ARTICLES

Submitted 02-14-2020. Approved 12-13-2021
Evaluated through a double-blind review process. Associate Editor: Marcelo Vinhal Nepomuceno
Original version | DOI: http://dx.doi.org/10.1590/S0034-759020220601

THE EFFECT OF CAUSAL ATTRIBUTION ON A SERVICE FAILURE MODEL

Efeito da atribuição de causa em um modelo de falha de serviço

Efecto de la atribución causal en un modelo de falla de servicio

Giuliana Isabella[1,2] | giuliana.isabella@gmail.com | ORCID: 0000-0002-4502-4327
Martin Hernani-Merino[3] | mn.hernanim@up.edu.pe | ORCID: 0000-0002-5921-3153
Jose Afonso Mazzon[4] | jamazzon@usp.br | ORCID: 0000-0003-1556-520X
Enver Tarazona[5] | enver.tarazona@pucp.edu.pe | ORCID: 0000-0002-2415-764
Daniel Kuster[4] | daniel.kusters@gmail.com | ORCID: 0000-0003-27755-7557

[1]Insper Instituto de Ensino e Pesquisa, São Paulo, SP, Brazil
[2]Universidad de La Sabana, Chia, Bogotá, Colombia
[3]Universidad del Pacífico, Department of Marketing and International Business, Lima, Peru
[4]Universidade de São Paulo, Faculdade de Economia, Administração e Contabilidade, São Paulo, SP, Brazil
[5]Pontificia Universidad Católica del Perú, Departamento Académico de Ciencias, Lima, Peru

ABSTRACT

Service recovery has been extensively studied and is a relevant issue for markets in which consumers repurchase products or services. There are two normative aspects of service recovery: how a company should act after a service failure and the consequences of the service failure regarding the company-customer relationship. This study presents a service failure model that combines these two aspects, investigating how causal attribution affects the customer's perception regarding repurchase when a solution is provided after a service failure. A survey was conducted with users of a telecommunications service provider in Brazil, exploring two situations: a) the customer accidentally caused a service failure, and b) the company caused a service failure. The item response theory (IRT) was used, adopting PLS-SEM. Trust level and switching barriers were highlighted as important factors to keep repurchasing intentions positive. Customers trust more in the company when the failure is attributed to the organization, and it solves the problem, which induces a higher repurchase intention than when the failure is attributed to the customer.

Keywords: recovery satisfaction, service failure, item response theory, PLS-SEM, attribution theory.

RESUMO

O tema da recuperação de serviços tem sido amplamente estudado e é relevante para mercados em que consumidores recompram produtos bens ou serviços. São dois os aspectos normativos da recuperação de serviços: como uma empresa deve agir após uma falha de serviço e as consequências dessa falha no relacionamento da organização com o cliente. O presente artigo tem como objetivo apresentar um modelo de falha de serviços que reúne esses dois aspectos, investigando como a atribuição de causa afeta a percepção do consumidor sobre recomprar quando uma solução é oferecida após uma falha de serviço. Um questionário foi aplicado a usuários de serviços de um provedor brasileiro de telecomunicações, explorando duas situações: a) uma falha ocorrida acidentalmente por culpa do cliente; e b) uma falha de serviço por culpa da empresa. As análises foram realizadas com a utilização da Teoria de Resposta ao Item (TRI) e PLS-SEM. Como resultado, o nível de confiança e os custos de troca foram destacados como construtos importantes para manter as intenções de recompra positivas. Além disso, o cliente confia mais na organização quando a falha ocorre por culpa da empresa mas e ela resolve o problema, o que leva a uma maior intenção de recompra do que quando a falha ocorre por culpa do cliente.

Palavras-chave: *recuperação da satisfação, falha de serviço, teoria de resposta ao item, PLS-SEM, teoria da atribuição.*

RESUMEN

La recuperación del servicio ha sido ampliamente estudiada y es relevante para los mercados donde los consumidores recompran productos o servicios. Los aspectos normativos de la recuperación del servicio se pueden dividir en dos: cómo debe actuar una empresa después de una falla en el servicio y las consecuencias de la falla del servicio en la relación compañía-cliente. Este artículo tiene como objetivo presentar un modelo que combina ambos aspectos, investigando cómo la atribución causal afecta la percepción del consumidor con respecto a la recompra cuando se proporciona una solución después de una falla en el servicio. Se realizó una encuesta a usuarios de un proveedor de servicios de telecomunicaciones en Brasil, explorando dos situaciones: a) una falla accidental en el servicio causada por el consumidor, y b) una falla en el servicio causada por la empresa. En el análisis, se usó la teoría de respuesta al ítem (TRI) adoptando la técnica PLS-SEM. Como resultado, el nivel de confianza y las barreras de cambio se destacaron como factores importantes para mantener positiva la intención de recompra. Además, cuando la empresa falla pero resuelve el problema, los consumidores confían más en la compañía, teniendo una mayor intención de recompra en comparación a cuando la falla se atribuye al consumidor.

Palabras clave: *recuperación de la satisfacción, falla del servicio, teoría de respuesta al ítem, PLS-SEM, teoría de la atribución.*

INTRODUCTION

Service failure is a critical issue for companies (McCollough, Berry, & Yadav, 2000). Consequently, many studies have explored the topic focusing on issues such as satisfaction recovery after a failure (Kuo & Wu, 2012, and more recently Azemi, Ozuem, Howell, & Lancaster, 2019), compensation and speed of recovery (Hwang, Gao, & Mattila, 2020), complaints and service climate (Jerger & Wirtz, 2017), employee empowerment (Santos, Hernandez, & Leão, 2019), recovery communication (Vaerenbergh, Larivière, & Vermeir, 2012), the likelihood of word-of-mouth (Gelbrich & Roschk, 2010), double deviation scenarios (Joireman, Grégoire, Devezer, & Tripp, 2013), loyalty (DeWitt, Nguyen, & Marshall, 2008), and recovery in online services (Odoom, Agbemabiese, & Hinson, 2020). The bibliometric investigation of service failure from Fouroudi, Kitchen, Marvi, Akarsu, and Uddin (2020) show a good panorama of the theme.

In recent years, studies have analyzed customers' negative (Jerger & Wirtz, 2017) and positive emotions (Valentini, Orsingher, & Polyakava, 2020) as a consequence of service failure. Additionally, limited studies on co-creation and service failure focus on the effectiveness of co-created recovery strategies where consumers and companies define the best solution together (Hazée, Vaerenbergh, & Armirotto, 2017). However, limited studies have focused on service failures caused by customers. One of the rare studies that investigated service failure – comparing consumers, employees, and firms – explored the effect of recovery locus attributions and the severity of service failure on word-of-mouth in hospitality firms (Swanson & Hsu, 2011). In contrast, we study the attribution of failure in services rendered under contract (which implies switching barriers), and explore negative emotions and trust in the company. We assume that customers evaluate a company more positively and present higher repurchase intention after the solution of a service failure when the failure occurred because of the consumer, then when the failure is the firm's fault.

Studies on causal attribution primarily focus on the effects of companies' responsibility for an incident. There are few researchs addressing the customer reactions when the customers are responsible for the incident, even rarer in discussing the impacts regarding perceived justice and emotional and behavioral consequences. This article suggests that perceived justice and emotional and behavioral responses will be different depending on the locus of causality (company failure or customer failure). Also, we believe that perceived injustice will evoke anger (Strizhakova, Tsarenko, & Ruth, 2012) because the level of this perception is based on customers' previous experiences and can trigger different emotional responses (Isabella, 2015). However, if a customer attributes the failure to themself, perceived injustice will be less intense and will trigger less anger than when the company failed. Therefore, causal attribution can play a significant role in the intensity of the relationships of the model's constructs.

Consequently, the goals of this study are two-fold: first, we present a model, starting with the perception of justice (or injustice) from a service failure, developed based on the theoretical background. This model involves different constructs, such as anger, negative emotions, trust,

recovery satisfaction, switching barrier, and repurchase intention. Second, we test the model and compare causal attribution as a moderator of the process.

The study develops a repurchase intention model following a literature review, testing it using the item response theory (IRT). Although the use of IRT for an ordinal data type is still uncommon in the marketing literature, researchers recognized it contributes to measure latent variables (Jong & Steenkamp, 2010). IRT was chosen to test the proposed model because it "tests item difficulty" and provides a more precise and reliable measure compared to classical measures that transform Likert scales into metric data (Embretson & Reise, 2000; Hernani-Merino, Isabella, Vargas, & Mazzon, 2020).

The article's contribution to the marketing literature lies, firstly, in the integrated model of repurchase intention after a solved service failure. In other words, when there was a fail and the company could solve the problem. Second, the study brings the causal attribution theory to the discussion of service failure models, showing the differences in the model when considering who is responsible for the service failure. The literature usually investigates service failure assuming the firms' fault. However, customers use and consume the products and services, and, therefore, it is relevant to investigate when the failure occurs because of them. Finally, the research method adopts IRT, which is not well-known or used in the marketing or business fields.

The study's contribution to marketing managers consists of helping to identify whether causal attribution of a service failure to customers or companies generates more or less impact on trust, switching barrier, and repurchase intention. "Making this kind of identification can help manage the service failures that have the most adverse effects on the relationship between the customer and the service provider" (Srivastava & Gosain, 2020, p. 107). Thus, the customer's trust in the service provider may increase through an appreciation of the provider's commitment and their capability to manage retention strategies for different situations.

THEORETICAL DEVELOPMENT

According to Michel (2001, p. 22), "customers are satisfied when their expectations are met." The literature presents considerable empirical evidence to support the proposition that customers evaluate recovery encounters based on their perception of justice (e.g. Jung & Seock, 2017; Nikbin, Ismail, Marimuthu, & Armesh, 2012).

Perceived justice evokes emotional response (Isabella, 2015). Lucas (2009) asserted that the distributive and procedural dimensions of perceived justice evokes positive or negative emotions. However, it is expected that for service failure, the first impact of perceived justice leads to negative emotion (Strizhakova et al., 2012).

There are two main bodies of research on emotions and perception of justice: those exploring emotions by valence (DeWitt et al., 2008; Kuo & Wu, 2012) and those exploring specific/discriminate emotions, such as fear, anger, happiness, or sadness (McColl-Kennedy, Sparks, &

Nguyen, 2011). Emotion refers to an individual's affective state, specific to a certain event or one's thoughts. It is a change in the autonomic nervous system that induces specific facial expressions and behavioral tendencies (Pham, 2007). A cognitive appraisal may trigger this change specifically toward the object or act in question (Lazarus, 1991). Anger is one negative emotion evoked by the perception of justice (or injustice). In service failure, the definition of anger is an emotional state generated by emotions of unfairness, threat, or a harmful experience (Funches, 2011). If the cost is higher than the gain, this can induce an evaluation of "unfairness" (Kuo & Wu, 2012). For customers, anger is a strong emotion that triggers aggressive behavior, such as saying something offensive or desiring to hurt someone (the brand or company) (Bougie, Pieters, & Zeelenberg, 2003; McColl-Kennedy et al., 2011). This concept is important when studying customers' affective behavior and reactions in conflict situations; therefore, the fairness of a situation can become an important drive to a post-purchase response and a prospering relationship (Isabella, Mazzon, & Dimoka, 2017). In this regard, emotions are considered mediators of perception of justice and other consequence constructs.

Specific emotions, such as anger, can produce a mix of negative emotions, such as unhappiness, distress, anxiety, frustration, or hate, which when grouped can be called negative emotions. Using functional topography, Baumann and Mattingley (2012) showed that when participants experienced anger, some very distinct brain areas responsible for emotions overlapped. They also recognized that anger is a reaction to frustration or goal blockage, and anger "plays a pivotal role in 'linking' cognitive and emotional processes" (p. 809). Therefore, if anger comes from a specific situation, the perception of injustice in a service failure situation can evoke discrete emotion – which we referred to as negative emotion.

Perceived justice and negative emotions affect satisfaction after an attempt to recover from service failure (Smith, Bolton, & Wagner, 1999). Belén, Vázquez-Casielles, and Díaz-Martin (2009) showed that emotional response is a mediator of perceived justice and satisfaction. Kuo and Wu (2012) researched an online shopping website and showed significant relations between perceived justice, negative emotions, and recovery satisfaction. Similarly, Schoefer and Ennew (2005) suggested that perceived justice affects satisfaction directly and indirectly through emotions. Therefore, perceived justice has a positive relationship with satisfaction, and negative emotions negatively impact satisfaction.

Another relationship that is well-studied and important to recovery satisfaction after service failure is trust. According to DeWitt et al. (2008), customers' evaluation regarding the fairness of a service recovery attempt influences their trust in the service provider. The authors also state that "trust is affected by perceptions of the trustee's ability, integrity, and benevolence" (DeWitt et al., 2008, p. 272). Trust is the expectation of one party of how the other party will behave predictably in a specific situation. The existence of risks and uncertainties is a basic premise for trust (Elliott & Yannopoulou, 2007). Trust includes the predisposition to accept risks based on positive expectations of the intentions, behavior, and integrity of another. It generates cooperation between partners, reduces conflicts, and increases and maintains a commitment to relationships. Consequently, exceeding or disappointing client expectations can strengthen

or weaken the reliability of service providers (DeWitt et al., 2008). Therefore, when consumers are satisfied with the company, they may trust in it. Likewise, if there is a fairness perception in the relationship between company and consumer, consumers will trust in the company.

Beyond the trust-based relationship between customers and companies and the repurchase intention considering this relationship, there is a barrier that influences the decision of the customer to purchase from another firm. This element is known as switching barrier or switching costs (Pick & Eisend, 2013). It involves psychological and emotional factors, searching efforts (time), and sometimes monetary factors in the transaction between customers and firms (Patterson & Smith, 2003). Jones, Mothersbaugh, and Beatty (2000) used a broader conception stating that the switching barrier is any factor that makes it more difficult or costly for a customer to change from one provider to another. The analysis of the customer's commitment to stay with a service provider is independent of how many barriers or which barriers (Bougie et al., 2003). "Switching is the likelihood of switching, the intent to switch, and the actual switching behavior of a buyer to another seller" (Pick & Eisend, 2013, p. 187). For instance, the perception of quality, customization, personalization, or how the brand treats the customer can be considered barriers to switching.

We opted to use the commitment established and developed by customers with a service provider, which offers a superior value benefit (Colgate & Lang, 2001). When customers consider switching providers in telecommunication services, they face barriers such as those related to affection toward the current company or a long-time relationship with it. It is common for telecommunication providers to offer special benefits, preferential treatment, or rewards to keep customers. For instance, providers can give their long-term customers free mobile phones or discounts for purchasing new devices. Additionally, the Brazilian market – targeted in this study – does not have many players, which does not provide many options for customers to switch companies.

As mentioned, service failure causes customers to experience negative feelings, which modifies their level of satisfaction about a service. The consumers' satisfaction levels are influenced by the outcomes of service recovery (Oddom et al., 2020). Service recovery can be good enough that it increases the satisfaction level that the customer previously had after experiencing the service failure (Smith et al., 1999), even among aggrieved customers (Oddom et al., 2020). Also, emotional responses and low satisfaction can be a powerful customer behavior predictor and can be translated to negative customer actions, such as negative word-of-mouth, complaints, no repurchase intention, or switching behavior (Gelbrich & Roschk, 2010).

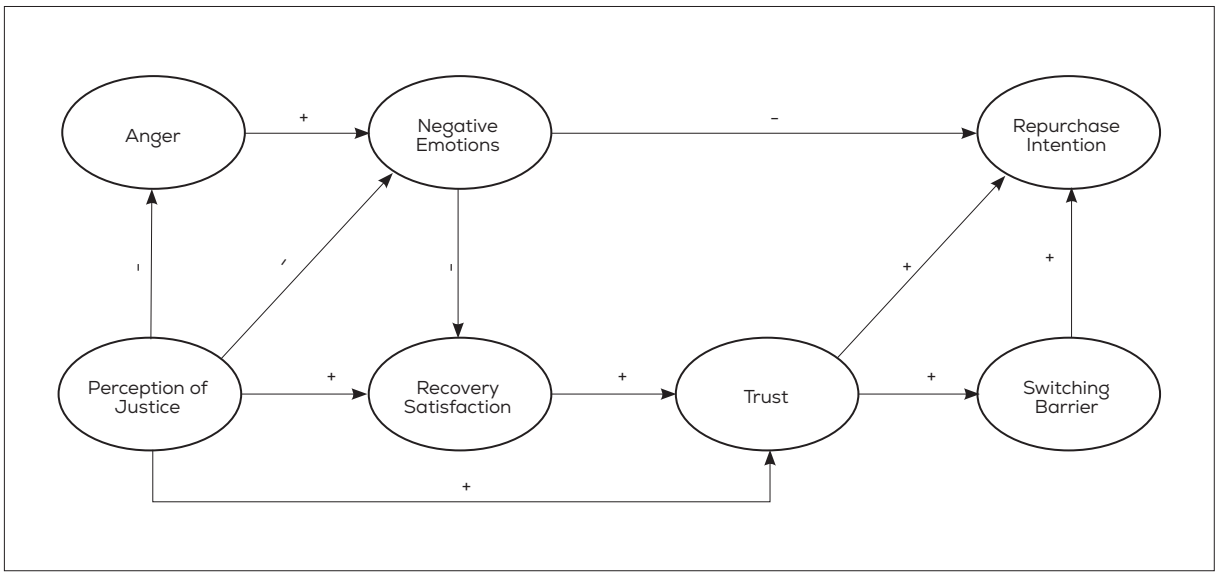
Therefore, service recovery can positively or negatively influence customer switching behavior (Colgate & Lang, 2001). Also, negative experiences that reflect service failure and failed service encounters are drivers for switching behavior (Pick & Eisend, 2013). However, if there is recovery satisfaction – a solution to the problem for instance - the switching barrier is stronger. Brand trust can be attributed as a customer switching barrier (Konuk, 2013). Since the relationships between customers and brands or firms are consequences of trust, maintaining this relationship is required to earn trust and minimize, if not eliminate, any perceived uncertainty and risk that

would maintain the intention to repurchase a product or to keep using the same company (Elliott & Yannopoulou, 2007).

Furthermore, trust is an antecedent of purchase intention (Konuk, 2013). Trust has a direct and positive impact on purchase intention after service recovery. The repurchase intention is characterized by the customer's intention to re-buy products or services from the same company or service provider (Kuo & Wu, 2012). In a service failure situation where switching could be negatively affected, and when the relationship is broken, the switching barrier positively influences repurchase intention (Jones et al., 2000).

Based on this previous literature, an integrated model of repurchase intention after resolved service failure (where there is recovery satisfaction) was created and is presented in Figure 1.

Figure 1. Suggested integrated model of repurchase intention after service failure



We use this model to explore the impact of causal attribution, as follows.

Causal attribution for service failure influencing the model

Causal attribution refers to people's perceptions about who or what is responsible for certain events. It is an important determinant of customers' affective and behavioral responses (Weiner, 1985), which depend on internal or external conditions (Weiner, 1980). In company contexts, internal means inside the company, while external implies factors external to the company. When evaluating a situation, customers judge this locus of causality and the company's need for control, defining the sequence of effect and behavior (Weiner, 1985). In other words, causal attribution for service failure refers to who causes or caused the failure. This failure can reflect a real situation or the customer's perception (Kelley, 1973).

External causality can result in anger, frustration or sympathy, and impact perceptions and behaviors toward the firm, although the effects of other customers and other customer-generated

service failures may impact to a lesser extent compared to the firm's failure (Baker & Kim, 2018). According to Swanson and Hsu (2011), in the hospitality industry, there is an impact of the level of failure severity and employee or customer attribution on negative word of mouth. Therefore, we believe that causal attribution moderates some of the integrated repurchase intention after service failure , the goal of this paper. Next, we present eight hypotheses of causal attribution as a moderator in the integrated model.

Perception of justice is the first construct of our model linked to emotions (anger and negative emotions) and to recovery satisfaction and trust. Understandably, when a service fails to meet customer's expectations, service failure occurs (Michel, 2001), and this negative disconfirmation of expectation produces angrier and more negative emotions when the locus of causal attribution is the firm rather than the consumer. When consumers feel they are treated unfairly, they view service failure as negative (Bougie et al., 2003); however, this feeling is mitigated when the locus is the customer.

Consequently, we expect two results: a) the lower the perception of justice, the greater the feeling of anger when the failure is attributed to the company rather than the customer; and b) the lower the perception of justice, the greater the feeling of negative emotions when the failure is attributed to the company rather than the customer.

Perception of justice also affects recovery satisfaction. When customers present a strong sense of justice, a service failure will likely increase dissatisfaction. If a service failure occurs because the customer failed, the customer tends to disregard unfairness related to the product or service but may feel the situation as a whole is 'unfair.' The dissatisfaction will be weaker than if the service failure occurred because of the company. Therefore, we believe that the lower the perception of justice, the lower the recovery satisfaction when failure is attributed to the company.

> H1: The perception of justice and recovery satisfaction will be moderated by causal attribution. The perception of justice will be lower when the failure is attributed to the company rather than the customer, affecting the recovery satisfaction with different intensities.

According to Figure 1, there is a relationship between recovered satisfaction and trust. Although this relationship is positive, where higher satisfaction boosts trust, there are no arguments to believe that causal attribution could increase or decrease this relationship. If recovery satisfaction is attributed to the consumer as a company's responsibility, regardless of who fail, the impact on trust is the same. Thus, the impact of recovery satisfaction on trust is moderated by causal attribution. With that, we propose:

> H2: There is no moderation by causal attribution between recovery satisfaction and trust.

According to Sparks and Fredline (2007), when a service failure occurs, the evaluation of this failure is mainly attributed to the service provider and not to the primary customer, as the

customer will blame who they believe is responsible for the incident, and this relationship may be stressed. Since long-term relationships are based on trust, customers may decrease their level of trust when a service failure occurs. This can easily be boosted if consumers do not see a solution for their problem. Consumers decrease the level of trust in the company when the failure is attributed to the company (but less so when the failure is considered their own). This is because in the consumer's mind, there is an obligation to find a solution when the problem comes from the company. Hence, we believe that the lower the perception of justice, the lower the trust when the failure is attributed to the company rather than the consumer.

> H3: The perception of justice and trust will be moderated by causal attribution. The perception of justice will be lower when the failure is attributed to the company rather than the customer, affecting trust.

Although aggrieved customers may present negative behavior against companies, especially when the failure is attributed to the firm (Swanson & Hsu, 2011), the customer's attributions regarding the recovery process must be considered (McCollough et al., 2000). Understandably, the locus of causal attribution for service failure should impact the level of customer satisfaction; however, this unsatisfactory service will be negative regardless of whose fault it is. If there is a recovery satisfaction by the company, the level of negative emotion may not influence it. There is no reason to believe that causal attribution changes the relationship between the perception of justice and anger or negative emotion. We understand that regardless of whether the failure is attributed to the company or consumer the situation will evoke anger and negative emotion (Isabella, 2015; Strizhakova et al., 2012). The cognitive process after the feeling could be changed by causal attribution, but the emotion itself will occur in both situations. On the other hand, the negative emotion emerging from the failure, which affects recovery satisfaction when processed cognitively might be affected by causal attribution. Therefore, when the company fails, consumers get angrier with the company than with themselves, and this emotion negatively affects the recovery satisfaction. Therefore:

> H4: The negative emotions and recovery satisfaction will be moderated by causal attribution. Consumers will be angrier with the company than with affecting differently recovery satisfaction.

Failed service encounters cause negative emotions and dissatisfaction that, when not recovered, drive consumers' behavioral intentions and responses (Mattila & Ro, 2008). Funches (2011), investigating the attribution-affect-behavior sequence, noted that customers who get angrier were more likely to complain and present less repurchase intention when they blame the company for the failure. Therefore, when the company fails, consumers get angrier with the company than with themselves, and this causal attribution moderates the repurchase intention. Thus, we expect that the negative emotion will be cognitively processed as higher when the failure is on the part of the company rather than the consumer, affecting the repurchase intention.

H5: The negative emotions and repurchase intention will be moderated by causal attribution. Consumers will have more negative emotions when the failure is attributed to the company rather than themselves resulting in less repurchase intention.

Since perception of justice and recovery satisfaction affect trust, and we proposed that causal attribution impacts trust, we believe that whether the failure is attributed to the company or the consumer impacts repurchase intention and switching intention differently. According to Folkes, Koletshy, and Graham (1987), the purchase intention decreases when consumers perceive that the company caused a service failure, however this intention may increase when the company did not cause the failure but is able to find a solution to the problem. On the other hand, if failure is attributed to the consumer, there is no reason for the consumer to present higher repurchase intention, mainly because they feel embarrassed or guilty for the failure and avoid repurchasing with the same seller.

H6: The trust and repurchase intention will be moderated by causal attribution. Consumers will have higher repurchased intention if the failure is attributed to the company rather than themselves.

Similarly, Mattila and Ro (2008) suggested that when consumers attribute the causes to factors external to the companies (such as recognizing that a problem was caused by themselves), the intention to switch service provider decreases. Therefore, we expect: a) the higher the trust, the higher the repurchase intention, especially when the failure is attributed to the company rather than the consumer, and b) the higher the trust, the higher the switching barrier, especially when the failure is attributed to the consumer rather than the company.

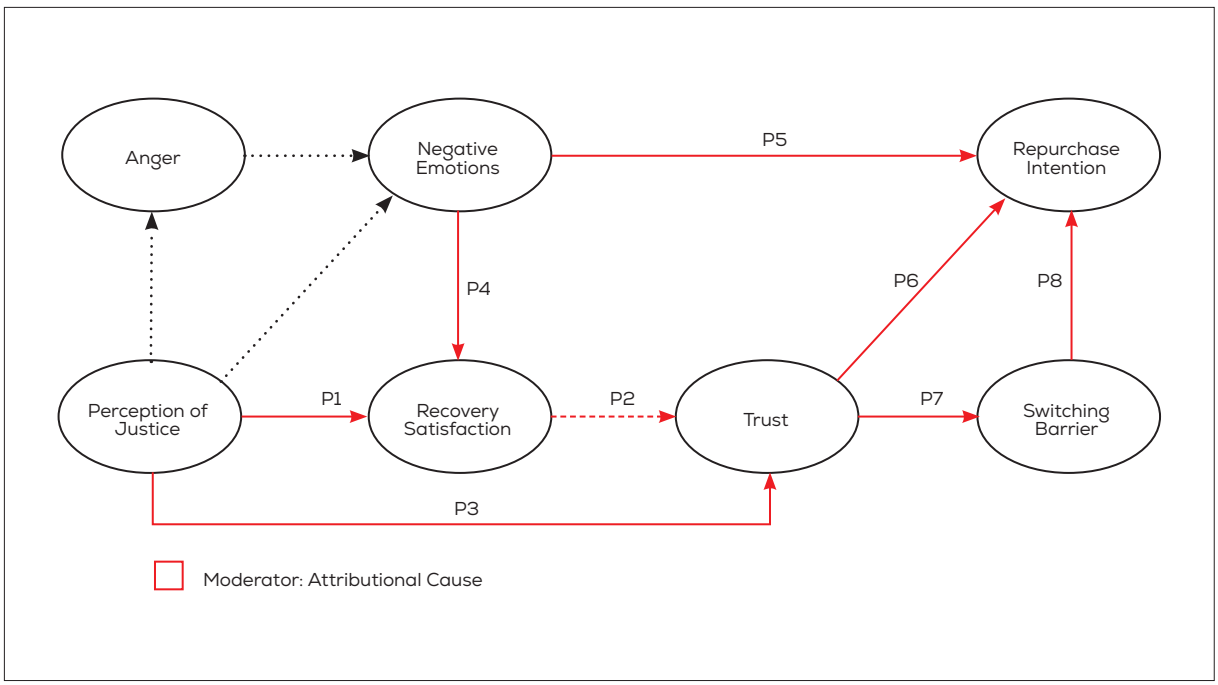
H7: The relationship between trust and switching barrier will be moderated by causal attribution. When the failure is attributed to the company, the switching barrier will be lower than when it is a customer failure.

When considering that a service failure attributed to the company leads to losing trust, affects the relationship between company and consumer, and impacts the switching barrier, it is possible to assume that the level of switching intention will be affected by causal attribution, which would interfere with the repurchase intention. Therefore, we predict that the higher the switching barrier, the higher the repurchase intention, especially when the failure is attributed to the company rather than the consumer.

H8: The relationship between switching barrier and repurchase intention will be moderated by causal attribution. When the failure is attributed to the company, the switching barrier will be lower than if the failure is attributed to the consumer.

Figure 2 presents the relationships proposed above

Figure 2. Propositions of causal attribution affecting the integrated model of repurchase intention after service failure



METHOD

We tested the hypotheses through a questionnaire applied to university students in the city of São Paulo - Brazil. One of the authors contacted the director of a university and asked permission to handout the questionnaire among students in a computer lab. During a two-week period, 265 completed questionnaires were collected. The questionnaire was presented in Portuguese on the Qualtrics platform.

Before applying the final questionnaire, a pre-test was carried out with 20 students to check the scenarios describing service failure. Some changes were made to the final version, especially in the written part. Two scenarios of a common situation were created. In both scenarios participants imagine without cell phone signal, that they could not make a call, and contacted the service provider to get a solution. Half of the participants was instructed in a scenario where they had dropped their phone on the floor (consumer failure). The other half was instructed in a scenario where the signal was unavailable for no specific reason (company failure). Subsequently, all participants were asked to imagine that they called the cell phone company asking for a solution to the problem. All the participants in the study had cell phones and had service accounts with a telecommunication service provider.

In contrast to Swanson and Hsu's (2011) study, which manipulated the research by asking participants to imagine service failure situations, in this study we controlled this element by

presenting the situation to participants. This procedure ensured that causal attribution was properly assigned to the consumer or the company and not to a third-party.

As explored by Nikbin et al. (2012), who focused service failure in a mobile telecommunication service on perceived justice in service and switching intention, we opted to test the entire model. Service failure complaints in this industry are one of the highest in Brazil. According to *Departamento Estadual de Proteção e Defesa do Consumidor* (Procon-SP, 2021) [consumer protection agency of the government of São Paulo, Brazil], the three biggest telecommunication service providers were listed in the six first positions of the companies that received the most complaints in the first semester of 2021.

After reading the full scenario, participants responded to the anger scale (4 items), negative emotions scale (4 items) adapted from Schoefer and Ennew (2005) and Schoefer and Diamantopoulos (2008); a trust scale (12 items), with three dimensions—benevolence, integrity, and capacity—adapted from Gefen and Straub (2004); a satisfaction scale (3 items) adapted from Kuo and Wu (2012); an adapted switching barrier scale (3 items) from Colgate and Lang (2001); and a repurchase intention scale (3 items) adapted from Kuo, Wu, and Deng (2009). All the scales were anchored by 1 = "I strongly disagree" and 7 = "I strongly agree." The constructs adopted in the research instruments were translated from English into Portuguese adapting to the participants' context and culture. The items for each scale are presented in Exhibit 1.

Exhibit 1. Properties of service failure items

Scale	Item
Anger	(1) I felt angry with the service provided by my telecommunication company (2) I was enraged with jitter (3) The problem with the company service made me angry
Negative Emotion	(1) The solution that the company gave to me made me angry (2) I was upset with the company's solution (3) I had a negative feeling with the treatment that the company offered me (4) I was unhappy with the solution that the company gave me
Recovery Satisfaction	(1) Degree of contentment (after calling the company) (2) Degree of satisfaction (after calling the company) (3) Degree of happiness (after calling the company)
Intention to repurchase	(1) My intention is to continue using this service company (2) I would recommend this company's service to my friends and relatives (3) I could acquire more services from this company if their services interest me (4) The probability of continuing to use the services from this company is high

(Continue)

Exhibit 1. Properties of service failure items (Concludes)

Scale	Item
Switching Barrier	(1) I use the services from this company because it is the best choice for me (2) I consider the service quality this company offers is higher than the service quality of other service providers (3) I have grown to like this service provider more than other service providers in this category
Perception of Justice	(1) The employee seemed to be very concerned by my problem (2) The company reacted positively when I complained (3) The solution offered by the company was just
Trust (Integrity Dimension)	(1) Promises made by the telecommunication company are likely to be reliable (2) I do not doubt the honesty of this company (3) I expect that this company will keep promises they make (4) I expect that the advice given by this company is their best judgment
Trust (Benevolence Dimension)	(1) I expect this company to consider how its actions affect me (2) I expect that this company's intentions are benevolent (3) I expect that this company puts customers' interests before their own (4) I expect that this company is well meaning
Trust (Competence Dimension)	(1) This company is competent (2) This company understands the market it works in (3) This company knows about signal telecommunication (4) This company knows how to provide excellent service

The measurement of each construct (item analysis) was previously analyzed in a study published in the Journal of Business (Hernani-Merino et al., 2020), which used the same data examined in this research. The measurement was evaluated based on CTT (classical test theory), using mean, estimating Cronbach's alpha coefficient for the construct and the item-total correlation, and based on IRT that estimates the parameters of discrimination (a) difficulty (b) through the Graded Response Model (GRM), as can be verified in the study. The GRM from IRT (Samejima, 1969) helped to estimate the parameters and the ability (θ) of the respondents. The analyses show that all items on the scale are useful in defining their respective constructs. The discrimination parameter estimates can be seen in Hernani-Merino et al (2020).

According to Embretson and Reise (2000) and Bazán, Mazzon, and Hernani-Merino (2011), IRT is a modern and robust approach that provides many advantages for evaluating the psychometric properties of questionnaires with categorical responses compared to traditional approaches. Among the main advantages, it can be mentioned that the IRT models allow a more detailed diagnosis of the characteristics of the items that were included in the questionnaire, and to estimate with greater precision the abilities (latent traits) considering functions of response that consider non-linear relationships between these and the items, unlike factor analysis, which only considers relationships of the linear type (Depaoli, Tiemensma, & Felt, 2018). In particular, the IRT-graded response model used in the study is especially designed for those cases in which the questionnaires incorporate responses of an ordinal nature.

Convergent and discriminant validity were also analyzed and showed to be adequate to the model. As a result, the six constructs present AVE square root values higher than the coefficients of its relations with other constructs, which indicated the existence of discriminant validity. Furthermore, all seven constructs showed that AVEs were above .75.

We used the IRT score (ability score), presented in Hernani-Merino et al. (2020) paper, as input into the Smart PLS-SEM for model validation and group comparison.

RESULTS

Before analyzing the full model and subsequently comparing, by multi-group, the locus of causal attribution, we first checked if people in both conditions perceived correctly who to blame.

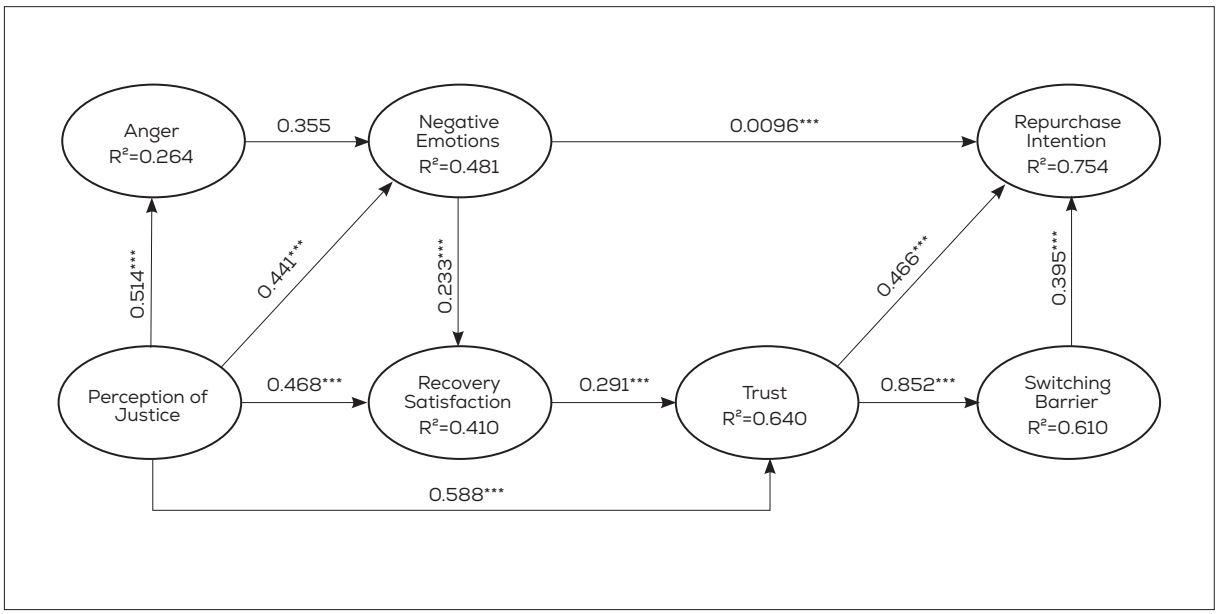
Manipulation check

First, we checked if participants had read the story carefully, and if they understood it. Additionally, we checked if their causal attribution was accurate. To do this manipulation check, at the end of the questionnaire, we added one question: In the given situation, whose fault was it? From the 265 participants, 20 participants who should have answered that it was their fault for dropping the phone on the floor said that it was the firm's fault. Also, one person left this question unanswered. Consequently, the following analysis was done with 244 completed questionnaires.

Path analysis-full model

Analyzing the full model, the 11 relationships established and presented in Figure 1 were statistically significant. Eight of the 11 relationships were statistically significant at more than 99.9% of confidence interval ($p < .001$). The relationship between negative emotions and recovery satisfaction was statistically significant at the $p < .01$ level. Further, the relationship between negative emotions and repurchase intention was statistically significant at the $p < .05$ level. Figure 3 shows the path value, R^2, and whether the path is significant.

Figure 3. Suggested integrated model of repurchase intention after service failure



Deepening the analysis, there are two types of relationships: positive and negative. Regarding positive relationships (positive β), the highest effect is from trust in the switching barrier (.852). This seems to indicate that a problem in a mobile device, regardless of causal attribution, can cause mistrust, dropping the perception of switching intention, thereby facilitating migration to another carrier. We also highlight the large effect on the relationship of perception of justice and trust (.588), which suggests that facing a problem with a mobile device, regardless of causal attribution, could generate a great sense of injustice affecting the trust in the company, which seems to result in affecting the customer's repurchase intention.

Regarding negative relationships (negative β), we observe the strong effect from perception of justice in anger (-.514). In other words, if the customer perceives the situation as unjust, there is an increase in anger. There was also a significantly negative effect on perception of justice in negative emotions. This situation suggests that during a perception of injustice by customers, the negative emotions toward the company increase, which seems to affect future decisions by a customer on choosing an operator or provider. Analyzing the size effect f^2, we had a large effect on the following relationships: Perception of Justice=>Anger, Perception of Justice=>Trust, and Trust=>Switching Barrier with values of .359, .559, and .995, respectively.

The outcomes show that good effects exist on Anger=>Negative Emotion, Switching Barrier=>Repurchase Intention, Perception of Justice=>Negative Emotion, Justice=>Recovery Satisfaction, Recovery Satisfaction=>Trust, and Trust=>Repurchase Intention with values of .178, .248, .276, .227, .146, and .237, respectively. Finally, a small effect was found on Negative Emotion=>Repurchase Intention, and Negative Emotion=>Satisfaction with values of .056, and .056, respectively.

Multi-groups comparison analysis

The study adopted a multi-group comparison analysis to investigate the effect of causal attribution on a repurchase intention model after a service failure. PLS-SEM multi-group analysis was used to assess whether the path coefficients are equal between failures attributed to the company and the customer in both scenarios. To facilitate the analysis, we present the model path results where the moderator compared the data regarding whose fault it was.

Comparing if causal attribution can influence the model when a problem is not solved, six relationships (path coefficients) from eight propositions were statistically significant across the two groups. Table 1 provides the results of the comparison of the causal attribution (customer or firm).

Table 1. Comparing path

Propo-sition	Path Relationship	Client Fault		Firm Fault		Group Difference	
		Path	StErr	Path	StErr	t-value	p-value
--	AN=>NE	0.294	0.148	0.134	0.15	0.431	0.466
--	JU=>AN	-0.322	0.163	-0.306	0.107	0.124	0.93
--	JU=>NE	-0.462	0.128	-0.273	0.132	0.906	0.325
P1	JU=>RS	0.615	0.154	0.291	0.094	0.772	**0.057**
P2	RS=>TR	0.38	0.115	0.487	0.089	1.221	0.456
P3	JU=>TR	0.553	0.104	0.229	0.115	0.569	**0.05**
P4	NE=>RS	0.099	0.159	-0.002	0.14	1.111	0.64
P5	NE=>IR	-0.31	0.084	-0.018	0.089	3.85	**.024***
P6	TR=>IR	-0.014	0.16	0.409	0.104	1.701	**.021***
P7	TR=>SB	0.972	0.132	0.542	0.099	1.361	**.009****
P8	SB=>IR	0.762	0.127	0.493	0.099	1.428	**0.093**

Note: **only bold**: p < .10; *p < .05; **p < .01; ***p < .001

AN: Anger; NE: Overall Negative Emotion; RS: Recovery Satisfaction; IR: Intention to Repurchase; SB: Switching Barrier; JU: Justice; TR: Trust.

Hypothesis H1 showed a difference between the two groups for the perception of justice impacting on recovery satisfaction (Δ=.324), in this case, when the failure was attributed to the customer, the β was higher than when the failure was attributed to the company. Consumers seem to have a higher recovery satisfaction when failure is attributed to them rather than to the company.

As we predicted, the impact of recovery satisfaction on trust is not moderated by causal attribution (H2). There is no difference between groups (p<.456), with Δ = 0.107. Therefore, it is unlikely the recovery satisfaction will define the impact on trust regardless of whether the failure is attributed to the company or the customer. In other words, if satisfaction is recovered,

trust in the company will be boosted; however, if it is not recovered, the relationship between company and customer will become weaker.

Another significant path was the perception of justice impacting on trust (H3). In this case, coincidently, the Beta was different by 0.324 ($p<0.05$). This means that when failure is attributed to the customer, their perception of justice impacts more on trust than if it is attributed to the company. When customers perceive that the company is just, their trust in the firm increases more if failure is attributed to the company rather than customer.

Regarding the impact of negative emotions affecting recovery satisfaction (H4), there is no difference in either situation. Causal attribution does not impact this relationship ($p<.64$). This result suggests that there is no moderation. Alternative explanations will be presented in the discussion.

The path between negative emotion and repurchase intention (H5) is moderated by causal attribution. The difference between paths is 0.292 and is significant with 95% of confidence. The impact of negative emotions on the purchase intention is higher when failure is attributed to the customer rather than the company. This means that when the negative emotion is smaller (customer failure), the probability of repurchase increases.

Trust affects repurchase intention (H6) and the switching barrier (H7), and as the data suggests, it is moderated by causal attribution. According to the data, when failure is attributed to the consumer, the trust will limitedly influence repurchase intention ($\beta = -.014$) than when the failure is attributed to the company ($\beta=.409$), $\Delta=.423$. Similarly, the higher the trust, the higher the switching barrier, especially when the failure is attributed to the consumer ($\beta=.972$) rather than to the company ($\beta = .542$), $\Delta = .430$.

Finally, the effect of the switching barrier and the repurchase intention (H8) was moderated by causal attribution. In this case, the confidence interval was 90%, and it showed that when the failure was attributed to the consumer, the switching barrier will affect more the repurchase intention ($\beta = .762$), than when the failure is attributed to the company ($\beta=.439$), $\Delta = 0.323$.

DISCUSSION

Service failure is a critical issue for companies because it is cheaper to keep customers satisfied than to reach out to and acquire new customers. We identified a lack in the literature regarding studies on situations where service failure was attributed to the customer. Thus, this study investigated the repurchase intention model – when there is recovery satisfaction (the problem is solved) – based on service failure when causal attribution influenced the model. We first proposed a model starting with the perception of justice in a service failure situation. In this model, we used the following constructs: anger, negative emotions, recovery satisfaction, trust, switching barrier, and repurchase intention. Subsequently, we compared the models using causal attribution as moderator. Based on IRT, followed by a structure analysis (PLS-SEM) and the multi-group analysis to evaluate the moderators, most of our hypotheses were supported.

The causal attribution indicates a different impact on recovery satisfaction, trust, and consequentially impacts such as switching barriers and repurchase intention. Simultaneously, the results show that the negative emotion evoked by causal attribution does not change recovery satisfaction, and recovery satisfaction does not change the perception of trust. One explanation as to why there is no effect of attributional causality in the relationship of negative emotion and recovery satisfaction is that in both situations (firm failure or consumer failure) negative feelings will surge. Regarding the moderation between recovery satisfaction and trust, as predicted, there is no reason for believing in it. If recovery satisfaction is attributed to the consumer as a responsibility to the company, since the consumer will call the company to blame for the bad service or product, regardless of whose failure it is, the impact on trust will be the same.

However, regardless of whose fault it is, companies should be careful with the trust relationship because if the fault is from the company, the consumer's expectations are much higher, and the company creates a service satisfaction paradox. In our model, it is important to create a "higher" emotional switching barrier to keep customers in a long-term service situation. When customers cause products to be defective or cause a possible service failure and the company still manages to solve their problems, their trust relationship increases or strengthens considerably the emotional switching barrier compared to when failure is attributed to the company. The negative emotion does not impact the recovery satisfaction with the company, but it impacts the repurchase intention; therefore, lower levels of negative emotions (as the one caused by consumer failure) lead to limited impact (Funches, 2011).

This study contributes considerably to the management field in several ways. First, based on the proposed model, we can observe the importance of trust and switching barrier on the repurchase intention. Second, the model shows that the consumers' emotions influence the repurchase intention, proving that it is important to avoid negativity. Third, the identification of differences when comparing the groups allows the production of specific customer-retention strategies for the different situations explored. Fourth, companies could draw flowcharts for employee procedures to act proactively and provide solutions to complaints of problems depending on the cause or how the problem occurred. Such measures could maintain the company-customer relationship. Fifth, companies should strengthen their loyalty to consumers; one option is based on loyalty programs, and another is to surprise them with a service recovery paradox, even when failure is attributed to the consumer. These actions minimize customers' negative feelings and increase their level of trust in the company.

Additionally, it discusses whether co-creation in finding solutions for consumers after a service failure (Hazée et al., 2017) and even co-creation in developing or using products should be boosted by companies. Specifically, it seems from our data that the involvement of the consumers in the service failure boosts the switching barrier, diminishing the intention to change companies. Therefore, if the consumer participates in the process of product or service production and even in the solution for the sales service, it seems that the trust and loyalty of the consumer in the company will be higher than if they just receive the product or solution.

The limitations of this study are as follows. First, our model did not show all the possible relationships (consequences) that causal attribution and distributive justice could influence. We focused on the most important ones and the moderator, causal attribution. Second, in this study, causal attribution was not an emotion, but a variable manipulated. Many levels of anger or negative emotions may impact with more intensity than the proposed model. Third, our sample comprised specific groups and undergraduate students from a Latin American country. Consequently, the sample might represent some specific cultures and not others, so it should not be generalized. Fourth, we created a specific situation for the study—a telecommunication service failure. Using other fields could yield different results. Finally, replication and extension with other methods and variables through other sectors are desired. Double deviation scenarios and long-term memory could also be included in future studies.

REFERENCES

Azemi, Y., Ozuem, W., Howell, K. E., & Lancaster, G. (2019). An exploration into the practice of online service failure and recovery strategies in the Balkans. *Journal of Business Research*, *94*, 420-431. doi: 10.1016/j.jbusres.2018.08.035

Baker, M. A., & Kim, K. (2018). Other customer service failures: emotions, impacts, and attributions. *Journal of Hospitality & Tourism Research*, *42*(7), 1067-1085. doi: 10.1177/1096348016671394

Baumann, O., & Mattingley, J. B. (2012). Functional topography of primary emotion processing in the human cerebellum. *NeuroImage*, *61*(4), 805-811. doi: 10.1016/j.neuroimage.2012.03.044

Bazán, J. L., Mazzon, J. A., & Hernani-Merino, M. (2011). Classificação de modelos de resposta ao item policotômicos com aplicação ao marketing. *Revista Brasileira de Estatistica*, 72(235), 7-40. Retrieved from https://biblat.unam.mx/es/revista/revista-brasileira-de-estatistica/articulo/classificacao-de-modelos-de-resposta-ao-item-policotomicos-com-aplicacao-ao-marketing

Belén, A. B., Vázquez-Casielles, R., & Díaz-Martín, A. M. (2009). Satisfaction with service recovery: Perceived justice and emotional responses. *Journal of Business Research*, *62*, 775-781. doi: 10.1016/j.jbusres.2008.09.015

Bougie, R., Pieters, R., & Zeelenberg, M. (2003). Angry customers don't come back, they get back: The experience and behavioral implications of anger and dissatisfaction in services. *Journal of the Academy of Marketing Science*, *31*(4), 377-393. doi: 10.1177/0092070303254412

Colgate, M., & Lang, B. (2001). Switching barriers in consumer markets: An investigation of the financial services industry. *Journal of Consumer Marketing*, *18*(4), 332-347. doi: 10.1108/07363760110393001

Depaoli, S., Tiemensma, J., & Felt, J. M. (2018). Assessment of health surveys: Fitting a multidimensional graded response model. *Psychology, Health & Medicine*, *23*(1), 1299-1317. doi: 10.1080/13548506.2018.1447136

Departamento Estadual de Proteção e Defesa do Consumidor. (2021). *Coordenadoria de Defesa do Consumidor – Procon paulistano*. Disponível em: https://sistemas.procon.sp.gov.br/ rank_estadual/ Ranking_50_mais_%20jan_ago_2021.pdf

DeWitt, T., Nguyen, D. T., & Marshall, R. (2008). Exploring customer loyalty following service recovery: The mediating effects of trust and emotions. *Journal of Service Research*, *10*(3), 269-281. doi: 10.1177/1094670507310767

Elliott, R., & Yannopoulou, N. (2007). The nature of trust in brands: A psychosocial model. *European Journal of Marketing*, *41*(9/10), 988-998. doi: 10.1108/03090560710773309

Embretson, S. E., & Reise, S. P. (2000). *Item response theory for psychologists*. New Jersey, USA: Psychology Press.

Folkes, V. S., Koletsky, S., Graham, J. L. (1987). A field study of causal inferences and consumer reaction: The view from the airport. *Journal of Consumer Research*, *13*(4), 534-539. doi: 10.1086/209086

Fouroudi, P., Kitchen, P. J., Marvi, R., Akarsu, T. N., & Uddin, H. (2020). A bibliometric investigation of service failure literature and a research agenda. *European Journal of Marketing*, *54*(10), 2575-2619. doi: 10.1108/EJM-07-2019-0588

Funches, V. (2011). The consumer anger phenomena: Causes and consequences. *Journal of Services Marketing*, *25*(6), 420-428. doi: 10.1108/08876041111161014

Gefen, D., & Straub, D. W. (2004). Consumer trust in B2C e-Commerce and the importance of social presence: experiments in e-products and e-services. *Omega*, *32*(6), 407-424. doi: 10.1016/j.omega.2004.01.006

Gelbrich, K., & Roschk, H. (2010). A meta-analysis of organizational complaint handling and customer responses. *Journal of Service Research*, *14*(1), 24-43. doi: 10.1177/1094670510387914

Hazée, S., Vaerenbergh, Y. Van, & Armirotto, V. (2017). Co-creating service recovery after service failure: The role of brand equity. *Journal of Business Research*, *74*, 101-109. doi: 10.1016/j.jbusres.2017.01.014

Hernani-Merino, M. N., Isabella, G., Vargas, E. G. T., & Mazzon, J. A. (2020). Recovery satisfaction construct and construct-related: Assessment measurement from item response theory. *Journal of Business*, *11*(1), 2-13. doi: 10.21678/jb.2019.1137

Hwang, Y., Gao, L., & Mattila, A. S. (2020). What recovery options to offer for loyalty reward program members: Dollars vs. miles?. *International Journal of Hospitality Management*, *87*, 102496. doi: 10.1016/j.ijhm.2020.102496

Isabella, G. (2015). *Hedonic and utilitarian purchases and construal level theory in the perception of justice and price fairness: behavioral and physiological perspectives* (Doctoral thesis, Faculdade de Economia, Administração e Contabilidade, University of São Paulo, São Paulo).

Isabella, G., Mazzon, J. A., & Dimoka, A. (2017). Impacts of product type and representation type on the perception of justice and price fairness. *Journal of Business Research*, *81*, 203-211. doi: 10.1016/j.jbusres.2016.10.031

Jerger, C., & Wirtz, J. (2017). Service employee responses to angry customer complaints: The roles of customer status and service climate. *Journal of Service Research*, *20*(4), 362-378. doi:10.1177/1094670517728339

Joireman, J., Grégoire, Y., Devezer, B., & Tripp, T. M. (2013). When do customers offer firms a "second chance" following a double deviation? The impact of inferred firm motives on customer revenge and reconciliation. *Journal of Retailing*, *89*(3), 315-337. doi:10.1016/j.jretai.2013.03.002

Jones, M. A, Mothersbaugh, D. L., & Beatty, S. E. (2000). Switching barriers and repurchase intentions in services. *Journal of Retailing*, *76*(2), 259-274. doi: 10.1016/S0022-4359(00)00024-5

Jong, M. G. De, & Steenkamp, J.-B. (2010). Finite mixture multilevel multidimensional ordinal IRT models for large scale cross-cultural research. *Psychometrika*, *75*(1), 3-32. doi: 10.1007/s11336-009-9134-z

Jung, N. Y., & Seock, Y. K. (2017). Effect of service recovery on customers' perceived justice, satisfaction, and word-of-mouth intentions on online shopping websites. *Journal of Retailing and Consumer Services*, *37*, 23-30. doi: 10.1016/j.jretconser.2017.01.012

Kelley, H. H. (1973). The processes of causal attribution. *American Psychologist*, *28*(2), 107. doi: 10.1037/h0034225

Konuk, F. A. (2013). The role of perceived justice in building brand trust. *International Journal of Marketing Studies*, *5*(2), 154-164. doi: 10.5539/ijms.v5n2p154

Kuo, Y.-F., & Wu, C.-M. (2012). Satisfaction and post-purchase intentions with service recovery of online shopping websites: Perspectives on perceived justice and emotions. *International Journal of Information Management*, *32*(2), 127-138. doi: 10.1016/j.ijinfomgt.2011.09.001

Kuo, Y.-F., Wu, C.-M., & Deng, W.-J. (2009). The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services. *Computers in Human Behavior*, *25*(4), 887-896. doi: 10.1016/j.chb.2009.03.003

Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *The American Psychologist*, *46*(8), 819-834. doi: 10.1037/0003-066x.46.8.819

Lucas, T. (2009). Justifying outcomes versus processes: Distributive and procedural justice beliefs as predictors of positive and negative affectivity. *Current Psychology*, *28*(4), 249-265. doi:10.1007/s12144-009-9066-x

Mattila, A. S., & Ro, H. (2008). Discrete negative emotions and customer dissatisfaction responses in a casual restaurant setting. *Journal of Hospitality & Tourism Research*, *32*(1), 89-107. doi:10.1177/1096348007309570

McColl-Kennedy, J. R., Sparks, B. A., & Nguyen, D. T. (2011). Customer's angry voice: Targeting employees or the organization? *Journal of Business Research*, *64*(7), 707-713. doi:10.1016/j.jbusres.2010.08.0

McCollough, M. A., Berry, L. L., & Yadav, M. S. (2000). An empirical investigation of customer satisfaction after service failure and recovery. *Journal of Service Research*, *3*(2), 121-137. doi:10.1177/109467050032002

Michel, S. (2001). Analyzing service failures and recoveries: A process approach. *International Journal of Service Industry Management*, *12*(1), 20-33. doi:10.1108/09564230110382754

Nikbin, D., Ismail, I., Marimuthu, M., & Armesh, H. (2012). Perceived justice in service recovery and switchingintention.*ManagementResearchReview*,*35*(3/4),309-325.doi:10.1108/01409171211210181

Odoom, R., Agbemabiese, G. C., & Hinson, R. E. (2020). Service recovery satisfaction in offline and online experiences. *Marketing Intelligence & Planning*, *38*(1), 1-14. doi:10.1108/mip-09-2018-0422

Patterson, P. G., & Smith, T. (2003). A cross-cultural study of switching barriers and propensity to stay with service providers. *Journal of Retailing*, *79*(2), 107-120. doi:10.1016/s0022-4359(03)00009-5

Pham, M. T. (2007). Emotion and rationality: A critical review and interpretation of empirical evidence. *Review of General Psychology*, *11*(2), 155-178. doi:10.1037/1089-2680.11.2.155

Pick, D., & Eisend, M. (2013). Buyers' perceived switching costs and switching: A meta-analytic assessment of their antecedents. *Journal of the Academy of Marketing Science*, *42*(2), 186-204. doi:10.1007/s11747-013-0349-2

Samejima, F. (1969). Estimation of latent ability using a response pattern of graded scores. *Psychometrica Monograph*, *17*, 1-100. doi:10.1002/j.2333-8504.1968.tb00153.x

Santos, J. B., Hernandez, J. M., & Leão, W. (2019). Do recovery processes need empowered frontline employees?. *International Journal of Operations & Production Management*, *39*(11), 1260-1279. doi:10.1108/ijopm-12-2018-0745

Schoefer, K., & Diamantopoulos, A. (2008). The role of emotions in translating perceptions of (in)justice into postcomplaint behavioral responses. *Journal of Service Research*, *11*(1), 91-103. doi:10.1177/1094670508319091

Schoefer, K., & Ennew, C. (2005). The impact of perceived justice on consumers' emotional responses to service complaint experiences. *Journal of Services Marketing*, *19*(5), 261-270. doi:10.1108/08876040510609880

Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *Journal of Marketing Research*, *36*(3), 356-372. doi:10.2307/3152082

Sparks, B., & Fredline, L. (2007). Providing an explanation for service failure: Context, content, and customer responses. *Journal of Hospitality & Tourism Research*, *31*(2), 241-260. doi:10.1177/1096348006297292

Srivastava, M., & Gosain, A. (2020). Impact of service failure attributions on dissatisfaction: Revisiting attribution theory. *Journal of Management Research*, *20*(2), 99-112. Retrieved from https://indianjournals.com/ijor.aspx?target=ijor:jmr&volume=20&issue=2&article=003

Strizhakova, Y., Tsarenko, Y., & Ruth, J. A. (2012). "I'm mad and I can't get that service failure off my mind": Coping and rumination as mediators of anger effects on customer intentions. *Journal of Service Research*, *15*(4), 414-429. doi:10.1177/1094670512443999

Swanson S. R., & Hsu, M. K. (2011). The effect of recovery locus attributions and service failure severity on word-of-mouth and repurchase behaviors in the hospitality industry. *Journal of Hospitality & Tourism Research*, *35*(4), 511-529. doi:10.1177/1096348010382237

Vaerenbergh, Y. Van, Larivière, B., & Vermeir, I. (2012). The impact of process recovery communication on customer satisfaction, repurchase intentions, and word-of-mouth intentions. *Journal of Service Research*, *15*(3), 262-279. doi:10.1177/1094670512442786

Valentini, S., Orsingher, C., & Polyakova, A. (2020). Customers' emotions in service failure and recovery: A meta-analysis. *Marketing Letters*, *31*(2), 199-216. doi:10.1007/s11002-020-09517-9

Weiner, B. (1980). A cognitive (attribution)-emotion-action model of motivated behavior: An analysis of judgments of help-giving. *Journal of Personality and Social Psychology*, 39(2), 186-200. doi:10.1037/0022-3514.39.2.186

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548-573. doi:10.1037/0033-295x.92.4.548

AUTHOR'S CONTRIBUTION

Giuliana Isabella, Martin Hernani-Merino, José Afonso Mazzon e Daniel Kuster worked on the conceptualization and theoretical-methodological approach. The theoretical review was conducted by Giuliana Isabella. Data collection was done by Daniel Kuster. Data analysis included Martin Hernani-Merino, Enver Tarazona e Giuliana Isabella. All authors worked together in the writing and final revision of the manuscript.

