Corporate Image: A Service Recovery Perspective

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ABSTRACT

This paper explores direct and indirect antecedents that contribute to corporate image formation in a service recovery context. Two studies were carried out in Egypt. Study 1 comprises 29 semi-structured interviews with complainants of mobile phone network service providers in Egypt. Study 2 encompasses a mail survey of another 437 complainants. Findings reveal the importance of perceived justice, namely interactional justice, in corporate image formation, as well as the mediating role of satisfaction with service recovery in the perceived justice–corporate image relationship. Results additionally reveal two empirical relationships: problem solving as a determinant of distributive justice and follow-up as a driver of procedural justice. Accordingly, this study contributes to the service field by providing the first empirical evaluation of new direct and indirect antecedents of corporate image formation in a service recovery context. Managerial recommendations are provided that encourage service practitioners to emphasize perceived justice and satisfaction with a service recovery process to enhance the company’s image. Additionally, companies should invest in implementing problem solving and follow-up as service recovery strategies since both significantly enhance perceived justice.
INTRODUCTION

Corporate image reflects customers’ perception of an organization, which results from one's experience with, or impressions of the company and ultimately contributes towards “a total picture of the organization” (Andreassen 2001, p.41). Managing corporate image has become integral to developing an effective competitive positioning strategy (Barich and Kotler 1991; Cornelissen 2000; Dowling 1986). A positive corporate image adds value to the organization by encouraging favorable associations, and subsequent behaviors towards it (Kennedy 1977), by allowing consumers to differentiate between organizations (Hsieh, Pan, and Setiono 2004), and by driving customer satisfaction, customer retention (Bhattacharya and Sen 2003; Nguyen and Leblanc 1998), customer loyalty, perceived service quality (Andreassen and Lindestad 1998b; Johnson et al. 2001), as well as perceived value (Jha et al. 2013). Accordingly, corporate image as a valuable asset that firms need to manage in order to shape the overall evaluation of the organization has been widely acknowledged in the service literature (e.g., Bitner 1990; Grönroos 1984; Gummesson and Grönroos 1988; Nguyen and Leblanc 1998). Nevertheless, corporate image as an outcome has been largely overlooked in the service recovery literature (de Matos, Henrique, and Rossi 2007). In this study, we address this gap by investigating corporate image as a result of a service recovery process.

A successful service recovery strategy, represents a positive response which is defined as the actions taken by a service provider in response to a perceived service failure. This is fundamental to also central to rebuilding developing good relationships with customers and eliminating dissatisfaction (Grönroos 1997). It also and generates other positive marketing outcomes (e.g., Karande, Magnini, and Tam 2007; McCollough, Berry, and Yadav 2000; Smith and Bolton 2002), for example, repurchase intentions (e.g., Kau and Loh 2006; Maxham III and Netemeyer 2002), and word-of-mouth communication (e.g., Kau and Loh 2006).
Given that several of these outcomes have been studied, and service recovery is highly influential in consumer evaluations of the service and the organization (de Matos, Henrique, and Rossi 2007), the lack of research investigating the influence of the service recovery process on corporate image is both surprising and concerning.

Therefore, anchored in the cognition–affect–attitude theory, this study addresses this gap in the service recovery literature by proposing a conceptual framework to investigate the determinants of corporate image that arise from the service recovery process, namely service recovery strategies, perceived justice, and satisfaction with service recovery. More specifically, the mediating role of satisfaction with service recovery in the perceived justice–corporate image relationship is studied. From a theoretical perspective, given the limited research on the antecedents of corporate image in the service recovery literature (de Matos, Henrique, and Rossi 2007), this study provides a useful initial foray into this relatively unexplored domain. In particular, this paper aims to provide insights into the following questions: “How does perceived justice affect corporate image, if at all?”; “What is the mediating role of satisfaction with service recovery in the relationship between perceived justice and corporate image?”; “How is corporate image affected by the service recovery process?”. Additionally, the geographical context of this study, i.e. Egypt, is also a contribution as most service recovery studies to date have been conducted in Western countries, Asia and Australia, rather than the Middle East.
CONCEPTUAL BACKGROUND

Justice Theory and the Service Recovery Literature

Service recovery is the organizational response to a service failure (de Matos, Henrique, and Rossi 2007; Grönroos 1984). The service recovery process is often characterized by the implementation of service recovery strategies, which are designed to return the customer to a state of satisfaction (Danaher and Mattsson 1994; Davidow 2003). These service recovery strategies typically comprise an apology, an explanation, a solution for the problem, compensation, a prompt action to rectify the problem as well as courteous and respectful behavior towards the complaining customer (e.g., Bitner 1990; Blodgett, Hill, and Tax 1997; del Río-Lanza, Vázquez-Casielles, and Díaz-Martín 2009; Hoffman and Kelley 2000). The implementation of these service recovery strategies impacts directly on customers’ perception of justice (i.e., perceived justice). In particular, when service failure triggers customers to complain, an interaction process between the service provider and the customer is initiated, resulting in a complaint handling decision and the allocation of some economic, social or psychological rewards to customers (Liao 2007). Justice theory proposes that individuals perform a mental cost–benefit analysis in which they assess whether the benefit received exceeds the cost of the complaint process (del Río-Lanza, Vázquez-Casielles, and Díaz-Martín 2009; Schoefer and Ennew 2005). Each step in this process is subject to the assessment of justice by the customer and could result in his or her feeling of justice or injustice (Smith, Bolton, and Wagner 1999). Customers usually assess three types of justice: distributive (Blodgett, Hill, and Tax 1997; del Río-Lanza, Vázquez-Casielles, and Díaz-Martín 2009), procedural (Blodgett, Hill, and Tax 1997) and interactional justice (Liao 2007; Tax, Brown, and Chandrashekaran 1998). Each of these types of justice is affected differently by the various service recovery strategies.
Given the centrality of perceived justice in mediating the effects of service recovery strategies on several outcomes (Liao 2007; Tax, Brown, and Chandrashekaran 1998; Vázquez-Casielles, Álvarez, and Díaz-Martín 2010), understanding its influence on corporate image in a service recovery context is an interesting research extension. To the best of our knowledge no study to date has investigated the direct impact of the different types of perceived justice on corporate image in a service recovery context. Accordingly, this study addresses de Matos, Henrique, and Rossi’s (2007) call for research on corporate image as a result of service recovery.

**Corporate Image and the Service Recovery Literature**

Scholars of marketing tend to use the term *image* to assess the actual perceptions of the company held by consumers (Brown et al. 2006). Earlier definitions of corporate image referred to the overall impression made in the minds of the public about a firm (Bitner 1990; Grönroos 1984; Kotler 1982) as well as “the picture that an audience has of an organization through the accumulation of all received messages” (Ind 1997, p.48) and the “...accumulation of purchasing/consumption experience over time...” (Andreassen and Lindestad 1998b, p.11). In this study, corporate image relates to “... how customers perceive an organization based on experience or impressions and how these perceptions create a set of associations that contribute to a total picture of the organization” (Andreassen 2001, p.41), in terms of, for instance, the company’s customer orientation.

Corporate image, regarded as corporate associations held by the customers (cf. Brown et al. 2006), may be influenced by the actions of contact service personnel actions (Nguyen and Leblanc 2002), and often these actions include fair treatment of customers as the typical corporation seeks to position itself in the public eye “as treating all its stakeholders fairly” (Bies and Greenberg 2002, p.322). Additionally, as service recovery is vital in consumer evaluations of the service and the organization (de Matos, Henrique, and Rossi 2007), we
expect the service recovery process to have a positive influence on corporate image. While a few studies have investigated corporate image within a service recovery context (Andreassen 2001; Hess 2008; Nikbin et al. 2010; Sajtos, Brodie, and Whittome 2010), “[t]he active role of company image has been underscored, especially in service failures...” (Sajtos, Brodie, and Whittome 2010, p. 219). In particular, the role of corporate image as a direct consequence of the service recovery process is still unexplored.

This study contributes to the service recovery literature in several ways. While Nikbin et al. (2010) investigate the moderating effect of corporate image on the relationship between perceived justice and satisfaction with service recovery, a study exploring the direct effects of different types of perceived justice on corporate image is still lacking. Given the impact of perceived justice on several outcomes (Liao 2007; Tax, Brown, and Chandrashekaran 1998; Vázquez-Casielles, Álvarez, and Díaz Martín 2010), understanding these effects on corporate image is warranted. Accordingly, this study addresses this gap in the literature.

Moreover, the mediating effect of satisfaction with service recovery in the relationship between perceived justice and corporate image remains unexplored in the service recovery literature. Therefore, in line with Andreassen’s (2001) work, which proposed that satisfaction with service recovery drives corporate image, this study examines the mediating role of satisfaction with service recovery.

Finally, by recognizing that different perceived justice types impact corporate image in differentiated ways and the mediating role of satisfaction with service recovery, this study offers service managers additional knowledge regarding the service recovery strategies to implement so that perceived justice, satisfaction with service recovery, and ultimately, corporate image are enhanced. Understanding these novel relationships is vital if managers seek to engage more effectively with complaining customers.
**The Cognition–Affect–Attitude Theory**

The cognition–affect–attitude theory suggests that attitude formation and change is anchored in cognitive and affective elements (Edwards 1990; Peter and Olson 2005; van den Berg et al. 2006). In a service recovery context, this theory is applicable given that service recovery prompts both cognitive evaluation and affective responses. In particular, perceived justice is generally regarded as a cognitive evaluation (e.g., del Río-Lanza, Vázquez-Casielles, and Díaz-Martín 2009; Schoefer and Diamantopoulos 2008; Schoefer and Ennew 2005) following the implementation of service recovery strategies, whereas satisfaction with service recovery is regarded as an affective response (Davidow 2000), and the formation of customer perceptions toward the organization (i.e., corporate image) is an attitude. Thus, anchored in the cognition–affect–attitude theory, this study conceptualizes corporate image as an attitudinal consequence of both a cognitive evaluation (i.e., perceived justice) triggered by service recovery strategies and an affective response (i.e., satisfaction with service recovery).

**RESEARCH MODEL AND HYPOTHESES**

**STUDY 1**

Given the limited knowledge regarding corporate image within a service recovery context, an exploratory research design was initially developed. Although Andreassen and Lindestad (1998a) theoretically argued that corporate image is a consequence of the service recovery process, many issues remain unclear (as outlined in the Introduction section of this paper) and therefore an exploratory research design was required.
Additionally, since most service recovery studies are conducted in the USA (e.g., Davidow 2000; Homburg and Fürst 2005; Liao 2007; Tax, Brown, and Chandrashekar 1998), Europe (e.g., del Río-Lanza, Vázquez-Casielles, and Díaz-Martín 2009; Karatepe 2006; Varela-Neira, Vázquez-Casielles, and Iglesias-Argüelles 2008), Asia (e.g., Kau and Loh 2006), and Australia (e.g., McColl-Kennedy, Daus, and Sparks 2003), an extensive qualitative research approach was deemed essential to establish the construct equivalence, namely conceptual equivalence, in a different cultural context (Craig and Douglas 2000), such as the Middle East. Egypt is a leading country in cultural and political terms in the Middle East (Hawass 2013). From a cultural standpoint, Egypt plays a central role as the Hollywood of the Middle East with its inspiring cinema industry (Hawass 2013). From a political perspective, the 2011 revolution caught the eyes of the whole world when millions of Egyptians grouped in Cairo’s Tahrir Square to ask the country’s president to resign. In this Egyptian revolution, the telecommunication industry played a key role as mobile phone technology and online social networking services (such as Facebook and Twitter) were among the key tools used by Egyptians to arrange the gatherings and demonstrations that spread across the country (Attia 2012; Hawass 2013). Despite the recent emergence of cross-border opportunities for services following increasing democratization and deregulation (Kunkler 2012), the collapse of its economic and political governance in the transition to a democratic Egypt has resulted in a struggling and dwindling service sector in urgent need of revival. Given that an effective service recovery process is central in fostering customer satisfaction and other marketing outcomes (Grönroos 1997; Smith and Bolton 2002), a growing need emerged for Egyptian service managers to be sensitive to customers’ demands and complaints.

Sample and Data Analysis
A sample of 29 semi-structured in-depth interviews with customers who had complained to their mobile phone network service provider in the previous six months was used to gain insights about the nature of the relationship between the service recovery process and corporate image. This six-month period allowed to reduce recall bias (Lee et al. 1999; Liao 2007; Mostafa 2011).

The semi-structured interviews were conducted over a period of five weeks. Respondents were given the opportunity to expand on their answers as much as they pleased and accordingly the interviews lasted between 40 and 90 minutes. Consistent with phenomenological inquiry applied to the service failure context (see for example, Holloway and Beatty 2003), respondents were prompted to describe in their own words a service failure they had experienced in the previous six months. In particular, respondents explained how the service provider attempted to manage the service failure, and how they felt about the whole service recovery process by answering questions such as: “What did the company do to correct the mistake?”; “What do you think the company could have done to correct the mistake more satisfactorily?”; “How would you judge your treatment by employees throughout the complaint handling process?”.

This study followed the general six steps recommended to analyze qualitative data (Miles and Huberman 1994; Saunders et al. 1997), namely 1) categorization; 2) ‘unitizing’ data; 3) recognizing relationships and developing categories; 4) creating data displays for examining the data; 5) developing and testing hypotheses and 6) drawing conclusions. Accordingly, several themes emerged and the constant comparative method within and between interviews was used for data analysis (Glaser and Strauss 1967). Two judges compared emergent themes and, consistent with Holloway and Beatty (2003), a memo was constructed post-interview, which was used as the basis for cross-comparison. No major disagreements occurred concerning emergent themes and where any minor disagreements occurred, the judges compared their memos, discussed further the issues in dispute and
ultimately reached an agreement regarding the themes (Holloway and Beatty 2003). The final themes included effective service recovery strategies and their impact on perceived justice, a link between perceived justice and satisfaction with service recovery, a link between perceived justice and corporate image, a link between the service recovery process and corporate image. As a result of the interviews, we investigated several new hypotheses that were later incorporated into the conceptual framework.

**Findings**

An important theme to emerge from the interviews, and consistent with the literature, was the **significance** of perceived justice in the service recovery process as respondents argued that the success or failure of the service recovery process depends on their perceived justice regarding the service provider’s effort in handling their complaints. An emergent theme was the conceptualization of corporate image as a result of the different types of perceived justice. Therefore, it became evident that perceived justice may directly impact corporate image. Additionally, service recovery strategies emerged as directly influencing perceived justice, rather than having a direct impact on corporate image. Another valuable insight was the conceptual development of follow-up as a service recovery strategy as well as the development of a follow-up measure as a result of the interviews. Finally, respondents also suggested that corporate image can emerge from satisfaction with service recovery and therefore the latter was conceptualized as mediating the relationship between perceived justice types and corporate image.

A conceptual framework anchored on the extant literature and findings from the interviews is presented in the following section. A discussion of each new hypothesis follows. In line with recent research (e.g., Lages and Piercy 2012), relationships that have been previously established in the literature are briefly discussed to provide a comprehensive
picture, but no hypotheses are developed for these established relationships. Figure 1 summarizes the research hypotheses.

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Service Recovery Strategies and Perceived Justice

Our respondents described several associations between different service recovery strategies and the different types of perceived justice, which confirm some of the relationships proposed in the existing literature, but also suggest two new relationships. One of the new relationships is between follow-up, which has been largely ignored in previous empirical studies, and procedural justice; the other is between problem solving and distributive justice. Neither relationship has been explored in the literature previously. For instance, this follow-up strategy was mentioned by a respondent:

“The company should call the client to see if he has any problem about the line, for example. When I found the company calling me to check things, it's better than me calling them. They can call and ask ‘is the line okay with you?’ In this way, I feel they maintain fair procedures.”

The relationship between follow-up and procedural justice is discussed by another respondent who noted that:

“When I hang up, I find them calling back. They care and follow-up. Among all of their customers, they call me. This makes me feel sure that the company has proper procedures for handling complaints.”
Moreover, problem solving and distributive justice are mentioned by a respondent who noted that:

“There is no justice. The employee does what the company says. What makes me feel it is fair is when the problem is not ignored by the company, and they are concerned with solving the problem and giving me what I deserve. All customers with the same problem should be treated equally.”

The respondents also confirmed certain relationships between specific service recovery strategies and perceived justice, which had previously been empirically tested. For instance, the positive relationships between compensation and distributive justice (Karatepe 2006; Smith, Bolton, and Wagner 1999; Tax, Brown, and Chandrashekaran 1998), speed of response and procedural justice (Blodgett, Hill, and Tax 1997; Smith, Bolton, and Wagner 1999), as well as apology, explanation and courtesy, and interactional justice (Karatepe 2006; Liao 2007; Smith, Bolton, and Wagner 1999; Tax, Brown, and Chandrashekaran 1998).

Therefore, based on both the findings from the interviews and the extant service recovery literature, we suggest that certain service recovery strategies (such as compensation, problem solving, speed of response, follow-up, apology, explanation, and courtesy) have a positive impact on perceived justice, but only develop hypotheses for the two novel relationships that have not been explored in empirical work within the service recovery literature:

H_{1a}: Problem solving positively impacts distributive justice.

H_{1b}: Follow-up positively impacts procedural justice.

*Perceived Justice and Satisfaction with Service Recovery*

With regard to the relationships between the different types of perceived justice and satisfaction with service recovery, our respondents confirmed a positive effect of each type of
perceived justice (distributive, procedural and interactional) on satisfaction with service recovery. This finding from the interviews corroborates previous research (e.g. Blodgett, Hill, and Tax 1997; Kau and Loh 2006; Smith, Bolton, and Wagner 1999) and therefore no specific hypotheses are developed for these relationships. Accordingly, we conceptualize the different types of perceived justice to positively impact satisfaction with service recovery.

**Perceived Justice and Corporate Image**

Although the role of corporate image has been explored in a service recovery context (e.g., Andreassen 2001; Nikbin et al. 2010), no study thus far has investigated the direct influence of different types of perceived justice on corporate image. This study proposes three new relationships as our respondents described a direct and positive link between different types of perceived justice and corporate image. One respondent, for instance, explained that distributive justice influences corporate image:

“The way the company handled the problem was fair enough. The problem was withdrawing my credit by mistake and the company returned the credit to me… I always viewed the company as good but now I think it is the best.”

Other respondent also highlighted the relationship between distributive justice and corporate image by stating that:

“I just wanted to get what I am entitled to... and I got it... Now I think the company is not just providing good service but also supports customers when they face a problem. In my opinion, the company is good in keeping its promises to the public.”

Another respondent summarized the interactional justice–corporate image link with this comment:
“I will see how they treat me first and if that’s fair to me or not, then I will decide whether they are a good company or not.”

These quotes from the interviews suggest that respondents establish a relationship between the different types of perceived justice and corporate image. From a theoretical perspective this link is anchored in the psychology literature, which proposes a relationship between cognitive evaluation and attitude formation (Edwards 1990; Priluck and Till 2004; van den Berg et al. 2006). Given the novelty of these relationships in the service recovery literature and the potential value for service recovery managers of understanding the impact of different perceived justice types on corporate image, this finding constitutes one of our main research contributions.

The above-mentioned quotes also reveal that when respondents perceive the service recovery as fair, they view the company better than before the failure occurred. Whereas, company image deteriorates for those respondents who feel that the service recovery was unfair as highlighted by another respondent:

“They were unfair with me. For me, company X was like the best company, which had more benefits than others and my mobile phone was a substitute to the landline one. But now I don’t see the company as good as before.”

This finding suggests the existence of a perceived justice-based recovery paradox for corporate image.\(^1\) Therefore, based on the above-mentioned quotes, the following new hypotheses are subsequently developed:

\[ H_{2a}: \text{Distributive justice positively impacts corporate image.} \]

\(^1\) i.e., corporate image is superior in situations in which the service recovery is perceived as fair compared to situations in which the service failure would not have occurred in the first place.
**H$_{2b}$**: Procedural justice positively impacts corporate image.

**H$_{2c}$**: Interactional justice positively impacts corporate image.

*Satisfaction with Service Recovery and Corporate Image*

The service recovery literature has mostly neglected the role of service recovery satisfaction as an antecedent of corporate image (for a notable exception see Andreassen 2001). Given that this study focuses on determining the antecedent role of the service recovery process on corporate image, satisfaction with service recovery is conceptualized as having a direct influence on corporate image (Andreassen 2001). For instance, our respondents mentioned that:

“How I feel with the complaint process [i.e., either satisfied or dissatisfied] will help me judge what I think about the organization.”

“What I think of them [the organization] will depend ultimately on whether I am happy or not with the way they dealt with me [in the service recovery process].”

Given that the literature linking satisfaction with service recovery to corporate image is extremely limited, the current research also adds to this body of knowledge in the service literature by suggesting not only a positive relationship between both these constructs, but also, by inferring a mediating role of service recovery satisfaction. This reflecting in this way reflects both the cognition-base and the affect-base of attitude formation (Edwards 1990; Priluck and Till 2004; van den Berg et al. 2006). For instance, a respondent mentioned that:

“If I feel happy with the way my complaint was handled then I might start thinking positively about the organization”.

He then added that:
“…as long as my complaint is handled properly, whether I feel happy or not, I might forgive them and think they are OK again.”

Accordingly, the following new hypotheses are proposed:

**H3a:** Satisfaction with service recovery mediates the effect of distributive justice on corporate image.

**H3b:** Satisfaction with service recovery mediates the effect of procedural justice on corporate image.

**H3c:** Satisfaction with service recovery mediates the effect of interactional justice on corporate image.

**STUDY 2**

**Method**

**Measures**

Most of the measures were adapted from established scales in the literature (please see Table 1), with the exception of follow-up. Although follow-up is not a new concept and has been mentioned as a service recovery strategy in the literature (Bell and Zemke 1987), the development of a new scale for follow-up was deemed necessary following the interviews. Accordingly, Churchill’s (1979) guidelines for scale development were followed and a reliable and valid measure of follow-up was developed. Given that previous research suggests that service failure severity might affect satisfaction with service recovery (Smith, Bolton, and Wagner 1999), this study also included this variable as a control variable.

The questionnaire was originally developed in English and then translated into Arabic and subsequently translated into English again by a different translator using the back-translation method (McGorry 2000). Following several interactions with academics,
complainants, managers and call center employees, the questionnaire was then administered to a sample of 100 complaining mobile phone network customers in Egypt in order to ensure that the questionnaire was clear, legible, easy to understand, and that the questions flowed in a logical order (Dillman 2007). Moreover, this questionnaire pre-test ensured that constructs originally developed in one culture have the same meaning in a different culture (Craig and Douglas 2000). Based on the feedback received, the questionnaire was then modified and finalized.

The key informants are customers of mobile phone network service providers who complained during the previous six months. The six-month period allowed to reduce recall bias (Lee et al. 1999; Liao 2007; Mostafa 2011) and mirrors previous complaint handling research (Bitner, Booms, and Tetreault 1990; Liao 2007; Tax, Brown, and Chandrashekaran 1998). The unit of analysis is the complainant’s evaluation of the service recovery process and its outcome.

**Data Collection and Sampling**

The sampling frame for this study comprises all customers who raised a complaint during the last six months to any of the two mobile phone network service providers operating in Egypt who agreed to participate in the study. The total number of complainants for both companies during the previous six months was 3,136. The first company had 1,632 complainants, while the second company had 1,504 complainants. Out of the 3,136 complainants contacted, 1,320 agreed to participate in the study.

The data collection procedure comprised three stages: 1) pre-notification phone call; 2) distribution of a mail questionnaire with a cover letter, pre-paid envelope and a pen as an incentive; 3) thank-you card. In order to increase the response rate, the multiple contact method was implemented along with personalization of the correspondence in addition to the incentive and pre-paid return envelope previously mentioned (Dillman 2007). Accordingly,
questionnaires were distributed to 1,320 complaining customers and 487 were received, yielding a response rate of 37%. Fifty questionnaires were unusable. The remaining sample size of 437 represents a usable response rate of 33%. In terms of sample characteristics, 65.7% of the respondents are male, with .9% of respondents aged 17 or younger, 8.2% aged 18 to 24, 19.5% with 25 to 29 years old, 38.4% aged 30-39, 26.3% aged between 40-49 and 5.9% aged over 49. In terms of education, 2% have no qualifications and the majority holds an undergraduate degree (43.9%).

Common Method Bias

This study used the procedural steps and statistical tests recommended by Podsakoff et al. (2003) to control and test for common method bias. First, anonymity of answers was guaranteed by assuring respondents that all responses would be treated confidentially. Second, respondents were encouraged to answer honestly by assuring them that there were no correct answers. Third, items from different constructs were mixed when designing the questionnaire. The aim is to restrict the respondents’ ability to predict the relationships among the measures. Fourth, all questions were worded carefully cautiously to avoid unclear or vague terminology.

Along with the above-mentioned procedural remedies, this study employed statistical tests for common method bias. In particular, we ran the Harman’s single factor test (Podsakoff et al. 2003). A single factor CFA model in which all items of key constructs were loaded on one factor was run (e.g., Iverson and Maguire 2000; Korsgaard and Roberson 1995). This one factor CFA model yields a very poor model fit ($\chi^2 = 15383$, $df = 989$, $p < .05$; RMSEA = .183; GFI = .39; AGFI = .34). The improvement in the model fit when all items were loaded on their theoretical constructs compared to the one factor model fit is significant.

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2 Three respondents (0.7%) did not answer this question.
(Δ $\chi^2 = 13599$, Δ $df = 66$, $p < .05$). Anchored in Harman’s single factor test, it can be concluded that common method bias is not a problem in this study.
**Analysis and Results**

**Measurement Model**

LISREL 8.54 (Jöreskog and Sörbom 2003) was employed to assess the measurement model and then test the research hypotheses through evaluation of the structural model. The maximum likelihood (ML) estimation method was used in parameter estimation.

Key constructs were included in the measurement model, and subjected to CFA (cf. Anderson and Gerbing 1988; Diamantopoulos and Siguaw 2000; Hair et al. 2010). The model was estimated and re-estimated by analyzing the loading of each item on its underlying construct (loading ≥ .7 is desirable, see Hair et al. 2010), the significance of the loading (t-value > 1.96 in absolute terms is desirable, see Hair et al. 2010), each item’s squared multiple correlation (R² > .30 is desirable, see Hair et al. 2010) and the overall model fit. The final model fitted the data well (χ² = 2031, df = 1097, p < .05; RMSEA = .044; NNFI = 1.00; CFI = 1.00; IFI = 1.00) and the above-mentioned criteria were met, which provides a sign for the uni-dimensionality of the scales (Cadogan et al. 2006).

Cronbach alphas (α) were calculated and were acceptable for each construct, ranging from .93 for problem solving to .98 for compensation. Composite reliability (ρη) as well as average variance extracted (AVE) for each construct were calculated. Composite reliability revealed acceptable values ranging from .92 for problem solving to .98 for compensation. AVE values were also sound, ranging from .80 for speed of response, problem solving, and procedural justice to .91 for compensation.

Finally, tests were conducted in order to assess both discriminant validity and convergent validity, validity tests were conducted. To assess discriminant validity, a series of two-factor CFA models were tested for each pair of constructs (Bagozzi, Yi, and Phillips 1991). For each model, the correlation between the two constructs is constrained to 1 (i.e., perfect correlation) and then set free. If the change in χ² is greater than 3.84 (df = 1; p < .05)
then there is evidence of discriminant validity (Bagozzi, Yi, and Phillips 1991; Cadogan et al. 2006; Iverson and Maguire 2000). In all cases, the chi-square difference test is significant reflecting that the factors discriminate. To assess convergent validity, the magnitude of the factor loading estimates as well as their significance (t-value) were analyzed (Diamantopoulos and Siguaw 2000; Hair et al. 2010). All factor loadings exceed the cut-off point of .70 and are statistically significant (t-value > |1.96|). Table 1 shows the standardized factor loadings, t-values, α, ρη, AVE, and the overall model fit indices.

| Structural Model and Hypotheses Testing |

The structural equation modelling (SEM) approach was employed to test the research hypotheses using LISREL 8.54 (Jöreskog and Sörbom 2003). The structural model shown in Figure 2 yields a χ² of 2448 (df = 1132, p < .05). Since the χ² statistic may yield unreliable results when the sample size and the model complexity increase, other fit indicators (RMSEA = .052; NNFI = .99; CFI = .99; IFI = .99) were used to evaluate the model fit (Diamantopoulos and Siguaw 2000; Hair et al. 2010). The resulting model fit for the structural model indicated an acceptable model fit to the data. Next, the model results and hypotheses tests are explained.
Service Recovery Strategies and Perceived Justice

The current research did not propose hypotheses to test the relationships between different service recovery strategies and overall perceived justice as these relationships have previously been tested. Nevertheless, in order to test for the new effects of the follow-up service recovery strategy on procedural justice and of problem solving on distributive justice, we tested for the effects of all the service recovery strategies on different types of perceived justice. Previous research suggests that compensation positively affects distributive justice, which was confirmed in this study (.17, \( p < .01 \)). Despite previous research documenting the positive effect of problem solving on perceived justice in general, this study examines for the first time the effect of problem solving on distributive justice in particular. The estimated parameter of problem solving (.95) is significant at \( p < .01 \) and therefore \( H_{1a} \) is confirmed. Our findings also suggest that speed of response (.14, \( p < .01 \)) and follow-up (.69, \( p < .01 \)) positively affect procedural justice. Accordingly, these findings support previous research results with regard to speed of response, and confirm the new hypothesis, \( H_{1b} \), developed in this study. This study’s results are aligned with previous research, which suggests that giving an explanation and being courteous positively affect interactional justice. Surprisingly, the relationship between apology and interactional justice is not significant and thus does not corroborate previous findings. The estimated parameters of apology, providing an explanation, and being courteous are \(-.46, .46, \) and \(.66 \) respectively.

Perceived Justice and Satisfaction with Service Recovery

Our findings, which are aligned with previous research, suggest that perceived justice types are positively correlated with satisfaction with service recovery. The three paths linking the different types of justice (i.e., distributive, procedural, and interactional) to satisfaction
with service recovery are significant at $p < .01$. The estimated parameters of distributive, procedural, and interactional justice are .49, .48, and .17 respectively. In terms of the control variable severity of failure, its effect on satisfaction with service recovery is negative and significant as expected ($-0.06, p < .01$). Moreover, the introduction of this control variable did not alter the relationships among the key variables of interest in the model.

Perceived Justice and Corporate Image

Our results show that interactional justice positively impacts corporate image (.32, $p < .01$) and thus $H_{2e}$ is corroborated. However, the two paths linking distributive and procedural justice to corporate image are non-significant. As a result, $H_{2a}$ and $H_{2b}$ are rejected.

Satisfaction with Service Recovery and Corporate Image

Our results suggest that satisfaction with service recovery positively influences corporate image (.54, $p < .01$), which corroborates the extremely limited research on this relationship (cf. Andressen 2001).

The mediating role of satisfaction with service recovery in the relationships between different types of perceived justice and corporate image was hypothesized ($H_{3a}, b, c$). This mediating effect was investigated by looking at the direct, indirect and total effects of the different types of perceived justice on corporate image.

While the direct effect of interactional justice (.32, $p < .01$) on corporate image is positive, the direct effects of distributive justice and procedural justice on corporate image are non-significant. The indirect effect of distributive justice on corporate image through satisfaction with service recovery is positive (.26, $p < .01$). This indirect effect strengthens the total effect (.29, $p < .01$) notwithstanding the lack of a direct effect. The indirect effect of procedural justice on corporate image through satisfaction with service recovery is positive (.26, $p < .01$). The total effect is also positive (.21, $p < .01$) despite the non-existence of a
direct effect. Finally, the indirect effect of interactional justice on corporate image through satisfaction with service recovery is positive (.09, $p < .01$). This indirect effect also strengthens the total effect (.41, $p < .01$).

The aforementioned findings demonstrate that in addition to the direct effect of interactional justice on corporate image, the three types of perceived justice influence corporate image indirectly through satisfaction with service recovery. While satisfaction with service recovery fully mediates the effects of both distributive and procedural justice on corporate image, it partially mediates the effect of interactional justice on corporate image. Table 3 provides the results of the mediation effect of satisfaction with service recovery in the perceived justice–corporate image relationship, and Table 2, the results of the structural equation model.

*****************************************************************************

Insert Tables 2 and 3 about here

*****************************************************************************

DISCUSSION

Although one of the main aims of this study was to explore the effect of different perceived justice types on corporate image, a number of additional contributions to the service recovery literature have also been made. First, this study is novel in testing the impact of all the major service recovery strategies on individual types of perceived justice and proposing two new relationships between problem solving and distributive justice as well as follow-up and procedural justice. All but one of the relationships was positive and significant. Our study contradicts previous literature (Tax, Brown, and Chandrashekaran 1998) by showing that problem solving rather than compensation has the greatest impact on distributive justice. While this finding could be industry specific in that respondents needed
to solve their problem in order to continue using their mobile phones, it is expected that in many other industries, such as the banking industry, the most important factor is still that the problem is solved. Hess, Ganesan, and Klein (2003) argue that a customer base with less service failure exposure is more open to general equity measures from the service provider, such as those accrued from problem solving. Therefore, another possible explanation for our finding is that our respondents might have experienced less service failure exposure and thus are less in need of compensation. Another reason might be that when customers receive compensation that they think is more than they deserve, they feel guilty, which makes compensation less effective (Smith, Bolton, and Wagner 1999). A final alternative explanation for this finding is that Egypt is a lower-middle-income economy (World Bank 2014), and therefore awareness of consumer rights is far less than in high-income Western countries. As a result, expectations regarding compensation are lower. This result is aligned with Hui and Au’s (2001) findings, which reveal that compensation is relatively less important in eliciting fairness perceptions in countries where consumerism is less developed (e.g. in terms of consumer rights’ awareness) compared to high-income economies. Furthermore, and compounding this effect further, is the collectivist nature of the Egyptian culture, which would predispose Egyptian consumers to preserve group harmony and to avoid both loss of face and conflict (see Hui and Au 2001; de Mooij and Hofstede 2011). This study’s finding also corroborates Liao’s (2007) work, which found problem solving to have a positive impact on perceived justice in general, while also contributing to the literature by empirically testing a new link between problem solving and distributive justice in particular.

Although managers are familiar with follow-up as a service recovery strategy, the novelty regarding follow-up is related to the measurement of this concept and its positive impact on procedural justice. Accordingly, the tangible evidence provided during a follow-up call or follow-up letter generates a favorable procedural justice perception. Interestingly, this
relationship is stronger than the influence of speed of response on procedural justice, confirming follow-up as a key service recovery strategy to be added to the traditional service recovery strategies mix to be implemented by companies. Hence, the inclusion of follow-up as a service recovery strategy, its measurement and its impact on procedural justice represent contributions to the current literature on service recovery.

While speed of response was found to positively impact procedural justice (Blodgett, Hill, and Tax 1997), an interesting finding was the non-significant impact of apology on interactional justice, which contradicts past literature (Davidow 2000; Karatepe 2006; Zemke and Bell 1990; Hui and Au 2001). Two possible explanations are proposed. First, customers might perceive the apology as insincere, in which case, its effect would be diminished and eventually become insignificant (Sarel and Marmorstein 1998). Second, an apology might also be perceived as an admission of guilt and culpability by Egyptian complaining customers as often occurs in higher power distance cultures (de Mooij 2004) when compared with Western cultures. Finally, and consistent with earlier findings (Davidow 2000; Karatepe and Ekiz 2004; Yavas et al. 2004), the positive influence of explanation and courtesy on interactional justice was corroborated in our study.

Our findings also support the positive impact of distributive, procedural, and interactional justice on satisfaction with service recovery, corroborating previous research results (Liao 2007; Maxham III and Netemeyer 2002; Schoefer 2008; Tax, Brown, and Chandrashekar 1998). Moreover, this study’s results show that distributive justice has the highest impact on satisfaction with service recovery, which offers further support to the strong stream of research that argues that distributive justice affects service recovery satisfaction to a greater extent than procedural and interactional justice do (Kim, Kim, and Kim 2009; Mattila 2001; Maxham III and Netemeyer 2002; Smith, Bolton, and Wagner 1999). In other words, the complainant tends to experience more satisfaction with service recovery arising from the perceived fairness of the redress provided (i.e., distributive justice),
particularly when compared to the perceived fairness of the means and procedures criteria by which decisions are made to resolve a conflict (i.e., procedural justice) and the perceived fairness of the way in which the customer is treated during the recovery (i.e., interactional justice). Accordingly, emphasis should be put on compensation and problem solving as these service recovery strategies drive distributive justice, which in turn is the most important antecedent of satisfaction with service recovery.

Finally, this is the first study to investigate the effects of different perceived justice types on corporate image, thereby contributing to the service recovery literature. Results show that interactional justice directly influences corporate image. This positive direct impact may be justified by the pivotal role of front-line employees as part of the overall service in managing the firm’s image (Nguyen and Leblanc 2002) since the way the customer is treated in the recovery process depends greatly on them (Liao 2007; Tax, Brown, and Chandrashekaran 1998). Hence, interactional justice is formulated at the employee–customer interface, as opposed to procedural and distributive justice. It is also interesting to note that although distributive and procedural justice do not have positive direct effects on corporate image, both positively affect corporate image indirectly through satisfaction with service recovery. This mediating role of satisfaction with service recovery between both distributive and procedural justice and corporate image supports a purely cognition–affective route in developing corporate image. While interactional justice has direct and indirect links with corporate image, distributive and procedural justice first have an effect on satisfaction with service recovery and then through this satisfaction both are able to influence corporate image.

The main reason for the lack of direct effects of both distributive justice and procedural justice on corporate image is the fact that these types of justice are greatly dependent on a company’s internal operations (namely the type of redress to employ according to the service failure situation, procedures followed to make recovery decisions, etc.) and to some extent are not directly controlled by front-line employees. With interactional justice, on the other
hand, the impact is more immediate as it relies mainly on front-line employees and is formulated at the employee–customer interface. The direct effect of interactional justice on corporate image also highlights the importance of human skills in service contexts, by emphasizing courtesy and explanation as service recovery strategies that, by influencing interactional justice, ultimately create a positive corporate image.

This finding could also reflect the importance of relational needs of the collectivist Egyptian complaining customers since “[t]heir identity is based on the social system to which they belong, and preserving harmony and avoiding loss of face are important.” (de Mooij and Hofstede 2011, p.182). Additionally, given the importance that collectivist cultures attribute to building relationships and trust among parties (de Mooij and Hofstede 2011), interactional justice by its nature allows for a greater relational approach which satisfies the social needs of collectivist consumers more appropriately than procedural and distributive justice. The findings regarding the mediating effect of satisfaction with service recovery are also consistent with the limited extant literature suggesting a strong and positive impact of satisfaction with service recovery on corporate image (cf. Andreassen 2001). Therefore, this study also contributes to this unexplored stream of research.

**IMPLICATIONS AND FUTURE RESEARCH DIRECTIONS**

These findings have a number of practical implications for service managers. First, contrary to previous research results, this study questions the role of apology as a service recovery strategy that enhances perceived justice. An underlying reason might be that apologizing to customers may be more complex than previously thought, as sometimes apologizing may be seen by customers as admission of guilt and thus exacerbate perceived interactional injustice. Thus, the interplay between customers who question the apology given by the company and customers who accept it and perceive it as being fair results in a non-significant impact of this service recovery strategy on interactional justice.
Second, and as result of our most important finding, managers should be aware of the powerful role that the service recovery process has in enhancing corporate image. Accordingly, management of corporate image in service companies should integrate the entire backstage customer care processes, and in particular an efficient service recovery process. The impact of perceived justice (resulting from the implementation of service recovery strategies) on corporate image stresses the key role that corporate image has as an attitudinal outcome of the cognitive evaluation of the service recovery strategies. This contributes to the service recovery literature by highlighting that in some instances, namely when customers feel that interactional justice is high, they may directly develop positive corporate image perceptions. Nevertheless, the same direct impact on corporate image does not occur when distributive and procedural justice are assessed; in this case, the mediating role of satisfaction with service recovery is essential.

Finally, each service recovery strategy will affect different types of perceived justice and consequently impact differently on corporate image. For instance, while apology does not affect interactional justice, all the remaining service recovery strategies impact on perceived justice to some extent and thus may indirectly influence corporate image. Therefore, when implementing different service recovery strategies, managers should assess their indirect impact on both satisfaction with service recovery and corporate image given that this study shows that corporate image is a consequence of the overall service recovery process. In this way, this study advances the current service recovery management thinking and practice.

While there are some limitations to this study, these limitations present some promising opportunities for future research. First, the study focuses on one industry, which affects the generalizability of the results. While what constitutes an effective service recovery process is context specific and could differ from one industry to another (Johnston and Fern 1999), this limitation is inevitable due to the context-specific nature of the service recovery process in terms of its implementation (Mattila 2001). Indeed, selecting a single industry
allows one to overcome the problem of industry differences (Hartline and Ferrell 1996). Nonetheless, future research should consider testing the conceptual framework in other industries.

Second, this study controlled for the effect of severity of failure. However, a potential avenue for further research is the inclusion of severity of failure as a moderator as well as the inclusion of loyalty to provider, propensity to complain and type of service failure as control variables in the conceptual framework.

Finally, one of the most interesting findings emerging from the interviews was a perceived justice-based recovery paradox for corporate image. Future research is recommended to measure customers’ perception of corporate image before and after the occurrence of the failure to evaluate whether this perceived justice-based recovery paradox holds for corporate image.
References


**Figure 1.** Conceptual Framework: The Service Recovery Process–Corporate Image Pathway.

--- Dotted lines represent new hypothesized relationships that were tested for the first time in this study.
— Solid lines represent relationships that have been established in the literature.
Figure 2. Results: The Structural Model of the Service Recovery Process–Corporate Image Pathway.

Note: * p < .01; ns: not significant
Model fit: non-normed fit index (NNFI) = .99; comparative fit index (CFI) = .99; incremental fit index (IFI) = .99; root mean square error approximation (RMSEA) = .052; χ² (df) = 2448 (1132).
Table 1. Results: Measurement Model

<table>
<thead>
<tr>
<th>Constructs and scale items</th>
<th>Standardized factor loading</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apology (adapted from Liao 2007) – (α = .97; ρη = .97; AVE = .89)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The company apologized to me for what had happened.</td>
<td>.94</td>
<td>a</td>
</tr>
<tr>
<td>The company expressed regret for the mistake that occurred.</td>
<td>.92</td>
<td>36.68</td>
</tr>
<tr>
<td>The company apologized for the inconvenience the problem had brought to me.</td>
<td>.96</td>
<td>42.14</td>
</tr>
<tr>
<td>The company apologized for what I have suffered because of the problem.</td>
<td>.95</td>
<td>40.55</td>
</tr>
<tr>
<td><strong>Compensation (adapted from Valenzuela and Llanos 2008) – (α = .98; ρη = .98; AVE = .91)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The compensation the company gave me for the loss incurred is good.</td>
<td>.95</td>
<td>a</td>
</tr>
<tr>
<td>The compensation the company gave me for all the time I spent dealing with the complaint is good.</td>
<td>.95</td>
<td>45.06</td>
</tr>
<tr>
<td>The compensation the company provided me to cover my financial losses is good.</td>
<td>.97</td>
<td>49.83</td>
</tr>
<tr>
<td>The compensation the company gave me for all the hard times I had due to the complaint is good.</td>
<td>.97</td>
<td>50.71</td>
</tr>
<tr>
<td>The compensation the company provided me for the inconvenience I went through due to the complaint is good.</td>
<td>.94</td>
<td>42.28</td>
</tr>
<tr>
<td><strong>Explanation (adapted from Liao 2007) – (α = .95; ρη = .95; AVE = .84)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The company explained why the service problem might have happened.</td>
<td>.91</td>
<td>a</td>
</tr>
<tr>
<td>The company explained what factors might have caused the problem.</td>
<td>.93</td>
<td>33.09</td>
</tr>
<tr>
<td>The company explained what might have gone wrong.</td>
<td>.92</td>
<td>32.38</td>
</tr>
<tr>
<td>The company provided a convincing explanation for the reason of the problem.</td>
<td>.90</td>
<td>30.71</td>
</tr>
<tr>
<td><strong>Follow-up (New Scale) – (α = .96; ρη = .96; AVE = .85)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After solving the problem, the company contacted me to ensure that the problem has been solved completely.</td>
<td>.91</td>
<td>a</td>
</tr>
<tr>
<td>After handling the complaint, the company followed up to make sure that everything is satisfactory.</td>
<td>.95</td>
<td>36.35</td>
</tr>
<tr>
<td>The company asked me to use the service to ensure that the problem has been entirely solved.</td>
<td>.91</td>
<td>31.54</td>
</tr>
<tr>
<td>The company has contacted me to inform me about the status of my complaint.</td>
<td>.92</td>
<td>32.81</td>
</tr>
<tr>
<td><strong>Speed of response (adapted from Liao 2007) – (α = .94; ρη =.94; AVE = .80)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The company reacted promptly to my inquiries.</td>
<td>.89</td>
<td>a</td>
</tr>
<tr>
<td>The company attended to the problem quickly.</td>
<td>.90</td>
<td>28.64</td>
</tr>
<tr>
<td>The company responded to my complaint promptly.</td>
<td>.91</td>
<td>29.28</td>
</tr>
<tr>
<td>Solving the problem did not take so long.</td>
<td>.89</td>
<td>27.61</td>
</tr>
<tr>
<td><strong>Being courteous (adapted from Liao 2007) – (α = .95; ρη =.95; AVE = .82)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The service provider was friendly to me.</td>
<td>.93</td>
<td>a</td>
</tr>
<tr>
<td>The service provider was polite to me.</td>
<td>.93</td>
<td>35.38</td>
</tr>
<tr>
<td>The service provider showed respect to me.</td>
<td>.87</td>
<td>28.96</td>
</tr>
<tr>
<td>The service provider was patient with me.</td>
<td>.89</td>
<td>30.92</td>
</tr>
<tr>
<td>Constructs and scale items</td>
<td>Standardized factor loading</td>
<td>t-value</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Problem solving</strong> (adapted from Liao 2007) – (α = .93; ρ_θ = .92; AVE = .80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The service provider was able to answer my questions.</td>
<td>.91</td>
<td>a</td>
</tr>
<tr>
<td>The service provider knew the solutions to the problem.</td>
<td>.85</td>
<td>25.72</td>
</tr>
<tr>
<td>The responsible employee solved the problem efficiently.</td>
<td>.92</td>
<td>31.20</td>
</tr>
<tr>
<td><strong>Distributive justice</strong> (adapted from Tax, Brown, and Chandrashekaran 1998) – (α = .95; ρ_θ = .95; AVE = .83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In resolving the complaint the company gave me what I needed.</td>
<td>.95</td>
<td>a</td>
</tr>
<tr>
<td>I did not receive what I required. (R)</td>
<td>.82</td>
<td>26.75</td>
</tr>
<tr>
<td>I got what I deserved.</td>
<td>.93</td>
<td>41.39</td>
</tr>
<tr>
<td>The result I received from the complaint was fair.</td>
<td>.94</td>
<td>43.57</td>
</tr>
<tr>
<td><strong>Procedural justice</strong> (adapted from Tax, Brown, and Chandrashekaran 1998; Colquitt 2001) – (α = .94; ρ_θ = .94; AVE = .80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was pleased with the length of time it took for them to resolve my complaint.</td>
<td>.82</td>
<td>a</td>
</tr>
<tr>
<td>The company gave me a chance to tell them the details of my problem.</td>
<td>.89</td>
<td>23.62</td>
</tr>
<tr>
<td>The company adapted its complaint handling procedures to satisfy my needs.</td>
<td>.92</td>
<td>25.28</td>
</tr>
<tr>
<td>Overall, the procedures followed by the company in handling the problem were fair.</td>
<td>.93</td>
<td>25.77</td>
</tr>
<tr>
<td><strong>Interactional justice</strong> (adapted from Homburg and Fürst 2005; McCollough, Berry, and Yadav 2000; Smith, Bolton, and Wagner 1999; Tax, Brown, and Chandrashekaran 1998) – (α = .96; ρ_θ = .96; AVE = .86)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The employees seemed to be very interested in my problem.</td>
<td>.93</td>
<td>a</td>
</tr>
<tr>
<td>The employees understood exactly my problem.</td>
<td>.95</td>
<td>39.61</td>
</tr>
<tr>
<td>The employees were very keen on solving my problem.</td>
<td>.87</td>
<td>29.84</td>
</tr>
<tr>
<td>Overall, the employees’ treatment during the complaint handling was fair.</td>
<td>.95</td>
<td>39.98</td>
</tr>
<tr>
<td><strong>Satisfaction with service recovery</strong> (adapted from Maxham III and Netemeyer 2002) – (α = .96; ρ_θ = .96; AVE = .89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The company provided a satisfactory resolution to my mobile problem on this particular occasion.</td>
<td>.95</td>
<td>a</td>
</tr>
<tr>
<td>Regarding this particular event, I am satisfied with the company.</td>
<td>.94</td>
<td>41.35</td>
</tr>
<tr>
<td>I am happy with the way the company handled my complaint.</td>
<td>.94</td>
<td>41.20</td>
</tr>
<tr>
<td><strong>Corporate image</strong> (adapted from Andreassen 2001) – (α = .95; ρ_θ = .95; AVE = .86)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a positive perception about the company.</td>
<td>.93</td>
<td>a</td>
</tr>
<tr>
<td>I am satisfied with the way the company presents itself to the public (e.g., through advertising, attitudes the company expresses, etc.).</td>
<td>.92</td>
<td>34.52</td>
</tr>
<tr>
<td>I perceive the company as customer oriented.</td>
<td>.94</td>
<td>37.85</td>
</tr>
<tr>
<td><strong>Failure severity</strong> (adapted from Maxham III and Netemeyer 2002) – (α = .95; ρ_θ = .95; AVE = .83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The encountered problem with the company is a major one.</td>
<td>.94</td>
<td>a</td>
</tr>
<tr>
<td>The problem caused a great inconvenience to me.</td>
<td>.92</td>
<td>35.76</td>
</tr>
<tr>
<td>The problem represents a great aggravation.</td>
<td>.93</td>
<td>36.16</td>
</tr>
<tr>
<td>The problem that I have encountered with the firm is a severe one.</td>
<td>.84</td>
<td>27.18</td>
</tr>
</tbody>
</table>

Note: Fit indices: non-normed fit index (NNFI) = 1.00; comparative fit index (CFI) = 1.00; incremental fit index (IFI) = 1.00; root mean square error approximation (RMSEA) = .044; χ² (df) = 2031 (1097). a. Item fixed to set scale; α = Cronbach alpha; ρ_θ = Composite reliability; AVE = Average variance extracted (Bagozzi 1980); R- reverse-coded item.
Table 2. Summary of the Results of the SEM

<table>
<thead>
<tr>
<th>Estimate path</th>
<th>Hypothesis</th>
<th>Expected sign</th>
<th>Estimated parameter</th>
<th>t-value</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation</td>
<td>+</td>
<td>.17*</td>
<td>6.49</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>+</td>
<td>.54*</td>
<td>8.17</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Problem solving</td>
<td>H1a</td>
<td>+</td>
<td>.95*</td>
<td>22.66</td>
<td>+ S</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>+</td>
<td>.14*</td>
<td>4.72</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Speed of response</td>
<td>+</td>
<td>.69*</td>
<td>15.89</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>+</td>
<td>.95*</td>
<td>22.66</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Follow-up</td>
<td>H1b</td>
<td>+</td>
<td>.17*</td>
<td>6.49</td>
<td>+ S</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>+</td>
<td>.54*</td>
<td>8.17</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Apology</td>
<td>+</td>
<td>-.46</td>
<td>-.87</td>
<td>-</td>
<td>ns</td>
</tr>
<tr>
<td>Interactional justice</td>
<td>+</td>
<td>.46*</td>
<td>10.04</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Explanation</td>
<td>+</td>
<td>.66*</td>
<td>13.03</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Interactional justice</td>
<td></td>
<td>.49*</td>
<td>11.92</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Courtesy</td>
<td>+</td>
<td>-.06*</td>
<td>-3.11</td>
<td>-</td>
<td>S</td>
</tr>
<tr>
<td>Distribution justice</td>
<td>+</td>
<td>.32*</td>
<td>6.08</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Service failure severity</td>
<td>+</td>
<td>.17*</td>
<td>4.58</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Corporate image</td>
<td>+</td>
<td>.031</td>
<td>.52</td>
<td>+</td>
<td>ns</td>
</tr>
<tr>
<td>Corporate image</td>
<td>+</td>
<td>-.05</td>
<td>-.80</td>
<td>-</td>
<td>ns</td>
</tr>
<tr>
<td>Corporate image</td>
<td>+</td>
<td>.32*</td>
<td>6.08</td>
<td>+</td>
<td>S</td>
</tr>
<tr>
<td>Corporate image</td>
<td>+</td>
<td>.54*</td>
<td>8.17</td>
<td>+</td>
<td>S</td>
</tr>
</tbody>
</table>

Note: *p < .01; ns: not significant; S: significant
Table 3. Results of the Mediation Effect of Satisfaction with Service Recovery in the Perceived Justice–Corporate Image Relationship.

<table>
<thead>
<tr>
<th></th>
<th>Direct Effects</th>
<th></th>
<th>Indirect Effects</th>
<th></th>
<th>Total Effects</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standardized Coefficient</td>
<td>t-value</td>
<td>Standardized Coefficient</td>
<td>t-value</td>
<td>Standardized Coefficient</td>
<td>t-value</td>
</tr>
<tr>
<td>Satisfaction with service recovery mediates the effects of distributive justice on corporate image.</td>
<td>H_{3a}</td>
<td>.03</td>
<td>.52</td>
<td>.26*</td>
<td>5.41</td>
<td>.29*</td>
</tr>
<tr>
<td>Satisfaction with service recovery mediates the effects of procedural justice on corporate image.</td>
<td>H_{3b}</td>
<td>-.05</td>
<td>-.80</td>
<td>.26*</td>
<td>5.06</td>
<td>.21*</td>
</tr>
<tr>
<td>Satisfaction with service recovery mediates the effects of interactional justice on corporate image.</td>
<td>H_{3c}</td>
<td>.32*</td>
<td>6.08</td>
<td>.09*</td>
<td>3.76</td>
<td>.41*</td>
</tr>
</tbody>
</table>

Note: *p < .01