

Diagnosing Service Success and Failure Incidents in the Consumer-to-Business Sharing Economy: A Case of Logistics Sharing

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ABSTRACT

This study uses the critical incident technique to collect and analyze incidents of service failure and success involving a logistics sharing service in which the service providers are individuals. The authors also explore the key factors that affect customer satisfaction, along with the official and ideal recovery strategies. Data is based on interviews with 35 business users in Taiwan in 2017. A card-sorting exercise is employed to classify the collected incidents and strategies into categories. The results show that the determinants of success and failure in logistics sharing services include drivers, platform operation, the matching system, and communication. Compensation is the most effective recovery strategy, whereas doing nothing is the least effective. Suggestions based on the results can help managers of the sharing economy to avoid or recover from failures and attain success.

KEYWORDS

Service Failure, Service Recovery, Service Success, Shared Logistics, Sharing Economy

INTRODUCTION

The sharing economy is an economic system in which underutilized assets are shared between individuals or groups by means of the Internet (Huang and Kuo, 2020). The consumer-to-business (C2B) sharing economy involves companies paying for assets or knowledge provided by individuals via the sharing process. The C2B sharing economy has grown rapidly in recent years, particularly shared logistics, including on-demand logistics such as Lalamove and GoGoVan, and online food delivery services like Uber Eats and Foodpanda (Deloitte, 2019). People join the platform as drivers to provide services and help companies deliver goods. Since the service provider is a person who is neither hired, trained nor evaluated by the company, the risk of unstable service quality is high (Hong et al., 2019). However, the literature lacks relevant research regarding the factors affecting the success or failure of services provided via this C2B sharing economy model. This study aims to bridge this knowledge gap.

Prior studies have found that for sharing-economy services, service quality is a determinant of customer satisfaction and loyalty (Möhlmann, 2015; Cheng et al., 2018). A service encounter is a dyadic interaction between a customer and service provider. The interaction determines the customer's perception of the quality of the service and, thus, the level of satisfaction. Effective management of the service encounter involves understanding both favorable and unfavorable incidents from the

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customers' point of view (Bitner et al., 1990). Therefore, the present study aims to discover favorable and unfavorable service encounters in the sharing economy, and for the C2B model in particular.

This study uses a shared logistics company in Taiwan as a study case. Since we have little understanding of factors affecting the success or failure of C2B sharing economy, this study addresses the following research questions: (1) What are the types of service failure and success incidents commonly experienced in shared logistics? (2) What are the key factors that affect customer satisfaction with shared logistics? In addition, the possibility of service failure increases when the service providers become persons who are not full-time employees. An effective recovery strategy is important to the maintenance or restoration of customer satisfaction following a service failure. In order to understand how to recover from service failures, this study also addresses the question: (3) What are the official and ideal recovery strategies, and to what extent do those strategies effectively reestablish satisfaction among business users after a service failure?

The remainder of this paper is organized as follows. The next section reviews relevant literature. The research methodology and study case are described in the third section. Data analysis results are described and discussed in the fourth and fifth sections. The paper concludes with the theoretical and practical implications.

THEORETICAL BASIS

Service Quality

Service quality is commonly defined as the extent to which a service meets customers' needs or expectations (Arora and Narula, 2018). It also refers to customers' perception of the service provider's performance (Cronin et al., 2000). Cronin et al. (2000) argued that service quality determines service value, customer satisfaction and behavioral intentions, e.g., to remain loyal to the service and to recommend the service to other consumers. In the field of sharing economy, prior studies have confirmed the positive impact of service quality on satisfaction for ride-hailing services (Cheng et al., 2018; Hamenda, 2018) and bike-sharing services (Liu et al., 2020; Shao et al., 2020).

Service encounters are essential to the assessment of overall service quality and satisfaction (Bitner et al., 1990). The extant literature on service encounters has focused mainly on business-to-business (B2B) and business-to-consumer (B2C) models (Bitner et al., 1990; Goetzinger et al., 2006; Tsai and Su, 2009; Melián-González and Bulchand-Gidumal, 2017). The C2C and C2B models, however, have seldom been explored. Mittendorf et al. (2019) argued that service encounters in the sharing economy (sharing encounters) are distinct from traditional service encounters in several ways. Sharing encounters take full advantage of online platforms and information technologies. Furthermore, they typically take place through interactions with strangers (other individuals rather than businesses) on short notice. Therefore, it is crucial to understand what factors determine service quality in sharing economy to ensure customer satisfaction. The present study aims to discover favorable and unfavorable service encounters in the C2B sharing economy in order to identify quality attributes that influence customer satisfaction.

Critical Incidents of Service Failure and Success

In order to improve service quality, managers must pay attention to the incidents that influence customer satisfaction (Tse and Ho, 2009). Therefore, a key issue is how to recognize, evaluate and analyze incidents that impact service quality. Bitner (1990) mentioned the importance and complexity of evaluating service encounters. She proposed a procedure that utilizes the critical incident technique (CIT) to diagnose customer satisfaction (service success) or dissatisfaction (service failure) in regard to service performance. Participants were asked to think of a time when they had a particularly satisfying or dissatisfying service encounter. This was followed by questions regarding when the incident happened, the specific circumstances that led up to the situation, what the employee or service

provider said or did, and what result caused them to feel satisfied or dissatisfied with the interaction. Critical incidents are memorable interactions that are especially satisfying or dissatisfying (Bitner et al., 1990). The CIT has considerable advantages over other approaches, including the traditional semi-structured interview. The technique has inherent inductive properties, as it does not force the respondent into a particular framework, does not require a hypothesis, and is relatively culturally neutral. Therefore, researchers can have a deeper understanding of the intricacies and contextual factors surrounding the respondent's behaviors (Bott and Tourish, 2016).

As the Internet has continued to develop and advanced technologies continue to be invented, scholars have expanded their investigations into Internet services and information technology. Meuter et al. (2000) employed CIT to understand the sources of customer satisfaction and dissatisfaction regarding encounters involving self-service technologies (SSTs). They found that the sources of customer satisfaction and dissatisfaction with SST encounters differ greatly from those with interpersonal encounters. The use of the Internet and the lack of face-to-face interactions between service users and providers has changed consumption habits, resulting in different kinds of experiences of failure and success. Instead of using a survey method, Ju et al. (2019) analyzed Airbnb guests' emotions as expressed in reviews to collect critical incidents, and found that the key service quality attributes of Airbnb are facility, host, web efficiency, and web responsiveness. The present study employs the CIT with the intention of advancing our understanding of service failure and success in the context of the C2B sharing economy.

Service Recovery

Service recovery refers to the process by which service providers attempt to correct a service failure, including any action that assists customers who have experienced service failure to return to a state of satisfaction (Wang et al., 2011). Service recovery involves what the service provider does to appease customers following a service failure, and how the service provider does it (DeTienne and Westwood, 2019).

High quality service recovery leads to customer satisfaction and loyalty (Matikiti et al., 2018; DeTienne and Westwood, 2019). As such, successful service recovery results in customer retention, which can increase profits and reduce costs. Prior studies have also argued that customers' perceptions of the level of justice of a service recovery can increase satisfaction and loyalty (Wang et al., 2011; Das et al., 2019) and decrease feelings of violation and the perception that privacy has been breached (Choi et al., 2016). The perceived justice of the recovery is composed of three components, i.e., distributive, procedural, and interactional justice. Distributive justice refers to the fairness of the resource distribution and the outcome of recovery efforts. Procedural justice refers to the perceived fairness of the procedures and criteria used to arrive at the recovery outcomes. Interactional justice refers to the perceived fairness of the interpersonal treatment with which the procedures are implemented.

Service failure severity refers to how customers perceive the magnitude of a service failure. It has an impact on customer service recovery expectation that further determines the quality of the service recovery (Matikiti et al., 2018). If the service failure is of greater magnitude, customers perceive a significant loss and often expect the service provider to consider measures to ensure service recovery. Since it is impossible to ensure 100% error-free service due to the large variation of customer expectations, an effective recovery strategy is important to the maintenance or restoration of customer satisfaction (DeTienne and Westwood, 2019).

Logistics Sharing

Logistics refers to all activities necessary to bring a finished product to its ultimate consumer. Logistics sharing refers to the activities involved when logistics resources are used by more than one individual or company (He et al., 2019). Carbone et al. (2018) identified four types of logistics sharing: peer to peer, business, crowd, and open logistics. Of these, the crowd logistics platform calls on the crowd of individuals to provide logistics services to individuals or companies.

The main types of value creation capabilities for crowd logistics platforms are resource matching, operations management, and risk control (Li et al., 2019). The platform provides a means by which shippers and drivers can post information, and assists shippers in identifying suitable drivers for their requests. It is also responsible for managing drivers and processes as well as controlling risks associated with those processes. The present study focuses on service success and failure in C2B crowd logistics.

RESEARCH METHODOLOGY

Study Case

The case study method can specifically decipher a business story and put the story into a realistic, social, technological, and managerial context (Su et al., 2018). This study focused on a shared logistics service in Taiwan, herein referred to as Company L to ensure confidentiality. Company L was launched in Hong Kong in 2013 with the intention to provide professional logistics service through its online platform and cellphone app. The major difference between Company L and other traditional logistics providers is that the company makes use of the sharing economy to match service providers and requesters, whereas traditional firms hire contracted drivers and still need human laborers to complete all delivery processes. In 2015, Company L expanded its service locations to Taipei and became the first logistics company in Taiwan to make use of the sharing economy. The app allows users to choose suitable types and sizes of vehicles and also provides the ability to plan appropriate routes by which to complete delivery jobs. Instead of having to apply for a vacant position, anyone can “register” to become a delivery person for Company L. The only conditions are that drivers must have a legal driver’s license and documentation to prove they have committed no crime.

Data Collection

Company L categorized its business users into 16 industrial sectors. To ensure the samples are representative, this study focused only on the top five sectors—Food and Beverage (44%), 3C Electronics (computers, communications and consumer electronics) (9%), Printing and Publishing (6%), Entertainment (6%), and Food Ingredients (5%). Interviewees were selected randomly from these five sectors based on the relative percentages.

There are no rigid formulas for the proper sample size for a study employing the CIT. The determining factors relate to the complexity of the activity and the variety and quality of the critical incidents, rather than the number of participants (Hughes, 2007). For qualitative research, participants are selected based on their insight into and understanding of the research topic (Bolderston, 2012). This study interviewed 35 business users selected from the top five sectors mentioned, above. Among them, 22 interviewees were from the Food and Beverage sector, 5 were from 3C (Computer, Communication, Consumer) Electronics, 4 were from Printing and Publishing, 2 were from Entertainment, and 2 were from Food Ingredients. These interviewees had to meet the following qualifications: (1) they had used Company L’s services for at least 3 months, (2) they had direct usage experience with the app and understood how to use it, and (3) they must have had been in a position to evaluate the effectiveness and the efficiency of the service.

Research Procedure

This study qualitatively explored critical incidents and recovery strategies and quantitatively analyzed the severity, satisfaction level and reuse intention. Personal CIT interviews were conducted in Taiwan from October to December in 2017 to collect data. The CIT relies on the individual participant’s recollection of past events, which may be flawed by recall bias and memory lapses. To overcome the limitation of recalling past events, interviewees were told in advance to think about critical incidents to discuss and required that the critical incidents are to have occurred within the past six months

(Bott and Tourish, 2016). Interviews were conducted in person in interviewees' offices. The interview included the interviewee, an interviewer, and a note taker. All content was recorded by a voice recorder pen. At the beginning of the interview, the interviewer explained the purpose of the interview and introduced the interviewer and note taker. Next, the interviewee was asked questions, following the protocol shown in the Appendix (accessible at <https://sites.google.com/site/shiulihuang/files>). The questions were adapted from Bitner et al. (1990) and Kuo et al. (2011). Since the interviewees' native language was Chinese, all questions were asked and answered in Chinese. The procedure was separated into three phases. First, the questions about service failures and recovery were asked. These questions were answered in an open-ended manner. In addition, the severity, satisfaction level and reuse intention were measured on a 10-point Likert scale. The authors followed the study of Kuo et al. (2011) to use a 10-point scale instead of a 7-point scale because it can increase the variance in the measure, and people are more familiar with responding to a 10-point rating scale. Second, the questions about service successes were asked, and were answered in the same open-ended manner along with the Likert scale. The questions in the final phase concerned the interviewee's basic demographic information. After completing the interviews, the voice recordings were transcribed into text format.

After critical incidents and recovery strategies were collected from the interviews, two teams performed an open card sorting exercise. Card sorting is a content analysis method by which to explore the different ways in which items can be organized in various categories (themes) (Spencer, 2009). The first team was composed of three graduate students who had participated in the CIT interviews. The second team was composed of three professors whose research interests were e-commerce or service science. A set of cards with the collected incident and strategy items was sent to each team. Participants were asked to group the cards into categories based on similarity. During the card sorting, the participants held discussions and expressed their opinions to resolve any conflicts. In the final step, participants gave names to those card groups. To resolve conflicts between the results of the two sorting processes, a sales manager from Company L who understood the company's business operations and services was invited to decide which classification was most appropriate.

DATA ANALYSIS AND RESULTS

Sample Characteristics

Nearly 50% of the interviewees were managers or shopkeepers. All of these interviewees had the authority to decide whether they required the services based on the quality of services. Other details are shown in Table 1.

Service Failure

The interviews with 35 interviewees produced a total of 60 critical service failure incidents. The incidents were classified into driver, operation, matching system, and communication problems, according to their causes. Seventeen types of service failures were identified.

Service Failures Regarding Drivers

The types of service failures caused by the drivers are briefly described as follows.

Drivers do not have common sense or a sense of responsibility: The dissatisfaction in this type is in regard to the driver's own mental or physical problems rather than professional abilities. One interviewee said that "the driver's appearance is very much like a vagrant, which makes me a little worried." Another said: "I called customer service to complain about the driver's improper delivery. Soon after that, I received a threatening call from the driver who asked me to cancel the complaint."

Goods are damaged in the delivery process: Drivers sometimes did not pay attention to the goods when driving or riding, and cargoes such as beverages and cakes were damaged. One interviewee

Table 1. Demographic data

Attribute	Category	N	%
Gender	Male	13	37.14
	Female	22	62.86
Age	Under 30	12	34.29
	30-39	16	45.71
	40-50	4	11.43
	Over 50	3	8.57
Occupation	Shop/Company Owner	7	20.00
	Manager/Shopkeeper	17	48.57
	Sale/Marketing/Accountant	10	28.57
	Store Staff	1	2.86

said that “the driver overturned the drink in the cup and spilled it during delivery, and argued with the customer that it was not his responsibility.”

Drivers suddenly cancel orders: Company L provides a convenient service that allows users to place orders several weeks or months in advance. However, drivers might cancel suddenly on the date of delivery. One interviewee said “I had already placed an order for the reservation before delivery and the match was successful. Even so, the driver suddenly called half an hour before the appointment time and said that the delivery could not be done for personal reasons.”

Drivers are not well trained: Failures of this type are caused by driver neglect of the instruction provided by Company L. The courses were designed to teach drivers the regulations they must follow. However, some drivers might not follow the regulations. One interviewee said: “The driver did not call me to confirm the delivery information in advance after receiving the order. Although the delivery was successful, I felt that the proper service procedure was not in place.”

Drivers spend too much time on delivery processes: This type includes incidents in which the delivery time was beyond users’ expectations. One interviewee said: “The driver informed me that the delivery would be completed within half an hour, but the actual delivery was two hours later. The customer waited two hours for him to get off work.”

Drivers promote something unrelated to the company: This type is about unrelated promotion activities. One interviewee said: “The driver sold other products that were unrelated to the service to the customer after the items were delivered, and even sent advertisements to the customer by text message a few days later.”

Drivers make a detour: In this type, the issue is discovered when the driver does not arrive at the destination on time. One interviewee said: “I checked the GPS system and found that the driver appeared in unexpected places and was not on a direct route.”

Drivers cannot use the app correctly: This type is associated with incidents in which the drivers cannot properly recognize the correct address or understand the delivery information from the app, and thus cannot take orders via the app. One interviewee said: “All the delivery information was clearly keyed into the system, but the driver did not seem to know how to use the app to find the address.”

Drivers break delivery rules: These incidents happened because the driver deviated intentionally from the delivery procedures. One interviewee said that “the driver clearly didn’t deliver the goods to the customer but pressed the ‘finish’ button early, and the customer received the goods half an hour later.”

Drivers are impolite: For instance, one interviewee said that “the driver arrived at the pick-up location early but urged me to speed up my preparations to match his schedule.”

Drivers break a promise with users: These failures involve private commitments given by the driver to the user. One interviewee said: “The driver promised to help move the parcel upstairs but when he delivered the parcel to the destination, he failed to do so.”

Service Failures Regarding the Operation of Company L

The incidents related to internal operations issues can be classified into 4 types.

Services provided are different from the ads: Complaints of this type concern service quality provided by Company L that was different from the promotional content or contract. One interviewee said that “it was hard to match drivers after 12 AM, even though the ad emphasized that users can find suitable drivers 24 hours a day.”

Services cannot fulfill users’ needs: This type includes unsuitable service items that users considered inconvenient or unreasonable. One interviewee said: “The company did not inform me when my electronic wallet was nearly empty. I transferred money in a hurry in order to use the service.”

Untrustworthy rating system: Company L built a rating system that allows users to judge driver performance, but it was managed poorly in that few users were willing to rate or give opinions. As a result, the ratings lack reference value. One interviewee said that “the rating system is strange. When the driver entered the store, he didn’t explain his intention. He only sat silently and played with his mobile phone. His rating turned out to be five stars!”

Improper customer services: These failures were caused because users were not satisfied with the quality of customer services. One interviewee said: “When I needed immediate help and called the customer hotline, I received either a busy signal or no answer!”

Service Failures Concerning the Matching System

Incidents in this group concern problems that occur on the app and website.

System is unstable or unfriendly: These failures were caused by the occasional instability of the matching system, or times when the system did not work smoothly or easily. One interviewee said that “the app jumped out of the system during the matching process but there was no message to notify me, which made me unsure as to whether the process was completed or not.”

Service Failures Regarding Communication

The incidents in this group all occurred because the information transferred between the three parties (drivers, business users, and the staff of Company L) was not timely.

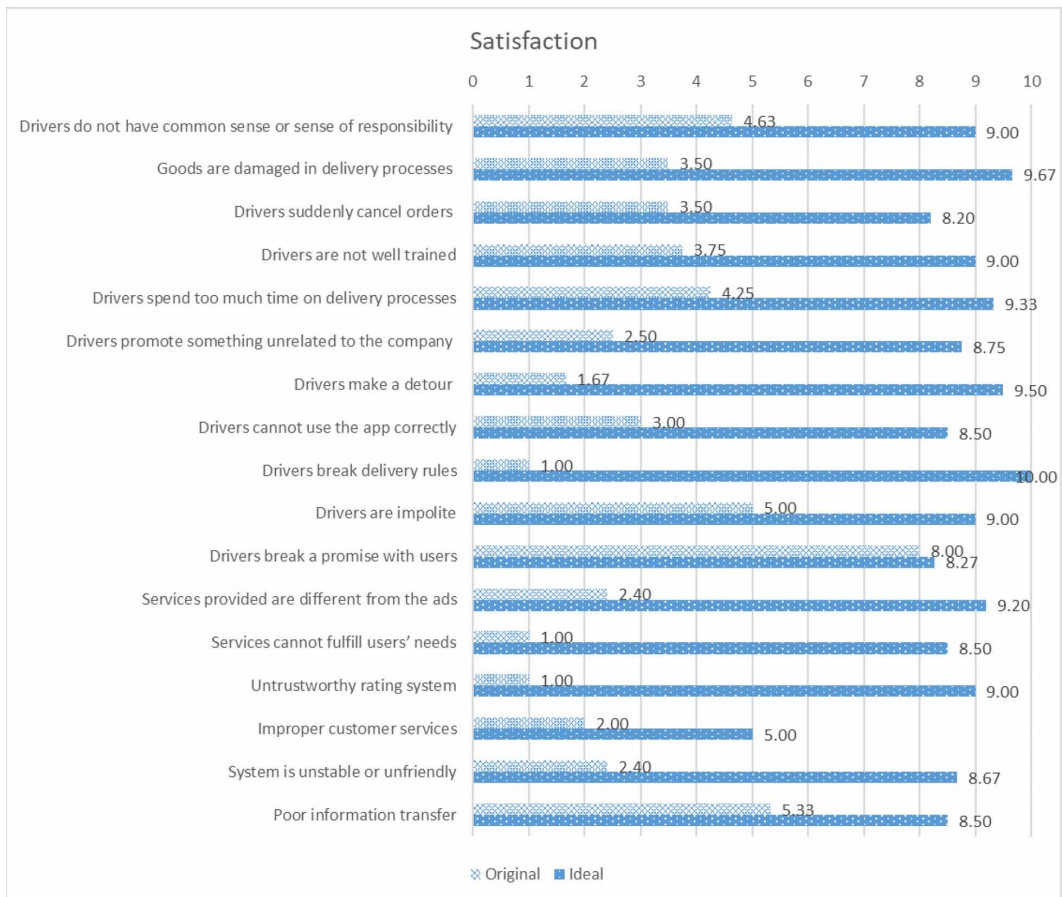
Poor information transfer: For example, one interviewee said: “The company increased service prices before my stored value was used up, but I did not receive any related information.”

Recovery Strategies

The company or drivers might take action to regain users’ confidence or restore loyalty to Company L. Five strategies were identified, containing *apology* (employees or drivers provided verbal expression of regret or shame for the service failures), *discount* (Company L gave an online promo code as compensation for mistakes), *helpful suggestions or replies* (customer service staff helped users find another available driver when the original drive suddenly canceled), *compensation* (value is transferred directly to the business user’s electronic wallet for use in subsequent payments), and *nothing* (neither the employees of Company L nor the drivers made any attempt to make up for mistakes).

The ideal strategies suggested by the users are *compensate for shipping fee* (Company L should not only compensate them in cash for not only the value of the goods but also for the shipping fee), *compensate in cash rather than a promo code* (compensation for the value of package content in cash), *implement a dispute investigation and disciplinary system* (Company L should take action based on user evaluations to reward or discipline drivers), *improve recovery procedures* (recovery procedures should be easy and quick), *improve training* (Company L would improve its training courses for drivers), *provide delivery alternatives proactively* (the employees of Company L had to prepare another plan for users when drivers were in short supply), and *improve the function of the matching systems*. In addition to these strategies, the users involved in six of these failure incidents said that error-free service is still better than any recovery strategy.

Figure 1. Satisfaction with original and ideal recovery strategies



After analyzing the recovery strategies given by Company L and suggested by business users, the actual recoveries were compared with the ideal recoveries, as shown in Figures 1 and 2. Both the satisfaction with the recovery method and reuse intention increase if the ideal recovery strategies can be adopted.

Service Success

Critical incidents of service success were also collected via the interviews. The 33 incidents were classified into driver, operations, and matching system categories, in accordance with their causes, and 7 types of service success were identified.

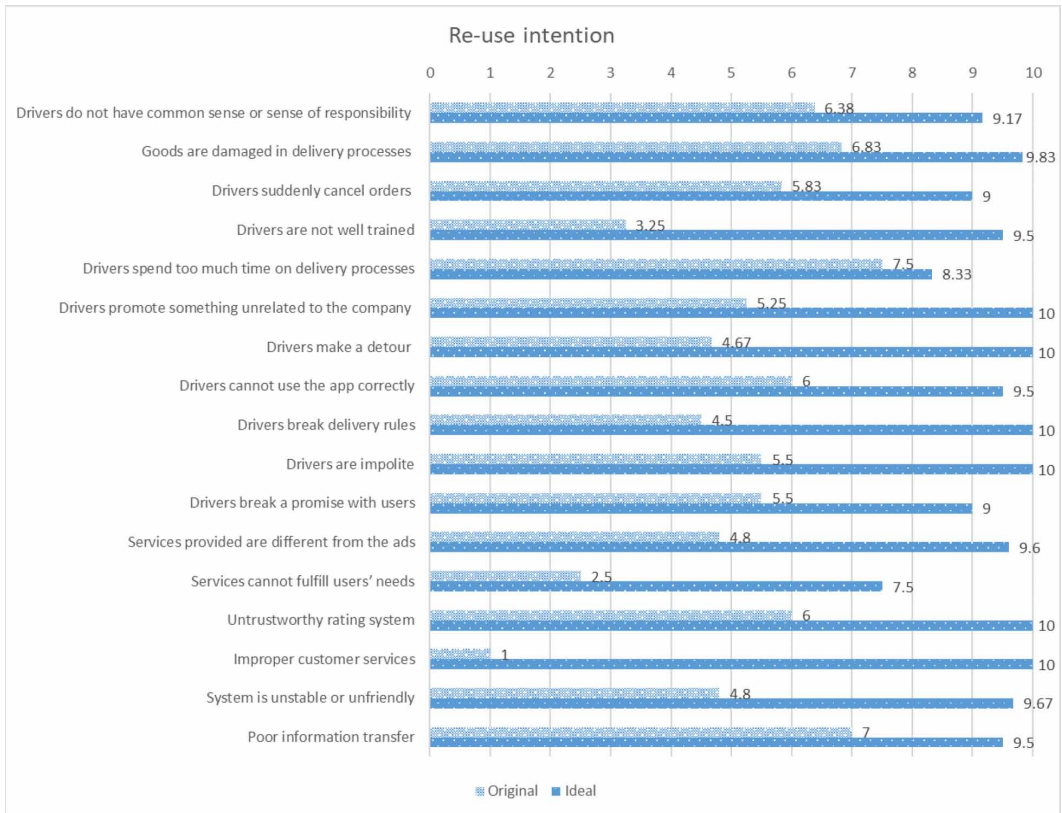
Service Successes Regarding Drivers

Four types of service success were attributed to the drivers.

Drivers provide considerate services for users: Incidents in this type involve generous services provided by the drivers. One interviewee said that “when it rained heavily, the driver proactively advised me how to package the goods to keep from getting wet. He did not urge me to finish it quickly.”

Drivers provide surprising services for users: Drivers provided services that were better than users’ expectations. One interviewee said that “the driver waited for more than ten minutes to pick

Figure 2. Reuse intention with original and ideal recovery strategies



up the goods. He could legally charge a waiting fee, but he didn't. He had patience to wait and did not charge a waiting fee.”

Drivers can protect goods totally and professionally: Drivers prepared their own tools or containers on the users' behalf in order to protect the goods. One interviewee said: “The driver prepares the packaging materials and takes the initiative to help me pack and protect the goods.”

Drivers are willing to change schedules to fulfill users' needs: This type concerns the level of flexibility offered by the driver. One interviewee said: “I asked the driver to change the destination because I entered a wrong delivery address into the order system. The driver was willing to deliver to the new address at no extra charge.”

Service Successes Regarding the Operations of Company L

Two types belong to this group, all of which concern the internal administration of Company L.

Employees can solve problems actively and rapidly: This praise was directed toward the staff of Company L. They were highly capable of figuring out appropriate solutions for the problems presented. One interviewee said: “On one occasion, I had an urgent need to deliver goods but had insufficient funds in the electronic wallet. The customer service personnel allowed me to place the order first and pay later.”

Services are convenient and fit users' needs: Company L provides convenient and flexible services. For instance, one interviewee said: “I can pay with the electronic wallet and send multiple goods to multiple destinations with only one order. It is so convenient!”

Service Successes Regarding the Matching System

This type of service success relates to the app or PC system.

System is useful and accessible: Users felt that the functions of the matching system were useful. One interviewee said that “the app design is usable, allowing me to enter information quickly and clearly. The GPS tracking is really convenient.”

DISCUSSION

According to Goetzinger et al. (2006), the attributes that cause success or failure can be categorized into three different types: bivalent satisfiers, monovalent satisfiers, and monovalent dissatisfiers. Bivalent satisfiers are those attributes that are able to cause both satisfaction and dissatisfaction. Monovalent satisfiers are those that lead to satisfaction but rarely cause dissatisfaction. Monovalent dissatisfiers can contribute to dissatisfaction but are unlikely to cause satisfaction. The authors analyzed the themes of the success and failure incidents and classified these themes into the three major type of attributes. Bivalent satisfiers were themes that were found within both customer compliments (success incidents) and complaints (failure incidents). Themes that appeared among compliments but not within complaints were categorized as monovalent satisfiers. Themes that appeared among complaints but not within compliments were categorized as monovalent dissatisfiers. Table 2 shows the details.

Shahin et al. (2013) concluded that monovalent dissatisfiers are the most important, followed by bivalent satisfiers and then monovalent satisfiers. Four themes associated with monovalent dissatisfiers were identified. In the C2B sharing logistics context, users consider a good service attitude, efficiency, trustworthiness and information transparency to be basic needs. In comparison, outcome quality attributes such as safe delivery, delivery of undamaged products, delivery of products with proper packaging, and delivery on schedule are basic needs in traditional logistics services (Sohn et al., 2017). Bivalent satisfiers determine the performance of the service company. When these needs are fulfilled, users consider the service a success; otherwise it is a failure. If sharing economy businesses can pay more attention to such needs as service provider competence, proper understanding of the customer’s needs, customer service performance, and system quality, users can enjoy better service and will become more loyal. In comparison, process quality attributes such as accident management, visibility (delivery tracking), responsiveness to customers, and order convenience are performance needs in traditional logistics services (Sohn et al., 2017). As for monovalent satisfiers, fulfilling the need for service flexibility and exceeding customer expectations will attract and surprise users. In comparison, capability quality attributes such as capable information technology human resources are attractive needs in traditional logistics services (Sohn et al., 2017).

Our findings show that most failures are caused by the drivers. The supervision over individual service providers is important to the sharing of logistics. Another special situation is the problem of accountability. When a company provides products or services directly to consumers, there is no doubt as to their responsibility for failure incidents that occur during the service process. Surprisingly, there is a totally different result in sharing models. According to the interviews, while 34 out of 43 failure incidents involved problems with the driver, users believed that Company L—not the drivers—should be held accountable for those failures. Sharing economy companies must face mistakes that are made by freelancers despite the fact that these people are not employees of the company.

Table 2. Complimenting and complaining themes in service failures and successes

Attribute	Major theme	Type of incidents
Monovalent dissatisfiers	Attitude of service provider	a. Drivers do not have common sense or sense of responsibility. b. Drivers promote something unrelated to the company. c. Drivers are impolite.
	Efficiency	a. Drivers spend too much time on delivery processes. b. Drivers make a detour.
	Trustworthiness	a. Drivers suddenly cancel orders. b. Drivers break delivery rules. c. Drivers break a promise with users. d. Services provided are different from the ads. e. Untrustworthy rating system
	Information transparency	a. Poor information transfer
Bivalent satisfiers	Competence of service provider	Success a. Drivers provide considerate services for users. b. Drivers can protect goods totally and professionally. Failure c. Goods are damaged in the process of delivery. d. Drivers are not well trained. e. Drivers cannot use the app correctly.
	Understanding of customer needs	Success a. Services are convenient and fit users' needs. Failure b. Services cannot fulfill users' needs.
	Customer service	Success a. Employees can solve problems actively and rapidly. Failure b. Improper customer services
	System quality	Success a. System is useful and accessible. Failure b. System is unstable or unfriendly.
Monovalent satisfiers	Service flexibility	a. Drivers are willing to change schedules to fulfill users' needs.
	Experience exceeds expectations	a. Drivers provide surprising services for users.

CONCLUSION

Result Summary

This study found that the determinants of success and failure in logistics sharing services include drivers, platform operation, the matching system, and communication. The greatest and most complex challenge faced by C2B services is the supervision of freelancers. The most critical factors that affect customer dissatisfaction are the attitude of the service provider, process efficiency, trustworthiness, and information transparency. This study also identified a number of recovery strategies that were actually implemented by Company L, and discovered ideal recovery strategies suggested by business users. Compensation is the most effective strategy, whereas doing nothing is the least effective.

Theoretical Implications

The sharing economy allows individuals to share assets and provide services to others. How to improve service quality when the service providers become persons who are not full-time employees is a crucial issue in the sharing economy. This paper studied a C2B shared logistics company to understand the factors that determine service success and failure. While sharing logistics continues to increase in popularity, little research has been done in this field (Carbone et al., 2018; Li et al., 2019). The theoretical contributions of this study are twofold. First, this study has found the types and themes of service failure and success involving sharing logistics services. The performance of each quality attribute (the major themes in Table 2) form customers' perceptions of quality, which determines their level of satisfaction with the sharing logistics service. The importance of the quality attributes was ranked by labeling them as monovalent dissatisfiers, bivalent satisfiers, and monovalent satisfiers. The research findings advance our understanding of the critical success factors in logistics sharing. Although this study adopted a shared logistics company as the study case, the quality attributes can be generalized to other C2B services. Second, the authors examined the effectiveness of service failure recovery strategies. Compensation is the most effective recovery strategy for regaining customer satisfaction and reuse intention following the occurrence of one of the above service failures. This study also discovered the ideal strategies, which were suggested by the business users. In addition to compensation, customers expect the company to improve the dispute investigation and disciplinary process, the recovery procedures, driver training, delivery alternatives, and the functionality of the respective systems. The customers urged the company to continuously improve its services to prevent service failures. These findings advance our understanding of the recovery strategies that can effectively correct or prevent service failures in logistics sharing.

Practical Implications

Shared logistics companies that want to survive should keep close watch on the monovalent dissatisfiers. To gain a competitive advantage, the bivalent satisfiers must be fulfilled. A service company that can fulfill the monovalent satisfiers can provide surprising positive experiences. The suggestions for management practices are offered as follows, based on the quality attributes discovered in this study.

Improve service provider attitude: Shared logistics companies must ensure that their service providers have a good attitude. Prior studies have shown that emotional intelligence training programs can improve service responsiveness, assurance, and empathy (Beigi and Shirmohammadi, 2011; Papoutsi et al., 2019). Strict emotional intelligence training courses or tests should be held in order to reduce the chance of irresponsible behavior, unrelated promotional activities, or an impolite attitude.

Improve process efficiency and customer trust: Both service users and service providers should be given clear rules and navigational processes for the app to reduce misunderstanding or mistakes. Accurate tracking and evaluations should be implemented to identify issues with efficiency and trustworthiness. The GPS allows customers to check on driver locations in order to eliminate detour problems (Tomczak et al., 2018). The development of a dependable rating system can also reduce the frequency of such failures as canceled orders and broken rules by helping customers make appropriate decisions. Providing customer reviews with a large quantity of information can enhance the helpfulness of the rating system (Mudambi and Schuff, 2010).

Improve information transparency: Clear, repeated notifications via phone or email are needed to inform users of the latest news regarding such things as price increases. Information transparency has a significant impact on service assurance and reliability because it enables customers to predict and judge the relative appeal of the company's offer (Hanna et al., 2019). Service providers or freelancers should also be proactive in providing users with updated information.

Improve service provider competence: Service companies should devote themselves to improving the competence of their service providers. Training and development programs can enhance worker competence and further improve firm performance (Sung and Choi, 2018). In the case of Company L, systematic and effective training should be carried out to ensure that service providers are well-

trained. The filter procedures that determine who can provide the shared services should be more strict in order to ensure users' safety and satisfaction.

Understand customer needs and improve customer service: In order to satisfy users, an effective survey should be implemented to identify their needs, and further adjustments should be made to the operational strategies based on their responses. The performance of the customer service department is also important. Good solutions include leveraging digital technologies to collect complete and accurate customer service information for enhancing customer orientation and the firm's response capabilities (Setia et al., 2013).

Improve system quality: System quality is particularly influential for sharing economy companies because they depend on stable apps or Web sites to match service demanders and providers. Such companies should ensure the usefulness, usability and accessibility of the information system (Yang et al., 2005). For food delivery apps, a usable menu and well-presented photos of food are also important (Monty, 2018; Ray et al., 2019).

Improve service flexibility and the customer experience: Providing service flexibility and exceeding customer expectations can lead to outstanding service quality. Flexibility refers to a service provider's capability, willingness, and actual behavior in terms of reacting to customer demands for modifications in a flexible manner. For example, drivers of Company L were willing to provide more service for their users, which did not require regulation or company rules. This part is difficult to control via guidelines; in fact, it depends on freelancers' or employees' own standards. Flexibility allows for a greater range of responses to the changing environment and increases customer satisfaction, trust and commitment, resulting in an enhanced experience. Service providers who value mutuality and long-term relationships are more likely to be flexible as they respond to customer demands (Han et al., 2014).

Limitations and Further Research

Several limitations exist in this study. First, critical incidents were collected from the users directly, and investigated service failures, success, and ideal recovery strategies from the users' perspective. The perspective of the drivers and the company would provide a more comprehensive understanding of the causes of success and failure, and the ideal strategies for recovery. For instance, in Taiwan, the Labor Ministry forces shared logistics companies to take out labor insurance for delivery people if the delivery people are assigned to work specific hours or stand by. Legality should be a critical factor from the perspective of the drivers and the company. Future research should consider multiple perspectives from all stakeholders. Second, personal interviews were used to deeply understand the studied case. Future studies should examine the relationships between the constructs via a quantitative survey in order to understand the statistical significance. Third, the validity of the interviews was enhanced by using interview questions from the widely used CIT questions (Bitner et al., 1990), adapting them in ways that made them relevant to our research subject. This allowed the interviewees to select incidents for which they had strong memories. The validity of the interviews was also enhanced by our use of field notes, as well as the recording and transcription of the interviews. This study enhanced interview reliability by following the protocol by which to conduct the interviews, and by having multiple researchers classify the collected incidents into types and categories based on clear definitions and with sufficient discussion (Liedtka, 1992; Bolderston, 2012). The validity and reliability of our design and process ensure that the research findings are correct and trustworthy. However, as C2B sharing logistics continue to grow and environment changes, customers' needs may change, accordingly. For instance, the COVID-19 pandemic has caused people to avoid close contact with each other. Shared logistic companies have started to provide no-contact delivery options. Hygiene oversight is becoming an important customer need. Therefore, the attributes that determine customer satisfaction or dissatisfaction are worthy of continuing study.

REFERENCES

- Arora, P., & Narula, S. (2018). Linkages between service quality, customer satisfaction and customer loyalty: A literature review. *IUP Journal of Marketing Management*, 17(4), 30–53.
- Beigi, M., & Shirmohammadi, M. (2011). Effects of an emotional intelligence training program on service quality of bank branches. *Managing Service Quality*, 21(5), 552–567. doi:10.1108/09604521111159825
- Bitner, M. J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. *Journal of Marketing*, 54(2), 69–82. doi:10.1177/002224299005400206
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosing favorable and unfavorable incidents. *Journal of Marketing*, 54(1), 71–84. doi:10.1177/002224299005400105
- Bolderston, A. (2012). Conducting a research interview. *Journal of Medical Imaging and Radiation Sciences*, 43(1), 66–76. doi:10.1016/j.jmir.2011.12.002 PMID:31052024
- Bott, G., & Tourish, D. (2016). The critical incident technique reappraised: Using critical incidents to illuminate organizational practices and build theory. *Qualitative Research in Organizations and Management*, 11(4), 276–300. doi:10.1108/QROM-01-2016-1351
- Carbone, V., Rouquet, A., & Roussat, C. (2018). A typology of logistics at work in collaborative consumption. *International Journal of Physical Distribution & Logistics Management*, 48(6), 570–585. doi:10.1108/IJPDLM-11-2017-0355
- Cheng, X., Fu, S., & Vreede, G.-J. (2018). A mixed method investigation of sharing economy driven car-hailing services: Online and offline perspectives. *International Journal of Information Management*, 41(August), 57–64. doi:10.1016/j.ijinfomgt.2018.03.005
- Choi, B. C. F., Kim, S. S., & Jiang, Z. (2016). Influence of firm's recovery endeavors upon privacy breach on online customer behavior. *Journal of Management Information Systems*, 33(3), 904–933. doi:10.1080/07421222.2015.1138375
- Cronin, J. J. Jr, Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193–218. doi:10.1016/S0022-4359(00)00028-2
- Das, S., Mishra, A., & Cyr, D. (2019). Opportunity gone in a flash: Measurement of e-commerce service failure and justice with recovery as a source of e-loyalty. *Decision Support Systems*, 125(October), 113–130. doi:10.1016/j.dss.2019.113130
- Deloitte. (2019). *Delivering growth: The impact of third-party platform ordering on restaurants*. Retrieved November 23, 2019, from <https://www2.deloitte.com/uk/en/pages/financial-advisory/articles/delivering-growth.html>
- DeTienne, K. B., & Westwood, J. (2019). An empirical study of service recovery quality and customer retention. *Journal of Management Research*, 19(4), 235–249.
- Goetzinger, L., Kun Park, J., & Widdows, R. (2006). E-customers' third party complaining and complimenting behavior. *International Journal of Service Industry Management*, 17(2), 193–206. doi:10.1108/09564230610656999
- Hamenda, A. (2018). An integrated model of service quality, price fairness, ethical practice and customer perceived values for customer satisfaction of sharing economy platform. *International Journal of Business and Society*, 19(3), 709–724.
- Han, S.-L., Sung, H.-S., & Shim, H.-S. (2014). Antecedents and performance outcomes of flexibility in industrial customer–supplier relationships. *Journal of Business Research*, 67(10), 2115–2122. doi:10.1016/j.jbusres.2014.04.020
- Hanna, R. C., Lemon, K. N., & Smith, G. E. (2019). Is transparency a good thing? How online price transparency and variability can benefit firms and influence consumer decision making. *Business Horizons*, 62(2), 227–236. doi:10.1016/j.bushor.2018.11.006

- He, P., Zhang, S., & He, C. (2019). Impacts of logistics resource sharing on b2c e-commerce companies and customers. *Electronic Commerce Research and Applications*, 34(March-April), 1–15. doi:10.1016/j.elerap.2018.100820
- Hong, J. H., Kim, B., & Park, K. (2019). Optimal risk management for the sharing economy with stranger danger and service quality. *European Journal of Operational Research*, 279(3), 1024–1035. doi:10.1016/j.ejor.2019.06.020
- Huang, S.-L., & Kuo, S.-Y. (2020). Understanding why people share in the sharing economy. *Online Information Review*, 44(4), 805–825. doi:10.1108/OIR-03-2017-0073
- Hughes, H. (2007). Critical incident technique. In S. Lipu, K. Williamson, & A. Lloyd (Eds.), *Exploring methods in information literacy research* (pp. 49–66). Woodhead Publishing. doi:10.1016/B978-1-876938-61-1.50004-6
- Ju, Y., Back, K.-J., Choi, Y., & Lee, J.-S. (2019). Exploring airbnb service quality attributes and their asymmetric effects on customer satisfaction. *International Journal of Hospitality Management*, 77(January), 342–352. doi:10.1016/j.ijhm.2018.07.014
- Kuo, Y.-F., Yen, S.-T., & Chen, L.-H. (2011). Online auction service failures in Taiwan: Typologies and recovery strategies. *Electronic Commerce Research and Applications*, 10(2), 183–193. doi:10.1016/j.elerap.2009.09.003
- Li, S., Wu, W., Xia, Y., Zhang, M., Wang, S., & Douglas, M. A. (2019). How do crowd logistics platforms create value? An exploratory case study from china. *International Journal of Logistics Research and Applications*, 22(5), 501–518. doi:10.1080/13675567.2019.1628929
- Liedtka, J. M. (1992). Exploring ethical issues using personal interviews. *Business Ethics Quarterly*, 2(2), 161–181. doi:10.2307/3857569
- Liu, Y., Huang, D., Wang, M., & Wang, Y. (2020). How do service quality, value, pleasure, and satisfaction create loyalty to smart dockless bike-sharing systems? *Revista Brasileira de Gestão de Negócios*, 22(3), 705–728. doi:10.7819/rbgn.v22i3.4070
- Matikiti, R., Mpinganjira, M., & Roberts-Lombard, M. (2018). Antecedents and outcomes of positive disconfirmation after service failure and recovery. *Journal of Global Business and Technology*, 14(2), 43–57.
- Melián-González, S., & Bulchand-Gidumal, J. (2017). Information technology and front office employees performance. *International Journal of Contemporary Hospitality Management*, 29(8), 2159–2177. doi:10.1108/IJCHM-10-2015-0585
- Meuter, M. L., Ostrom, A. L., Roundtree, R. I., & Bitner, M. J. (2000). Self-service technologies: Understanding customer satisfaction with technology-based service encounters. *Journal of Marketing*, 64(3), 50–64. doi:10.1509/jmkg.64.3.50.18024
- Mittendorf, C., Berente, N., & Holten, R. (2019). Trust in sharing encounters among millennials. *Information Systems Journal*, 29(5), 1083–1119. doi:10.1111/isj.12237
- Möhlmann, M. (2015). Collaborative consumption: Determinants of satisfaction and the likelihood of using a sharing economy option again. *Journal of Consumer Behaviour*, 14(3), 193–207. doi:10.1002/cb.1512
- Monty, R. C. S. (2018). Creative economy: How the interface of Uber eats and ifood could change your menu. *Brazilian Journal of Operations & Production Management*, 15(3), 413–419. doi:10.14488/BJOPM.2018.v15.n3.a8
- Mudambi, S. M., & Schuff, D. (2010). What makes a helpful online review? A study of customer reviews on amazon.Com. *Management Information Systems Quarterly*, 34(1), 185–200. doi:10.2307/20721420
- Papoutsis, C., Drigas, A., & Skianis, C. (2019). Emotional intelligence as an important asset for hr in organizations: Attitudes and working variables. *International Journal of Advanced Corporate Learning*, 12(2), 21–35. doi:10.3991/ijac.v12i2.9620
- Ray, A., Dhir, A., Bala, P. K., & Kaur, P. (2019). Why do people use food delivery apps (fda)? A uses and gratification theory perspective. *Journal of Retailing and Consumer Services*, 51(November), 221–230. doi:10.1016/j.jretconser.2019.05.025

- Setia, P., Venkatesh, V., & Joglekar, S. (2013). Leveraging digital technologies: How information quality leads to localized capabilities and customer service performance. *Management Information Systems Quarterly*, 37(2), 565–590. doi:10.25300/MISQ/2013/37.2.11
- Shahin, A., Pourhamidi, M., Antony, J., & Hyun Park, S. (2013). Typology of Kano models: A critical review of literature and proposition of a revised model. *International Journal of Quality & Reliability Management*, 30(3), 341–358. doi:10.1108/02656711311299863
- Shao, Z., Li, X., Guo, Y., & Zhang, L. (2020). Influence of service quality in sharing economy: Understanding customers' continuance intention of bicycle sharing. *Electronic Commerce Research and Applications*, 40(March-April), 100944. doi:10.1016/j.elerap.2020.100944
- Sohn, J.-I., Woo, S.-H., & Kim, T.-W. (2017). Assessment of logistics service quality using the Kano model in a logistics-triadic relationship. *International Journal of Logistics Management*, 28(2), 680–698. doi:10.1108/IJLM-09-2015-0172
- Spencer, D. (2009). *Card sorting: Designing usable categories*. Rosenfeld Media.
- Su, W., Xu, X., Li, Y., Martínez-López, F. J., & Li, L. (2018). Technological innovation: A case study of mobile internet information technology applications in community management. *Journal of Global Information Management*, 26(2), 193–203. doi:10.4018/JGIM.2018040109
- Sung, S. Y., & Choi, J. N. (2018). Effects of training and development on employee outcomes and firm innovative performance: Moderating roles of voluntary participation and evaluation. *Human Resource Management*, 57(6), 1339–1353. doi:10.1002/hrm.21909
- Tomczak, D. L., Lanzo, L. A., & Aguinis, H. (2018). Evidence-based recommendations for employee performance monitoring. *Business Horizons*, 61(2), 251–259. doi:10.1016/j.bushor.2017.11.006
- Tsai, C.-T., & Su, C.-S. (2009). Service failures and recovery strategies of chain restaurants in Taiwan. *Service Industries Journal*, 29(12), 1779–1796. doi:10.1080/02642060902793599
- Tse, E. C.-Y., & Ho, S.-C. (2009). Service quality in the hotel industry when cultural contexts matter. *Cornell Hospitality Quarterly*, 50(4), 460–474. doi:10.1177/1938965509338453
- Wang, Y.-S., Wu, S.-C., Lin, H.-H., & Wang, Y.-Y. (2011). The relationship of service failure severity, service recovery justice and perceived switching costs with customer loyalty in the context of e-tailing. *International Journal of Information Management*, 31(4), 350–359. doi:10.1016/j.ijinfomgt.2010.09.001
- Yang, Z., Cai, S., Zhou, Z., & Zhou, N. (2005). Development and validation of an instrument to measure user perceived service quality of information presenting web portals. *Information & Management*, 42(4), 575–589. doi:10.1016/S0378-7206(04)00073-4

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