Affective and Instrumental Commitment: A Special Reference to Self-Service Technologies in Domestic and Foreign Banks

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ABSTRACT

The current research investigates the effects of consumers’ perception (i.e. perceived usefulness, perceived convenience, and perceived security and privacy) of self-service banking technologies (SSBTs) on customer satisfaction, which in turn affects their affective and instrumental commitment toward banks. Based on the data collected from 176 domestic bank customers and 130 foreign bank customers in Vietnam, the current research examines and compares the proposed relationships across domestic and foreign banks. Its results indicate that, for the overall sample, perceived usefulness, perceived convenience, and perceived security and privacy of SSBTs positively affect customer satisfaction, which incidentally significantly increases customers’ affective and instrumental commitment. However, perceived usefulness of SSBTs is not an important driver of customer satisfaction with domestic banks. Also, in the case of foreign banks, perceived convenience of SSBTs does not influence customers’ satisfaction, and customers’ instrumental commitment toward foreign banks is not affected by customers’ satisfaction. Based on the research findings, this study provides some suggestions and recommendation for both domestic and foreign banking practitioners and policy makers in Vietnam.
1. Introduction

“Today fast-paced world is becoming increasingly characterized by technology-facilitated transactions” (Meuter et al., 2000). More and more business firms tend to apply self-service technologies (SSTs), which allow customers to interact with technology or machine to complete given tasks, instead of interacting with the service firm employees. SSTs are formally defined as technological interfaces that allow customers to produce their own service independent of interaction with a firm’s service personnel through the use of technology (Meuter et al., 2000). The rapid development of SSTs in recent years means that customers have changed the way in which they deal with many services, including banking services (Bobbitt & Dabholkar, 2001). SSTs in banking sectors can be in the form of automated teller machines (ATMs), telephone banking, mobile banking, online banking, electronic funds transfer at the point of sale, E-gold service machines, and so on.

In the current fiercely competitive banking industry, an increasing number of financial institutions have diversified their services by integrating different types of SSTs into their existing system in the hope of improving customer loyalty, and attaining a sustainable existing system along with sustainable competitive advantage in the marketplace (Opponget et al., 2014). Since customer satisfaction and commitment are important determinants of customer loyalty to the service provider (Beatson et al., 2006), it is important to understand how SSBTs may help improve these two outcome factors. Some reviews of extant literature assert that customers’ core concerns regarding a technology usually include perceived usefulness, perceived convenience, and perceived security and privacy (Yiu et al., 2007; Wang, 2012). This research, therefore, aims to examine the effect of consumers’ perception of SSBTs on their satisfaction and also investigate the relationship between customer satisfaction with banking services and commitment to these services. Particularly, two dimensions of commitment, including affective and instrumental commitment, will be addressed. Furthermore, as domestic and foreign banks usually possess different capital capacity, management system, and technological levels, it would be very useful to compare findings of the proposed relationships between foreign and domestic banks.

This paper is structured into five sections, starting with the first part introducing an outline of this study. The next section mainly serves as a review of existing literature along with its proposed hypotheses and research model. The third section empirically
tests the research model, whereas the results of data analysis will be discussed in the next one. Finally, key findings of this research are summarized in the last section, which also exposes certain limitations and proposes a few recommendation for future studies.

2. Theoretical background and research hypotheses

2.1. Literature review

2.1.1. Expectation-confirmation model in the context of IT (ECM-IT)

The proposed model of this study is based on the expectation-confirmation model in the context of IT (ECM-IT), which provides a theoretical background for explaining customer satisfaction with technology. The hypothesized model extends the original ECM-IT by adding two unique characters and salient incentives in the SSBTs context, including perceived convenience and security and privacy. In addition, another attempt of this study is to test the ways in which customer satisfaction may impact on consequence behavior, such as customer commitment, which has linked up in previous research (Garbarino & Johnson, 1999). Therefore, this study proposes and empirically validates the extended ECM-IT in order to reflect the uniqueness of SSBTs.

2.1.2. Self-service banking technologies (SSBTs)

“Self-service technologies (SSTs) are technological interfaces that enable customers to produce a service independent of direct service employee involvement” (Maeuter et al., 2000). SSTs can change the way how suppliers and buyers interact. Customers can use these services by themselves, without any direct contact with any employee of the firm (Eriksson & Nilsson, 2006). The development of advanced SSTs has also set a standard for SSBTs. Most of the financial institutions has transformed from the traditional approach of brick-and-mortar into click-and-mortar (Ho & Ko, 2008).

2.1.3. Customer satisfaction

Customer satisfaction is one of the most important outcomes of marketing activity (Spreng et al., 1996; Fournier & Mick, 1999). It is known as an “evaluation of the perceived discrepancy between prior expectations and the actual performance of the product” (Tse & Wilton, 1988). Nowadays, in the dynamic banking industry, customer satisfaction is regarded as the essence of success. Customer satisfaction day by day becomes crucially important for attracting more and more customers and increasing customer base in business firms and also in the banking sector. “Most of the banks set
their strategies towards increasing satisfaction and loyalty of customers through the quality of service” (Siddiqi, 2011). Customer satisfaction is considered as a full measure of service quality which leads to the continuous behavior relationships with the service supplier (Rust & Chung, 2006), and dominates SST success (Chen et al., 2009). Prabhakaran and Satya (2003) stated that the customer is the king so the higher customer satisfaction, the higher commitment they are. According to Kumar et al. (2009), high quality services reach high customer satisfaction and increases customer loyalty or customer commitment also. Thus, understanding the determinants that result in customer satisfaction is essential to SSBTs’ success in retail banking.

2.1.4. Affective commitment

Customer satisfaction is manifested through their commitment to the providers. Commitment can be defined as an aspiration to sustain the valued relationship between customers and suppliers in the long term (Moorman et al., 1992). The more satisfied consumers are with a product or service received, the more likely they are to commit themselves to maintaining a stable long-term relationship with the organization (Heskett et al., 1994; McQuitty et al., 2000; Singh & Sirdeshmukh, 2000; Szymanski & Henard, 2001).

Affective commitment is one of the fundamental components to the success of an organization. It is considered a psychological element relating to consumers, who have experienced the good quality of products or felt satisfied with the services offered by the provider, and therefore desire to continue the relationship with the organization without any external force (Beatson et al., 2006).

In order to build customers' affective commitment to a retail bank, two kinds of exchanges taking place between the banker and the customer need considering carefully. Firstly, the exchanges are recorded of bank's products and services; moreover, it is very requisite to dignify the role of usefulness, enjoyment, and convenience that SSTs bring to customers as well as the risk they have to face when using these services offered by the bank. The other is the interaction between bankers and customers, which is termed "interpersonal dimension" by Menon and O'Connor (2007). The scholars also suggested that while the core bank service is the main reason for the interaction between customers and bankers, interpersonal interaction seems to be the most vital element contributing to the customer satisfaction, which ensures their affective commitment.
In other words, in an accelerating pace of globalization and competitiveness, customers' loyalty and desire to get involved in an organization play significant roles in its course of development and success. Bank managers must take right action to raise the effective commitment of customers through obtaining a positive answer from them to the question: “Do I want to maintain my membership in and patronage of the cooperative?” (Jussila et al., 2012)

2.1.5. Instrumental commitment

The second commitment dimension is instrumental commitment. In this type of commitment, if consumers leave or do not long to continue using products or services offered by an organization, they must incur perceived costs which can be economic or psychological in nature, and it means to be real or perceived (Morgan & Hunt, 1994 as cited in Beatson et al., 2006). Specifically, the cost may be time or expenditure spent to find a new employer with the same quality as the current one (Allen & Meyer, 1990 as cited in Beatson et al., 2008) or irritation and risks when service providers are to be changed (Beatson et al., 2006). Therefore, when there is a perception of a lack of a potential alternative employer, customers tend to stay with their organization. However, Menon and O'Connor (2007) suggested that in some cases customers do not display good fit with company offerings, and the company cannot meet their needs. The customers, however, do not discontinue their membership due to perceived costs. If this takes place, the company should proactively direct them to a more suitable organization since this action reflects a concern for the customers, which are more likely to bring about their subsequent positive attitude toward the company.

According to Hung et al. (2012), instrumental commitment is based on a theory in which an organization strived to convince its members to maintain involvement by giving them an inducement for contribution. Menon and O'Connor (2007) divided this inducement into two types: extra-role social bonds and intra-role social bonds. The former can be an event or workshop that makes providers and customers closer, whereas the latter, for example, involves providing customers with subscriptions to internal magazines or personal invitation to social events. Customers will continue participate in the organization as long as the inducement meets or exceeds the benefit held by them. The more the spread between inducement and contribution increases, the less the tendency of an individual to leave becomes (Penley & Gould, 1988 as cited in Hung et al., 2012), and the opposite is also true.
2.2. Hypotheses

2.2.1. Perceived usefulness

The importance of perceived usefulness has been widely recognized in the SSBTs. Perceived usefulness is defined as “the degree to which a person believes that using particular system would enhance his or her job performance” (Davis, 1989). According to this definition, user context will be more emphasized by asking customers to focus on perceived benefits, regardless of the properties of the SSBTs themselves. Customers will not perceive SSBTs as useful if they are not beneficial. According to Guriting and Ndubisi (2006), perceived usefulness is strongly associated with productivity. Perceived usefulness is the key driver of consumer attitudes toward SSBTs usage. Many researchers (Gerrard & Cunningham, 2003; Cheng et al., 2006) have found that perceived usefulness strongly impacts on customers’ intention to use any application. Perceived usefulness has been commonly seen as a primary motivator of SSBTs acceptance. In addition, perceived usefulness refers to consumers’ perceptions regarding the outcome of the experience (Davis et al., 1992). Pikkarainen et al. (2004) described perceived usefulness as a determinant of actual behavior which encourages the user of the twenty-first century banking to employ more innovative and user friendly SSTs that give them greater autonomy in performing banking transactions, in obtaining information on financial advices, and in purchasing other financial products. Hence, if consumers acknowledge the usefulness of SSBTs, they are more willing to use them. Based on above argument, the following hypothesis is developed:

H1: Perceived usefulness is positively related to customer satisfaction.

2.2.2. Perceived convenience

Convenience, particularly perceived convenience, seems to have the most profound impact on using or rejecting SSTs. Even in the study of Eastin and LaRose (2000), it is concluded that perceived convenience is the strongest predictor of SSTs usage.

Perceived convenience is defined as a degree to which customers can use the service whenever and wherever they need, and it is clarified through an answer to the question: "Is the service easy to access anywhere and anytime?" (Susanto & Goodwin, 2010)

From the banks’ perspective, perceived convenience is an element contributing to fostering the quality of SSTs. Collier and Sherrel (2010) anticipated that perceived convenience is a movement to force bankers to improve and upgrade their services, thus
resulting in a faster transaction for customers. From the users’ point of view, on the other hand, perceived convenience influences their possibility of discovery and raises their evaluation trust (Collier & Sherrel, 2010). Ahn et al. (2007) asserted that the convenience of technology will heighten the willingness to explore numerous features offered by the technology instead of the strain to complete the transaction as fast as possible. By offering customers more options on when and where to enact a transaction, bankers imply the credibility and quality of their offering (Yang et al., 2006). When customers have perceived the convenience in finding and facilitating a self-service transaction, the easiness in carrying out a transaction can reduce some potential risks, subsequently influencing the trust placed on the service bankers (Collier & Sherrel, 2010).

Being aware of the importance of perceived convenience, bank managers should concentrate on this advantageous factor in promoting SSTs (Susanto & Goodwin, 2010). Hence, the following hypothesis can be proposed:

\[ H2: \text{Perceived} \text{convenience is positively related to customer satisfaction.} \]

2.2.3. Security and privacy

The significance of security and privacy in banking services has been extensively discussed in many researches (Hernandez & Mazzon, 2007; Chen & Barnes, 2007). The role of security and privacy in the decision to adopt SSBTs is enhanced as customers perform their transactions with no face-to-face contact with the supplier’s personnel and no cash on hand. Customers are always concerned about potential financial risks and threats for privacy and personal information losses (Yiu et al., 2007). The challenges in terms of security and trust play the main role in using the public network to perform transactions (Ganesan & Vivekanandan, 2009). Therefore, banks should perform their functions in order to influence their customers’ perception of SSBTs’ security and privacy through training and promotion strategies.

According to Maenpaa et al. (2008), security is manifested as the reliability of an innovation and a common assumption on the side of the customer that most banking transactions can be fulfilled secretly and securely. The findings from a study by Rogers et al. (1997), which surveyed eight non-users on their potential concerns about using ATMs, indicated that safety is the most material factor. This is almost similar to Sathyé’s (1999) conclusion that privacy and security is significant to the acceptance of online banking in Australia. Thus, we can build the following conceptual hypothesis:
H3: Security and privacy is positively related to customer satisfaction.

2.2.4. Customer satisfaction and commitment

Customer satisfaction is a fundamental marketing concept (Fournier & Mick, 1999), and is referred to as an affective state or overall emotional reaction to a service experience (Giese & Cote, 2000). Moorman et al. (1992) defines commitment as “an enduring desire to maintain a valued relationship”, which is also considered a crucial ingredient for successful long-term relationships (Morgan & Hunt, 1994). Customer commitment in this study is conceptualized as a multidimensional construct with two dimensions: affective commitment and instrumental commitment, which have been unambiguously identified in previous research on commitment (Gundlach et al., 1995).

Customer satisfaction has been linked with customer commitment (Garbarino & Johnson, 1999), and is generally perceived as influential in the formation and development of customer commitment (Johnson et al., 2008). Szymansky and Henard (2001) argued that the more satisfied customers are with the service experience, the more likely they are to commit to a relationship with the service supplier. Bansal et al. (2004) also opined that customer satisfaction is a primary antecedent of affective commitment; the stronger the customer satisfaction, the stronger the commitment in the customer service. Since earlier research has concluded that customer satisfaction has a positive association with customer commitment (Thurau, 2004), the two following hypotheses are developed:

H4: Customer satisfaction is positively related to affective commitment.

H5: Customer satisfaction is positively related to instrumental commitment.
3. Research Method

3.1. Measurements and questionnaire design

The measurement scales of all studied constructs are adapted from previous researches to be in the form of five-point Likert type.

<table>
<thead>
<tr>
<th>Measurement scale</th>
<th>PERCEIVED USEFULNESS (Wang, 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PU1: Using SSBTs allows me to improve my service transaction ability</td>
</tr>
<tr>
<td></td>
<td>PU2: Using the SSBT enhances my effectiveness in my service transaction</td>
</tr>
<tr>
<td></td>
<td>PU3: Using the SSBT is useful in handling my service transactions</td>
</tr>
<tr>
<td></td>
<td>PU4: Using the SSBT increases my productivity of handling my service transactions</td>
</tr>
<tr>
<td></td>
<td>PC1: Using the SSBT is a convenient way to conduct service transactions</td>
</tr>
<tr>
<td></td>
<td>PC2: The SSBT allows me to conduct service transactions whenever I choose</td>
</tr>
<tr>
<td></td>
<td>PC3: Using this SSBT makes my service transaction less time consuming</td>
</tr>
<tr>
<td></td>
<td>PC4: The SSBT allows me to save time on service transactions</td>
</tr>
<tr>
<td></td>
<td>SECURITY &amp; PRIVACY (Pikkarainen et al., 2004)</td>
</tr>
<tr>
<td></td>
<td>SP1: I am not worried about the security of SSBT</td>
</tr>
<tr>
<td></td>
<td>SP2: Using SSBTs is financially secure</td>
</tr>
</tbody>
</table>

![Figure 1. Proposed theoretical model](image-url)
SP3: I trust in the technology in use.
SP4: I trust in the ability of a SSBT to protect my privacy

CONSUMER SATISFACTION (Wang, 2012)
CS1: Overall, I am satisfied with the SSBT offered by the bank
CS2: The SSBT offered by the bank exceeds my expectations
CS3: The SSBT offered by the bank is close to my ideal SSBT

AFFECTIVE COMMITMENT (Beatson et al., 2006)
AF1: I feel a sense of belonging to the SSBT service of this bank
AF2: I am loyal to this bank
AF3: I am committed to my relationship with this bank
AF4: I would like to develop a long-term relationship with this bank
AF5: I feel strongly attached to this bank
AF6: I feel more attached to this bank than others

INSTRUMENTAL COMMITMENT (Beatson et al., 2006)
IC1: It would be difficult for me to find another bank of equal standard
IC2: I do not have a good alternative to this bank
IC3: It would cost me a great deal to use the SSBT offered by another bank
IC4: I would be concerned about what would happen if I used the SSBT offered by another bank
IC5: Moving to another bank is not worth the effort
IC6: In general, it would be inconvenient to change banks

3.2. Data collection

This survey was pre-tested by face to face interviews with around 10 people who are working in SSBT-related department of banks and customers with long experience of using SSBTs. The purpose was to make sure that they were able to understand the questions clearly. The measurement items were modified to make them more suitable when applied to the research in Vietnam.

The target population of this study is banking customers who are using any kind of SSBTs provided by either domestic or foreign banks in Vietnam; 350 questionnaires were either hand distributed or sent via email and Facebook. Eventually, 176 and 130 completed questionnaires were collected from the domestic
and foreign bank customers respectively, adding up to the overall sample of 306 respondents.

4. Analysis and results

The proposed model features comparison of multiple sample (the domestic banks sample and the foreign banks sample) as well as the overall sample pooled by the two individual ones. Hence, all the statistical tables in this chapter employ “slash signs” to show the results of three groups (domestic, foreign, overall).

4.1. Respondents’ demographics

The collected data indicate that female respondents are dominant (51.14% and 52.31% for domestic and foreign samples, respectively). More than half of the total respondents are in the age of 26–35, and 39.20% of domestic bank customers and 27.69% of foreign bank customers are in the 18–25 age bracket.

4.2. Reliability analysis

Based on the reliability test results, Crobach’s alpha coefficients of all the tested item scales are significantly high or very high. In addition, most of the corrected item-total correlation values of three samples are over 0.3, indicating significant values of most items of six measurement scales in the questionnaire. Particularly, the corrected item-total correlation value of the fifth instrumental commitment item (IC5) of all three samples is lower than 0.3. In this case this item is to be essentially eliminated.

4.3. Exploratory factor analysis (EFA)

4.3.1. EFA for independent variables
Table 1
Rotated component matrix of independent variables

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security and privacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP1</td>
<td>.822/.858/.836</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP2</td>
<td>.849/.821/.834</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP3</td>
<td>.836/.872/.850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP4</td>
<td>.842/.827/.838</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived usefulness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU1</td>
<td>.807/.794/.792</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU2</td>
<td>.811/.849/.814</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU3</td>
<td>.665/.711/.691</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU4</td>
<td>.793/.586/.765</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived convenience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC1</td>
<td></td>
<td>.550/.611/.683</td>
<td></td>
</tr>
<tr>
<td>PC2</td>
<td></td>
<td>.769/.814/.766</td>
<td></td>
</tr>
<tr>
<td>PC3</td>
<td></td>
<td>.760/.770/.816</td>
<td></td>
</tr>
<tr>
<td>PC4</td>
<td></td>
<td>.661/.496/.590</td>
<td></td>
</tr>
</tbody>
</table>

The rotated component matrix (see Table 1) suggests that there are actually three factors underlying this construct in which the standard of factor loadings is almost higher than 0.5. This demonstrates that the items clustering into these three groups are defined by high loadings or well conceptualized.

4.3.2. EFA for dependent variables

Table 2
Rotated component matrix of dependent variables

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS1</td>
<td>.824/.607/.762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS2</td>
<td>.798/.648/.737</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3</td>
<td>.794/.816/.802</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Table 2** presents the items and loadings of factors after rotation for three sample groups, including a satisfactory standard of factor loading, which is higher than 0.5. It means that the items of each construct are very well conceptualized.

### 4.4. Regression analysis

Multiple regression analysis is used to test hypotheses 1–3, while single regressions, for hypotheses 4–5. Its results indicate that the adjusted R² values of domestic banks, foreign banks, and overall samples are 0.404, 0.575, and 0.467 respectively, illustrating that there exists a strong correlation between all independent variables and dependent variable. This also indicates that three independent variables can predict 40.40%, 57.60%, and 46.70% of the variance of the dependent variable respectively at the significance of .000 for all the three samples. Table 3 shows that hypotheses 1–3 are supported concerning the overall sample, only the first and second hypotheses are not supported, given the samples of domestic banks and foreign banks respectively.

**H1**: Perceived usefulness is positively related to customer satisfaction.

In Table 3 the significance value of domestic banks sample is 0.14 (greater than 0.05), so perceived usefulness is not the predictor of customer satisfaction. On the other hand, the significance value of foreign banks sample is 0.029 (less than 0.05) and the Beta value is 0.180. Therefore, there is a positive relationship between the factors of perceived usefulness and customer satisfaction when it is contemplated in the group of customers.
using SSBTs offered by foreign banks. This is also meaningful considering the overall market with the significance value of 0.003 (less than 0.05) and the Beta value of 0.146, which is the best explanation for this discrepancy as well as the difference between foreign and domestic banks to be investigated. Most respondents agreed that despite the wide distribution of domestic banks, their services have been achieving almost no breakthrough or improvement or have even failed to make a difference in recent years. Meanwhile, as regards foreign banks, which target their services toward high-income customers, the service quality has been improving constantly, in addition to the increasing usefulness of SSBTs to cope with higher consumers’ demands. Thus, the first hypothesis is supported in the cases of foreign banks and overall groups, but is not supported concerning the group of domestic banks.

H2: Perceived convenience is positively related to customer satisfaction.

The output of regression analysis of the nexus between perceived convenience and customer satisfaction is shown in Table 3. The second hypothesis is supported by the data for domestic banks and overall samples due to the significant value for these two groups of 0.000 (less than 0.05) and the Beta values of 0.267 and 0.143 respectively. Unexpectedly, this result is not consistent with that of foreign banks group when its significance value is 0.410, which proves that H2 is not supported. In this case we have re-interviewed some respondents using SSBTs of foreign banks to figure out the cause of such discrepancy. They reasoned that although adopting SSBTs of foreign banks seemed to be beneficial and facilitates their jobs, most SSBTs provided by these banks were located in some big cities like Ho Chi Minh City, Hanoi City, and Danang City, thus inflicting certain inconvenience as they had to travel to another city. In the comparison with domestic banks, which have had a wide branch network that stretches across the country, SSBTs were believed to be available whenever and wherever they wanted. Hence, it is logical for the second hypothesis to be rejected, considering the group of foreign banks customers.

H3: Security and privacy is positively related to customer satisfaction.

From the results of Table 3, it is indicated that security and privacy has a strong positive and significant relationship with customer satisfaction in all samples (sig = 0.000 < 0.05; β-values = 0.462, 0.615, and 0.538 for domestic banks, foreign banks, and overall samples respectively). Thus, the third hypothesis can be well confirmed.

H4: Customer satisfaction is positively related to affective commitment.
The coefficients in simple regression analysis illustrate that customer satisfaction with SSBTs is positively associated with affective commitment for all three sample groups. In addition, the regression for domestic banks, foreign banks, and overall samples explains around 50% of the variation in affective commitment. Thus, the fourth hypothesis is supported for the three cases.

**H5: Customer satisfaction is positively related to instrumental commitment.**

As also reported in Table 3, the significance value of domestic banks and overall samples is 0.000 (lower than 0.05). This demonstrates that customer satisfaction can significantly predict the dependent variable. On the contrary, the significance value of the second group (foreign banks sample) is 0.217 (higher than 0.05), indicating that it is not statistically significant. Therefore, the fifth hypothesis, having formulated to explain the relationship between customer satisfaction and instrumental commitment to foreign banks when using SSBTs, is not supported. It might be due to the difference in characteristics of respondents who use SSBTs offered by foreign banks. As aforementioned, more than 60% of respondents from foreign banks group are high-income earners. It means that only if these customers are well satisfied are they using SSBTs and committed to using foreign banking services. Otherwise, they could easily find another bank or opt for other banks’ SSBTs, which help avoid further unexpected costs or whichever incident they would be involved in. It is thus reasonable to reject the fifth hypothesis in association with the group of foreign banks.

**Table 3**

Regression analysis results of perception of SSBTs and customer satisfaction, and those considering affective and instrumental commitment

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
<td>Sig.</td>
</tr>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.506/</td>
<td>.367/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.577/</td>
<td>.356/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.664</td>
<td>.251</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model 1: Multiple regression analysis – Dependent variable: Customer satisfaction
<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
</tr>
<tr>
<td>usefulness</td>
<td>.105</td>
<td>.071/</td>
<td>.093/</td>
<td>1.482/</td>
</tr>
<tr>
<td></td>
<td>.212</td>
<td>.096/</td>
<td>.180/</td>
<td>2.214/</td>
</tr>
<tr>
<td></td>
<td>.168</td>
<td>.056/</td>
<td>.146/</td>
<td>3.006</td>
</tr>
<tr>
<td>convenience</td>
<td>.353</td>
<td>.086/</td>
<td>.267/</td>
<td>4.130</td>
</tr>
<tr>
<td></td>
<td>.089</td>
<td>.108/</td>
<td>.065/</td>
<td>.827/</td>
</tr>
<tr>
<td></td>
<td>.181</td>
<td>.062/</td>
<td>.143/</td>
<td>2.913</td>
</tr>
<tr>
<td>securityprivacy</td>
<td>.361</td>
<td>.049/</td>
<td>.462/</td>
<td>7.326/</td>
</tr>
<tr>
<td></td>
<td>.479</td>
<td>.054/</td>
<td>.615/</td>
<td>8.924/</td>
</tr>
<tr>
<td></td>
<td>.419</td>
<td>.037/</td>
<td>.538/</td>
<td>11.395</td>
</tr>
</tbody>
</table>

Model 2: Single regression – Dependent variable: Affective commitment

| (Constant) | .602/ | .253/    | 2.382/ | .018/ |
| 1.082/     | .682/ | .181     | 4.174/ | .000/ |
| .839       |       |          | 4.625  | .000  |

customersatisfaction

| .787/ | .070/ | .651/ | 11.234/ | .000/ |
| .682/ | .682/ | .642/ | 9.429/  | .000/ |
| .734  | .050  | .643  | 14.558  | .000  |

Model 3: Single regression – Dependent variable: Instrumental commitment

| (Constant) | 1.092/ | .318/    | 3.429/ | .001/ |
| 2.223/     | .396/  | .257     | 5.612/ | .000/ |
| 1.634      |       |          | 6.362  | .000  |

customersatisfaction

| .549/ | .088/ | .429/ | 6.223/ | .000/ |
| .137/  | .111/ | .109/  | 1.239/ | .217/ |
| .358  | .071  | .278  | 5.013  | .000  |
## Table 4
Summary of hypothesis testing results

<table>
<thead>
<tr>
<th>Order</th>
<th>Hypothesis</th>
<th>Standardized coefficients (Beta)</th>
<th>Sig. values</th>
<th>Tested results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perceived usefulness is positively related to customer satisfaction</td>
<td>.093/.180/.146</td>
<td>.140/.029/.003</td>
<td>Not Supported/Supported/Supported</td>
</tr>
<tr>
<td></td>
<td>Perceived convenience is positively related to customer satisfaction</td>
<td>.267/.065/.143</td>
<td>.000/.410/.000</td>
<td>Supported/Not Supported/Supported</td>
</tr>
<tr>
<td>2</td>
<td>Security and privacy is positively related to customer satisfaction</td>
<td>.462/.15/.538</td>
<td>.000/.000/.000</td>
<td>Supported/Supported/Supported</td>
</tr>
<tr>
<td>3</td>
<td>Customer satisfaction is positively related to affective commitment</td>
<td>.651/.42/.643</td>
<td>.000/.000/.000</td>
<td>Supported/Supported/Supported</td>
</tr>
<tr>
<td>4</td>
<td>Customer satisfaction is positively related to instrumental commitment</td>
<td>.429/.109/.278</td>
<td>.000/.217/.000</td>
<td>Supported/Not Supported/Supported</td>
</tr>
</tbody>
</table>
5. Conclusion, implications, and limitations

5.1. Conclusion

Overall, the result of multiple regression analysis has verified relationships between three determinants (perceived usefulness, perceived convenience, and security and privacy) and customer satisfaction. In addition, among these variables, security and privacy is confirmed as the strongest predictor of customer satisfaction with SSBTs of banks ($\beta = 0.538$), followed by perceived usefulness ($\beta = 0.146$) and perceived convenience ($\beta = 0.143$). Moreover, regarding the result of simple regression analysis, it can be concluded that customer satisfaction has a moderate positive impact on both affective commitment ($\beta = 0.643$) and instrumental commitment ($\beta = 0.278$) to banking services.

On the other hand, there are some discrepancies when domestic banks and foreign banks are examined separately:

In the sample group of customers who use SSBTs of domestic banks, the multiple regression results have confirmed the tight relationships between two dimensions (perceived convenience; security and privacy) and customer satisfaction, except for perceived usefulness. Although perceived usefulness is identified as one of the determinants of customer satisfaction with self-service technologies in the research of Wang (2012), its impact is not substantiated in this study. Additionally, customer satisfaction is found to exert positive effects on both affective commitment and instrumental commitment.

In the case of foreign banks, the most significant influence on customer satisfaction is also produced by security and privacy ($\beta = 0.615$), followed by perceived usefulness ($\beta = 0.180$). Vietnamese customers did not feel satisfied in terms of perceived convenience when they used SSBTs of foreign banks. According to the result of simple regression analysis, customer satisfaction has positive effect on affective commitment ($\beta = 0.642$), but its effect on instrumental commitment is not supported.

In conclusion, the findings of this research contribute valuable insights into customer satisfaction and their commitment to banking institutions in using self-service banking technologies.
5.2. Managerial implications

Based on the research findings, this study provides several managerial implications for managers in banking industry who are seeking to implement SSBTs successfully. Banks could pay attention to relevant attributes explored in this study to maintain and improve their service quality as well as to come up with marketing plans. By doing this, their services can best match what consumers are looking for in SSBTs.

Firstly, as previously indicated, security and privacy shows the highest positive correlation with customer satisfaction in the current study with the highest value of Beta coefficient. This positive relationship implies that currently Vietnamese people are content with SSBTs based on its security and privacy. This finding is strongly relevant to the research of Pikkarainen et al. (2004), which demonstrated the impact of security and privacy on the acceptance of online banking in Finland. As the amount of SSTs is offered rapidly and the ability for customers to perform their transactions without face-to-face interactions with the supplier and no cash involved, it is not surprising that customers are increasingly concerned about security and privacy issues. That is also why security and privacy has the strongest impact on customer satisfaction with SSBTs in Vietnam’s market.

Concerning marketing strategies, banks that desire to win in the field of SSBTs in Vietnam should consider the security and privacy of services and facilities provided with regard to the SSBTs being more secured and trustworthy. It is very necessary for bank to gain a distinguished perspective in positioning the campaign for improved customer beliefs, especially in the security aspect. Bank management needs to address the issues of security and privacy in the problem recognition stage with a prominent promotion of guarantees that serves to alleviate or minimize potential risks. A strong risk diminishing effect can also be achieved by designing the SSBTs as an efficiently and intuitively usable technology. In addition, marketing strategies need to build up mutual trust of customers from trial experiences with past transactions and through marketing campaign or communication activities that can be greatly strengthened and should be considered as a main precursor to transaction efficiency. Last but not least, a well-presented privacy policy like keeping confidential customers’ personal information needs to be adopted to reduce privacy concerns.

Secondly, in this research perceived usefulness plays a significant role in explaining customer satisfaction with SSBTs. Thus, customers’ deep satisfaction with self-service
banking facilities would favorably influence their perceptions of service usefulness. Customers are likely to be more content if they believe that using the system will enhance their performance and productivity (Wang et al., 2008). This significant effect of perceived usefulness on customer satisfaction implies that managers in charge of SSBTs may need to consider their benefits in order to make customers’ SSBTs experiences as enjoyable as possible.

Thirdly, given perceived convenience, this is a typical element in explaining customer satisfaction with SSBTs. Based on this factor, banks must improve and upgrade their own SSBTs with regard to reducing customers’ time and effort expenses.

Finally, customer satisfaction appears to have effects on both dimensions of commitment, including affective commitment and instrumental commitment. However, some differences exist considering groups of customers who use services of either domestic banks or foreign banks separately. Although the study of Dinh (2013) confirmed that foreign banks achieve greater profitability as against domestic banks as a whole, foreign banks’ advantages in providing services using SSBTs seem to be inferior to those of traditional branch networks and distribution channels that enable further express delivery in multiple locations as gained by domestic banks. A possible explanation for this issue is that most customers are exposed to time pressures and stresses in today’s fast-faced world. On the other hand, customers of foreign banks feel satisfied with the usefulness of SSBTs, which encourage a lot of promotions, special deals, and so on, as compared to domestic banks, which have more exposure to SSBTs but fail to adopt innovational functions of SSBTs to improve their functionality and usefulness. More importantly, perceived usefulness is considered a basic requirement of SSBTs; therefore, managers of domestic banks must reflect on this intrinsic motivation to build up customer satisfaction.

5.3. Limitations and future research

It should be noted that no piece of research is perfect, and this work is not an exception as it exposes some inherent limitations based on which future research can be developed. Firstly, the most outstanding one is the representation of sample. The sample of foreign banks is almost focused in Ho Chi Minh City, where most SSBTs of foreign banks are located, while there are other foreign banks in other big cities such as Hanoi or Danang, which also possess SSBTs of their own. Consequently, a wide variety of population cannot be represented, leaving a gap for future studies to fill. Secondly, this
study has examined only three key factors which have significant effects on the satisfaction of users of SSBTs. This accordingly creates a favorable opportunity for the follow-up research to incorporate many other determinants.

References


