Impulse Buying’s Antecedents and Consequences in the Context of Vietnam, an Asian Transitional Economy

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Abstract

In this study, we develop and test a full model examining several antecedents and consequences of impulse buying behavior for urban consumers in Vietnam, an Asian transitional economy. The hypotheses are empirically tested using survey data obtained from consumers in Hanoi, the capital of Vietnam. The results of structural equation modeling show support for most of our hypotheses. The findings indicate that shopping enjoyment tendency and modern self are significant predictors of impulse buying, while traditional self is not found to have an impact on this buying behavior. Impulse buying is found to be positively related to customer satisfaction, and subsequently, to customer loyalty. The research findings are discussed and implications for managers and policy makers are provided.

Keywords: Impulse buying; antecedents; customer satisfaction; customer loyalty; Vietnam; SEM.
1. Introduction

In the late 1980s, the world witnessed the remarkable economic transition of many countries such as Poland, Slovenia, Czech Republic, China, and Vietnam. Since then, topics regarding emerging issues, including those in the marketing field, associated with transitional economies (TEs) have attracted much attention from both practitioners and scholars (e.g. Batra, 1997; Nguyen et al., 2008; Shultz, 2012).

Before the economic reform, Asian countries like China and Vietnam were centrally planned economies characterized by low efficiency, high poverty rate, and the serious shortage of consumer goods. The movement toward market economies in these countries has created significant changes in many aspects of society. Similar to other TEs, dramatic changes have been evident throughout Vietnam, including environment and consumer behaviors (Nguyen and Smith, 2012). With regard to the retailing system, modern channels have been growing rapidly with the presence of an increasing number of supermarkets, hypermarkets, and shopping centers. This has created opportunities for new consumption trends and buying behaviors among Vietnamese consumers, such as luxury consumption and impulse buying (Nguyen and Tambyah, 2011).

In the field of consumer behavior, impulse buying is considered an important and interesting topic that has been extensively studied for more than 60 years (cf. Nguyen et al., 2013). However, past research has mainly been conducted in developed economies, especially in the US, and still little research has empirically examined the consequences of impulse buying behavior (Nguyen et al., 2013). The topic has recently received increasing research attention from scholars outside of the U.S. (e.g., Chuang et al., 2015; Khan et al., 2016; Sharma et al., 2014), including those in TEs like China and Vietnam (e.g., Nguyen et al., 2003; Nguyen and Rose, 2006; Nguyen et al., 2013; Yu and Bastin, 2010; Zhou and Wong, 2003). The topic of impulse buying still calls for more research to give a better understanding of this important behavior in the context of the economies experiencing significant economic transition.

This research aims to explore the important phenomenon of impulse buying in the context of Vietnam, an Asian TE, with regard to both its antecedents and consequences. Specifically, several individual difference variables are examined as impulse buying’s antecedents including shopping enjoyment tendency, modern self and traditional self. Customer satisfaction and customer loyalty as consequences of impulse buying are also explored in this study. We develop a research model and test the hypotheses simultaneously using structural equation modeling (SEM). Our study contributes to a better understanding of impulse buying behavior in an Asian TE of Vietnam, where the topic on this buying behavior, especially its consequences, has only received modest research attention. Implications for managers and policy makers are also discussed in this study.

2. Theoretical background and hypotheses

2.1. The research context - Vietnam, an Asian transitional economy

Vietnam is a Southeast Asia TE. In 1986, Vietnam began economic renovation (i.e. Doi Moi) with the goal of moving towards a market economy. Thanks to Doi Moi, Vietnam, from
one of the poorest countries in the world, has become a lower-middle-income country with income per capita of more than 1900 USD since 2013 (World Bank, 2014). The living standards have been much improved, especially in urban areas with high population densities. In addition, there has been a rapid increase in the middle class as well as the noticeable emergence of a ‘new rich’ in big cities like Hanoi and Ho Chi Minh City. These consumers often require products and services of higher quality, and spend more money than others when they go shopping.

Since the “open door” policy has been implemented, Vietnam has witnessed significant changes in the marketing environment, especially in the retailing system (Maruyama and Le, 2012). Supermarkets, hypermarkets and shopping centers have enjoyed a rapid growth in big cities. As a result, consumers can enjoy many shopping choices with a variety of products and services from not only local brands but also foreign ones. Consumer values, attitudes and consumption behaviors have also been significantly changed (Nguyen and Smith, 2012). Nguyen et al. (2003, 2013) have suggested that consumers in Vietnam might involve in some behaviors like impulse buying, which are more popular in developed countries, as Vietnam has attained a certain degree of economic development. However, the way consumers are exposed to impulse buying can be affected by conditions that relate to the local market and social and cultural forces (Shamdasani and Rook, 1989). Hence, in the context of the Asian TE of Vietnam, it is expected that this research would be meaningful for investigating impulse buying and can enrich the literature pertaining to this important buying behavior.

2.2. Impulse buying and its antecedents

In the literature, there have been different definitions of impulse buying behavior. In this study, we employ the definition of impulse buying that was built upon the literature and has been used in previous studies in Vietnam (e.g., Nguyen et al., 2003; Nguyen et al., 2013). Specifically, impulse buying is defined as “an unplanned purchase characterized by: (1) relatively rapid decision-making (e.g. Rook, 1987); (2) being hedonically complex and more emotional than rational (e.g. Rook, 1987; Bayley and Nancarrow, 1998); and (3) not including the purchase of a simple reminder item fulfills a planned task, such as a gift for someone (Betty and Ferrell, 1998)” (Nguyen et al., 2003, p. 16-17).

Previous studies have examined many factors that influence impulse buying behavior. In this research, we mainly focus on several individual difference factors that are more associated with the context of Asian TEs such as Vietnam (cf. Nguyen et al., 2013). Specifically, three factors are investigated in this study including shopping enjoyment tendency, modern self and traditional self.

Shopping enjoyment tendency

In a shopping mall context, Betty and Ferrell (1998) define shopping enjoyment as “the pleasure one obtains in the shopping process” (p.174). According to Bellenger and Korgaonkar (1980), those people who enjoy shopping are recreational buyers. The common characteristic of these people is that the amount of time they spend on shopping is more than other buyers do. In line with this, the study by Shamdasani and Rook (1989) suggests that people
go shopping as a recreational and social activity. Moreover, the study of Yu and Bastin (2010) presents the concept of hedonic shopping value that refers to shopping’s entertainment value for consumers. Hedonic shopping value is related to novelty, enjoyment and social interaction.

In the context of Vietnam, McDonald et al. (2000) suggest that many Vietnamese consumers go shopping as an entertainment habit, or as the way they can find status, novelty and enjoyment. Nguyen et al. (2013) consider this shopping enjoyment as a tendency, which refers to the consumer tendency to go shopping as entertainment activity and it can be characterized as an individual difference variable.

The extant literature has suggested a positive relationship between shopping enjoyment tendency and impulse buying behavior (e.g., Betty and Ferrell, 1998, Yu and Bastin, 2010). In the context of Vietnam, the study by Nguyen et al. (2013) also suggests that consumers who have a high level of shopping enjoyment tendency tend to go shopping more frequently and spend more time on browsing during shopping. They therefore may have more chances to experience the impulse urge when coping with the right objects in the shopping environment and are more likely to engage in impulse buying. In this study, we expect to see a similar finding. Therefore, the following hypothesis is presented.

**H1**: Shopping enjoyment tendency is positively related to impulse buying for Vietnamese consumers.

**Traditional self and modern self**

Although many studies have investigated factors that influence impulse buying behavior such as mood and emotion, impulsive traits and self-identity and cultural influences have not been explored until Kacen and Lee (2002). It is suggested that cultural aspects such as collectivist and individualist tendencies, or independent and interdependent self-concept could affect impulse buying behavior.

In the context of Asian TEs like Vietnam, due to the changes in social values, attitudes, and behavior, two aspects of the self that can coexist in each individual (i.e. modern self and traditional self) are suggested. According to Nguyen et al. (2009), the perception of modern self refers to the degree to which an individual identifies with modern forces that exist in a TE. The modern forces comprise the new norms, values and beliefs derived mainly from more developed countries after beginning the economic transition. Specifically, these norms, values and beliefs are associated mainly with modern/consumer culture, of which some examples include the consumer openness to try new things, willingness to take risks, and enjoyment of a self-indulgent life. In addition, people with a high level of modern-self are often the younger group with more disposable income. All of these can contribute to the stronger urge of consumers with a high modern-self level to buy things when they meet the right stimuli in a shopping environment, and thus, they are more likely to engage in impulsive purchases.

In contrast, the perception of traditional self refers to the degree to which an individual identifies with traditional forces found in a TE. The traditional forces comprise the norms, values and beliefs that are associated with the past - before the start of the economic transition. In
other words, these norms, values and beliefs are associated with traditional culture such as Confucian tradition, which has existed in Vietnam for more than a thousand years. Nguyen et al. (2009) have pointed out that people with a high level of traditional self often engage with traditional behaviors and values such as being prudent and careful when buying or consuming new products. They therefore may cope with more barriers to making rapid purchase decisions when exposed to the right stimuli in the shopping environment, and consequently are less likely to engage in impulse buying.

A recent study by Nguyen et al. (2013) also suggests the significant impact of the perception of self on impulse buying (positive impact of modern self and negative impact of traditional self). On the basis of the above arguments, the following hypotheses are presented.

**H2:** Modern self is positively related to impulse buying for Vietnamese consumers.

**H3:** Traditional self is negatively related to impulse buying for Vietnamese consumers.

### 2.3. Consequences of impulse buying

Impulse buying has been often associated with negative outcomes (Wood, 2005). According to Kaufman and Cohen (2004), impulse buying behavior is described as highly spontaneous, reactive, unplanned, and frequently linked with producing unsatisfactory choices.

In the specific context of Vietnam, an Asian TE, a qualitative study by Nguyen and Rose (2006) has investigated the outcomes of impulsive purchases for Vietnamese consumers during and after the process of impulse buying. They suggest both negative and positive outcomes associated with this buying behavior.

In line with this, the recent empirical study by Nguyen et al. (2013) indicates that the positive outcome of a joyful feeling is strongly associated with the process of making decisions on buying things on impulse. In addition, it is also suggested that in general, Vietnamese consumers are satisfied with the products that they have bought on impulse. The findings of Nguyen et al. (2013) also provide empirical evidence for several negative outcomes of impulse buying such as financial problems and others’ disapproval.

In this research, we examine two important concepts as new consequences of impulse buying in the context of Vietnam, an Asian TE: customer satisfaction (with impulse buying experience) and customer loyalty (with regard to impulse buying behavior).

**Impulse buying and customer satisfaction**

Customer satisfaction, a very important concept in marketing, has attracted significant attention from many researchers and marketers (e.g., Oliver, 1980, 1999). In the literature, there have been many definitions of customer satisfaction. According to Oliver (1980), customer satisfaction is the outcome of a process when customers compare their expectations of the products or service with the perception of the actual ones. Satisfaction is also defined as the degree of meeting the needs at the end of the purchase process (Oliver, 1999). In our study, customer satisfaction refers to customers’ evaluation of and feeling toward their impulse purchase experience in general.

Although past research has suggested potential negative consequences of impulse buying, in the current context of Vietnam, the positive outcomes of this buying behavior seem to be
more salient than the negative ones. A study by Nguyen et al. (2013) has provided empirical evidence on a positive relationship between impulse buying behavior and product satisfaction. In addition, Vietnamese consumers seem to greatly enjoy the impulse buying process. Albeit there are some negative outcomes - Vietnamese consumers seem not to cope with serious financial problems and have feelings of regret regarding their impulse experience (Nguyen and Rose, 2006; Nguyen et al., 2013). Therefore, it is expected that in general the impulse purchase experience brings pleasure and satisfaction to Vietnamese consumers. Based on the above arguments, the hypothesis is proposed as follows.

**H4**: Impulse buying is positively related to customer satisfaction for Vietnamese consumers.

Customer satisfaction and customer loyalty

Customer loyalty is an important concept that has been examined extensively in the literature. It has been considered as a multidimensional construct and defined differently by scholars. According to Oliver (1999), customer loyalty refers to a deeply held commitment to rebuy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing effort having the potential to cause switching behavior. Wilson (1995) indicates that the requirement of customer loyalty is a long-term commitment, which resulted from positive attitudes of one party toward another to maintain the business relationship.

Customer loyalty has been classified by Bowen and Chen (2001) as behavioral aspect and attitudinal aspect. Attitudinal aspect refers to consumer preferences and propensity toward
the brand, while behavioral aspect is based on the amount of acquisitions. In the retailing context, attitudinal loyalty has been described as the likelihood to recommend, repurchase, or the likelihood to visit the store again, depending on the specific context (e.g. Kumar et al., 2013). In our research, a concept of attitudinal loyalty or customer loyalty intention is employed that refers to consumers’ intention to continue to buy on impulse and revisit the store where impulse purchases have been made before.

Past research has extensively investigated the relationship between customer satisfaction and loyalty, but little attention has been given to examine this relationship in the context of impulse buying. In general, the previous findings have suggested a positive relationship between satisfaction and loyalty (see review by Kumar et al., 2013). In other words, customer satisfaction often leads to repurchase intention and continuing to visit the store. In the specific context of impulse buying in Vietnam, it is expected that the more satisfied consumers are with their impulse purchase experience, the higher the level of intention to continue impulse purchases and revisit the store. Therefore, we propose the hypothesis as follows.

**H5**: Customer satisfaction is positively related to customer loyalty (loyalty intention) for Vietnamese consumers (with regard to impulse purchases).

The proposed conceptual model is presented in Figure 1.

### 3. Research methodology

A consumer survey was conducted in order to test the conceptual model and the hypotheses. In this section, we first present the measures employed in this study and questionnaire development. Next, we describe the sample, followed by data collection and data analysis.

#### 3.1. Measurement instrument

In this research, we examined five variables including shopping enjoyment tendency, traditional self, modern self, impulse buying, customer satisfaction, and customer loyalty. Most of the items measuring these variables were adopted from the literature. Several items were developed on the basis of the qualitative findings (i.e. findings from the in-depth interview with consumers). All the measures used a five-point Likert scale, starting from “strongly disagree” to “strongly agree”, except for three items measuring impulse buying frequency on the five-point scale where 1 represents “very rarely” and 5 represents “very often”. The scales used in our research are presented as follows.

**Modern self and traditional self**

We adopted the scale measuring the perception of self from Nguyen et al. (2009). We used this scale because it was developed specifically for the context of Asian TEs like Vietnam and China. The scale includes two components (i.e. modern self and traditional self) and consists of a total of 10 items.

**Shopping enjoyment tendency**

We adopted the scale measuring shopping enjoyment tendency from Beatty and Ferrell (1998). This scale comprises four items.

**Impulse buying**

In this study, two scales were used to measure impulse buying: impulse buying tendency (IBT) and impulse buying frequency (IBF). We adopted the five-item IBT scale from Weun et al. (1998). This scale was used and tested
empirically in a study of Beatty and Ferrell (1998). For the IBF scale, we used three items measuring frequency of buying the most common impulsive items in the current context of Vietnam (i.e. clothing, food/confectionery, and souvenirs and small gifts). The first item was used in Nguyen et al. (2013) and the other two items were developed based on our qualitative findings.

Customer satisfaction

We used a three-item scale measuring customer satisfaction with impulse purchase experience. The first scale item was adopted from Nguyen et al. (2013); the other two items were developed based on the qualitative findings (i.e. impulse buying can bring pleasure to customers and overall satisfaction - ‘nothing to complain’).

Customer loyalty

The scale measuring customer loyalty to impulse purchases was developed based on the literature and the qualitative findings. Specifically, we reviewed and adapted two items from Zeithaml et al. (1996) referring repurchase intention, and added the last item based on the suggestion from the qualitative study.

To collect data for our study, the questionnaire was developed on the basis of all the scale items measuring the constructs in the research model. In addition, the questionnaire included some questions about the respondents’ demographics such as gender, age, education level, income and the location where the respondents have stayed for most of their life to date.

The questionnaire was first translated from English into Vietnamese by an MBA student. Both English and Vietnamese versions of the questionnaire were then sent to a marketing professor who is fluent in both Vietnamese and English for checking and ensuring the meaning consistency of the two versions. After that, the questionnaire was tested with five respondents to ensure there was no misunderstanding about the content of the questionnaires, and to make the final changes in terms of format.

3.2. Sample

The survey was conducted in Hanoi, the capital and the second biggest city in Vietnam. Hanoi has often been selected as a research site for previous studies examining consumer behaviors in Vietnam (e.g., Nguyen and Smith, 2012; Nguyen et al., 2013). Selecting Hanoi as the research context also can ensure the essential conditions for the occurrence of impulse buying (e.g., the new emerging class of consumers with higher incomes and living standards, the development of infrastructure, the development of modern distribution channels such as supermarket systems, and the availability of goods and services from around the world).

In this study, we focused on those consumers who live in the inner city of Hanoi because many of them belong to the middle class. The main characteristics of people in this class are: they are highly educated, have good incomes, better living conditions, and they are more easily exposed to the growing commercial environment. To ensure the diversity of the sample, we tried to include respondents with a diversity of age, gender, and income levels.

We delivered 300 questionnaires to consumers in Hanoi and we got back 250. There were 205 completed and usable questionnaires. Our sample covered a range of ages from 17 to 61; the mean age of respondents was 34.7 years
(more than 73% were between 29 and 45 years of age). In our sample, women accounted for 47.3% of the respondents and men accounted for 52.7%. In terms of monthly household income, 12.7% reported earning less than VND 9mn (i.e. USD 410), and 87.3% reported earning ≥ VND 9mn (i.e. US$ 410). In terms of education level, 95% of respondents reported holding a bachelor degree or above.

3.3. Data collection and data analysis

Data collection

This study used the method of a self-administered survey. The questionnaires were delivered to the respondents using two methods - in-person and online interview in summer 2015. For the in-person interview method, two assistants, working for two big universities in Hanoi, helped deliver questionnaires directly to the respondents and manage to get them back. The data were mainly collected from the respondents who were attending the short training courses and the distance-learning classes at the two public universities.

In addition, thanks to the rapid development of the internet in Vietnam, most people in big cities such as Hanoi are using email and social media as their main communication channels. Therefore, a number of questionnaires were sent to the authors’ friends via email, Facebook, and Viber. They filled in the questionnaire and they helped to forward the questionnaire to their relatives, friends and colleagues.

Data analysis

In this study, we used structural equation modeling (SEM) to test the hypotheses with the support of the software IBM SPSS AMOS 21. Before testing the hypotheses in the structural model, we first calculated the coefficient alpha and performed exploratory factor analysis (EFA) to initially test the scale of reliability and validity. After that, we performed confirming factor analysis (CFA) to assess the measurement model (Hair et al., 1998). Finally, we employed structural equation analysis to estimate path coefficients for the hypothesized relationships.

4. Research findings

4.1. Properties of the scales

Scale reliability tests and exploratory factor analysis

To assess the scales used in this study, first we conducted EFA (PCA using Varimax rotation with a criterion of eigenvalue greater than 1.0) and a reliability test using Cronbach coefficient alpha before performing CFA. During conducting the EFA and Cronbach alpha analysis, several items were dropped including 01 item measuring shopping enjoyment tendency (SET), 01 item measuring traditional self (TS), 01 item measuring modern self (MS), and 01 item measuring impulse buying tendency (IBT). Some of these items are reversed coded items. The dropped items showed low item-total-correlations, low squared multiple correlations (<.30), or confusing loading patterns (loaded highly on several factors or on the wrong factor).

The Cronbach alpha was calculated for each scale, ranging from .65 (for TS) to .87 (for SET). These results demonstrated an acceptable level of reliability with coefficient alphas exceeding .60 (Hair et al., 1998). The results of EFA and descriptive analysis are presented in Table 1.
Table 1: Descriptive statistics and factor loadings for scale items (n = 205)

<table>
<thead>
<tr>
<th>Constructs and the scale items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shopping enjoyment tendency (alpha = .87)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping is a way I like to spend any leisure time</td>
<td>3.41</td>
<td>1.20</td>
<td>.816</td>
</tr>
<tr>
<td>Shopping is entertaining to me</td>
<td>3.71</td>
<td>1.20</td>
<td>.905</td>
</tr>
<tr>
<td>Shopping is one of our favorite activities</td>
<td>3.36</td>
<td>1.21</td>
<td>.873</td>
</tr>
<tr>
<td><strong>Impulse Buying Tendency (alpha = .69)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I go shopping, I buy things that I had not intended to purchase</td>
<td>2.35</td>
<td>1.19</td>
<td>.716</td>
</tr>
<tr>
<td>I am a person who makes unplanned purchases</td>
<td>2.56</td>
<td>1.27</td>
<td>.801</td>
</tr>
<tr>
<td>When I see something that really interests me, I buy it without considering the consequences</td>
<td>2.95</td>
<td>1.30</td>
<td>.704</td>
</tr>
<tr>
<td>It is fun to buy spontaneously</td>
<td>2.87</td>
<td>1.15</td>
<td>.599</td>
</tr>
<tr>
<td><strong>Modern self (alpha = .70)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like people who dress in modern and fashionable ways</td>
<td>4.04</td>
<td>.96</td>
<td>.615</td>
</tr>
<tr>
<td>I think it’s important to enjoy a self-indulgent life</td>
<td>3.96</td>
<td>1.00</td>
<td>.842</td>
</tr>
<tr>
<td>I like the modern lifestyle</td>
<td>3.90</td>
<td>.94</td>
<td>.800</td>
</tr>
<tr>
<td>I think changes add excitement to one’s life</td>
<td>3.93</td>
<td>.94</td>
<td>.553</td>
</tr>
<tr>
<td><strong>Traditional self (alpha = .65)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I always try to lead a thrifty life</td>
<td>3.36</td>
<td>.91</td>
<td>.682</td>
</tr>
<tr>
<td>I feel it necessary to be cautious when buying and using new products</td>
<td>3.58</td>
<td>.86</td>
<td>.718</td>
</tr>
<tr>
<td>For me, it is important to respect others' opinions about ourselves</td>
<td>3.48</td>
<td>1.00</td>
<td>.681</td>
</tr>
<tr>
<td>For me, it is important to observe and preserve traditional values in our social relationships</td>
<td>3.62</td>
<td>.96</td>
<td>.704</td>
</tr>
<tr>
<td><strong>Customer satisfaction (alpha = .79)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often have good feelings when buying a product on impulse</td>
<td>3.04</td>
<td>1.04</td>
<td>.73</td>
</tr>
<tr>
<td>Buying things on impulse bring me much pleasure</td>
<td>3.17</td>
<td>1.03</td>
<td>.86</td>
</tr>
<tr>
<td>In general, I have nothing to complain about our impulse purchases</td>
<td>3.18</td>
<td>.94</td>
<td>.82</td>
</tr>
<tr>
<td><strong>Customer loyalty (alpha = .73)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will continue to buy things on impulse</td>
<td>3.06</td>
<td>1.13</td>
<td>.57</td>
</tr>
<tr>
<td>I will go back to the stores where I’ve bought things on impulse</td>
<td>2.98</td>
<td>1.02</td>
<td>.80</td>
</tr>
<tr>
<td>I won’t try to control myself in buying things on impulse</td>
<td>3.00</td>
<td>1.17</td>
<td>.81</td>
</tr>
</tbody>
</table>
Assessing the scales using CFA

After assessing the scales based on Cronbach alpha and the results of EFA, the full measurement model was analyzed by performing CFA, using AMOS21 (Hair et al., 1998). CFA was performed for two full measurement models, one with IBT as a central construct and one with IBF as a central construct.

- The full measurement model with IBT as a central construct

The full measurement model was constructed including all 21 items as indicator variables, and six constructs as latent variables. The results of CFA exhibited a good level of fit: $\chi^2 (173) = 241.36$, $\chi^2/df = 1.395$, $p < .001$. Other fit statistics were RMR = .071, RMSEA = .044, GFI = .90, CFI = .95, and TLI = .94. All t-tests of the indicator variables were significant at the .001 level.

- The full measurement model with IBF as a central construct

The full measurement model was constructed including all 20 items as indicator variables, and six constructs as latent variables. The results of CFA exhibited an acceptable level of fit: $\chi^2 (153) = 252.22$, $\chi^2/df = 1.65$, $p < .001$. Other fit statistics were RMR = .076, RMSEA = .056, GFI = .89, CFI = .92, and TLI = .90. All t-tests of the indicator variables were significant at the .001 level.

4.2. Structural equation model

We tested two models: Model 1 with IBT as a central construct, and Model 2 with IBF as a central construct. The results are presented in the following.

Model 1 (impulse buying is measured by IBT)

The results of the structural equation analysis indicated that the model achieved a good level of fit: $\chi^2 (180) = 246.96$, $\chi^2/df = 1.37$, GFI = .90, CFI = .95, TLI = .94, RMR = .07, RMSEA = .04. The $R^2$ for IBT was .20, for customer satisfaction (CS) was .45, and for customer loyalty (CL) was .69. These showed evidence that the models provided considerable insights with regard to antecedents and consequences of impulse buying behavior. Five hypotheses were tested. Four of five hypothesized paths were statistically significant and in the direction predicted.

With regard to the antecedents of impulse buying, as expected, shopping enjoyment tendency was a significant predictor of IBT ($\gamma_1 = .29; t$-value = 3.35). Thus, $H_1$ received support from the data. The results also provided support for $H_2$ ($\gamma_2 = .25; t$-value = 2.56), lending support for $H_2$ that modern self had a significantly positive effect on IBT. However, traditional self was not found to be significantly negative related to IBT ($\gamma_3 = .07; t$-value = .99). Thus, $H_3$ failed to get support from the data.

With regard to the consequences of impulse buying, the results showed that the path from IBT to CS was positively significant as expected ($\beta_1 = .67, t$-value = 6.09), lending support for $H_4$. The results also confirmed that CS was a significant predictor of CL ($\beta_2 = .83, t$-value = 9.64). Thus, $H_5$ was supported.

Model 2 (impulse buying is measured by IBF)

The results of the structural equation analysis indicated that the model achieved an acceptable level of fit: $\chi^2 (161) = 269.77$, $\chi^2/df = 1.68$, GFI = .88, CFI = .91, TLI = .90, RMR = .078, RMSEA = .06. The $R^2$ for IBF was .13, for CS
was .50, and for CL was .72. With regard to hypothesis testing, the results showed similar patterns as those for Model 1. Specifically, H1, H2, H4, and H5 were supported, while H3 failed to receive support from the data. The results of hypothesis testing are summarized in Table 2.

Table 2: Estimates of structural equation coefficients

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Parameter value (standardized)</th>
<th>P value</th>
<th>Hypothesis*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 1</td>
</tr>
<tr>
<td>γ1</td>
<td>.29</td>
<td>.21</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>γ2</td>
<td>.25</td>
<td>.20</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>γ3</td>
<td>.07</td>
<td>.12</td>
<td>&gt; .05</td>
</tr>
<tr>
<td>β1</td>
<td>.67</td>
<td>.71</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>B2</td>
<td>.83</td>
<td>.85</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Notes: * s: the hypothesis was supported; ns: the hypothesis was not supported.

was .50, and for CL was .72. With regard to hypothesis testing, the results showed similar patterns as those for Model 1. Specifically, H1, H2, H4, and H5 were supported, while H3 failed to receive support from the data. The results of hypothesis testing are summarized in Table 2.

5. Conclusions and discussion

5.1. Conclusions

This study has addressed the key research issues regarding the antecedents and the consequences of impulse buying behavior. The research context is Vietnam, an Asian TE, where a significant level of impulse buying can be expected thanks to economic renovation. The research sample of our study includes consumers who live in urban Vietnam (i.e. Hanoi), and these consumers have both motivations and opportunity to engage in impulse buying behavior.

In this study, three antecedents of impulse buying were examined including shopping enjoyment tendency, traditional self, and modern self. Three hypotheses regarding impulse buying’s antecedents were tested and two of them were supported. Specifically, H1 about the impact of shopping enjoyment tendency and H2 about the impact of modern self on impulse buying received support from the data. However, H3 about the impact of traditional self was not supported.

Concerning the consequences of impulse buying behavior, the findings of this study supported H4 regarding the positive relationship between impulse buying and customer satisfaction with their impulse purchase experience. H5 pertaining to the positive relationship between customer satisfaction and customer loyalty also received support from the data.

Briefly, in this study four out of five hypotheses were supported. The findings share some similarities as well as differences compared with the findings from previous studies in the context of developed countries, and in the context of Vietnam also. These are discussed in the following section.

5.2. Discussion on the findings

The research findings presented in the above section indicate that four hypotheses were supported, while one failed to get support from the data. We discuss these findings in more details subsequently.
In terms of antecedents of impulse buying behavior, H1 states that shopping enjoyment tendency is positively related to impulse buying in the context of Vietnam. This hypothesis got support from the data. This means that urban Vietnamese consumers, who have a higher level of shopping enjoyment tendency are more likely to engage in impulse buying. This finding confirms the positive impact of shopping enjoyment tendency on impulse buying that has been tested in previous studies in developed countries (e.g. Beatty and Ferrell, 1998) as well as in the context of urban Vietnam (e.g. Nguyen et al., 2013). In practice, there have been many changes in the market infrastructure and retailing system in Vietnam, especially in recent years. With the significant increase in the number of supermarkets and shopping malls, and the sharp growth of e-commerce, urban Vietnamese consumers nowadays can enjoy shopping with easier access to various products from many brands around the world such as Apple, Samsung, Nike, Adidas, H&M, and Zara.

Concerning the other antecedent of impulse buying, H2 states that modern-self is positively related to impulse buying in the context of Vietnam. This hypothesis got support from the data. Modern self is a concept associated with Asian TEs like Vietnam (Nguyen et al., 2009). This finding suggests that urban Vietnamese consumers, who hold a higher level of modern self are more likely to engage in impulse buying. This again confirms the finding from Nguyen et al. (2013). In recent years, there have been many Vietnamese consumers buying things on the internet, due to the rapid development of e-commerce. These consumers are often young people who are willing to experience new things, and have ability to adapt to changes in life. For example, the main customers of Lazara.vn, a famous e-commerce website in Vietnam, are young people, who can easily adapt to the new shopping channel. These consumers are more likely to engage in impulse buying behavior while shopping online for products such as clothes, sneakers or shoes.

With regard to the impact of traditional self, the findings from this study did not support H3 that Vietnamese consumers who hold a higher level of traditional self are less likely to engage in buying things impulsively. The path from traditional self to impulse buying is not statistically significant and the direction, not like expectation, is positive. This finding is different from Nguyen et al. (2013). Since there has still been very little research on this issue, the result may need further investigation in future studies.

Regarding the consequences of impulse buying, the findings support H4 that impulse buying is positively related to customer satisfaction with impulse purchase experience overall. This result seems different from the previous findings in the context of more developed economies where impulse buying has been often associated with negative outcomes. The results, however, in some extent, is in line with the findings from Nguyen et al. (2013) that Vietnamese consumers, who engage in impulse buying tend to be satisfied with their products/services bought on impulse, and they tend to enjoy the impulse purchase process. In practice, nowadays in Vietnam, the quality of many products generally is at an acceptable level. In addition, the impulsive items often have low
value, while the impulse buying process is quite joyful and pleasant.

The finding on the positive relationship between impulse buying and customer satisfaction indicates the fact that currently Vietnamese consumers are generally satisfied with their impulse purchase experiences and this buying behavior seems not to cause any serious problems. However, when things are changed, for example, when the impulse items have a higher value, the relationship may be changed.

The findings of this research also provide support to H5 that customer satisfaction is positively related to customer loyalty. With regard to impulse buying experience, this finding seems to be new, especially in the context of Vietnam. These findings suggest that Vietnamese consumers, who are satisfied with their impulsive purchases tend to buy things on impulse again if they meet the right stimuli. In addition, these consumers tend to come back to the stores from which they have bought things on impulse. Moreover, consumers may not need to control themselves to avoid impulse buying.

5.3. Implications

Implications for managers

Based on the findings from this study, several managerial implications are presented to managers of both local and international companies, which are operating or intending to operate in a TE like Vietnam. The findings of this research show that due to the significant changes in many aspects of society and economy thanks to the economic transition, urban Vietnamese consumers nowadays can easily engage in impulse buying behavior. These findings suggest a promising opportunity for firms to attract consumers in such a way that they purchase things on impulse. In addition, the findings from this research provide marketers with some insights to help developing efficient marketing strategies. Especially, it is very important for marketing people to understand target customers before launching a new product or service.

Based on the finding regarding the impact of shopping enjoyment tendency, consumers tend to engage in impulse buying when they have a high level of enjoyment. Hence, marketers can concentrate on several aspects that increase the enjoyment of customers while shopping. For example, firms can create an attractive in-store environment with charming smell, warm light, exciting music, and colorful interior to influence customers to make immediate decisions to purchase things impulsively. In addition, firms can arrange their colorful, well designed and especially low price products on the shelves near the payment areas to attract customers to buy impulsively while they are waiting to make payment.

The current findings show that consumer impulse buying frequency is still at a modest level. In order to foster customers to make buying decision more quickly, in addition to providing customers with some extra value and promotion incentives such as discounts and gifts, firms can also launch the policy of the possibility of returning items in a specific number of days after purchase. Regarding local companies operating in e-commerce such as Vatgia.com, zalora.vn, tiki.vn, a reduction in the number of steps in the payment process would help the companies to attract more customers who buy things impulsively.

Based on the findings regarding the impact
of customer satisfaction on customer loyalty, customers tend to buy things on impulse again and come back to the stores where they have bought products impulsively if they are satisfied with their impulse purchase experience. Therefore, firms can launch several marketing programs such as loyalty programs to attract more satisfied customers to come and buy again. For example, some restaurants in Hanoi have launched a loyalty program for customers with a 50% discount for some food and drinks for the next visit.

**Policy implications**

Based on the research findings of this study, we expect that some implications for policy makers can be provided in an attempt to make things better for both society and individual consumers.

After nearly three decades of the economic renovation, the market system and infrastructure in Vietnam have been significantly improved. Consumers are now having increasing numbers of choices to buy products or services with a wide range of prices from various brands in the world. The findings of this study suggest that impulsive buyers seem to be happy with their impulse purchases. They seem to have no serious problems with their current impulse buying behavior. However, when the use of credit cards becomes more popular in Vietnam, consumers may need to cope with some problems in making impulse buying decisions due to the lack of experience in the rapidly growing retailing environment. Policy makers should organize some events and programs to guide and educate consumers in shopping knowledge to help them become smart buyers to avoid the possible negative consequences following their impulse buying decisions. For example, in Vietnam today, there are many stores selling fake products of such famous brands as Apple, Beats, Louis Vuitton, or Adidas, which are imported mainly from China, at relatively low prices. Consumers seem to be very confused about the reliability of the products, and many of them have wasted money in buying fake products. Public policy makers could launch some programs to help consumers to distinguish between fake and authentic products, or to give them some advice about the reliable stores where they can buy products of good quality and can demonstrate their responsibility in purchase and consumption.

Although there have been many positive changes in all aspects of the Vietnamese economy and society, a number of consumers still earn low incomes. There will be significant financial problems for these lower income people if they engage in impulse buying and cannot control purchase frequency. It is necessary to help them minimize the possible negative consequences by educating and guiding these consumers to make smarter purchases. Besides the lower income group, some consumers are not independent in finance. They are often young people, who are more likely to have a high level of modern self, thus these consumers will more easily engage in impulse buying. This group is also need to be educated to be smarter in their shopping behavior, avoiding the potential negative outcomes of impulse buying.

**Future research directions**

This study has some limitations that could be improved in future studies. Concerning the research methodology, although this study concentrates on investigating the antecedents and
consequences of impulse buying behavior of urban consumers in the context of Vietnam, the data of this study were collected only from Hanoi, the capital of Vietnam. Future studies may want to use a broader and more representative sample including also other big cities such as Ho Chi Minh City, Da Nang, Can Tho and Hai Phong.

In recent years, there has been a rapid development in market infrastructure in some rural areas such as those of the suburbs of Hanoi, Hai Duong, Hung Yen, and Nam Dinh provinces. Moreover, the living standards in rural areas have also been improved significantly. For example, many households now own expensive things such as smartphones, side by side fridges, new generation of motorbikes, and cars. Future research can also investigate impulse buying behavior among consumers living in rural areas to have a better view of this buying behavior in an Asian TE like Vietnam.

In this study, we examined several antecedents and consequences of impulse buying behavior. Future research may include more factors influencing impulse buying such as materialism, and some other outcomes such as depression.

Another avenue for future research is that impulse buying behavior may be examined in the context of several TEs, or a comparative study could be conducted between Vietnam and some country that is different in terms of culture and/or economic development level. By doing so, it can significantly enhance our understanding of impulse buying behavior, an important and interesting buying behavior.

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