CUSTOMER READINESS, MARKET ORIENTATION AND TRANSACTION FREQUENCY IN MOBILE BANKING SERVICE RECOVERY

Hsin Hsin Chang  
*National Cheng Kung University, easyhhc@mail.ncku.edu.tw*

Chen Su Fu  
*National Cheng Kung University, csfu1223@gmail.com*

Shu-Hui Chen  
*National Cheng Kung University, suechen@mail.ncku.edu.tw*

Wei Zong Chiu  
*National Cheng Kung University, xinxinjiang8@gmail.com*

Yu-Yu Lu  
*National Cheng Kung University, r48041011@mail.ncku.edu.tw*

Follow this and additional works at: [http://aisel.aisnet.org/pacis2016](http://aisel.aisnet.org/pacis2016)
CUSTOMER READINESS, MARKET ORIENTATION AND TRANSACTION FREQUENCY IN MOBILE BANKING SERVICE RECOVERY

Hsin Hsin Chang, Department of Business Administration, National Cheng Kung University, Tainan, Taiwan, easyhhc@mail.ncku.edu.tw
Chen Su Fu, Department of Business Administration, National Cheng Kung University, Tainan, Taiwan, csfu1223@gmail.com
Shu-Hui Chen, Department of Business Administration, National Cheng Kung University, Tainan, Taiwan, suechen@mail.ncku.edu.tw
Wei Zong Chiu, Department of Business Administration, National Cheng Kung University, Tainan, Taiwan, xinxinjiang8@gmail.com
Yu-Yu Lu, Department of Business Administration, National Cheng Kung University, Tainan, Taiwan, r48041011@mail.ncku.edu.tw

Abstract
This study investigates the effect of internet banking service recovery satisfaction on future intention toward using mobile banking, and examines transaction frequency as a moderator of this relationship. Moreover, this study applies customer participation in service recovery and service recovery experience as the influential factors of service recovery satisfaction. Questionnaires were obtained from 419 respondents with internet banking and service recovery experience. The results of SEM analysis illustrate that both role clarity and ability of service recovery can affect the level of service recovery participation. Additionally, the internet banking service provider’s responsive and proactive customer orientation can influence customer service recovery experience, which further increases service recovery satisfaction. Recovery satisfaction can thus affect future intention toward using mobile banking. The moderating effect of transaction frequency was also confirmed. Theoretical and managerial implications are discussed.

Keywords: service recovery, customer readiness, market orientation, service recovery, m-banking
1 INTRODUCTION

Mobile banking is an extension of internet banking (Tsai et al., 2012), with difference of mobility (Lin et al., 2011). Previous studies examined the roles of customer behaviour, attitude, and so on as factors influencing the use of mobile banking (Laforet & Li, 2005), while others examined the roles of perceived usefulness, perceived advantage, and so on as influential factors of adoption mobile banking (Laukkanen & Lauronen, 2005). Since internet banking and mobile banking are self-service technologies (SSTs) with similar functions, the focal research question is what factors could encourage internet banking customers to adopt mobile banking. In particular, this study examines the roles of internet banking service failure and service recovery satisfaction in relation to the adoption of mobile banking.

Internet banking service providers may affect on the level of service recovery satisfaction that customers perceive. Deng et al (2010) noted that the process of service evaluation is involved in the formation of satisfaction responses. Therefore, customers’ service experience may influence the level of internet banking service recovery satisfaction that they feel. Setia et al (2013) proposed that customer orientation capability and customer response capability positively influence service performance. However, previous research only examined these relationships from a business perspective in the banking context, ignoring the customer perspective. This study focuses on the joint situation of service recovery from perspectives of customer, and the internet banking service provider. From customer side, customers’ level of participation in service recovery may influence their service recovery satisfaction. Meuter et al. (2005) proposed that consumer readiness can lead to successful SST co-production between customers and service providers. As a participant, customers’ readiness on internet banking service recovery may affect their participation level in the service recovery processes. Moreover, responsive and proactive customer orientations are similar to customer orientation capability and customer response capability. Thus, responsive and proactive customer orientation are examined in this work as influential factors of customer service recovery experience from a customer perspective in an internet banking service recovery context. Also, previous research only examined responsive customer orientation and proactive customer orientation in a B2B context, this study adopts these two constructs to discuss internet banking service provider’s market orientation in a business-to-customer (B2C) context.

Service recovery satisfaction is confirmed that positively affect repurchase intention (Chang et al., 2012; Bijmolt et al., 2014). To understand the effects of customers perceived internet banking service recovery satisfaction on their the intention to adopt using mobile banking, this study extended and tested this relationship regarding on different services, moving from internet banking to mobile banking with the same service provider. Moreover, previous studies stated that transaction frequency moderates the relationship between service recovery satisfactions and repurchase intention (Chang et al., 2012; Bijmolt et al., 2014). However, these studies only conducted to same product or service. In contrast, this study examines this issue in the context of different services, i.e., internet and mobile banking, offered by the same company. Also, previous studies only explored service recovery from the customer or the firm (e.g., Kim & Oh, 2012, and Kuo & Wu, 2012). This study combines the customer side (from customer readiness to customer participation in service recovery) and the firm side (from market orientation to customer service recovery experience) to investigate the issue of internet banking service recovery and its effects on the adoption of mobile banking. Based on previous discussion, the purposes of this study are:

(1) To examine customer readiness as an antecedent of customer participation in service recovery and the subsequent level of service recovery satisfaction.
(2) To investigate the effect of market orientation on customer service recovery experience and the subsequent level of service recovery satisfaction.
(3) To study the effect of service recovery satisfaction on intention toward using mobile banking, and the moderating role of the transaction frequency on this relationship.
2 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The research framework used in this study is shown in Figure 1.

![Figure 1. Research Framework](image)

Service failure refers to service performance that falls below a customer’s expectations (Hess et al, 2003). Service recovery is actions taken by a service provider to address a customer’s complaint about a perceived service failure. (Marimon et al, 2012). Customer value co-creation behaviour occurs when customers follow the service providers’ instructions (Auh et al, 2007), Consumer readiness includes role clarity, ability and motivation (Meuter et al., 2005). Dellande et al. (2004) used these three items as customer attributes and examined their connections with provider characteristics and customer outcomes. Customer readiness affect customers’ continued use of internet banking (Ho & Ko, 2008). Hence, role clarity, ability and motivation are able to consider as attributes which predict customer behaviour. Customer readiness is also a factor in continued internet banking usage (Khadem & Mousavi, 2013). This study thus uses these three constructs (i.e. role ability, ability and motivation) to probe customer participation in service recovery. Customer readiness in this study is a condition which customer is prepared and likely to participate in internet banking service recovery.

Role theory proposes that individuals have certain life roles which motivate their situational behaviours and emotional reactions (Yoo et al., 2012). Customers must realize their roles if they are to participate in successful internet banking service recovery. In this study, role clarity refers to how well customers understand what role or performance is required from them to adequately participate in service recovery when encountering an internet banking service failure. Dong et al. (2008) noted that as customer role clarity in value co-creation efforts increases, customers will increase their familiarity with the related requirements, and be more likely to participate in future such activities. Similarly, the more customers know what to do, the more they will participate in internet banking service recovery process. Based on the above discussion, the following hypothesis is proposed:

H1: Customer role clarity positively affects customer participation in service recovery.

Customer participation in the service process is stimulated when customers is able to perform what is expected of them (Dellande et al., 2004). Rodie and Kleine (2000) claimed that the level of customer co-creation is affected by customers’ ability to participate in the related tasks. Therefore, if customers have more skills and confidence in internet banking service recovery, they will participate more in that service. Dong et al. (2008) found that as the level of customer ability in future value co-creation efforts increases, the customer will have greater intention to engage in future co-creation. Based on this, the following hypothesis is proposed:

H2: Customer ability positively affects customer participation in service recovery.

Willingness to perform an action was indicated to be dependent on motivational levels for both customers and employees in the production of services (Larsson & Bowen 1989). Dellande et al.
(2004) mentioned that customer participation in service process is stimulated when they are motivated to perform as expected. This study focuses on intrinsic motivation and expects it to be crucial in affecting the likelihood of internet banking service recovery participation when customers encounter a service failure. Some customers may prefer an active role in the service production process, because they feel intrinsically attracted to participation (Meuter et al., 2005). When customers attempt to solve service problems by themselves, or are guided through a series of service recovery procedures, a superior recovery effort with customer participation not only provides a successful service experience, but also cancels the negative effects of initial service failure. Similarly, the more motivation customers have, the more participation in internet banking service recovery they engage in. Based on the above discussion, the following hypothesis is proposed:

**H3:** Customer motivation positively affects customer participation in service recovery.

This study investigates the relationship between market orientation and customer service recovery experience. It follows Narver et al. (2004) in defining market orientation using two terms: responsive customer orientation and proactive customer orientation. Similarly, Setia et al. (2013) proposed that customer orientation capability and customer response capability have significant, positive effects on customer service performance. An internet banking service provider with a better customer orientation capability and customer response capability may have abilities to also make its employees friendlier and more service-oriented (Brady & Cronin, 2001), improve the interest of customers on working with the service and purchasing related products (Siders et al., 2001), more effectively and quickly address any customer complaints or grievances (Homburg et al., 2007), enhance customers’ attitudes toward the internet banking service provider’s service experience, and create a customer-centric service experience (Rust et al., 2010). The combination of customer orientation capability and customer response capability is like the combination of responsive and proactive customer orientations. Blocker et al. (2011) showed that both responsive and proactive customer orientations have positive effects on customer value perceptions in a global business-to-business context. Similarly, internet banking service providers not only provide basic and traditional financial services, but also monitor market and technological changes to see what innovative financial services will be needed in the future. Totally customer-oriented internet banking service providers can enable customers to perceive better service experience, while also creating profits and maintaining market share. Based on the above discussion, the following hypotheses are proposed:

**H4:** Responsive customer orientation positively affects customer service recovery experience.

**H5:** Proactive customer orientation positively affects customer service recovery experience.

When Dong et al. (2008) presented the concept of customer participation in service recovery; they examined the level of customer involvement in response to a service failure. Hibbert et al. (2012) proposed that service recovery will have consequences in terms of customer satisfaction and word of mouth. This study expects that the level of customer participation in service recovery positive influences the level of perceived internet banking service recovery satisfaction. In a joint recovery context, customer participation is important in service recovery. There are four dimensions of customer participation in service recovery, including information seeking, information sharing, responsible behaviour, and personal interaction. Customers who perform these participation behaviours in internet banking service recovery would feel more satisfaction with the results. Based on the above discussion, the following hypothesis is proposed:

**H6:** Customer participation in service recovery positively affects service recovery satisfaction.

Kuo and Wu (2012) mentioned that customer satisfaction plays an important role in service recovery and directly influences the attitudes and intentions of customers. Past research has examined the process of service evaluation involved in the formation of satisfaction (Deng et al., 2010). Customers are generally satisfied when the service performance is good, and dissatisfied when it is poor. Maklan and Klaus (2011) confirmed that customer experience quality positively affects customer satisfaction. Therefore, if an internet banking service provider promises to accomplish service recovery for a customer, and is able to achieve this, the customer will be pleased when the service recovery occur. Based on the above discussion, the following hypothesis is proposed:
H7: *Customer service recovery experience positively affects service recovery satisfaction.*

Over the past decade, bank customers have become increasingly comfortable with online banking, and now they start to accept mobile banking. Ratten (2008) stated that mobile commerce lets banks refocus their marketing strategies. The key feature of mobile banking services is mobility (Lin et al, 2011), and this is the key different between internet banking and mobile banking. Lin et al. (2011) proved that customer trust in a brokerage company’s online services affects their perceptions of the company’s mobile services. If customer perceived satisfaction with internet banking service recovery can influence their trust in internet banking. Through a trust transfer process, customer may trust the mobile banking services provided by the same bank, thus more likely adopts to use them. The greater customer satisfaction with participating in internet banking service recovery, the more likely they are to adopt mobile banking. Based on the above discussion, the following hypothesis is proposed:

H8: *Service recovery satisfaction positively affects intention toward using mobile banking.*

Transaction frequency is a situational factor that moderates the main effects, and a kind of customer experience. Previous customer experiences with a firm influence customers’ expectations, and these expectations influence their evaluations of product or service performance (Chang et al, 2012). Low et al. (2013) also proposed that greater interaction frequency also raises trust between the service provider and its customers. Customers perceive less risk than those possessing less experience with the firm when customers become more familiar with the service provider and its product or service, and as a result, transaction frequency increases (Holloway et al., 2005). Chang et al. (2012) further indicated that as the transaction frequency grows, transaction risk between the service provider and the customers decreases, and thus the relationship between satisfaction and repurchase intention will be stronger.

Hess et al. (2003) confirmed that service recovery satisfaction positively affects repurchase intentions. A more experienced group of customers’ service recovery satisfaction will be highly predictive of their repurchase intentions (Holloway et al., 2005). Therefore, customers with higher levels of transaction frequency experience are more likely to adopt mobile banking offered by the same provider after a satisfactory recovery experience. On the other hand, a negative service failure experience may increase the perceived risk of internet banking for this group of customers, and thus, even if they are satisfied with the internet banking recovery effort, they may still be discouraged from using mobile banking. Furthermore, Chang et al. (2012) proved that the higher the transaction frequency, the more powerful the positive relationship between service recovery satisfaction and repurchase intention (Bijmolt et al, 2014). However, when transaction frequency is low, service recovery satisfaction is not strongly predictive of repurchase intention (Holloway et al., 2005). Based on the above discussion, the following hypothesis is proposed:

H9: The positive relationship between service recovery satisfaction and intention toward using mobile banking is stronger when customers have relatively high versus low transaction frequency.

### 3 RESEARCH DESIGN AND RESULTS

Each construct was a seven-point Likert scale designed ranging from 1 (strongly disagree) to 7 (strongly agree). The pilot test was conducted to ensure that the respondents would understand all the items and also to assess the reliability and validity of the questionnaire. A total of 137 questionnaires were gathered. Any responses made by a person with experience of both using internet banking and a related service recovery were considered to be valid. There were two invalid questionnaires because there was one reversed item (RO3) to filter out people who were not reading the questionnaire properly. The results of the pilot test showed that the Cronbach’s alphas of all constructs were greater than the standard of .70, ranging from .818 to .981. Most of items’ item-to-total were also over the standard of .50, ranged from .509 to .968, although ISE1 (.455) was a little lower than .50. Based on Park and Kim (2003), the item-to-total values should be at least .4, and thus ISE1 was not deleted or modified in the formal questionnaire.
After the pilot test, formal questionnaires were distributed to online users and posted on Facebook, forums and so on. There were two questions to make sure that a respondent was suitable for this study, one asked about is internet banking usage experience, and the other about internet banking service recovery experience. Only respondents with both internet banking usage experience and internet banking service recovery experience were considered eligible. A total of 566 questionnaires were collected, and 419 of these were valid. In addition, the reverse item is "I am NOT sure how to participate in internet banking service recovery properly", the answer to which should be opposite to that for its corresponding item. There were thus 147 invalid questionnaires due to incorrect answers for this item, or a lack of the necessary experience.

On confirmatory factor analysis, item-to-total correlations ranged from .548 to .913 and the factor loadings ranged from .616 to .945. The results for the measurement model fit showed that χ²/df (2.483) was lower than 3, GFI (.831) and AGFI (.801) at least met the lowest standard of .80. CFI (.934) exceeded the standard and RMSEA (.060) was lower than .08. Conclusively, all model fit indexes reached the related standards set by Hair et al. (2010), which indicated an acceptable fit between the data and research tools. According to Hair et al. (2010), composite reliability should be over .70 and AVE should be higher than .50. In the results, all of constructs met the related standard for Cronbach’s alpha, ranging from .806 to .956. The composite reliability of all constructs was over .70, ranging from .809 to .956. The AVE of all constructs was over .5, ranging from .516 to .879. The results of Cronbach’s alpha, AVE, and composite reliability for each variable thus showed high convergent validity, high internal consistency, and high reliability. Based on Hair et al. (2010), high discriminant validity shows that one variable is unique and thus can catch some phenomena that other variables do not. This study used AMOS 21 to compare the Chi-square values between each construct (Chen et al., 2005). If the results of the Chi-square value with covariance minus the Chi-square value without covariance exceed 3.86, this means there is a low correlation between the two constructs. All the results in this study are over 3.86, and range from 4.020 to 85.724, which shows that the high discrimination among the constructs.

The result of structural model analysis is presented in Figure 2. CMIN/DF (2.539), CFI (.930), RMSEA (.061), AGFI (.800), and GFI (.826) all reached the recommended value. Overall fit measures demonstrate that the model is adequate for SEM analysis. In this study, role clarity and ability have impacts on customer participation in service recovery, so H1 (β=.408, t=5.052) and H2 (β=.272, t=3.921) were supported. The impact of motivation on customer participation in service recovery (H3) was not supported in this study. Moreover, responsive and proactive customer orientation have influences on customer service recovery experience, so H4 (β=.729, t=13.080) and H5(β=.144,
t=3.126) were supported. This study confirmed that customer participation in service recovery positively affects service recovery satisfaction, so H6 was supported (β=.131, t=4.195). H7, customer service recovery experience positively affects service recovery satisfaction, was supported (β=.843, t=20.451). Finally, the results showed that service recovery satisfaction positively affects intention toward using mobile banking, so H8 was supported (β=.711, t=17.564).

The effects of the moderator-transaction frequency were examined using the SEM competing model. Firstly, based on the transaction frequency of the respondents, this study regards 1-4 times as low transaction frequency, and above 13 times as high transaction frequency. Model 1 represents the low transaction frequency respondents, and Model 2 the high transaction frequency respondents. Model 1 thus includes 206 respondents, and Model 2 has 100. The result for transaction frequency, and the model fit was as follows: $\chi^2/df$ equalled 2.034, which lower than 3, and RMSEA equaled.058, which was lower than .08, both meeting the related standards. In addition, GFI (.703) and AGFI (.658) were lower than .80, and CFI (.886) was slightly lower than .9, thus indicating acceptable fit between the data and model.

4 CONCLUSION AND IMPLICATIONS

4.1 Conclusions

Hypotheses 1 and 2 were supported, and these results confirmed with previous research (Yi & Gong, 2013) in an internet context. When customers have higher level of role clarity and ability in internet banking service recovery, they will make more effort to engage in service recovery. The focus of the moderator-transaction frequency affect service recovery satisfaction. There were significant results in both models, and significantly different from two Models (β=.628 in Model 1 and .833 in Model 2; t=1.667). The results showed that the moderating effects of transaction frequency (H9) on service recovery satisfaction and intention toward using mobile banking was supported. However, hypothesis 3 was not supported, which investigated intrinsic motivation, and this did not in line with previous research (Yi & Gong, 2013). A reason for this may be that customers consider the banking industry is stricter than other industries, and thus may perceive that banking firms take more serious credit-oriented and financial actions (Harris et al., 2006). Customers were thus not motive by intrinsic feelings to participate in internet banking service recovery. In contrast, customers may participate in service recovery when they feel that joint service recovery is actually beneficial on service outcomes, such as solving their problems. Actions to remedy service failure in internet banking include offering compensation and service charge discounts (Harris et al., 2006). Customers may thus mainly be motive by problem-solving, compensation, and other extrinsic advantages.

Both hypotheses 4 and 5 were supported in this study, and thus both responsive and proactive customer orientations have positive effects on customer service recovery experience. These results confirmed with previous research (Setia et al., 2013) which showed that customer orientation capability and customer response capability have positive effects on customer service performance. Total customer-oriented internet banking service providers will enable customers to perceive they have better service experience, and thus these providers can gain more profits and market share. Totally customer-oriented internet banking service providers can always respond effectively, quickly, and flexibly to handle service failures. Responsive customer orientation (β=.729) has more positive effect on customer service recovery experience than a proactive customer orientation (β=.144). Banks with a responsive customer orientation are more experienced at serving the expressed needs of customers, but not at recognizing latent needs and predicting future needs. On the other hand, banks with a proactive customer orientation are more concerned with the latent needs of customers.

Consistent with Vega-Vazquez et al. (2013), the result of H6 showed that customer participation in service recovery positively influences service recovery satisfaction. When customers make an effort to participate in joint recovery, they cooperate with employees to solve a service failure. In completing service recovery, customers need to provide information about the service failure,
interact with employees, and follow any directions from them. Hypothesis 7 is supported that customer service recovery experience influences service recovery satisfaction significantly and positively. This confirmed with previous research, which indicated that customers’ past service recovery experience would influence their satisfaction about service recovery in an internet banking context (Maklan & Klaus, 2011). Hypothesis 8 expressed that higher levels of internet banking service recovery satisfaction have positive effects on intention toward using mobile banking in the future. Inter-channel trust transfer refers to when trust in one channel may affect the evaluation of a product or service in a different channel (Lu et al., 2011). In this study, customers who have greater satisfaction on internet banking service recovery would have greater intentions to adopt the mobile banking service offered by the same provider. Consistent with Chang et al. (2012), the result of H9 showed that that transaction frequency is vital in the relationship between satisfaction of internet banking service recovery and intention toward using mobile banking. Customers with high transaction frequency have more trust in the internet banking service provider, and thus more trust in the mobile banking service that they offer. Customers with higher transaction frequency are more familiar with internet banking services, and thus are more confident about adopting mobile banking.

4.2 Theoretical implication, Managerial implication and Limitations

Market orientation is related to customer service recovery experience from a customer perspective in the B2C context. While previous research applied responsive and proactive customer orientations in a B2B context (Blocker et al., 2011), this study confirmed that these two concepts can be used in B2C context. Moreover, Internet banking service recovery satisfaction influences intention toward using mobile banking. Previous research only stated that service recovery satisfaction can positively influence repurchase intention for the same product or service (Chang et al., 2012; Bijnol et al., 2014). This study extended this relationship to a different service, from internet to mobile banking with the same service provider. The results confirmed that internet banking service recovery satisfaction can positively affect intention on using mobile banking. Although previous research proved that transaction frequency moderates the relationship between service recovery satisfactions and repurchase intention of the same product or service (Chang et al., 2012; Bijnol et al., 2014), this study confirmed that transaction frequency has a moderating effect on internet banking service recovery satisfaction and intention toward using mobile banking. Previous research investigated service recovery from only a single side, from the customer or firm (Chang et al., 2012; Kim & Oh, 2012; Kuo & Wu, 2012). This study combined both perspectives to explore joint service recovery.

For internet banking service providers, it is important that customers have both role clarity and ability on service recovery. Internet banking service providers can manage and control both role clarity and ability. Such firms should provide a user-friendly interface to enable customers to understand how to participate in service recovery. An internet banking service provider that is customer-oriented is also important in the customer service recovery experience. This research has demonstrated that as the levels of the responsive and proactive customer orientations of an internet banking service provider increase, customers’ service experience will also improve. Furthermore, service recovery satisfaction has a positive influence on customers’ intention toward using mobile banking. This research also demonstrates that as the level of service recovery satisfaction of customers increases, so do their intentions toward using mobile banking. Therefore, internet banking service providers should make efforts to meet their customers’ needs when service failures occur.

Previous research adopted both extrinsic and intrinsic motivation to investigate trials of SSTs (Meuter et al., 2005), this study, however, mainly focuses on intrinsic motivation. Future research could thus both take extrinsic motivation and intrinsic motivation into account. Moreover, this study only asked about the respondents’ last experience of internet banking service recovery. However, previous research stated that a period of one month is better, because respondents are able to recall a particular negative event in such a short time period (Chang et al., 2012). Future research could consider this condition to make the results more accurate.
References


