

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

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**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.<sup>1-4</sup> Since frontline employees are implementers who deliver services and produce service recovery directly, numerous studies have focused on the management of frontline employees (FLEs).<sup>5-8</sup> 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

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individual sides.<sup>3,9,10</sup> These studies' results explore the impact of organisational efforts on service recovery.<sup>8,11,12</sup> 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.<sup>7,13</sup> Moreover, several previous studies have examined the moderating role of FLEs' attitudes and emotions between empowerment and employees' actions.<sup>14–17</sup>

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.<sup>18</sup> 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.<sup>18–21</sup> 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.<sup>22,23</sup> 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

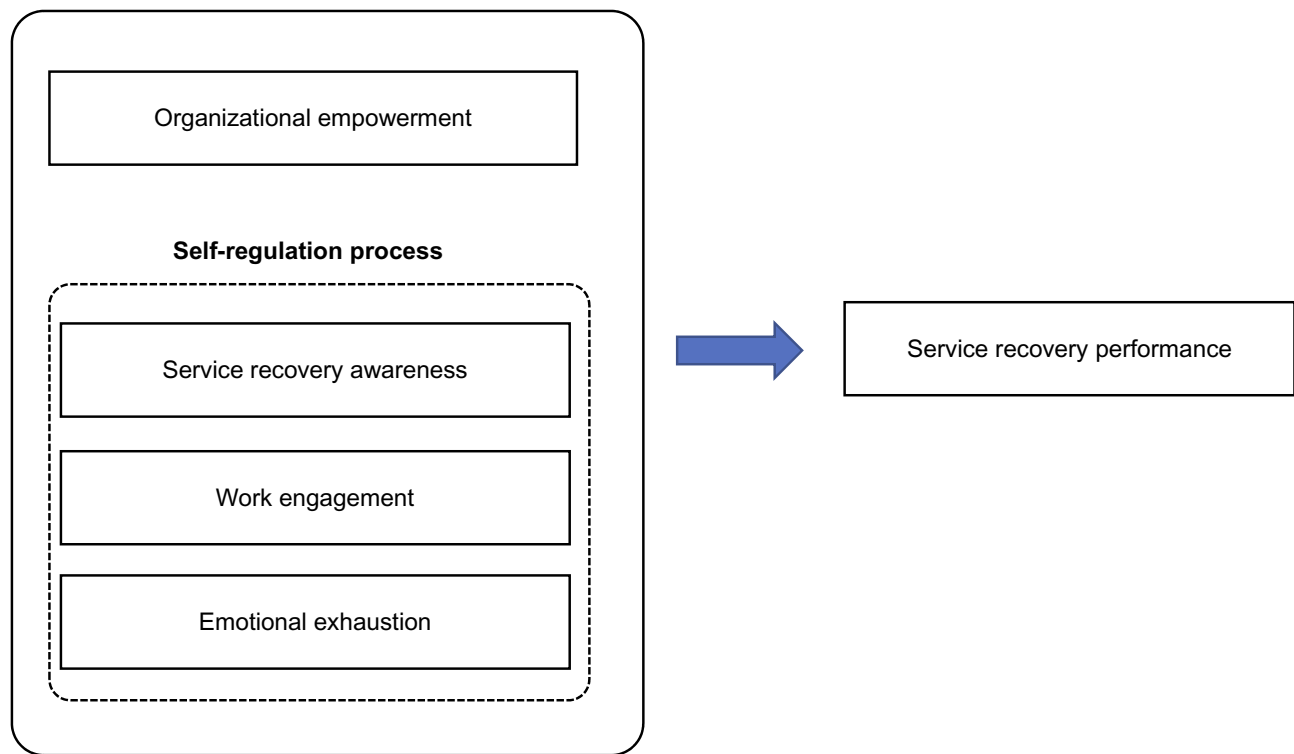
This section presents the research model, which draws upon self-regulation theory to describe the antecedents and their combinations that result in FLEs' SRPs. This research model, which extends the self-regulating process adopted by Bagozzi (1992),<sup>22</sup> provides a comprehensive framework from 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.<sup>24,25</sup> 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),<sup>26</sup> 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.<sup>27</sup> 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



**Figure 1** Research model.

**Notes:** This figure describes the research model in this study, the causing configurations, including organizational empowerment, service recovery awareness, work engagement, emotional exhaustion, that resulting in service recovery performance.

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”.<sup>63</sup> 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”,<sup>28</sup> 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<sup>29–31</sup> and customer

relationship after recovery.<sup>32,33</sup> The previous studies in service recovery literature have explored the negative impact of emotional exhaustion<sup>34–37</sup> and the positive impact of work engagement on service recovery.<sup>36,38,39</sup> However, some studies have suggested that stressed employees exhibit higher job performances than employees especially in service recovery.<sup>38</sup> There is a call for research to explore the configuration of FLEs’ self-regulation processes, including emotional exhaustion leading to high SRP.<sup>40–42</sup> 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.<sup>16,43,44</sup> Moreover, there is theoretical consensus to suggest that empowerment leads to FLEs’ work engagement, which enhances

SRP.<sup>36,45,46</sup> 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.<sup>27</sup>

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.<sup>28</sup> Second, earlier empirical studies suggested that employees may experience more stress due to a willingness to take responsibility, which results in emotional exhaustion.<sup>36</sup> Third, empowerment provides resources available to FLEs in service recovery.<sup>28,47</sup> 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.<sup>16,24,36,48</sup> Second, we used six items to measure SRA,<sup>17,27,37</sup> 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,<sup>36,49</sup> including the self-confidence about the ability to handle service failure; and four items to measure emotional exhaustion,<sup>5,34,37</sup> 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.<sup>17,47</sup> 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 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 of organizational empowerment is 0.840; the Cronbach’s of SRA is 0.748; the Cronbach’s of work engagement is 0.735; the Cronbach’s of emotional exhaustion is 0.808; and the Cronbach’s of service recovery performance is 0.777. These results indicate that the consistency and reliability of the measurements are acceptable.

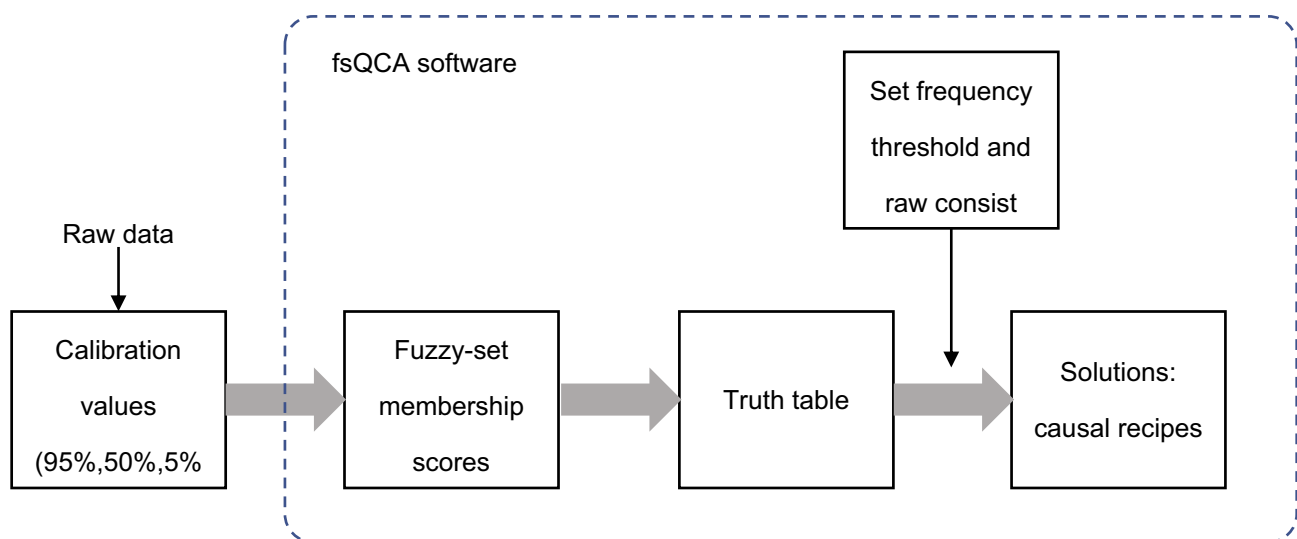
## Construct Validity and Reliability of Measurements

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.<sup>50,51</sup> 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.<sup>19–21</sup> The standard procedure for fsQCA includes several steps, see [Figure 2](#).<sup>52</sup> 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.<sup>50</sup> The initial values for all the variables were calibrated into membership scores ranging from 0.0 to 1.0.<sup>20</sup> 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



**Figure 2** Procedure for the application of fsQCA.

**Notes:** This figure describes the analytic processes following by Ragin.<sup>52</sup> The processes in dotted line square are conduct by fsQCA software.

table by setting frequency threshold and raw consistency.<sup>64</sup> 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.<sup>18,50</sup> 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.<sup>52</sup> This conversion process first requires calibration, which determines the membership of the fuzzy sets.<sup>18</sup> The degree of membership in a fuzzy set can range from a score of 0.0 to 1.0.<sup>20</sup> Particularly, the variables of this study were calibrated by using three thresholds or cutoff points: full membership, full nonmembership and the cross-over point. We used three benchmarks (95%, 50% and 5%) to transform the initial 5-point scale values into fuzzy membership scores (see Table 1).<sup>19,52,53</sup> The fsQCA 2.5 software, developed by Ragin<sup>52</sup> 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.<sup>52</sup> 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.<sup>21</sup> Following Ragin's (2008) suggestion, this study focused only on the intermediate solutions (Table 4).<sup>52</sup>

The primary intermediate solutions suggest that five configurations of antecedent conditions lead to high SRP (Solution 1 in Table 4):  $sra\_cal \sim ee\_cal$ ,  $we\_cal \sim ee\_cal$ ,  $\sim ee\_cal * oe\_cal$ ,  $sra\_cal * oe\_cal$ ,  $we\_cal * oe\_cal$  (where  $\sim$  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 ( $aw\_cal \sim ee\_cal$ ,  $wi\_cal \sim ee\_cal$ ,  $\sim ee\_cal * oe\_cal$ ,  $aw\_cal * oe\_cal$ ,  $wi\_cal * oe\_cal$ ) 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	1				
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	0.109	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.

**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%
●	○	●	●	15	67%
○	●	●	○	13	71%
●	○	○	○	12	76%
○	●	●	●	11	79%
○	●	○	●	11	83%
○	○	●	●	10	87%
○	○	●	○	10	90%
●	○	○	●	10	94%
○	●	○	○	9	97%
●	○	●	○	8	100%
				287	100%

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

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\*oe\_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 3** Summary of Variables and Calibration Values

Variables	Mean	Std. Dev.	Min	Max	N Cases	Missing	Median	Calibration Values		
								95%	50%	5%
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 cutoff: 8.00; consistency cutoff: 0.88				Frequency threshold = 15 (keep 67% of the cases) Frequency cutoff: 8.00; consistency cutoff: 0.70				Frequency threshold = 8 (keep 100% of the cases) Frequency cutoff: 8.00; consistency cutoff: 0.88			
oe_cal*~ee_cal	0.50	0.02	0.87	oe_cal*sra_cal	0.63	0.16	0.86	~oe_cal*~we_cal*~sra_cal	0.57	0.14	0.88
~ee_cal*we_cal	0.49	0.02	0.84	~oe_cal*~we_cal*~sra_cal	0.35	0.10	0.64	~oe_cal*ee_cal*~sra_cal	0.49	0.06	0.88
~ee_cal*sra_cal	0.49	0.02	0.86	oe_cal*ee_cal*we_cal	0.48	0.04	0.87	~oe_cal*ee_cal*~we_cal	0.47	0.04	0.86
oe_cal*we_cal	0.65	0.04	0.85								
oe_cal*sra_cal	0.63	0.04	0.86								
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\*~ee\_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\*~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.<sup>5,28,54,55</sup> 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.<sup>54,56</sup>

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.<sup>14,23,57</sup> 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.<sup>58,59</sup> 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 performance in service recovery.<sup>23,60,61</sup> 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 recovery, which is different from individual effects of factors in the existing studies.<sup>3,16,17,44,56</sup> For instance, most of the causal combinations for high performance in service recovery include empowerment, while a lack of organisational empowerment exists in all the causal combinations for low performance. These results are not only partially supported by previous research<sup>8,14,62</sup> but also complementary 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), managers should believe that empowerment is the key strategy for FLE management in service recovery. Under centralisation, 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 providing training related to service failure handling, for example. 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 managers should reconsider the effects of FLEs' emotions by integrating factors such as organisational culture and considering the attitudes of employees facing service failure.

## Limitations and Future Research

This study has several limitations that provide opportunities 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.<sup>6,36,60</sup> Second, we focused on express mail as a typical service sector. Despite the common ground of service industry, given the particular characteristics of this market (labour-intensive, short-term interaction), the generalisation of these study findings to other service industries, such as bank service and tourism, 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, methodology, results, discussion and conclusion) has been approved by ethics committee in Economics and Management School of Shanghai Maritime University. Before we started to collect data, we provided informed consent to all the participants at the first page of questionnaire. In that page, we introduced who we are and the aims of this questionnaire. At the same time, we confirmed that the data would be only used in academic research and gave the big thanks to all the participants.

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## Author Contributions

The author contributed to data analysis, drafting or revising 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.

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