zu	stimme zu	stimme voll und ganz zu
Wenn mir so eine Situation passieren wäre, würde ich dieses Restaurant nie wieder besuchen.	○	○	○	○	○	○	○
Wäre mir das passiert, würde ich dieses Restaurant auch in Zukunft besuchen.	○	○	○	○	○	○	○

	sehr unwahrscheinlich						sehr wahrscheinlich
Wie hoch ist die Wahrscheinlichkeit, dass Sie dieses Restaurant in Zukunft besuchen werden?	○	○	○	○	○	○	○

33% ausgefüllt

1. Bitte geben Sie an, inwieweit Sie folgenden Aussagen über das Restaurant zustimmen oder nicht zustimmen.

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	weder noch	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich werde wahrscheinlich dieses Restaurant meiden und dann regelmäßig ein anderes Restaurant besuchen.	○	○	○	○	○	○	○
Ich könnte unter den richtigen Bedingungen überzeugt werden, regelmäßig ein anderes Restaurant zu besuchen.	○	○	○	○	○	○	○
Auf keinen Fall werde ich dieses Restaurant meiden und regelmäßig ein anderes Restaurant besuchen.	○	○	○	○	○	○	○

2. Bitte geben Sie an, inwieweit Sie folgenden Aussagen über das Restaurant zustimmen oder nicht zustimmen.

	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	weder noch	stimme eher zu	stimme zu	stimme voll und ganz zu
Ich werde dieses Restaurant meinen Freunde weiterempfehlen.	○	○	○	○	○	○	○
Es ist wahrscheinlich, dass ich meinen Freunden von dem Restaurant erzählen werde.	○	○	○	○	○	○	○
Ich werde anderen Personen von dem Restaurant erzählen.	○	○	○	○	○	○	○

3. Die Behandlung, die mir das Restaurant zukommen ließ, war:



Mir gegenüber unfair	○ ○ ○ ○ ○ ○ ○	Mir gegenüber fair.
Weniger als ich verdient habe.	○ ○ ○ ○ ○ ○ ○	Mehr als ich verdient habe.
Mir gegenüber ungerecht.	○ ○ ○ ○ ○ ○ ○	Mir gegenüber gerecht.

4. Bitte geben Sie an, inwieweit Sie folgenden Aussagen über das Restaurant zustimmen oder nicht zustimmen.



	stimme überhaupt nicht zu	stimme nicht zu	stimme eher nicht zu	weder noch	stimme eher zu	stimme zu	stimme voll und ganz zu
Meiner Ansicht nach ist das Restaurant in vollem Umfang für das Serviceversagen verantwortlich.	○	○	○	○	○	○	○
Das Problem, das zum Serviceversagen führte, wurde eindeutig durch das Restaurant verursacht.	○	○	○	○	○	○	○
Das Serviceversagen, auf das ich gestoßen bin, war vollständig die Schuld des Restaurants.	○	○	○	○	○	○	○
Das Restaurant ist allein für das Serviceversagen verantwortlich.	○	○	○	○	○	○	○

5. Ausgehend von Ihrer Erfahrung mit diesem Restaurant, wie würden Sie es beschreiben, dass das von Ihnen gewählte Gericht nicht verfügbar war?



Leichtes Serviceproblem	○ ○ ○ ○ ○ ○ ○	Schwerwiegendes Serviceproblem
Kleineres Serviceproblem	○ ○ ○ ○ ○ ○ ○	Größeres Serviceproblem
Unwesentliches Serviceproblem	○ ○ ○ ○ ○ ○ ○	Wesentliches Serviceproblem

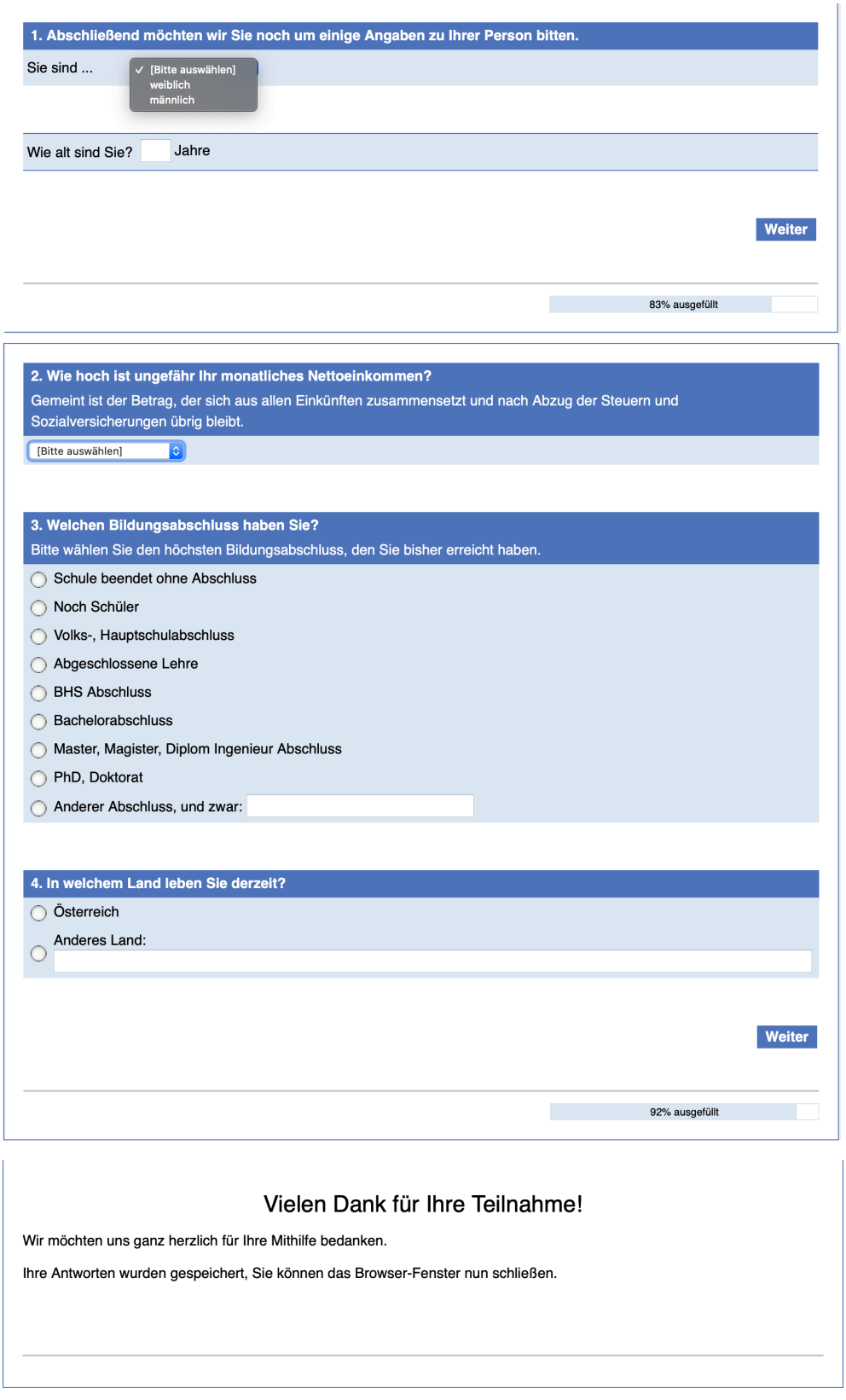


Figure 12 - Survey in German

SPSS OUTCOMES

Table 12 Between-Subjects Factors

		Value Label	N
Scenarios: Code drawn	1	No Treatment Control	51
	2	Decisional Control	51
	3	Cognitive Control	51
	4	Decisional+Cognitive Control	51

Table 13 Descriptive Statistics

	Scenarios: Code drawn	Mean	Std. Deviation	N
Satisfaction_with_the_Service	No Treatment Control	4.0719	1.36514	51
	Decisional Control	5.9346	1.05624	51
	Cognitive Control	5.1176	1.49937	51
	Decisional+Cognitive Control	5.5425	1.52747	51
	Total	5.1667	1.53218	204
Satisfaction_with_the_Recovery	No Treatment Control	4.5098	1.57248	51
	Decisional Control	6.1307	1.13152	51
	Cognitive Control	5.5556	1.44786	51
	Decisional+Cognitive Control	5.9020	1.36022	51
	Total	5.5245	1.51112	204
Revisit_Intention	No Treatment Control	4.7190	1.80908	51
	Decisional Control	6.2026	1.04579	51
	Cognitive Control	5.3007	1.60590	51
	Decisional+Cognitive Control	5.7320	1.35322	51
	Total	5.4886	1.56920	204

WOM_Intention	No Treatment Control	4.2614	1.43498	51
	Decisional Control	5.4379	1.06352	51
	Cognitive Control	5.1373	1.39073	51
	Decisional+Cognitive Control	5.5556	1.17883	51
	Total	5.0980	1.36465	204
Fairness	No Treatment Control	4.1699	1.41637	51
	Decisional Control	5.4510	1.15628	51
	Cognitive Control	5.0719	1.18381	51
	Decisional+Cognitive Control	5.2614	1.42410	51
	Total	4.9886	1.38226	204
Switching_Intention	No Treatment Control	4.2418	1.24379	51
	Decisional Control	2.8824	1.03242	51
	Cognitive Control	3.7712	1.45219	51
	Decisional+Cognitive Control	3.1242	1.22195	51
	Total	3.5049	1.34863	204
Service_Failure_Attributions	No Treatment Control	4.8137	1.33027	51
	Decisional Control	4.3873	1.51518	51
	Cognitive Control	3.9216	1.87649	51
	Decisional+Cognitive Control	3.5343	1.69412	51
	Total	4.1642	1.67586	204
Service_Failure_Severity	No Treatment Control	4.1307	1.57350	51
	Decisional Control	3.6601	1.61313	51
	Cognitive Control	2.9281	1.75032	51
	Decisional+Cognitive Control	2.7124	1.63302	51
	Total	3.3578	1.72808	204

Table 14 Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.989	2258.497[b]	8.000	193.000	.000
	Wilks' Lambda	.011	2258.497[b]	8.000	193.000	.000
	Hotelling's Trace	93.616	2258.497[b]	8.000	193.000	.000
	Roy's Largest Root	93.616	2258.497[b]	8.000	193.000	.000
Group	Pillai's Trace	.399	3.736	24.000	585.000	.000
	Wilks' Lambda	.640	3.879	24.000	560.360	.000
	Hotelling's Trace	.502	4.006	24.000	575.000	.000
	Roy's Largest Root	.331	8.067[c]	8.000	195.000	.000

a. Design: Intercept + Group

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Table 15 Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Satisfaction_with_the_Service	98.529[a]	3	32.843	17.376	.000
	Satisfaction_with_the_Recovery	78.568[b]	3	26.189	13.606	.000
	Revisit_Intention	61.034[c]	3	20.345	9.272	.000
	WOM_Intention	52.340[d]	3	17.447	10.713	.000
	Fairness	49.235[e]	3	16.412	9.693	.000
	Switching_Intention	58.472[f]	3	19.491	12.545	.000
	Service_Failure_Attributions	47.290[g]	3	15.763	6.030	.001
	Service_Failure_Severity	65.788[h]	3	21.929	8.116	.000
Intercept	Satisfaction_with_the_Service	5445.667	1	5445.667	2881.106	.000

	Satisfaction_with_the_Recovery	6226.123	1	6226.123	3234.551	.000
	Revisit_Intention	6145.360	1	6145.360	2800.807	.000
	WOM_Intention	5301.961	1	5301.961	3255.739	.000
	Fairness	5076.693	1	5076.693	2998.394	.000
	Switching_Intention	2506.005	1	2506.005	1612.901	.000
	Service_Failure_Attributions	3537.501	1	3537.501	1353.204	.000
	Service_Failure_Severity	2300.123	1	2300.123	851.231	.000
Group	Satisfaction_with_the_Service	98.529	3	32.843	17.376	.000
	Satisfaction_with_the_Recovery	78.568	3	26.189	13.606	.000
	Revisit_Intention	61.034	3	20.345	9.272	.000
	WOM_Intention	52.340	3	17.447	10.713	.000
	Fairness	49.235	3	16.412	9.693	.000
	Switching_Intention	58.472	3	19.491	12.545	.000
	Service_Failure_Attributions	47.290	3	15.763	6.030	.001
	Service_Failure_Severity	65.788	3	21.929	8.116	.000
Error	Satisfaction_with_the_Service	378.026	200	1.890		
	Satisfaction_with_the_Recovery	384.976	200	1.925		
	Revisit_Intention	438.828	200	2.194		
	WOM_Intention	325.699	200	1.628		
	Fairness	338.627	200	1.693		
	Switching_Intention	310.745	200	1.554		
	Service_Failure_Attributions	522.833	200	2.614		
	Service_Failure_Severity	540.423	200	2.702		
Total	Satisfaction_with_the_Service	5922.222	204			
	Satisfaction_with_the_Recovery	6689.667	204			
	Revisit_Intention	6645.222	204			
	WOM_Intention	5680.000	204			

	Fairness	5464.556	204			
	Switching_Intention	2875.222	204			
	Service_Failure_Attributions	4107.625	204			
	Service_Failure_Severity	2906.333	204			
Corrected Total	Satisfaction_with_the_Service	476.556	203			
	Satisfaction_with_the_Recovery	463.544	203			
	Revisit_Intention	499.862	203			
	WOM_Intention	378.039	203			
	Fairness	387.862	203			
	Switching_Intention	369.217	203			
	Service_Failure_Attributions	570.124	203			
	Service_Failure_Severity	606.211	203			

a. R Squared = .207 (Adjusted R Squared = .195)
b. R Squared = .169 (Adjusted R Squared = .157)
c. R Squared = .122 (Adjusted R Squared = .109)
d. R Squared = .138 (Adjusted R Squared = .126)
e. R Squared = .127 (Adjusted R Squared = .114)
f. R Squared = .158 (Adjusted R Squared = .146)
g. R Squared = .083 (Adjusted R Squared = .069)
h. R Squared = .109 (Adjusted R Squared = .095)

Table 16 Contrast Results (K Matrix)

Scenarios: Code drawn Simple Contrast[a]		Dependent Variable							
		SS	SR	RI	WOM	FA	SI	SFA	SFS
Level 2 vs. Level 1	Contrast Estimate	1.863	1.621	1.484	1.176	1.281	-1.359	-.426	-.471
	Hypothesized Value	0	0	0	0	0	0	0	0
	Difference (Estimate - Hypothesized)	1.863	1.621	1.484	1.176	1.281	-1.359	-.426	-.471
	Std. Error	.272	.275	.293	.253	.258	.247	.320	.326
	Sig.	.000	.000	.000	.000	.000	.000	.184	.150

	95% Confidence Interval for Difference	Lower Bound	1.326	1.079	.905	.678	.773	-1.846	-1.058	-1.112
		Upper Bound	2.400	2.163	2.062	1.675	1.789	-.873	.205	.171
Level 3 vs. Level 1	Contrast Estimate		1.046	1.046	.582	.876	.902	-.471	-.892	-1.203
	Hypothesized Value		0	0	0	0	0	0	0	0
	Difference (Estimate - Hypothesized)		1.046	1.046	.582	.876	.902	-.471	-.892	-1.203
	Std. Error		.272	.275	.293	.253	.258	.247	.320	.326
	Sig.		.000	.000	.049	.001	.001	.058	.006	.000
	95% Confidence Interval for Difference	Lower Bound	.509	.504	.003	.377	.394	-.957	-1.524	-1.845
		Upper Bound	1.583	1.588	1.160	1.374	1.410	.016	-.261	-.561
Level 4 vs. Level 1	Contrast Estimate		1.471	1.392	1.013	1.294	1.092	-1.118	-1.279	-1.418
	Hypothesized Value		0	0	0	0	0	0	0	0
	Difference (Estimate - Hypothesized)		1.471	1.392	1.013	1.294	1.092	-1.118	-1.279	-1.418
	Std. Error		.272	.275	.293	.253	.258	.247	.320	.326
	Sig.		.000	.000	.001	.000	.000	.000	.000	.000
	95% Confidence Interval for Difference	Lower Bound	.934	.850	.435	.796	.583	-1.604	-1.911	-2.060
		Upper Bound	2.007	1.934	1.591	1.792	1.600	-.631	-.648	-.776

a. Reference category = 1

Table 17 Post Hoc Tests - Satisfaction with the Service

	(I) Scenarios: Code drawn	(J) Scenarios: Code drawn	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	No Treatment Control	Decisional Control	-1.8627*	.27225	.000	-2.5681	-1.1574
		Cognitive Control	-1.0458*	.27225	.001	-1.7511	-.3404
		Decisional +Cognitive Control	-1.4706*	.27225	.000	-2.1759	-.7652
	Decisional Control	No Treatment Control	1.8627*	.27225	.000	1.1574	2.5681
		Cognitive Control	.8170*	.27225	.016	.1116	1.5223
		Decisional +Cognitive Control	.3922	.27225	.476	-.3132	1.0975
	Cognitive Control	No Treatment Control	1.0458*	.27225	.001	.3404	1.7511
		Decisional Control	-.8170*	.27225	.016	-1.5223	-.1116
		Decisional +Cognitive Control	-.4248	.27225	.404	-1.1302	.2805
	Decisional+Cognitive Control	No Treatment Control	1.4706*	.27225	.000	.7652	2.1759
		Decisional Control	-.3922	.27225	.476	-1.0975	.3132
		Cognitive Control	.4248	.27225	.404	-.2805	1.1302
Bonferroni	No Treatment Control	Decisional Control	-1.8627*	.27225	.000	-2.5882	-1.1373
		Cognitive Control	-1.0458*	.27225	.001	-1.7712	-.3203

		Decisional +Cognitive Control	-1.4706*	.27225	.000	-2.1961	-.7451
	Decisional Control	No Treatment Control	1.8627*	.27225	.000	1.1373	2.5882
		Cognitive Control	.8170*	.27225	.018	.0915	1.5425
		Decisional +Cognitive Control	.3922	.27225	.908	-.3333	1.1176
	Cognitive Control	No Treatment Control	1.0458*	.27225	.001	.3203	1.7712
		Decisional Control	-.8170*	.27225	.018	-1.5425	-.0915
		Decisional +Cognitive Control	-.4248	.27225	.721	-1.1503	.3007
	Decisional+Cognitive Control	No Treatment Control	1.4706*	.27225	.000	.7451	2.1961
		Decisional Control	-.3922	.27225	.908	-1.1176	.3333
		Cognitive Control	.4248	.27225	.721	-.3007	1.1503
Games-Howell	No Treatment Control	Decisional Control	-1.8627*	.24170	.000	-2.4949	-1.2306
		Cognitive Control	-1.0458*	.28394	.002	-1.7877	-.3038
		Decisional +Cognitive Control	-1.4706*	.28686	.000	-2.2202	-.7209
	Decisional Control	No Treatment Control	1.8627*	.24170	.000	1.2306	2.4949
		Cognitive Control	.8170*	.25682	.011	.1447	1.4893
		Decisional +Cognitive Control	.3922	.26005	.437	-.2887	1.0730

	Cognitive Control	No Treatment Control	1.0458*	.28394	.002	.3038	1.7877
		Decisional Control	-.8170*	.25682	.011	-1.4893	-.1447
		Decisional +Cognitive Control	-.4248	.29971	.492	-1.2079	.3582
	Decisional+Cognitive Control	No Treatment Control	1.4706*	.28686	.000	.7209	2.2202
		Decisional Control	-.3922	.26005	.437	-1.0730	.2887
		Cognitive Control	.4248	.29971	.492	-.3582	1.2079

Table 18 Post Hoc Tests - Satisfaction with the Recovery

	(I) Scenarios: Code drawn	(J) Scenarios: Code drawn	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	No Treatment Control	Decisional Control	-1.6209	.27475	.000	-2.3327	-.9091
		Cognitive Control	-1.0458	.27475	.001	-1.7576	-.3339
		Decisional +Cognitive Control	-1.3922	.27475	.000	-2.1040	-.6804
	Decisional Control	No Treatment Control	1.6209	.27475	.000	.9091	2.3327
		Cognitive Control	.5752	.27475	.159	-.1366	1.2870
		Decisional +Cognitive Control	.2288	.27475	.839	-.4830	.9406

	Cognitive Control	No Treatment Control	1.0458	.27475	.001	.3339	1.7576
		Decisional Control	-.5752	.27475	.159	-1.2870	.1366
		Decisional +Cognitive Control	-.3464	.27475	.589	-1.0582	.3654
	Decisional+Cognitive Control	No Treatment Control	1.3922	.27475	.000	.6804	2.1040
		Decisional Control	-.2288	.27475	.839	-.9406	.4830
		Cognitive Control	.3464	.27475	.589	-.3654	1.0582
Bonferroni	No Treatment Control	Decisional Control	-1.6209	.27475	.000	-2.3530	-.8888
		Cognitive Control	-1.0458	.27475	.001	-1.7779	-.3136
		Decisional +Cognitive Control	-1.3922	.27475	.000	-2.1243	-.6600
	Decisional Control	No Treatment Control	1.6209	.27475	.000	.8888	2.3530
		Cognitive Control	.5752	.27475	.225	-.1570	1.3073
		Decisional +Cognitive Control	.2288	.27475	1.000	-.5034	.9609
	Cognitive Control	No Treatment Control	1.0458	.27475	.001	.3136	1.7779
		Decisional Control	-.5752	.27475	.225	-1.3073	.1570
		Decisional +Cognitive Control	-.3464	.27475	1.000	-1.0785	.3857
	Decisional+Cognitive Control	No Treatment Control	1.3922	.27475	.000	.6600	2.1243

		Decisional Control	-.2288	.27475	1.000	-.9609	.5034
		Cognitive Control	.3464	.27475	1.000	-.3857	1.0785
Games-Howell	No Treatment Control	Decisional Control	-1.6209	.27127	.000	-2.3309	-.9109
		Cognitive Control	-1.0458	.29931	.004	-1.8279	-.2636
		Decisional+Cognitive Control	-1.3922	.29114	.000	-2.1531	-.6312
	Decisional Control	No Treatment Control	1.6209	.27127	.000	.9109	2.3309
		Cognitive Control	.5752	.25731	.121	-.0978	1.2481
		Decisional+Cognitive Control	.2288	.24776	.792	-.4189	.8765
	Cognitive Control	No Treatment Control	1.0458	.29931	.004	.2636	1.8279
		Decisional Control	-.5752	.25731	.121	-1.2481	.0978
		Decisional+Cognitive Control	-.3464	.27818	.600	-1.0733	.3805
	Decisional+Cognitive Control	No Treatment Control	1.3922	.29114	.000	.6312	2.1531
		Decisional Control	-.2288	.24776	.792	-.8765	.4189
		Cognitive Control	.3464	.27818	.600	-.3805	1.0733

Table 19 Post Hoc Tests - Revisit Intention

	(I) Scenarios: Code drawn	(J) Scenarios: Code drawn	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	No Treatment Control	Decisional Control	-1.4837	.29333	.000	-2.2436	-.7237
		Cognitive Control	-.5817	.29333	.198	-1.3417	.1783
		Decisional+ Cognitive Control	-1.0131	.29333	.004	-1.7730	-.2531
	Decisional Control	No Treatment Control	1.4837	.29333	.000	.7237	2.2436
		Cognitive Control	.9020	.29333	.013	.1420	1.6619
		Decisional+ Cognitive Control	.4706	.29333	.379	-.2894	1.2305
	Cognitive Control	No Treatment Control	.5817	.29333	.198	-.1783	1.3417
		Decisional Control	-.9020	.29333	.013	-1.6619	-.1420
		Decisional+ Cognitive Control	-.4314	.29333	.457	-1.1913	.3286
	Decisional +Cognitive Control	No Treatment Control	1.0131	.29333	.004	.2531	1.7730
		Decisional Control	-.4706	.29333	.379	-1.2305	.2894
		Cognitive Control	.4314	.29333	.457	-.3286	1.1913
Bonferroni	No Treatment Control	Decisional Control	-1.4837	.29333	.000	-2.2653	-.7020
		Cognitive Control	-.5817	.29333	.292	-1.3634	.2000

		Decisional+ Cognitive Control	-1.0131	.29333	.004	-1.7947	-.2314
	Decisional Control	No Treatment Control	1.4837	.29333	.000	.7020	2.2653
		Cognitive Control	.9020	.29333	.014	.1203	1.6836
		Decisional+ Cognitive Control	.4706	.29333	.661	-.3111	1.2523
	Cognitive Control	No Treatment Control	.5817	.29333	.292	-.2000	1.3634
		Decisional Control	-.9020	.29333	.014	-1.6836	-.1203
		Decisional+ Cognitive Control	-.4314	.29333	.858	-1.2130	.3503
	Decisional +Cognitive Control	No Treatment Control	1.0131	.29333	.004	.2314	1.7947
		Decisional Control	-.4706	.29333	.661	-1.2523	.3111
		Cognitive Control	.4314	.29333	.858	-.3503	1.2130
Games - Howell	No Treatment Control	Decisional Control	-1.4837	.29260	.000	-2.2514	-.7159
		Cognitive Control	-.5817	.33873	.320	-1.4669	.3035
		Decisional+ Cognitive Control	-1.0131	.31635	.010	-1.8407	-.1854
	Decisional Control	No Treatment Control	1.4837	.29260	.000	.7159	2.2514
		Cognitive Control	.9020	.26835	.006	.1989	1.6050
		Decisional+ Cognitive Control	.4706	.23948	.209	-.1558	1.0970

	Cognitive Control	No Treatment Control	.5817	.33873	.320	-.3035	1.4669
		Decisional Control	-.9020	.26835	.006	-1.6050	-.1989
		Decisional+ Cognitive Control	-.4314	.29406	.461	-1.2001	.3373
	Decisional +Cognitive Control	No Treatment Control	1.0131	.31635	.010	.1854	1.8407
		Decisional Control	-.4706	.23948	.209	-1.0970	.1558
		Cognitive Control	.4314	.29406	.461	-.3373	1.2001

Table 20 Post Hoc Tests - WOM-Intention

	(I) Scenarios: Code drawn	(J) Scenarios: Code drawn	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	No Treatment Control	Decisional Control	-1.1765	.25271	.000	-1.8312	-.5218
		Cognitive Control	-.8758	.25271	.004	-1.5305	-.2211
		Decisional+ Cognitive Control	-1.2941	.25271	.000	-1.9488	-.6394
	Decisional Control	No Treatment Control	1.1765	.25271	.000	.5218	1.8312

		Cognitive Control	.3007	.25271	.634	-.3541	.9554
		Decisional+ Cognitive Control	-.1176	.25271	.966	-.7724	.5371
	Cognitive Control	No Treatment Control	.8758	.25271	.004	.2211	1.5305
		Decisional Control	-.3007	.25271	.634	-.9554	.3541
		Decisional+ Cognitive Control	-.4183	.25271	.350	-1.0730	.2364
	Decisional +Cognitive Control	No Treatment Control	1.2941	.25271	.000	.6394	1.9488
		Decisional Control	.1176	.25271	.966	-.5371	.7724
		Cognitive Control	.4183	.25271	.350	-.2364	1.0730
Bonferroni	No Treatment Control	Decisional Control	-1.1765	.25271	.000	-1.8499	-.5031
		Cognitive Control	-.8758	.25271	.004	-1.5492	-.2024
		Decisional+ Cognitive Control	-1.2941	.25271	.000	-1.9675	-.6207
	Decisional Control	No Treatment Control	1.1765	.25271	.000	.5031	1.8499
		Cognitive Control	.3007	.25271	1.000	-.3728	.9741
		Decisional+ Cognitive Control	-.1176	.25271	1.000	-.7911	.5558
	Cognitive Control	No Treatment Control	.8758	.25271	.004	.2024	1.5492
		Decisional Control	-.3007	.25271	1.000	-.9741	.3728

		Decisional+ Cognitive Control	-.4183	.25271	.597	-1.0917	.2551
	Decisional +Cognitive Control	No Treatment Control	1.2941	.25271	.000	.6207	1.9675
		Decisional Control	.1176	.25271	1.000	-.5558	.7911
		Cognitive Control	.4183	.25271	.597	-.2551	1.0917
Games - Howell	No Treatment Control	Decisional Control	-1.1765	.25011	.000	-1.8309	-.5221
		Cognitive Control	-.8758	.27982	.012	-1.6069	-.1447
		Decisional+ Cognitive Control	-1.2941	.26005	.000	-1.9740	-.6142
	Decisional Control	No Treatment Control	1.1765	.25011	.000	.5221	1.8309
		Cognitive Control	.3007	.24516	.612	-.3406	.9419
		Decisional+ Cognitive Control	-.1176	.22232	.952	-.6986	.4633
	Cognitive Control	No Treatment Control	.8758	.27982	.012	.1447	1.6069
		Decisional Control	-.3007	.24516	.612	-.9419	.3406
		Decisional+ Cognitive Control	-.4183	.25529	.362	-1.0856	.2490
	Decisional +Cognitive Control	No Treatment Control	1.2941	.26005	.000	.6142	1.9740
		Decisional Control	.1176	.22232	.952	-.4633	.6986
		Cognitive Control	.4183	.25529	.362	-.2490	1.0856

Table 21 Post Hoc Tests - Fairness

	(I) Scenarios: Code drawn	(J) Scenarios: Code drawn	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	No Treatment Control	Decisional Control	-1.2810	.25768	.000	-1.9486	-.6135
		Cognitive Control	-.9020	.25768	.003	-1.5695	-.2344
		Decisional+ Cognitive Control	-1.0915	.25768	.000	-1.7591	-.4239
	Decisional Control	No Treatment Control	1.2810	.25768	.000	.6135	1.9486
		Cognitive Control	.3791	.25768	.457	-.2885	1.0467
		Decisional+ Cognitive Control	.1895	.25768	.883	-.4780	.8571
	Cognitive Control	No Treatment Control	.9020	.25768	.003	.2344	1.5695
		Decisional Control	-.3791	.25768	.457	-1.0467	.2885
		Decisional+ Cognitive Control	-.1895	.25768	.883	-.8571	.4780
	Decisional +Cognitive Control	No Treatment Control	1.0915	.25768	.000	.4239	1.7591
		Decisional Control	-.1895	.25768	.883	-.8571	.4780
		Cognitive Control	.1895	.25768	.883	-.4780	.8571

Bonferroni	No Treatment Control	Decisional Control	-1.2810	.25768	.000	-1.9677	-.5944
		Cognitive Control	-.9020	.25768	.003	-1.5886	-.2153
		Decisional+ Cognitive Control	-1.0915	.25768	.000	-1.7782	-.4049
	Decisional Control	No Treatment Control	1.2810	.25768	.000	.5944	1.9677
		Cognitive Control	.3791	.25768	.857	-.3076	1.0657
		Decisional+ Cognitive Control	.1895	.25768	1.000	-.4971	.8762
	Cognitive Control	No Treatment Control	.9020	.25768	.003	.2153	1.5886
		Decisional Control	-.3791	.25768	.857	-1.0657	.3076
		Decisional+ Cognitive Control	-.1895	.25768	1.000	-.8762	.4971
	Decisional +Cognitive Control	No Treatment Control	1.0915	.25768	.000	.4049	1.7782
		Decisional Control	-.1895	.25768	1.000	-.8762	.4971
		Cognitive Control	.1895	.25768	1.000	-.4971	.8762
Games-Howell	No Treatment Control	Decisional Control	-1.2810	.25603	.000	-1.9504	-.6116
		Cognitive Control	-.9020	.25848	.004	-1.5777	-.2262
		Decisional+ Cognitive Control	-1.0915	.28125	.001	-1.8263	-.3567
	Decisional Control	No Treatment Control	1.2810	.25603	.000	.6116	1.9504

		Cognitive Control	.3791	.23172	.363	-.2263	.9845
		Decisional+ Cognitive Control	.1895	.25687	.882	-.4821	.8612
	Cognitive Control	No Treatment Control	.9020	.25848	.004	.2262	1.5777
		Decisional Control	-.3791	.23172	.363	-.9845	.2263
		Decisional+ Cognitive Control	-.1895	.25931	.884	-.8675	.4884
	Decisional +Cognitive Control	No Treatment Control	1.0915	.28125	.001	.3567	1.8263
		Decisional Control	-.1895	.25687	.882	-.8612	.4821
		Cognitive Control	.1895	.25931	.884	-.4884	.8675

Table 22 Post Hoc Tests - Switching Intention

	(I) Scenarios: Code drawn	(J) Scenarios: Code drawn	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	No Treatment Control	Decisional Control	1.3595	.24684	.000	.7200	1.9990
		Cognitive Control	.4706	.24684	.229	-.1689	1.1101
		Decisional+ Cognitive Control	1.1176	.24684	.000	.4781	1.7572
	Decisional Control	No Treatment Control	-1.3595	.24684	.000	-1.9990	-.7200
		Cognitive Control	-.8889	.24684	.002	-1.5284	-.2494

		Decisional+ Cognitive Control	-.2418	.24684	.761	-.8813	.3977
	Cognitive Control	No Treatment Control	-.4706	.24684	.229	-1.1101	.1689
		Decisional Control	.8889	.24684	.002	.2494	1.5284
		Decisional+ Cognitive Control	.6471	.24684	.046	.0076	1.2866
	Decisional +Cognitive Control	No Treatment Control	-1.1176	.24684	.000	-1.7572	-.4781
		Decisional Control	.2418	.24684	.761	-.3977	.8813
		Cognitive Control	-.6471	.24684	.046	-1.2866	-.0076
Bonferroni	No Treatment Control	Decisional Control	1.3595	.24684	.000	.7017	2.0172
		Cognitive Control	.4706	.24684	.348	-.1872	1.1284
		Decisional+ Cognitive Control	1.1176	.24684	.000	.4599	1.7754
	Decisional Control	No Treatment Control	-1.3595	.24684	.000	-2.0172	-.7017
		Cognitive Control	-.8889	.24684	.002	-1.5467	-.2311
		Decisional+ Cognitive Control	-.2418	.24684	1.000	-.8996	.4159
	Cognitive Control	No Treatment Control	-.4706	.24684	.348	-1.1284	.1872
		Decisional Control	.8889	.24684	.002	.2311	1.5467
		Decisional+ Cognitive Control	.6471	.24684	.057	-.0107	1.3048

	Decisional +Cognitive Control	No Treatment Control	-1.1176	.24684	.000	-1.7754	-.4599
		Decisional Control	.2418	.24684	1.000	-.4159	.8996
		Cognitive Control	-.6471	.24684	.057	-1.3048	.0107
Games - Howell	No Treatment Control	Decisional Control	1.3595	.22635	.000	.7677	1.9512
		Cognitive Control	.4706	.26774	.300	-.2292	1.1704
		Decisional+ Cognitive Control	1.1176	.24415	.000	.4797	1.7556
	Decisional Control	No Treatment Control	-1.3595	.22635	.000	-1.9512	-.7677
		Cognitive Control	-.8889	.24950	.003	-1.5420	-.2358
		Decisional+ Cognitive Control	-.2418	.22400	.703	-.8274	.3437
	Cognitive Control	No Treatment Control	-.4706	.26774	.300	-1.1704	.2292
		Decisional Control	.8889	.24950	.003	.2358	1.5420
		Decisional+ Cognitive Control	.6471	.26576	.077	-.0476	1.3418
	Decisional +Cognitive Control	No Treatment Control	-1.1176	.24415	.000	-1.7556	-.4797
		Decisional Control	.2418	.22400	.703	-.3437	.8274
		Cognitive Control	-.6471	.26576	.077	-1.3418	.0476

Table 23 Post Hoc Tests - Service Failure Attributions

	(I) Scenarios: Code drawn	(J) Scenarios: Code drawn	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	No Treatment Control	Decisional Control	.4265	.32018	.544	-.4030	1.2560
		Cognitive Control	.8922	.32018	.030	.0626	1.7217
		Decisional+ Cognitive Control	1.2794	.32018	.001	.4499	2.1089
	Decisional Control	No Treatment Control	-.4265	.32018	.544	-1.2560	.4030
		Cognitive Control	.4657	.32018	.467	-.3638	1.2952
		Decisional+ Cognitive Control	.8529	.32018	.041	.0234	1.6825
	Cognitive Control	No Treatment Control	-.8922	.32018	.030	-1.7217	-.0626
		Decisional Control	-.4657	.32018	.467	-1.2952	.3638
		Decisional+ Cognitive Control	.3873	.32018	.622	-.4423	1.2168
	Decisional +Cognitive Control	No Treatment Control	-1.2794	.32018	.001	-2.1089	-.4499
		Decisional Control	-.8529	.32018	.041	-1.6825	-.0234
		Cognitive Control	-.3873	.32018	.622	-1.2168	.4423
Bonferroni	No Treatment Control	Decisional Control	.4265	.32018	1.000	-.4267	1.2797
		Cognitive Control	.8922	.32018	.035	.0390	1.7454

		Decisional+ Cognitive Control	1.2794	.32018	.001	.4262	2.1326
	Decisional Control	No Treatment Control	-.4265	.32018	1.000	-1.2797	.4267
		Cognitive Control	.4657	.32018	.884	-.3875	1.3189
		Decisional+ Cognitive Control	.8529	.32018	.050	-.0003	1.7061
	Cognitive Control	No Treatment Control	-.8922	.32018	.035	-1.7454	-.0390
		Decisional Control	-.4657	.32018	.884	-1.3189	.3875
		Decisional+ Cognitive Control	.3873	.32018	1.000	-.4660	1.2405
	Decisional +Cognitive Control	No Treatment Control	-1.2794	.32018	.001	-2.1326	-.4262
		Decisional Control	-.8529	.32018	.050	-1.7061	.0003
		Cognitive Control	-.3873	.32018	1.000	-1.2405	.4660
Games - Howell	No Treatment Control	Decisional Control	.4265	.28234	.435	-.3114	1.1644
		Cognitive Control	.8922	.32209	.034	.0490	1.7353
		Decisional+ Cognitive Control	1.2794	.30162	.000	.4906	2.0682
	Decisional Control	No Treatment Control	-.4265	.28234	.435	-1.1644	.3114
		Cognitive Control	.4657	.33773	.516	-.4174	1.3487
		Decisional+ Cognitive Control	.8529	.31826	.042	.0212	1.6847

	Cognitive Control	No Treatment Control	-.8922	.32209	.034	-1.7353	-.0490
		Decisional Control	-.4657	.33773	.516	-1.3487	.4174
		Decisional+ Cognitive Control	.3873	.35400	.694	-.5378	1.3123
	Decisional +Cognitive Control	No Treatment Control	-1.2794	.30162	.000	-2.0682	-.4906
		Decisional Control	-.8529	.31826	.042	-1.6847	-.0212
		Cognitive Control	-.3873	.35400	.694	-1.3123	.5378

Table 24 Post Hoc Tests - Service Failure Severity

	(I) Scenarios: Code drawn	(J) Scenarios: Code drawn	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	No Treatment Control	Decisional Control	.4706	.32552	.473	-.3728	1.3139
		Cognitive Control	1.2026	.32552	.002	.3593	2.0460
		Decisional+ Cognitive Control	1.4183	.32552	.000	.5749	2.2617
	Decisional Control	No Treatment Control	-.4706	.32552	.473	-1.3139	.3728
		Cognitive Control	.7320	.32552	.114	-.1113	1.5754
		Decisional+ Cognitive Control	.9477	.32552	.021	.1044	1.7911
	Cognitive Control	No Treatment Control	-1.2026	.32552	.002	-2.0460	-.3593

		Decisional Control	-.7320	.32552	.114	-1.5754	.1113
		Decisional+ Cognitive Control	.2157	.32552	.911	-.6277	1.0590
	Decisional +Cognitive Control	No Treatment Control	-1.4183	.32552	.000	-2.2617	-.5749
		Decisional Control	-.9477	.32552	.021	-1.7911	-.1044
		Cognitive Control	-.2157	.32552	.911	-1.0590	.6277
Bonferroni	No Treatment Control	Decisional Control	.4706	.32552	.899	-.3969	1.3380
		Cognitive Control	1.2026	.32552	.002	.3352	2.0701
		Decisional+ Cognitive Control	1.4183	.32552	.000	.5509	2.2857
	Decisional Control	No Treatment Control	-.4706	.32552	.899	-1.3380	.3969
		Cognitive Control	.7320	.32552	.154	-.1354	1.5995
		Decisional+ Cognitive Control	.9477	.32552	.024	.0803	1.8152
	Cognitive Control	No Treatment Control	-1.2026	.32552	.002	-2.0701	-.3352
		Decisional Control	-.7320	.32552	.154	-1.5995	.1354
		Decisional+ Cognitive Control	.2157	.32552	1.000	-.6518	1.0831
	Decisional +Cognitive Control	No Treatment Control	-1.4183	.32552	.000	-2.2857	-.5509
		Decisional Control	-.9477	.32552	.024	-1.8152	-.0803

		Cognitive Control	-.2157	.32552	1.000	-1.0831	.6518
Games - Howell	No Treatment Control	Decisional Control	.4706	.31555	.447	-.3539	1.2950
		Cognitive Control	1.2026	.32957	.002	.3414	2.0639
		Decisional+ Cognitive Control	1.4183	.31755	.000	.5886	2.2480
	Decisional Control	No Treatment Control	-.4706	.31555	.447	-1.2950	.3539
		Cognitive Control	.7320	.33331	.131	-.1389	1.6030
		Decisional+ Cognitive Control	.9477	.32142	.020	.1079	1.7875
	Cognitive Control	No Treatment Control	-1.2026	.32957	.002	-2.0639	-.3414
		Decisional Control	-.7320	.33331	.131	-1.6030	.1389
		Decisional+ Cognitive Control	.2157	.33520	.918	-.6602	1.0916
	Decisional +Cognitive Control	No Treatment Control	-1.4183	.31755	.000	-2.2480	-.5886
		Decisional Control	-.9477	.32142	.020	-1.7875	-.1079
		Cognitive Control	-.2157	.33520	.918	-1.0916	.6602

Table 25 Univariate Test Results

Source	Dependent Variable	Sum of Squares	df	Mean Square	F	Sig.
Contrast	Satisfaction_with_the_Service	98.529	3	32.843	17.376	.000
	Satisfaction_with_the_Recovery	78.568	3	26.189	13.606	.000
	Revisit_Intention	61.034	3	20.345	9.272	.000
	WOM_Intention	52.340	3	17.447	10.713	.000
	Fairness	49.235	3	16.412	9.693	.000
	Switching_Intention	58.472	3	19.491	12.545	.000
	Service_Failure_Attributions	47.290	3	15.763	6.030	.001
	Service_Failure_Severity	65.788	3	21.929	8.116	.000
Error	Satisfaction_with_the_Service	378.026	200	1.890		
	Satisfaction_with_the_Recovery	384.976	200	1.925		
	Revisit_Intention	438.828	200	2.194		
	WOM_Intention	325.699	200	1.628		
	Fairness	338.627	200	1.693		
	Switching_Intention	310.745	200	1.554		
	Service_Failure_Attributions	522.833	200	2.614		
	Service_Failure_Severity	540.423	200	2.702		

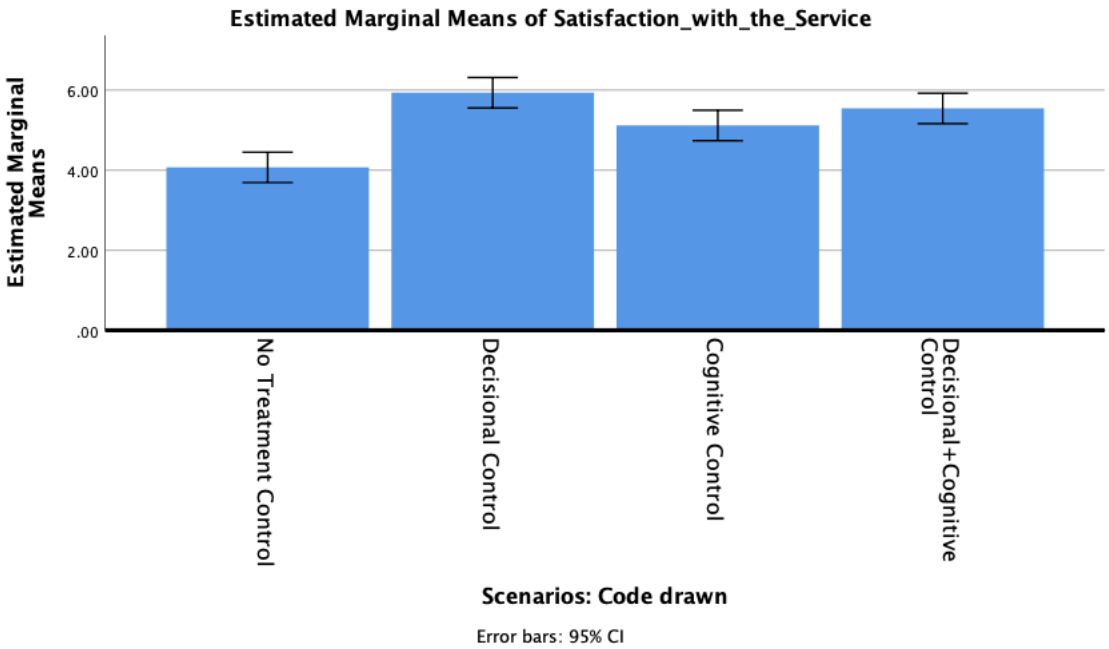


Figure 13 Estimated Marginal Means of Satisfaction with the Service

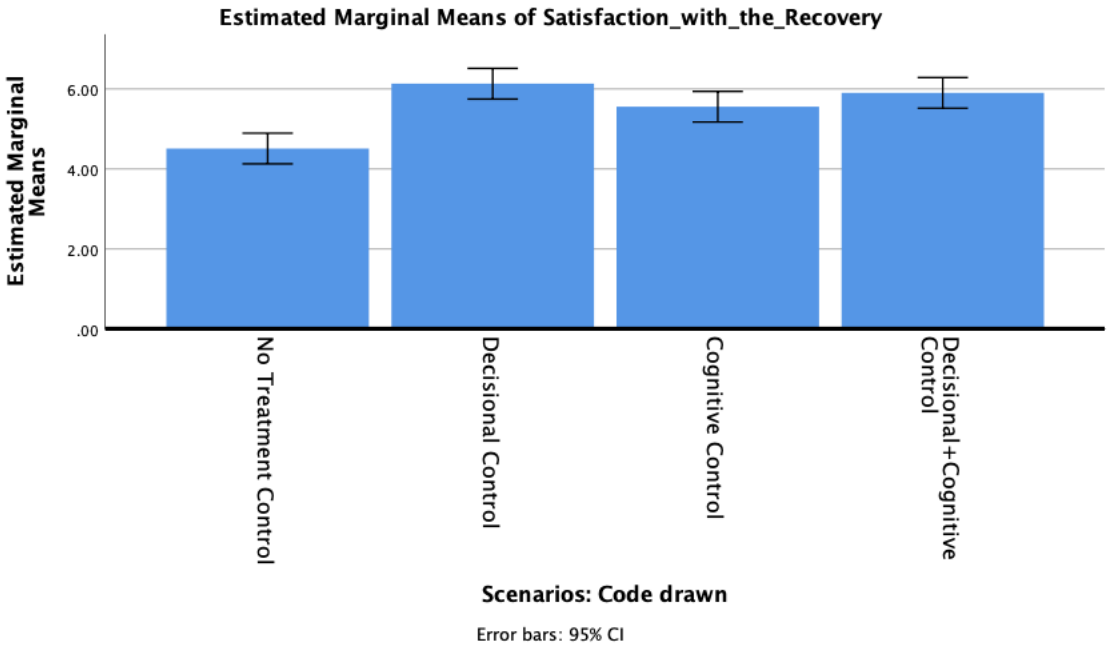


Figure 14 Estimated Marginal Means of Satisfaction with the Recovery

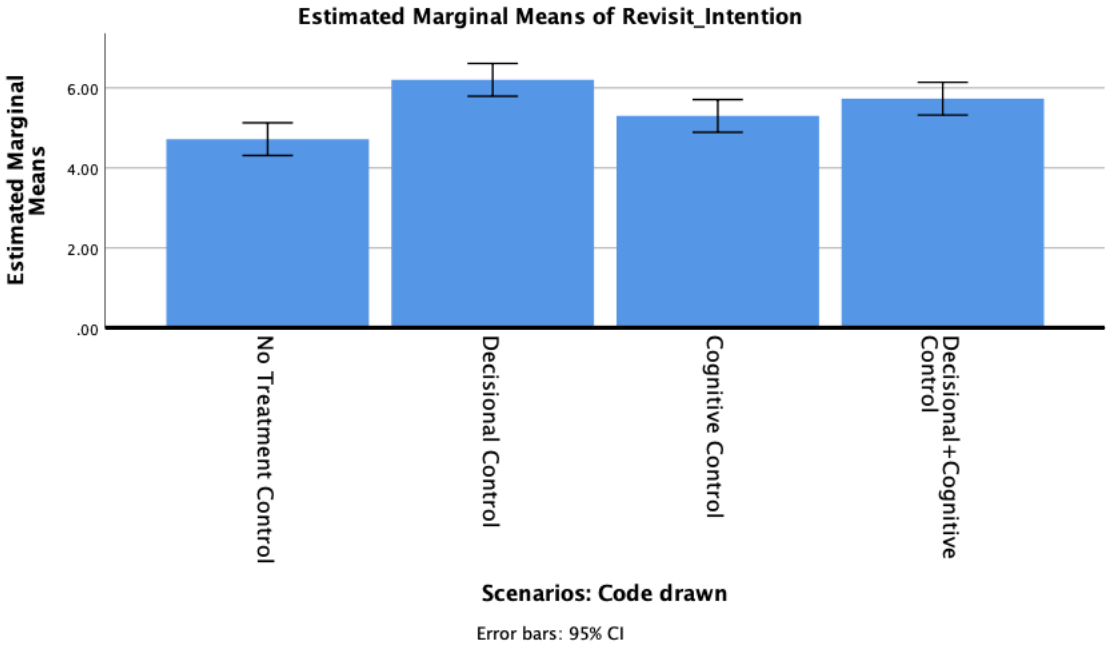


Figure 15 Estimated Marginal Means of Revisit Intention

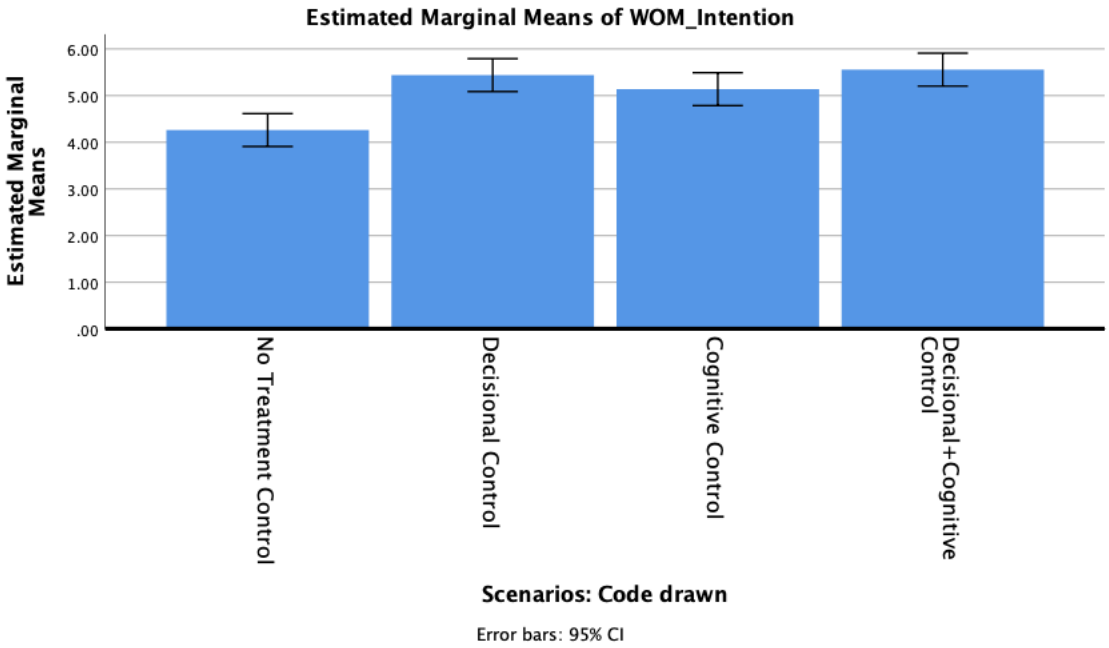


Figure 16 Estimated Marginal Means of WOM-Intention

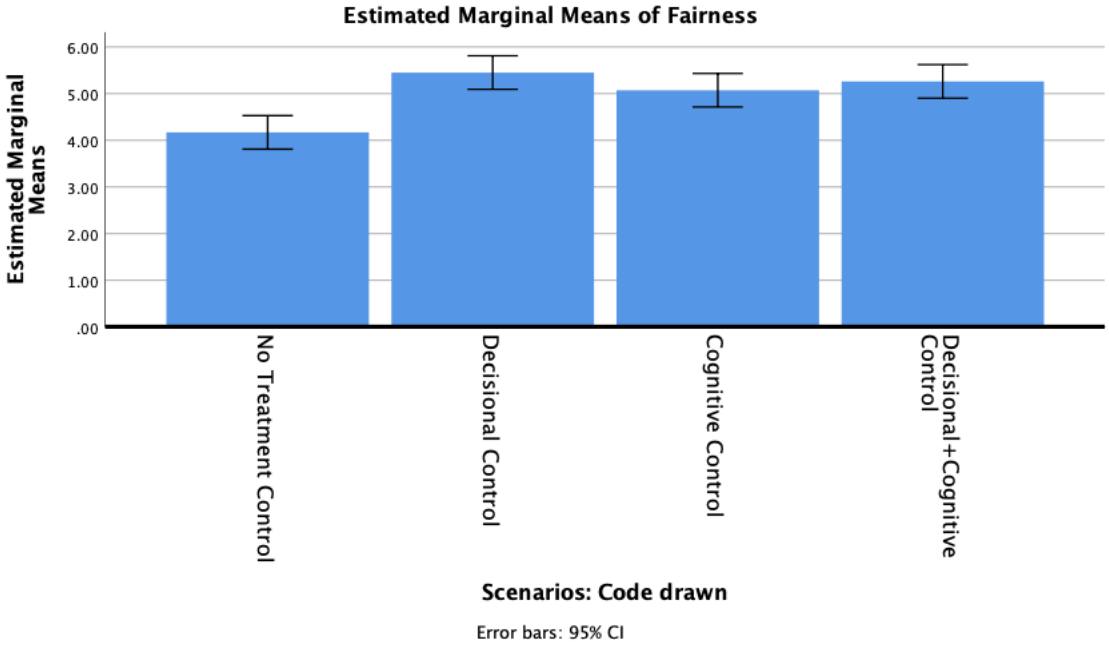


Figure 17 Estimated Marginal Means of Fairness

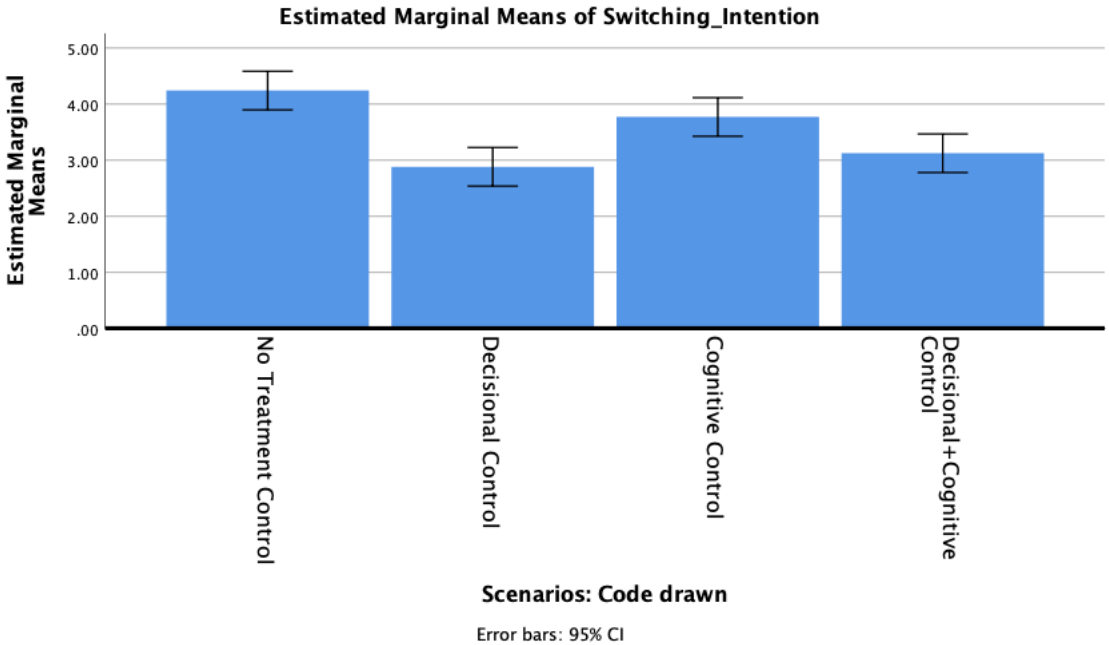


Figure 18 Estimated Marginal Means of Switching Intention

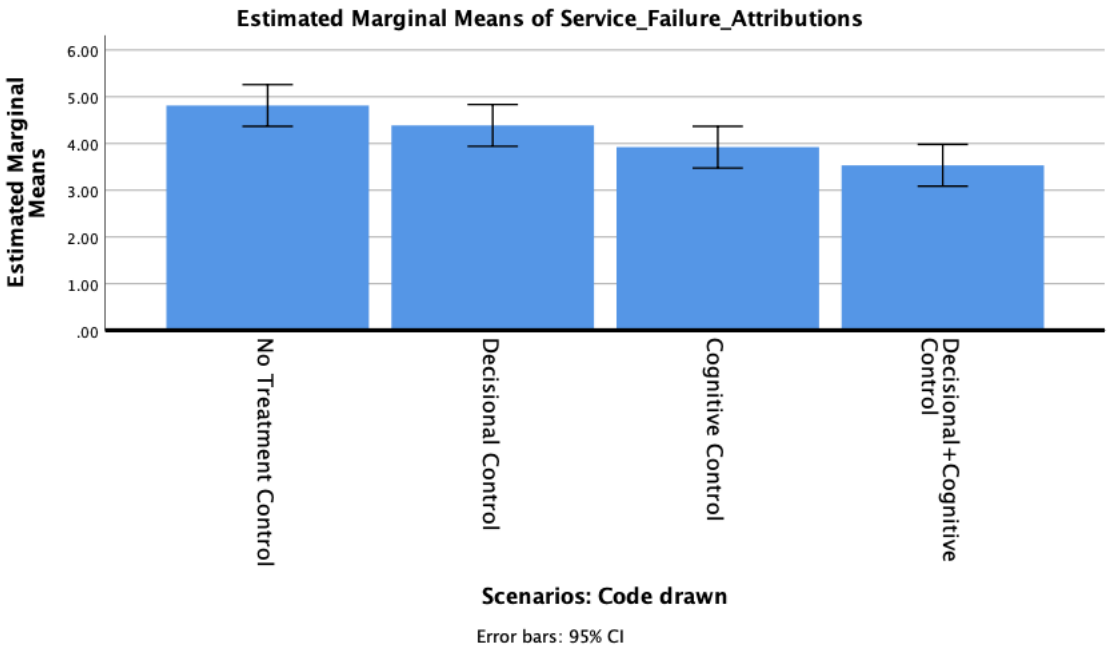


Figure 19 Estimated Marginal Means of Service Failure Attributions

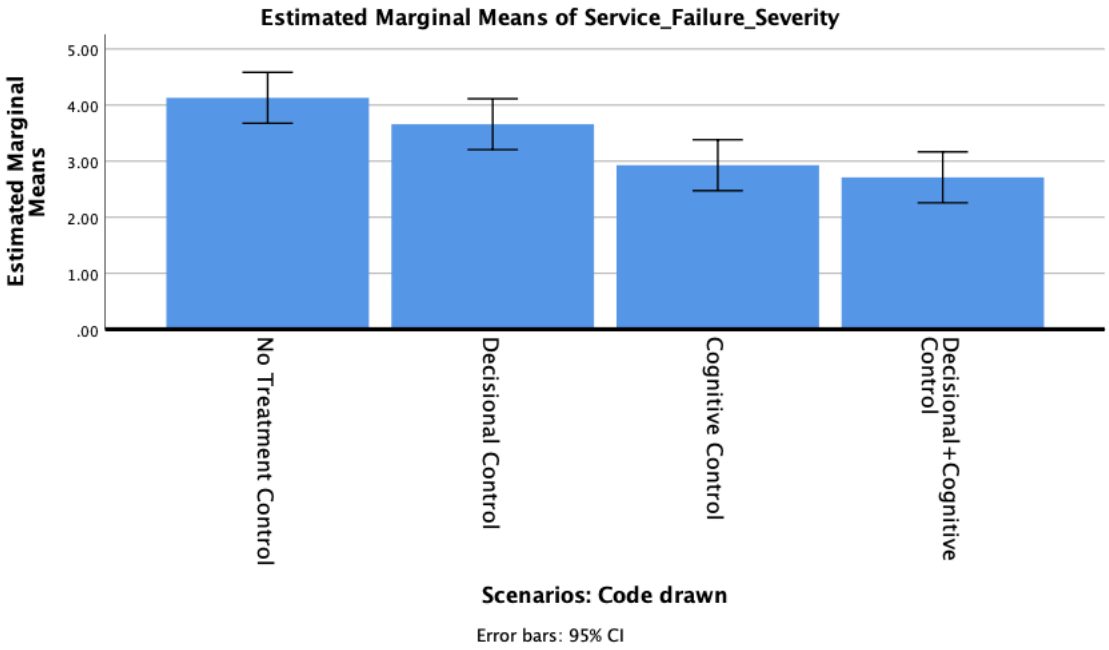


Figure 20 Estimated Marginal Means of Service Failure Severity