The Bright Side of Stressed Frontline Employees in Service Recovery: The Combination Causes of Organizational Empowerment and Self-Regulation Processes

Mo Zhang
Economics and Management School, Shanghai Maritime University, Shanghai, People’s Republic of China

Purpose: This study aims to extend the previous research on the structural relationships between organisational empowerment and frontline employees’ behaviours by exploring the role of the self-regulating processes and its impact on service recovery performance (SRP).

Methods: This study adopts fuzzy-set qualitative comparative analysis (fsQCA). Following the procedure of applying fsQCA, including data calibration, truth table construction and fsQCA analysis, the 287 dyadic data from the express mail industry was collected and analysed.

Results: The findings show that organisational empowerment is a sufficient antecedent for high SRP, especially in cases involving frontline employees with strong service recovery awareness and positive work engagement. Moreover, in the context of organisational empowerment, a reasonable level of emotional exhaustion represents a positive impact on performance in service recovery.

Conclusion: This study offers some comprehensive insights for practitioners to empower stressed frontline employees and monitor their emotions and behaviours using appropriate approaches.

Keywords: service recovery, self-regulation theory, frontline employee, empowerment, service recovery performance, fsQCA

Introduction

Academics and practitioners continuously pay attention to the casualty consequences of service failures in order to enhance the reliability of service delivery, which leads customer satisfaction in the service industries.1–4 Since frontline employees are implementers who deliver services and produce service recovery directly, numerous studies have focused on the management of frontline employees (FLEs).5–8 However, due to the inevitability of service failure, customer complaints continue to be the norm in the service industries. For instance, according to the data from the China State Post Office in July 2016, the rate of customer complaints is extremely high (higher than 10% on average in the express mail industry), even for well-established firms. The most frequent reason for complaints is the failure of mail delivery by FLEs. Therefore, once service failure occurs, the attitudes and behaviours of FLEs are essential to service recovery performance (SRP). Various service recovery studies support such a claim from both the organisational and...
individual sides.  These studies’ results explore the impact of organisational efforts on service recovery. The authors realised that empowerment, which refers to an elementary approach of organisational efforts, provides FLEs with the accessible resources that result in high SRP. Moreover, several previous studies have examined the moderating role of FLEs’ attitudes and emotions between empowerment and employees’ actions.

However, most of the existing studies have identified the structural relationships between antecedents such as empowerment, emotional exhaustion and work involvement and explored their individual effects on SRP through a symmetrical analysis model (e.g., multiple regression analysis), which is universal utilised to explore structural relationships, not examine asymmetrical complex causal relationships. This study employs fuzzy-set qualitative comparative analysis (fsQCA), which is useful for analysing asymmetrical complex causal relationships and exploring various combinations of antecedents for both efficient and inefficient service recovery. To do this, this study develops a research model based on the commitment–trust theory and cognitive theory that links organisational empowerment and the self-regulation process of FLEs with SRP. This study’s findings offer a more detailed picture to understand FLEs’ behaviours (with empowerment or not) and provide rich insights into causal solutions of high SRP.

This study contributes to the literature in three aspects. First, in the case of the high level of organisational empowerment, the findings show that emotional exhaustion positively influences SRP, which is partially complementary of previous studies that have argued the negative relationship between emotional exhaustion and employees’ outcomes. Second, the findings show the importance of empowerment to FLEs in service failure handling and point out that when employees have full awareness of service recovery, positive work involvement and emotional self-control, empowerment is more effective and efficient. Third, the results provide alternative empirical evidence for causal antecedents in high and low SRPs by using the fsQCA technique.

This paper proceeds as follows. The theoretical background to develop the research model are summarised in the next section. The third section explains the sample and measurement assessment used in this paper and introduces the procedure of the application of the fsQCA technique. The fourth section reports the processes of adopting the fsQCA technique (data calibration and truth table) and results. The final section provides a discussion of theoretical and managerial implications, as well as limitations and further research.

Theoretical Background and Research Model

This section presents the research model, which draws upon self-regulation theory to describe the antecedents and their combinations that result in FLEs’ SRPs. This research model, which extends the self-regulating process adopted by Bagozzi (1992), provides a comprehensive framework from both the organisation’s and the employee’s perspectives and illustrates the self-regulating process of FLEs after service failure occurs (with organisational empowerment or not). The research model is presented in Figure 1.

Self-Regulating Processes of Frontline Employees in Service Recovery

Due to the high-contact feature in the service industries, FLEs deliver service directly to customers, such as the express mail service. Thus, FLEs’ attitudes and behaviours influence customers’ experiences of service recovery through face-to-face interactions. Based on cognitive theory, Bagozzi (1992) reformulated the framework “appraisal-emotional response-behaviour”, called the self-regulating process, to depict the mediating role of emotional response between personal attitude and behaviour. In the service failure context, FLEs experience a sequential self-regulating process before taking action regarding service recovery.

First, when service failure occurs, FLEs’ appraisals vary between past (e.g., service recovery experiences), present (e.g., service failure attribution) and future outcomes (e.g., rewards and recognition from organisations), which are the appraisal processes in the self-regulation model. We summarized these evaluations into the concept of service recovery awareness (SRA) in this study, which refers to fully understanding the importance and timeliness of service failure handling and the ability to decide a probable approach to deal with customer complaints. FLEs who have strong SRA may display the willingness to engage in service recovery and show their positive emotions to complaining customers.

Second, in line with SRA, FLEs represent emotional responses due to service failure and perceived workload, which represents emotional reactions in Bagozzi’s self-regulation model. In fact, FLEs demonstrate both positive and negative emotional responses in the service recovery
context. On the one hand, FLEs with SRA show work engagement as a positive emotional response. Work engagement refers to "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption". The main reason is that FLEs fully understand their duties and consider service recovery as a part of their regular work, rather than an extra task. On the other hand, FLEs with SRA also display emotional exhaustion as a negative emotional response, which refers to "the lack of energy and emotional fatigue caused by excessive psychological demands", caused by the perceived challenge in service failure handling. In line with the definition of emotional exhaustion, if FLEs who have SRA realise the importance of service recovery for their career growth and have the willingness to take responsibility, they may perceive workload in service failure handling, which then results in emotional exhaustion.

Third, according to the self-regulation model, individual emotional reactions influence coping responses. In service recovery, FLEs’ emotional responses (work engagement and emotional exhaustion) impact their behaviours that are related to SRP. We define SRP through two dimensions: customer satisfaction and customer relationship after recovery. The previous studies in service recovery literature have explored the negative impact of emotional exhaustion and the positive impact of work engagement on service recovery. However, some studies have suggested that stressed employees exhibit higher job performances than employees especially in service recovery. There is a call for research to explore the configuration of FLEs’ self-regulation processes, including emotional exhaustion leading to high SRP. Consequently, this study argues that the condition in which emotional exhaustion is positive is associated with SRP.

Organisational Empowerment in Service Recovery
Organisational empowerment in service recovery refers to providing resources for service failure handling and authority to bypass the immediate leadership and report directly to managers in service recovery, which has proved as one of the best managerial practices in organisations’ efforts to deliver high-quality service. Moreover, there is theoretical consensus to suggest that empowerment leads to FLEs’ work engagement, which enhances
However, some scholars have argued that empowerment would also lead FLEs’ emotional exhaustion, caused by the realization of they should take responsibility and then exhaust their energy on coping with complaining customers.\(^{27}\)

In this study we argue that organisational empowerment influences FLEs’ self-regulation processes in three key ways. First, empowerment effects FLEs’ SRA, caused by the belief they will be rewarded and recognised by their organisations based on their efforts in service recovery.\(^{28}\) Second, earlier empirical studies suggested that employees may experience more stress due to a willingness to take responsibility, which results in emotional exhaustion.\(^{36}\) Third, empowerment provides resources available to FLEs in service recovery.\(^{28,47}\) These resources facilitate employees to deal with service failure smoothly, which motivates FLEs to engage in service recovery. Therefore, we suggest that organisational empowerment influences FLEs’ self-regulation processes in service recovery through a combination approach. This study combines organisational empowerment and FLEs’ SRA, work engagement and emotional exhaustion for emotional exhaustion in self-regulation processes in order to explore the best practice for high SRP.

Data and Method

Sample

This study tested the research model on the express mail industry, which is one of the typical service sectors. Failure to deliver mail service is a frequent occurrence. Data were collected from five express mail firms located in Shanghai. The targeted respondents were those people who had been frontline couriers for at least one year. We selected a sample service package provided by Sojump database, which has a sampling pool of 2.6 million available responders in China. First, we contacted five express mail firms’ managers to achieve the agreement for data collection. Second, we tracked the service failure handling code in these firms’ customer service systems to select targeted employees and customers. In fact, each service failure handling code in the customer management system represented one customer complaint event. Third, we screened targeted FLEs using position, job description and working experience as criteria. The questionnaire was designed in English first and then translated to Chinese and again to English (detailed in the Appendix). At the same time, we separated the questionnaire into two parts and sent the first part to employees and the second part, which was related to SRP, to customers. Fourth, we sent questionnaire invitations through the Sojump database to the managers because Sojump can collect questionnaires by providing a linkage to the responses. Meanwhile, the customer questionnaires were sent as a post-recovery satisfaction survey. Finally, we matched two parts of questionnaire (employee version and customer version) by service failure handling code. Specifically, questionnaires were electronically distributed to all the 1,100 targeted frontline couriers and 1,100 customers in five express mail firms’ Shanghai delivery service centres (with the link “https://sojump.com(jq/9724263.aspx”, open-accessed during 4th April–10th August 2015). Finally, we collected 446 questionnaires, including 287 usable matched questionnaires, with a response rate of approximately 40.5%.

Measurement Assessment

All the perceptual constructs were measured via multiple items adopted from previous studies (detailed in the Appendix). Based on reviewed previous research, we combined items according to developed measurement scales. The questionnaire was written in English first, and then translated into Chinese and again to English by using Back-Translation. After that, we invited five experts, who have best knowledge in service recovery literature and industrial experience, to review questionnaire and collect comments to improve it. Each questionnaire was separated into two version: frontline employee’s version, including organizational empowerment, SRA, work engagement, emotional exhaustion, and customer’s version that focuses on service recovery performance. Finally, the instrument was pre-tested with 50 experts from the logistics industry. As such, the content validity of the measurement was guaranteed by a careful literature review, expert’s comments and pilot pre-tests.

Specifically, we developed four items for organisational empowerment, based on previous research, that reflected customer orientation, the priority of addressing service failure, the priority of information sharing related to service recovery and reward and recognition from organisation based on efforts in service recovery.\(^{16,24,36,48}\) Second, we used six items to measure SRA,\(^{17,27,37}\) including the items reflect the understanding of the impact of service failure event, the willingness to coordinate with others in service recovery; five items to measure work engagement,\(^{36,49}\) including the self-confidence about the ability to handle service failure; and four items to measure emotional exhaustion,\(^{5,34,37}\) including emotional pressure under service
recovery condition. Third, we described SRP as customer satisfaction and customer relationship after service failure handling. There were three items for each dimension.\textsuperscript{17,47} The detailed measurements are shown in the Appendix.

**Unidimensionality and Reliability of Measurements**

Responses to all of the construct measures were elicited on 5-point Likert scales, ranging from “5 = strongly agree” to “1 = strongly disagree”. First, we conducted an exploration factor analysis to test the degree of unidimensionality and reliability of all the constructs, and the results are displayed in the Appendix. The results indicate that all the items loading on the factors were greater than 0.50. Second, we calculated the Cronbach’s alpha to examine the consistency and reliability of the measurements. The results show that all of the Cronbach’s values were greater than 0.70 (see details in the Appendix). In particular, the Cronbach’s alpha of organizational empowerment is 0.840; the Cronbach’s alpha of SRA is 0.748; the Cronbach’s alpha of work engagement is 0.735; the Cronbach’s alpha of emotional exhaustion is 0.808; and the Cronbach’s alpha of service recovery performance is 0.777. These results indicate that the consistency and reliability of the measurements are acceptable.

**Construct Validity and Reliability of Measurements**

We examined construct validity and reliability with confirmatory factor analysis (CFA) by using the Amos 17.0 program. The results show that all the C.R. values of all the factor loadings were greater than 1.96. Moreover, the model fit indices were CMIN/DF=2.013; the confirmatory indices were CFI = 0.882, GFI = 0.873, NFI = 0.792 and IFI = 0.883; the root mean square residual value was 0.034; and the root mean square error of approximation was 0.059, which further indicated that convergent validity was achieved and the structural model was acceptable.

**Procedure to the Application the fsQCA Method**

Fuzzy-set qualitative comparative analysis (fsQCA), which is a subset of QCA, is based on the complexity theory.\textsuperscript{50,51} The complexity theory perspective argues that asymmetry, which assumes that the variables can be non-linear, thus there are alternative configurations that can result in same outcome.\textsuperscript{19–21} The standard procedure for fsQCA includes several steps, see Figure 2.\textsuperscript{52} First, due to the survey adopted in this study using a 5-point Likert scale, we needed to recalculate the raw data into the fuzzy-set score by criteria. To prepare analysis, we calculate three calibration benchmarks (95%, 50% and 5%). Second, we created fuzzy-set membership scores by using three threshold calibration benchmarks, which mean full membership, the crossover point and full non-membership, respectively.\textsuperscript{50} The initial values for all the variables were calibrated into membership scores ranging from 0.0 to 1.0.\textsuperscript{20} Third, we created a truth table by describing the causal conditions and outcomes. We needed to reduce the number of causal recipes in the truth table by doing fsQCA software. See Figure 2 for more details.

![Figure 2](image-url)  
**Notes:** This figure describes the analytic processes following by Ragin.\textsuperscript{52} The processes in dotted line square are conduct by fsQCA software.
table by setting frequency threshold and raw consistency. Suggested a minimum consistency of 0.88 and a frequency threshold ranging from 3 to 8. Finally, we minimised solutions and simplified combinations of variables by inputting 1s and 0s according to whether the row met the criteria of frequency threshold and raw consistency. The solution outputs in the fsQCA 2.5 software included complex solutions, parsimonious solutions and intermediate solutions.

**Analyses and Results**

**Data Calibration of the Fuzzy-Set**

Converting the initial data of variables into fuzzy sets, which are represented as membership scores, is critical to perform successful fsQCA. This conversion process first requires calibration, which determines the membership of the fuzzy sets. The degree of membership in a fuzzy set can range from a score of 0.0 to 1.0. Particularly, the variables of this study were calibrated by using three thresholds or cutoff points: full membership, full nonmembership and the crossover point. We used three benchmarks (95%, 50% and 5%) to transform the initial 5-point scale values into fuzzy membership scores (see Table 1). The fsQCA 2.5 software, developed by Ragin, was used to analyse the original data, following the procedure detailed in Ref. [52]. Table 1 shows the summary of the calibrated variables.

**Truth Table**

The advantage of fsQCA is its usefulness in analysing the complex nonlinear relationship between variables, which involves the examination of necessary and sufficient conditions to formulate a combination of the conditions to create an outcome. A truth table is a key approach to analysing the causal combination of solutions. Following the procedure detailed in section 3.3, the configurations of binary states of the variables in this study are listed in Table 2. Our study specifies the frequency threshold as 8 for the analysis of each group – capturing 100% of the cases in the study, which is above Ragin’s (2008) data. The consistency threshold employed in this study was 0.8.

**Findings**

The given five types of solutions illustrating the alternative causal recipes that lead to membership in the outcome condition are summarised in Table 3. In this case, when the frequency threshold was 8 cases (keep 100% of the cases) and the consistency cutoff was 0.88, the five types of solutions were identical. These five causal recipes were conditions sufficient to lead to high SRP. Following Ragin’s (2008) suggestion, this study focused only on the intermediate solutions (Table 4).

The primary intermediate solutions suggest that five configurations of antecedent conditions lead to high SRP (Solution 1 in Table 4): sra_cal~ee_cal, we_cal*~ee_cal, ~ee_cal*oe_cal, sra_cal*oe_cal, we_cal*oe_cal (where ~ represents the negation of the fuzzy-set condition and * represents the operation of the logical and on the fuzzy set). The coverage of the complex solutions was 0.84, and the consistency of the complex solutions was 0.79. The raw coverage and consistency of each causal recipe are shown in Table 4. The Solution 1 is fairly consistent, which explains a satisfactory amount of cases with high SRP.

The primary results of the fsQCA intermediate solutions (aw_cal~ee_cal, wi_cal*~ee_cal, ~ee_cal*oe_cal, aw_cal*oe_cal, wi_cal*oe_cal) were five causal recipes, indicating high SRP of FLEs (Solution 2 in Table 4): (1) high SRA and low emotional exhaustion, (2) high work engagement and low emotional exhaustion, (3) high organisational empowerment and low emotional exhaustion, (4) high organisational empowerment and high SRA and (5) high organisational empowerment and high work engagement. These results represent that empowerment from organisational efforts and emotional management from FLEs’ perspectives are critical elements to monitor in service recovery.

**Table 1** Summary of Variables (Fuzzy-Set Scores)

| Variable | Mean | Std. Dev. | Min | Max | oe_cal | sra_cal | we_cal | ee_cal | srp_cal |
|----------|------|-----------|-----|-----|--------|---------|--------|--------|--------|
| oe_cal   | 0.52 | 0.30      | 0   | 0.99|        |         |        |        |        |
| sra_cal  | 0.51 | 0.29      | 0   | 0.95| 0.418**| 1       |        |        |        |
| we_cal   | 0.53 | 0.32      | 0   | 0.99| 0.460**| 0.476**| 1      |        |        |
| ee_cal   | 0.53 | 0.32      | 0   | 0.99| 0.086  | 0.110   | 0.035  | 1      |        |
| srp_cal  | 0.54 | 0.30      | 0   | 0.99| 0.487**| 0.458**| 0.435**| −0.041| 1      |

Notes: **Significant at the 1% level, number of observations = 287, _cal was the variable name after calibration.
This study furthers the investigation of high SRP by resetting the frequency threshold to 15 cases (keep 67% of the cases) and keeping the consistency cutoff as 0.80 in the truth table. Other given intermediate solutions were also identical (see Solution 3 in Table 4). The solutions suggest that three configurations of antecedent conditions lead to high SRP: (1) “sra_cal*we_cal” (consistency = 0.86), (2) “~sra_cal~we_cal~oe_cal” (consistency = 0.64) and (3) “we_cal*ee_cal*oe_cal” (consistency = 0.87). The coverage of the complex solutions was 0.79, and the consistency of the complex solutions was 0.73. Thus, these three combined antecedent conditions are necessary, and their combination is sufficient for high SRP. These results show that three approaches lead to high SRP. We noticed that one approach is the combination of low empowerment, a lack of SRA and work engagement. However, the raw coverage of this approach was 0.35, which does not efficiently explain the sample data. The second approach was high work engagement, high emotional exhaustion and high organisational empowerment. The third approach was high SRA and high organisational empowerment.

Our study also examined the fsQCA of the negation of SRP (~srp_cal). By setting the frequency threshold as three cases (keep 100% of the cases) and the consistency cutoff as 0.88, three types of solutions were reported as

| Table 2 Configurations of Binary States of Variables |
|---------------------------------------------------|
| oe_cal | sra_cal | we_cal | ee_cal | Number of Cases | % |
|● | ○ | ● | ● | 41 | 14% |
|○ | ○ | ○ | ○ | 41 | 28% |
|○ | ○ | ○ | ○ | 36 | 41% |
|● | ● | ○ | ○ | 30 | 51% |
|● | ● | ○ | ○ | 15 | 56% |
|● | ● | ○ | ○ | 15 | 62% |
|● | ○ | ● | ○ | 13 | 71% |
|● | ○ | ○ | ○ | 12 | 76% |
|○ | ● | ● | ○ | 11 | 79% |
|○ | ● | ○ | ○ | 11 | 83% |
|○ | ● | ○ | ○ | 10 | 87% |
|○ | ○ | ● | ○ | 10 | 90% |
|○ | ○ | ○ | ○ | 9 | 97% |
|● | ○ | ● | ○ | 8 | 100% |
|● | ○ | ● | ○ | 287 | 100% |

Notes: Black circles indicate the presence of the condition, and white circles indicate their absence.

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Our study also examined the fsQCA of the negation of SRP (~srp_cal). By setting the frequency threshold as three cases (keep 100% of the cases) and the consistency cutoff as 0.88, three types of solutions were reported as

| Table 3 Summary of Variables and Calibration Values |
|---------------------------------------------------|
| Variables | Mean | Std. Dev. | Min | Max | N Cases | Missing | Median | Calibration Values |
|-----------|------|-----------|------|------|---------|---------|--------|-------------------|
| oe | 3.8895 | 0.48 | 3.9992 | 4.999 | 2 | 0 | 3.9107 | 4.3869 | 3.9107 | 3.5416 |
| sra | 4.2466 | 0.43 | 2.8263 | 4.9995 | 290 | 0 | 4.3116 | 4.9995 | 4.3116 | 3.4879 |
| we | 4.0298 | 0.49 | 2.828 | 5 | 290 | 0 | 3.8257 | 3.7686 | 3.8257 | 3.4685 |
| ee | 3.5918 | 0.69 | 2.2468 | 4.999 | 290 | 0 | 4.5046 | 3.2373 | 4.5046 | 3.9992 |
| srp | 3.9931 | 0.47 | 4.0000 | 4.6906 | 290 | 0 | 3.8678 | 4.8272 | 3.8678 | 3.8554 |

| Table 4 Three Types of fsQCA Intermediate Solutions |
|---------------------------------------------------|
| Solution 1 | Solution 2 | Solution 3 |
| (sra_cal, we_cal, ee_cal)→(srp_cal) | (sra_cal, we_cal, ee_cal)→(srp_cal) | (sra_cal, we_cal, ee_cal)→(~srp_cal) |
| Frequency threshold = 8 (keep 100% of the cases) | Frequency threshold = 15 (keep 67% of the cases) | Frequency threshold = 8 (keep 100% of the cases) |
| Frequency cutoff: 8.00; consistency cutoff: 0.88 | Frequency cutoff: 8.00; consistency cutoff: 0.70 | Frequency cutoff: 8.00; consistency cutoff: 0.88 |
| oe_cal=ee_cal | oe_cal=sra_cal | ~oe_cal~we_cal~sra_cal |
| 0.50 | 0.63 | 0.57 |
| 0.02 | 0.16 | 0.14 |
| 0.87 | 0.86 | 0.88 |
| ~ee_cal~we_cal | ~oe_cal~we_cal~sra_cal | ~oe_cal~we_cal~sra_cal |
| 0.49 | 0.35 | 0.49 |
| 0.02 | 0.10 | 0.06 |
| 0.84 | 0.64 | 0.88 |
| ~ee_cal~we_cal | oe_cal~ee_cal~we_cal | ~oe_cal~we_cal~sra_cal |
| 0.49 | 0.48 | 0.47 |
| 0.02 | 0.04 | 0.04 |
| 0.86 | 0.87 | 0.86 |
| oe_cal~sra_cal | oe_cal~we_cal~sra_cal | oe_cal~we_cal~sra_cal |
| 0.63 | 0.57 | 0.49 |
| 0.04 | 0.14 | 0.06 |
| 0.86 | 0.88 | 0.88 |

Solution coverage: 0.84; solution consistency: 0.79 | Solution coverage: 0.79; solution consistency: 0.73 | Solution coverage: 0.67; solution consistency: 0.84 |
identical (see Table 4). In the intermediate solutions, there were three causal recipes, which were regarded as sufficient conditions leading to low SRP: (1)"~sra_cal*~we_cal*~oe_cal" (raw coverage = 0.57, consistency = 0.88), (2)"~we_cal*ee_cal*~oe_cal" (raw coverage = 0.47, consistency = 0.86) and (3)"~sra_cal*ee_cal*~oe_cal" (raw coverage = 0.49, consistency = 0.88). The coverage of the complex solutions was 0.79, and the consistency of the complex solutions was 0.73. Thus, these findings show three approaches leading to low SRP. The first approach is a low degree of empowerment, a lack of SRA and work engagement. The second approach is a low degree of empowerment, lack of SRA and high emotional exhaustion. The third approach is a low degree of empowerment, a lack of work engagement and high emotional exhaustion. The results of all these three combinations include low empowerment (~oe_cal), which indicates the importance of organisational efforts in service recovery.

**Discussion, Implications and Conclusion**

This study examined the conceptual framework by using fsQCA technology in order to explore the antecedent factors causing SRP. Through setting frequency threshold and raw consistency of the truth table, we found several causing recipes for both low and high SRP (Solutions 1, 2 and 3 in Table 4).

First, the results of Solution (1) indicated that full awareness of service recovery and positive work involvement would enhance the efficiency of FLEs in the context of low emotional exhaustion – (1) aw_cal~ee_cal, (2) wi_cal*~we_cal and (3) ~ee_cal*oe_cal. Moreover, only under organisational empowerment could the self-regulating process have a positive influence on the performance that improves customer satisfaction and decreases complaints (~~ee_cal*oe_cal, aw_cal*oe_cal, wi_cal*oe_cal).

Second, we found various causal recipes by resetting frequency threshold and raw consistency in Solution (2) that also aimed for high efficient service recovery. The results show that it would be effective to provide authority for a frontline employee who has full awareness of service recovery, which is the same as Solution (1) (~aw_cal*oe_cal"). In addition, the interesting result shown in Solution (2) is that when an organisation provides authority to FLEs, FLEs with positive work involvement would achieve high SRP even if they were emotionally exhausted (~wi_cal*ee_cal*oe_cal").

Moreover, our study also found the casual recipes leading to low SRP. The results suggest that organisational empowerment is an essential element for efficient service recovery – as all the recipes leading to inefficiency included this factor (i.e., a lack of empowerment) (~aw_cal*~wi_cal*~ee_cal*~oe_cal, ~wi_cal*ee_cal*~oe_cal, ~aw_cal*ee_cal*~oe_cal). In other words, centralisation is a negative impact factor in FLEs’ service failure handling. In the context of lack of empowerment, FLEs with a lack of awareness and positive work involvement would display a high level of emotional stress, resulting in service recovery failure and customer dissatisfaction.

**Theoretical Implications**

This study contributes to the existing service recovery literature in two aspects. First, our study contributed to the research on employee emotion management in service recovery. Most of the previous studies have argued for the negative effects of emotional exhaustion in service recovery, especially for FLEs. The noteworthy finding in this study is exploring, in the condition of organisational empowerment, a reasonable level of emotional exhaustion would be positively associated with SRP. FLEs, who with strong organizational empowerment, would represent willingness to take responsibility in service recovery as their job duty rather than extra tasks. In line with this, FLEs would feel nervous in service failure handling, causing they understand the importance of this issue, thus display emotional exhaustion in service recovery. Therefore, FLEs who exhaust emotion would also perform well in service recovery. These results may explain why employees experience job stress and strain – which causes them to take responsibility, leading to emotional exhaustion.

Second, this study provides more evidence on the importance of empowerment for FLEs in service recovery literature. The causal recipes for high SRP indicate that empowerment would be more efficient when employees have a strong SRA, positive work engagement and low emotional exhaustion. These findings are consistent with existing research that has pointed out the positive impact of empowerment on employees’ work engagement and attitudes. In contrast, in the context of centralisation, if employees lack SRA and have high emotional exhaustion, they cannot have positive SRP, resulting in service recovery failure. On the one hand, these failures may be explained based on the resource-based view theory. Empowerment in service recovery provides more available resources that employees can access, which may encourage them to take responsibility for service failure. On the other hand, on the basis of organisational commitment
theory, employees who experience support from corporate
management (under empowerment) would feel a sense of
belonging, leading to positive attitudes and high perform-
ance in service recovery.23,60,61 As such, empowerment
from service firm is the key resource that FLEs can access
and utilize in service recovery.

In addition, from a methodological perspective, the
empirical study was conducted in the context of the
express mail industry by using fsQCA technology. As
fsQCA is an asymmetrical analytical technique, our study
provides a set of complementary casual configurations to
achieve both efficiency and inefficiency in service recov-
ery, which is different from individual effects of factors in
the existing studies.3,16,17,44,56 For instance, most of the
causal combinations for high performance in service
recovery include empowerment, while a lack of organisa-
tional empowerment exists in all the causal combinations
for low performance. These results are not only partially
supported by previous research8,14,62 but also complemen-
tary in service recovery literature.

Managerial Implications
We propose the managerial implications from our study in
three approaches. First, since all the causal solutions of low
SRP contain lack of empowerment (centralisation), man-
gers should believe that empowerment is the key strategy
for FLE management in service recovery. Under centralisa-
tion, employees would show nonfeasance, resulting in fail

to deliver service recovery. Second, our study also provides
valuable insights to enhance the efficiency of empowerment
in service recovery, which suggests that managers should
improve employees’ awareness of service recovery by pro-
viding training related to service failure handling, for exam-
ple. If employees fully understand the importance and
urgency of service failure, empowerment would lead to
better outcomes in service recovery. Third, our conceptual
framework may help service firms to monitor their FLEs
based on the self-regulating process. Our findings focused
on emotion management in service recovery, including
emotional exhaustion and work engagement, and suggest
that emotional exhaustion would positively impact SRP in
the condition of empowerment. In other words, FLEs with
positive work engagement and rational awareness of service
failure would perform well in service recovery even if they
are emotionally exhausted. These results suggest that man-
gers should reconsider the effects of FLEs’ emotions by
integrating factors such as organisational culture and con-
sidering the attitudes of employees facing service failure.

Limitations and Future Research
This study has several limitations that provide opportu-
nities for further research. First, the research model
includes empowerment as the driver of organisational
efforts in service recovery. However, on the basis of the
organisation commitment theory, there are several other
variables that should be considered in further research –
such as rewards, training and teamwork.6,36,60 Second, we
focused on express mail as a typical service sector. Despite
the common ground of service industry, given the particu-
lar characteristics of this market (labour-intensive, short-
term interaction), the generalisation of these study findings
to other service industries, such as bank service and tour-
ism, can be carried out with care in future research. Third,
the sample size is 287 in this study, which is small for
scale development and empirical analysis. We can collect
more samples for future research.

Ethics
All studies (including questionnaire, data collection, meth-
odology, results, discussion and conclusion) has been
approved by ethics committee in Economics and
Management School of Shanghai Maritime University.

Acknowledgments
This work was supported by the National Natural Science
Foundation of China (Grant No. 71702099) and Foundation
of Shanghai Science & Technology (Grant No. 19692104800).
The funding sources had no involvement in the study design,
the data collection, analysis, and interpretation of the data, or
in the decision to submit the article for publication.

Author Contributions
The author contributed to data analysis, drafting or revis-
ing the article, gave final approval of the version to be
published, and agrees to be accountable for all aspects of
the work.

Disclosure
The author reports no conflicts of interest in this work.
References

1. Bijmolt THA, Huizingh EKRE, Krawczyk A. Effects of complaint behaviour and service recovery satisfaction on consumer intentions to repurchase on the internet. *Internet Res.* 2014;24(5):608–628. doi:10.1108/IIR-03-2012-0056

2. Susskind A, Vicari A. A look at the relationship between service failures, guest satisfaction, and repeat-patronage intentions of casual dining guests. *Cornell Hosp Q.* 2011;52:438–444. doi:10.1177/1938965511419844

3. Boshoff C. Understanding service recovery satisfaction from a service encounter perspective: A pilot study. *South African J Bus Manag.* 2007;38(2):41–52. doi:10.4102/sajbm.v38i2.583

4. Gustafsson A. Customer satisfaction with service recovery. *J Bus Res.* 2009;62(11):1220–1222. doi:10.1016/j.jbusres.2008.11.001

5. Kim TT, Paek S, Choi CH, Lee G. Frontline service employees’ customer-related social stressors, emotional exhaustion, and service recovery performance: customer orientation as a moderator. *Serv Bus.* 2012;6(4):503–526. doi:10.1007/s11128-012-0164-8

6. Guchait P, Kim MG, Namasiyavan K. Error management at different organizational levels - Frontline, manager, and company. *Int J Hosp Manag.* 2012;31(1):12–22. doi:10.1016/j.ijhm.2011.04.007

7. Boshoff C, Allen J. The influence of selected antecedents on frontline staff’s perceptions of service recovery performance. *Int J Hosp Manag.* 2008;27(1):63–90. doi:10.1016/j.ijhm.2007.10.029

8. Ellinger AE, Keller SB. The empowerment of frontline service staff in 3P companies. *J Bus Logist.* 2010;31(1):79–99. doi:10.1002/j.2158-1592.2010.tb00129.x

9. Smith JS, Karwan KR, Markland RE. An empirical examination of the structural dimensions of the service recovery system. *Decis Sci.* 2009;40(1):165–186. doi:10.1111/j.1540-4990.2008.02020.x

10. Smith JS, Fox GL, Ramirez E. An integrated perspective of service recovery: a sociotechnical systems approach. *J Serv Res.* 2010;13(4):439–452. doi:10.1177/1094670510375104

11. Boshoff C, Leong J. Empowerment, attribution and apologising as dimensions of an experimental study. *Int J Serv Ind Manag.* 1998;9(1):24–47.

12. Ben-Zur H, Yagil D. The relationship between empowerment, aggressive behaviours of customers, coping, and burnout. *Eur J Work Organ Psychol.* 2005;14(1):81–99. doi:10.1080/13594320444000281

13. Yoo JJ-E, Shin S-Y, Yang I-S. Key attributes of internal service recovery strategies as perceived by frontline food service employees. *Int J Hosp Manag.* 2006;25(3):496–509. doi:10.1016/j.ijhm.2005.01.002

14. Carson PP, Carson KD. Does empowerment translate into action? An examination of service recovery initiatives. *J Qual Manag.* 1998;3(1):133. doi:10.1080/1084-8568(99)801084-8

15. Hocutt MA, Jaber M. The impact of employee empowerment on sales force attitude and behavior relationships. *J服 Acad Mar Sci.* 1999;27:58–70. doi:10.1177/002243591099271005

16. Ashill NJ, Rod M, Thirkell P, Carruthers J. Job resourcefulness, symptoms of burnout and service recovery performance: an examination of call centre frontline employees. *J Serv Mark.* 2009;23(5):338–350. doi:10.1108/08876040910973440

17. Maxham JG, Netemeyer RG. Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent. *J Retail.* 2002;78(4):239–252. doi:10.1002/s0022-4359(02)00100-8

18. Wen B, Geng-qing Chi C. Examine the cognitive and affective antecedents to service recovery satisfaction. *J服 Contemp Hosp Manag.* 2013;25(3):306–327. doi:10.1002/hsj.13110991

19. Mazaheri E, Basil DZ, Yanamandram V, Darozzi Z. The impact of pre-existing attitude and conflict management style on customer satisfaction with service recovery. *J Retail Consum Serv.* 2011;18(3):235–245. doi:10.1016/j.jretconser.2010.11.004

20. Kim W, Ok C, Canter DD. Moderating role of a priori customer–firm relationship in service recovery situations. *Serv Ind J.* 2012;51(1):59–82. doi:10.1002/serv.2010.506571

21. Robinson I, Neeley SE, Williamson K. Implementing service recovery through customer relationship management: identifying the antecedents. *J Serv Mark.* 2011;25(2):90–100. doi:10.1108/08876041111119813

22. Babakus E, Cravens DW, Johnston M, Moncrief WC. The role of emotional exhaustion in sales force attitude and behavior relationships. *J服 Acad Mar Sci.* 1999;27(1):58–70. doi:10.1177/002243591099271005

23. Kim T, Yoo J-E, Lee G. Post-recovery customer relationships and its influence in service recovery performance. *Serv Bus.* 2012;6(3):297–321. doi:10.1007/s11128-012-0137-y

24. Schminke M, Caldwell J, Ambrose ML, Mcmahon SR. Better than ever? Employee reactions to ethical failures in organizations, and the ethical recovery paradox. *Organ Behav Hum Decis Process.* 2014;123:206–219.

25. Chan KW, Wan EW. How can stressed employees deliver better customer service? The underlying self-regulation depletion mechanism. *J服.* 2012;76(1):119–137. doi:10.1509/jm.10.0202

26. Babatope OM, Olugbade OAA. The mediating role of work engagement in the relationship between high-performance work practices and job outcomes of employees in Nigeria. *Int J Contemp Hosp Manag.* 2016;28:10. doi:10.26571/201415703
2000
Dove
2014
J Bus Res
Int J Prod Econ
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2008
J Hosp Tour Res
J Acad Mark Sci.
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health and behaviours through intrinsic motivation.
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fi
2012
J Serv Mark
2015

2011
2010
Int J Contemp Hosp Manag
2005
J Occup Health Psychol
2016
J Bus Res
2018
doi:10.1016/j.jbusres.
1998

48. Ashill NJ, Carruthers J, Krisjanous J. Antecedents and outcomes of
47. Hess RL Jr, Ganesan S, Klein NM. Service failure and recovery: the
46. Speier C, Whipple JM, Closs DJ, Voss MD. Global supply chain design

42. Riedl EM, Thomas J, Riedl EM, Thomas J. The moderating role of

49. Wang Q, Craighead CW, Li JJ. Justice served: mitigating damaged

44. Boshoff C, Leong J. Empowerment, attribution and apologising as
dimensions of service recovery An experimental study. 1998:9 (1):24.

45. Yee RWY, Yeung ACL, Edwin Cheng TC. An empirical study of
employee loyalty, service quality and firm performance in the service
industry. Int J Prod Econ. 2010;124(1):109–120. doi:10.1016/j.

46. Speier C, Whipple JM, Closs DJ, Voss MD. Global supply chain design
considerations: mitigating product safety and security risks. J Oper
Manag. 2011;29(7–8):721–736. doi:10.1016/j.jom.2011.06.003

47. Hess RL Jr, Ganesan S, Klein NM. Service failure and recovery: the
impact of relationship factors on customer satisfaction. J Acad Mark
Sci. 2003;31(2):127–145. doi:10.1177/00218574032550898

48. Ashill NJ, Carruthers J, Krishanous J. Antecedents and outcomes of
service recovery performance in a public health-care environment.
J Serv Mark. 2005;19(5):293–308. doi:10.1108/0887604510609916

49. Wang Q, Craighead CW, Li JJ. Justice served: mitigating damaged
trust stemming from supply chain disruptions. J Oper Manag.
2014;32(6):374–386. doi:10.1016/j.jom.2014.07.001

50. Ren S, Tsai H-T, Eisingerich AB. Case-based asymmetric modeling
of firms with high versus low outcomes in implementing changes in
direction. J Bus Res. 2016;69(2):500–507. doi:10.1016/j.jbusres.
2015.05.007

51. Sun Y, Garrett TC, Phau I, Zheng B. Case-based models of
customer-perceived sustainable marketing and its effect on perceived
customer equity. J Bus Res. 2018. doi:10.1016/j.jbusres.2018.09.007

52. Regin CC. Using qualitative comparative analysis to study causal
order comment on Caren and Panofsky (2005). Social Methods Res.
2008;36:431–441. doi:10.1177/0049124107313903

53. Wu PL, Yeh SS, Huan TC, Woodside AG. Applying complexity
theory to deepen service dominant logic: configurational analysis of cus-
tomer experience-and-outcome assessments of professional services
for personal transformations. J Bus Res. 2014;67(8):1647–1670.
doi:10.1016/j.jbusres.2014.03.012

54. Choi CH, Kim TT, Lee G, Lee SK. Testing the stressor-strain-outcome
model of customer-related social stressors in predicting emotional
exhaustion, customer orientation and service recovery performance.
Int J Hosp Manag. 2014;36:272–285. doi:10.1016/j.ijhm.2012.09.009

55. Kim T. Emotional intelligence and emotional labor acting strategies
among frontline hotel employees. Int J Contemp Hosp Manag.
2012;24(7):1029–1046. doi:10.1108/09596111212258900

56. Rod M, Ashill NJ, Carruthers J. The relationship between job
demand stressors, service recovery performance and job outcomes in
a state-owned enterprise. J Retail Consum Serv. 2008;15(1):22–31.
doi:10.1016/j.jretconser.2007.02.002

57. Chebat J-C, Kollias P. The impact of empowerment on customer
contact employees’ roles in service organizations. J Serv Res.
2000;3(1):66–81. doi:10.1177/109467050031005

58. Lisboa A, Skarmeas D, Saridakis C. Entrepreneurial orientation path-
ways to performance: a fuzzy-set analysis. J Bus Res. 2015;69
(4):1319–1324. doi:10.1016/j.jbusres.2015.10.099

59. Eisenhardt KM, Martin AJ. Dynamic capabilities: what are they?
Strateg Manag J. 2000;21:1105–1121. doi:10.1002/1097-0266
(20001011)21:10/11<1105::AID-SMJ133>3.0.CO;2-E

60. Karatepe OM. The effects of coworker and perceived organizational
support on hotel employee outcomes: the moderating role of job
embeddedness. J Hosp Tour Res. 2012;36(4):495–516. doi:10.1177/
1096348011413592

61. Walsh G, Yang Z, Dose D, Hille P. The effect of job-related demands
and resources on service employees’ willingness to report complaints:
germany versus China. J Serv Res. 2015;18(2):193–209.
doi:10.1177/1094670514555510

62. Chan KW, Lam W. The trade-off of servicing empowerment on
employees’ service performance: examining the underlying motiva-
tion and workload mechanisms. J Acad Mark Sci. 2011;39
(4):669–682. doi:10.1007/s11747-011-0250-9

63. Schaufeli, W.B., Salanova, M., Gonzáles-Romá, V. and Bakker, A.B.
The measurement of engagement and burnout: a two sample confrim-
atory factor analytic approach. Journal of Happiness Studies.
2002;3(1):71–92. doi:10.1023/A:1015630930326

64. Regin, Charles C Set Relations in Social Research: Evaluating their
Consistency and Coverage. Political Analysis. 2006;14:291–291,
doi:10.1093/pan/mpj019

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