Abstract

Purpose – The purpose of this study is to examine compulsive buying and its interrelationships with careful spending, loan dependence and financial trouble. This study also aims to investigate the moderating role of gender.

Design/methodology/approach – A questionnaire-based survey was conducted. Two hundred and seven responses were collected using purposive sampling technique. Partial least square-structural equation modelling was performed to analyze the proposed hypotheses.

Findings – The salient findings are (1) careful spending negatively influences compulsive buying, (2) compulsive buying positively influences loan dependence and financial trouble, (3) loan dependence positively influences financial trouble, (4) the relationships between careful spending and compulsive buying, and between loan dependence and financial trouble differ between male and female consumers, (5) there is a sequential mediation effect between careful spending and financial trouble and (6) there are gender differences between careful spending and compulsive buying and between loan dependence and financial trouble.

Research limitations/implications – This study empirically validates the role of short-term money attitude, conceptualized as careful spending in compulsive buying context and how it attenuates the consequences of compulsive buying.

Originality/value – This study explains the serial mechanism in which careful spending can be used to counteract financial trouble of youngsters, and further looks into the differences of relationships in term of gender through multi-group analysis.

Keywords Compulsive buying, Gender, PLS-SEM, Money attitude, Careful spending, Financial trouble

Paper type Research paper

1. Introduction

In a modern society, buying and/or shopping are a prevalent activity. However, it can become an undesired and destructive phenomenon when such behavior leads to compulsive buying. Compulsive buying has been an ongoing topic of interest in consumer research (Kukar-Kinney et al., 2016). According to Ridgway et al. (2008), compulsive buying is defined as consumers’ tendency to be preoccupied with repetitive buying without much control. As compulsive behavior significantly determines consumers’ well-being (Kukar-Kinney et al., 2016), research regarding this issue needs more attention as this deviant behavior can bring undesired consequences to consumers and society in the long run.

According to Maraz et al. (2016), 1 in 20 individuals are influenced by compulsive buying behavior at some points in their life. Internet trade has changed the way consumers shop (Pantano and Priporas, 2016) and aggravated compulsive buying (Manchiraju et al., 2017; Hartston, 2012). According to Kukar-Kinney et al. (2016), compulsive buyers are vulnerable

Eugene Cheng-Xi Aw and Jun-Hwa Cheah are based at the University Putra Malaysia, Serdang, Malaysia. Siew Imm Ng is an Associate Professor at the University Putra Malaysia, Serdang, Malaysia. Murali Sambasivan is a Professor at the Taylor’s University Taylor’s Business School, Subang Jaya, Malaysia.
to online shopping as it is convenient and flooded with various marketing cues. As compulsive buyers possess low self-esteem, they are likely to be vulnerable and react strongly to such cues (Kukar-Kinney et al., 2016). Online spending in Malaysia has experienced a 38 per cent growth during the first 6 months of 2016, and has led to higher credit card spending (Vijaindren, 2017). Particularly, young adults spend at a faster rate compared to other age groups and get involved in high cost borrowing. Therefore, the current research is motivated by the change in landscape of compulsive buying over time where online compulsive buying has become an emerging but under-researched phenomenon (Duroy et al., 2014).

According to Li et al. (2009), long-term orientation in money attitude does not differ between male and female in compulsive buying context but whether the indifference holds in short-term oriented money attitude, such as careful spending remains unknown. Besides, knowing (financial literacy) and behaving (careful spending) are different. Hence, there is a gap to verify if males who are reported to have higher financial literacy (Fonseca et al., 2012) are more capable to manage compulsive buying, loan dependence and financial trouble by practicing careful spending.

Malaysia is rated as a country with high indulgence culture (Hofstede et al., 2010), and therefore, Malaysian consumers may face relatively higher financial problems resulting from compulsive buying. According to Malaysia Department of Insolvency (2017), bankruptcies owing to credit card issues have risen to 153.04 per cent from 2012 to 2016. Therefore, the negative consequences of compulsive buying are a part of focus of this study. Two logical questions addressed in this research are:

**RQ1.** Does compulsive buying behavior necessarily lead to negative financial implication?

**RQ2.** Does it differ between male and female consumers?

The question remains unclear because the outcome can be different owing to individual and cultural factors (Ridgway et al., 2008; Bauer and Mitev, 2012).

In sum, the current study aims to examine the effect of careful spending on compulsive buying and the consequences of compulsive buying in Malaysia by analyzing the following:

- the direct relationships among factors;
- serial mediation involving careful spending, compulsive buying, loan dependence and financial trouble; and
- moderating role of gender using multi-group analysis (MGA).

This study differs from majority of other studies conducted in western countries as it addresses the current money attitude and compulsive buying literature in an Asian context, which is under-researched (Lim et al., 2003). Also, following changes in consumers’ shopping behavior, a compulsive buying in online shopping setting is focused.

The outline of the paper is as follows. In Section 2, a literature review with respect to careful spending, compulsive buying and associated financial implications are conducted. On the basis of review, this study formulates research hypotheses and develops a conceptual framework in Section 3. Section 4 outlines and describes the research method used in this study. Finally, while Section 5 discusses the results, Section 6 deliberates upon discussions and implications, and Section 7 concludes with limitations and suggestions for future research.

### 2. Literature review

Compulsive buying is deemed to be a part of the compulsive consumption behavior (Workman and Paper, 2010). The concept of compulsive buying was originated from the field of clinical psychology and is defined as “chronic, repetitive purchasing that becomes a
primary response to negative events or feelings” (O’Guinn and Faber, 1989, p. 147). Recent studies drawn from social psychology defined compulsive buying as a compensatory behavior to counteract mood and identity problems through the purchase of material products (Dittmar, 2004; Elliot, 1994). As compulsive buying leads people to purchase products for the purposes of mood-repairing and self-esteem improvement (Ureta, 2007), intrinsic factors such as personality characteristics, anxiety and materialism (Simanjuntak and Rosifa, 2016; Veludo-de-Oliveira et al., 2014; Faber and O’Guinn, 1988; O’Guinn and Faber, 1989) have become the major focus in pertinent literature.

Another stream of research has probed into money-related constructs, such as money attitude and credit card use. Understanding the money attitude is crucial as it shapes purchasing behavior (Durvasula and Lyonski, 2010). The function of money attitude as an antecedent of compulsive buying behavior has been investigated by several studies (Roberts and Jones, 2001; Phau and Woo, 2008; Pham et al., 2012; Simanjuntak and Rosifa, 2016). However, it has been shown that the role of money attitude is inconsistent. The differences in findings can be owing to the fact that Money Attitude Scale (MAS) captures dimensions that are too broad, and some dimensions may capture sub-factors.

In particular, Bauer and Mitev (2012) have reported that retention-time dimension can be broken into two separate factors: saving and careful spending. They explained that individuals have different preferences when making decision for future and immediate action. Loewenstein (1996) has interpreted them as the “want-self” and the “should-self”. Hypothetically, the “should-self” dominates the long-term decisions, but the former dominates the instant decision for immediate rewards. Loewenstein (1996) has argued that short-term based responses go against long-term self-interest. Bauer and Mitev (2012) have equated careful spending factor to short-term and saving to long-term attitudes. As compulsive buying is triggered by instant gratification, careful spending as a short-term oriented money attitude is an important and interesting variable that can explain compulsive buying more objectively compared to broader money attitude dimensions. Careful spending is closely associated to shopping behavior as it determines consumers’ instant purchase decision. Owing to context relevancy and scarcity in literature, careful spending as a short-term money attitude has been selected to be the major concern in investigating compulsive buying behavior.

Besides, a number of studies have revealed that compulsive buying is influenced by the misuse of credit cards (Veludo-de-Oliveira et al., 2014; Roberts and Jones, 2001) because credit cards as a stimulus can increase magnitude and speed of spending (Raghubir and Srivastava, 2008; Feinberg, 1986). Although literature has exhibited credit card debt as a consequence of compulsive buying (Vieira et al., 2016), only very few studies have been done on financial trouble related to credit cards and its association with loan dependence and compulsive buying.

On the basis of Social Learning Theory (Bandura, 1977), consumer behavior (i.e. spending behavior) is observed and learned through socialization. It has been articulated that gender exhibits different financial behavior owing to variation in socialization process during childhood and early young adulthood stage (Leila and Paim, 2011; Garrison and Gutter, 2010). The role of gender in compulsive buying behavior have had mixed results. Over the years, females have been found to be more vulnerable to compulsive buying behavior (Dittmar, 2005; Li et al., 2014). However, some studies refuted that notion by showing that compulsive buying rate appears to be indifferent between males and females (Koran et al., 2006). This seems to suggest more empirical evidences are needed to understand the role played by gender in compulsive buying process.

The role of gender in society has been extensively researched in the literature. For instance, men are typically portrayed as the bread winner in a family, while women are viewed as the family caretaker (Cunningham, 2008). The social roles learned early in life often persist into
adulthood (Moschis, 1985), causing men and women to exhibit different social identity, financial attitude and behavior. This implies that the extent of careful spending reduces compulsive buying, loan dependence and the chances of getting trapped in financial trouble is very much dependent on male and female characteristic, suggesting that gender plays a moderating role. To date, very few studies have explored how spending attitude and financial consequences of compulsive buying can differ in terms of gender in the context of compulsive buying. In summary, this study models the following:
- careful spending as the antecedent of compulsive buying;
- loan dependence and financial trouble as the consequences; and
- gender as the moderator.

The research model is presented in Figure 1.

3. Hypotheses development

3.1 Careful spending

Careful spending is characterized by keeping track of one’s money and following a careful financial budget (Bauer and Mitev, 2012). In the context of online fashion shopping, careful spending is highly relevant in deterring consumers from compulsive buying. This is because consumers are often exposed to immediate cues during online fashion shopping, such as promotional message and advertisements, which potentially trigger, reinforce and exaggerate their compulsive buying tendency (Goldsmith et al., 2015; Kwak et al., 2004). Furthermore, compulsive buying can be described as a failure of impulse control (Kellett and Bolton, 2009), which is an indication of indiscreet and unwise spending decisions (Bauer and Mitev, 2012) owing to imprecise consideration and lack of planning (Verplanken and Herabadi, 2001). Individuals with careful spending attitude are likely to plan their purchases more consciously, thus less likely to involve in compulsive buying. It has been shown that psychological problem, such as lack of self-control can result in high debt

Figure 1  Research model
In contrast, upholding careful spending attitude helps in preventing excessive debt accumulation and financial insolvency. Therefore, it is posited that compulsive buying, loan dependence and financial trouble are less likely to happen to individuals who uphold careful spending attitude. On the basis of the above reasoning, the following hypotheses are postulated:

- **H1.** Careful spending negatively influences compulsive buying.
- **H2.** Careful spending negatively influences loan dependence.
- **H3.** Careful spending negatively influences financial trouble.

### 3.2 Loan dependence

Loan dependence can take many forms, such as credit card debt, personal loan and mortgage loan. Credit card usages are commonly applied as the measurement of financial consequences in compulsive buying context (Bauer and Mitev, 2012). Psychological factors are important than economic factors in explaining debt (Achtziger et al., 2015). High compulsive buying leads to high debt (Achtziger et al., 2015) because compulsive buyers cannot control their spending behavior. Moreover, their compulsive buying behavior becomes worse with the use of credit cards, which allows them to enjoy delayed payment and high limit of spending tolerance. In other words, compulsive buyers tend to spend on credit and, therefore, demonstrate high loan dependence. On the basis of the above arguments, the following hypothesis is postulated:

- **H4.** Compulsive buying positively influences loan dependence.

### 3.3 Financial trouble

Financial trouble refers to difficulties related to monthly basic payments or loan installments (Bauer and Mitev, 2012). Spinella and Lester (2014) have found that compulsive buying is related to credit card debt. The credit cards give an illusion of control during spending (Achtziger et al., 2015), driving compulsive buyers to incur excessive amount of debts unconsciously. When they spend more than they make, repayments become an issue. This is in line with the report that compulsive buyers are found to have difficulty in term of credit card payment, which subsequently leads to financial problem such as insolvency (Vieira et al., 2016). On the basis of the above arguments, the following hypotheses are postulated:

- **H5.** Compulsive buying positively influences financial trouble.
- **H6.** Loan dependence positively influences financial trouble.
- **H7.** Compulsive buying and loan dependence jointly mediates the relationship between careful spending and financial trouble.

### 3.4 Gender

Males and females have been reported to be different in dealing with money. For instance, women tend to have a budget compared to men (Henry et al., 2001), and use decent financial practices (Hayhoe et al., 2000). However, findings show that women have higher level of debt (Davies and Lea, 1995), and they involve more in credit card misbehaviors than men, such as carrying credit card balance, which is subjected to late payment fees (Allgood and Walstad, 2011). On the other hand, men are reported to have better financial knowledge (Goldsmith et al., 1997) and have higher financial literacy (Fonseca et al., 2012), implying men's higher capability in managing money. In brief, males and females handle money differently; thus, they are expected to manifest differences in compulsive buying and financial management behaviors.
In the context of compulsive buying, females are more likely to indulge in compulsive buying behavior than men (Li et al., 2009). The finding is not conclusive as other studies have found gender indifferences in compulsive buying (Koran et al., 2006). Studies have indicated that decision processing can be different across gender, such as in financial decision-making (Powell and Ansic, 1997) and emotional expression (Kring and Gordon, 1998), which further support the role of gender in compulsive buying. In online fashion shopping, careful spending can be easily overwritten by short-term rewards (Loewenstein, 1996). Women tend to view money as a tool to attain gratification (Prince, 1993), while instant gratification attainment is a reward of compulsive buying. Thus, it is believed that women are less likely to budget and spend their money carefully in the context of online fashion purchase. On the basis of the above reasoning, the following hypotheses are postulated:

- **H8.** There is significant difference in the relationship between careful spending and compulsive buying for male and female.
- **H9.** There is significant difference in the relationship between careful spending and loan dependence for male and female.
- **H10.** There is significant difference in the relationship between careful spending and financial trouble for male and female.
- **H11.** There is significant difference in the relationship between compulsive buying and loan dependence for male and female.
- **H12.** There is significant difference in the relationship between compulsive buying and financial trouble for male and female.
- **H13.** There is significant difference between the relationship of loan dependence and financial trouble for male and female.

4. Research methodology

4.1 Data collection and sample

Johnson and Attmann (2009) asserted that majority of studies concentrated in “general” compulsive buying as opposed to compulsive buying in “specific product” categories. This study investigated compulsive buying in the context of fashion shopping because studies have identified that compulsive buyers tend to shop and purchase appearance related products, such as clothing, shoes, jewelry and cosmetics (O’Guinn and Faber, 1989; Yurchisin and Johnson, 2004), instead of everyday household and grocery shopping (Dittmar, 2005). In addition, compulsive buyers are highly interested in fashion (Park and Burns, 2005) and their physical appearance for self-expression motive (Joung, 2013).

A purposive sampling method was used in this study by tapping into respondents who are aged below 25, have shopped for fashion online and own a credit card. Self-administered questionnaires and online survey were used to collect data from consumers. Screening questions were included to filter out respondents who did not fulfill criteria. By using G*Power software (Faul et al., 2007), a minimum sample size of 119 was determined. Two hundred and seven useable responses were collected in this study. About 37.2 per cent of the respondents were male and 62.8 per cent were female. All respondents were aged below age of 25, and 71.0 per cent of respondents had a Bachelor degree. About 64.7 per cent of the respondents had income ranged between RM 3,000 and RM 5,000. The profile of the subjects fits the context as young consumers are typical online shoppers, have certain incomes, and, thus, are eligible to own credit cards. Majority of subjects have Bachelor degree, which may give further insight as educated people were reported tending to file bankruptcy in Malaysia (Diana-Rose and Zariyawati, 2015).
4.2 Measure
This study adapted the two items measurement of careful spending from Yamauchi and Templer (1982). The three items measurement of compulsive buying was adapted from Faber and O’Guinn (1992). The measurement of loan dependence (two items) and financial trouble (three items) were adapted from Bauer and Mitev (2012).

4.3 Common method variance
As this study is a cross-sectional study, where the questionnaires are completed by a single respondent at a specific point of time, it may be subjected to common method variance. As a procedural remedy for common method bias, both five-point and seven-point Likert scales were applied in exogenous and endogenous constructs, respectively (Podsakoff et al., 2012). Subsequently, Harmen single factor test was conducted by entering all the principal constructs into a principal component factor analysis (Podsakoff and Organ, 1986). Result shows that the principal factor explained 39.4 per cent, below threshold value of 50.0 per cent, indicating that there is no domination of a single factor as well as the lack of substantial common method bias (Podsakoff et al., 2003).

5. Results
This study applied partial least squares (PLS), a variance-based structural equation modeling (SEM) technique using SmartPLS software (Ringle et al., 2015). The two-stage analytical procedure by Anderson and Gerbing (1988) was followed. PLS–SEM was chosen because of less rigid restrictions, such as population, scale measurement or distribution (Haenlein and Kaplan, 2004). All the constructs in the model were measured reflectively.

5.1 Measurement model
Convergent validity of the measurement model was assessed by examining the loadings, average variance extracted (AVE) and composite reliability (CR). As shown in Table I, the loadings were all higher than 0.7, the composite reliabilities were all higher than 0.7, and the AVE values were also higher than 0.5, as suggested by Hair et al. (2017). Thus, convergent validity was established in this study.

<table>
<thead>
<tr>
<th>Table I</th>
<th>Measurement model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct/associated items</td>
<td>Loading</td>
</tr>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Careful spending (CS)</td>
<td></td>
</tr>
<tr>
<td>CS1</td>
<td>0.878</td>
</tr>
<tr>
<td>CS2</td>
<td>0.911</td>
</tr>
<tr>
<td>Compulsive buying (CB)</td>
<td></td>
</tr>
<tr>
<td>CB1</td>
<td>0.931</td>
</tr>
<tr>
<td>CB2</td>
<td>0.899</td>
</tr>
<tr>
<td>CB3</td>
<td>0.918</td>
</tr>
<tr>
<td>Loan dependence (LD)</td>
<td></td>
</tr>
<tr>
<td>LD1</td>
<td>0.956</td>
</tr>
<tr>
<td>LD2</td>
<td>0.952</td>
</tr>
<tr>
<td>Financial trouble (FT)</td>
<td></td>
</tr>
<tr>
<td>FT1</td>
<td>0.819</td>
</tr>
<tr>
<td>FT2</td>
<td>0.900</td>
</tr>
<tr>
<td>FT3</td>
<td>0.893</td>
</tr>
</tbody>
</table>

Notes: CR (composite reliability); AVE (average variance extracted)
To evaluate discriminant validity, the square root of the AVE constructs was compared with the inter-construct correlations (Fornell and Larcker, 1981). As shown in Table II, the square root of the AVE for each construct was greater than its correlations with other constructs, indicating that the measures satisfied discriminant validity.

Before conducting MGA, the acceptability of the measurement model and measurement invariance should be established (Hair et al., 2017; Henseler et al., 2016; Sarstedt et al., 2011). In this study, the measurement invariance of composites (MICOM) method was followed owing to the composite model algorithm characteristic of PLS–SEM. The three-step process involved in MICOM is as follows:

1. the configural invariance assessment;
2. the establishment of compositional invariance assessment; and
3. an assessment of equal means and variances.

According to Henseler et al. (2016), first, identical indicators per measurement model, identical data treatment, identical algorithm settings or optimization need to be achieved for the establishment of configural invariance. Second, compositional invariance requires that it equals to one. Third, if the permutation confidence intervals of differences in mean values and logarithms of variances between the construct scores of the male and female group include the original difference, full measurement invariance is assumed to be established.

As illustrated in Tables III and IV, partial measurement invariance was established, allowing the comparison and interpretation of the MGA’s group-specific differences of PLS–SEM results (Henseler et al., 2016).

5.2 Structural model

As shown in Table V, the result indicated that majority of the direct relationships proposed in this study were supported. Careful spending had a significant negative relationship with compulsive buying ($\beta = -0.687, p < 0.01$). Careful spending had an insignificant relationship with loan dependence ($\beta = 0.009, p > 0.05$). In contrast, compulsive buying

<table>
<thead>
<tr>
<th>Table II</th>
<th>Discriminant validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructs</td>
<td>CS male</td>
</tr>
<tr>
<td>CS</td>
<td>0.895</td>
</tr>
<tr>
<td>CB</td>
<td>-0.775</td>
</tr>
<tr>
<td>FT</td>
<td>-0.457</td>
</tr>
<tr>
<td>LD</td>
<td>-0.454</td>
</tr>
</tbody>
</table>

Notes: Diagonal elements (italic) are the square roots of AVE; off-diagonal elements are correlations between construct; CS (careful spending), CB (compulsive buying) LD (loan dependence) and FT (financial trouble)

<table>
<thead>
<tr>
<th>Table III</th>
<th>Results of partial invariance measurement testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructs</td>
<td>Configural invariance</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>Yes</td>
</tr>
<tr>
<td>CB</td>
<td>Yes</td>
</tr>
<tr>
<td>LD</td>
<td>Yes</td>
</tr>
<tr>
<td>FT</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes: CS (careful spending); CB (compulsive buying); LD (loan dependence) and FT (financial trouble)
had a significant positive relationship with loan dependence ($\beta = 0.543, p < 0.01$). Careful spending did not significantly influence financial trouble ($\beta = -0.086, p > 0.05$). On the contrary, there were significant effects of compulsive buying ($\beta = 0.386, p < 0.01$) and loan dependence ($\beta = 0.397, p < 0.01$) on financial trouble. The model exhibited satisfactory $R^2$ of 0.554. In summary, hypotheses $H1$, $H4$, $H5$ and $H6$ were all supported while $H2$ and $H3$ were not.

Next, to test the mediating effect proposed, this study applied the bootstrapping procedure using bias corrected confidence intervals. This study examined the total and direct effects of the independent variable (i.e. careful spending) on the dependent variable (i.e. financial trouble) and specified the indirect effect. As shown in Table V, careful spending had a significant total effect on financial trouble ($\beta = -0.506, p < 0.01$). However, careful spending no longer had a direct effect on financial trouble when mediators were introduced ($\beta = -0.086, p > 0.05$). Therefore, there was a complete sequential mediation effect of compulsive buying and loan dependence in the relationship between careful spending and financial trouble ($\beta = -0.148, p < 0.01$). Thus, $H7$ was supported.

Table VI illustrated the MGA outcomes using Henseler’s bootstrap-based MGA (Henseler et al., 2009). First, the result showed that the negative relationship between careful spending and compulsive buying was significant in both male and female groups, with $\beta = -0.775, p < 0.01$ and $\beta = -0.639, p < 0.01$, respectively. Second, the relationship between careful spending and loan dependence was insignificant in both male ($\beta = -0.030, p > 0.05$) and female groups ($\beta = 0.010, p > 0.05$). Third, the relationship between careful spending and financial trouble was insignificant in both male ($\beta = 0.023, p > 0.05$) and female ($\beta = -0.127, p > 0.05$) groups. Fourth, the result revealed that compulsive buying had a significant positive effect on loan dependence in both male and female groups, with $\beta = 0.547, p < 0.01$ and $\beta = 0.537, p < 0.01$, respectively. Fifth, there were

<table>
<thead>
<tr>
<th>Table IV</th>
<th>Result of full invariance measurement testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructs</td>
<td>Differences</td>
</tr>
<tr>
<td>CS</td>
<td>0.260</td>
</tr>
<tr>
<td>CB</td>
<td>-0.275</td>
</tr>
<tr>
<td>LD</td>
<td>-0.236</td>
</tr>
<tr>
<td>FT</td>
<td>-0.337</td>
</tr>
</tbody>
</table>

Notes: CS (careful spending); CB (compulsive buying); LD (loan dependence); FT (financial trouble)

<table>
<thead>
<tr>
<th>Table V</th>
<th>Structural model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis</td>
<td>Relationship</td>
</tr>
<tr>
<td>Total effect</td>
<td>CS $\rightarrow$ FT</td>
</tr>
<tr>
<td>Direct effect</td>
<td>H1</td>
</tr>
<tr>
<td></td>
<td>H2</td>
</tr>
<tr>
<td></td>
<td>H3</td>
</tr>
<tr>
<td></td>
<td>H4</td>
</tr>
<tr>
<td></td>
<td>H5</td>
</tr>
<tr>
<td></td>
<td>H6</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>H7</td>
</tr>
</tbody>
</table>

Notes: ** $p < 0.01$; ns (not significant); N/A (not applicable); CS (careful spending); CB (compulsive buying); LD (loan dependence) and FT (financial trouble)
Table VI  Results of moderation hypothesis testing using MGA

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationships</th>
<th>Path coefficient (male)</th>
<th>Path coefficient (female)</th>
<th>CIs (bias corrected) male</th>
<th>CIs (bias corrected) female</th>
<th>Path coefficient differences</th>
<th>P-value</th>
<th>Henseler's MGA</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H8</td>
<td>CS → CB</td>
<td>-0.775**</td>
<td>-0.639**</td>
<td>[-0.859, -0.633]</td>
<td>[-0.728, -0.522]</td>
<td>0.136</td>
<td>0.042*</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>H9</td>
<td>CS → LD</td>
<td>-0.030ns</td>
<td>0.010**</td>
<td>[-0.319, 0.189]</td>
<td>[-0.174, 0.198]</td>
<td>0.041</td>
<td>0.412ns</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>H10</td>
<td>CS → FT</td>
<td>0.023**</td>
<td>-0.127**</td>
<td>[-0.273, 0.298]</td>
<td>[-0.251, 0.007]</td>
<td>0.149</td>
<td>0.833ns</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>H11</td>
<td>CB → LD</td>
<td>0.547**</td>
<td>0.537**</td>
<td>[0.131, 0.832]</td>
<td>[0.355, 0.703]</td>
<td>0.010</td>
<td>0.543ns</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>H12</td>
<td>CB → FT</td>
<td>0.507**</td>
<td>0.336**</td>
<td>[0.139, 0.801]</td>
<td>[0.188, 0.500]</td>
<td>0.169</td>
<td>0.819ns</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>H13</td>
<td>LD → FT</td>
<td>0.194**</td>
<td>0.499**</td>
<td>[-0.036, 0.499]</td>
<td>[0.344, 0.633]</td>
<td>0.306</td>
<td>0.033*</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Notes: *p < 0.05; **p < 0.01; ns (not significant); CI (confidence interval), CS (careful spending), CB (compulsive buying), LD (loan dependence) and FT (financial trouble)
significant positive relationships between compulsive buying and financial trouble in both male ($\beta = 0.507, p < 0.01$) and female ($\beta = 0.338, p < 0.01$) groups. Sixth, the relationship between loan dependence and financial trouble was insignificant in the male group ($\beta = 0.194, p > 0.05$) but significant in the female group ($\beta = 0.499, p < 0.01$).

Two out of six paths differed significantly between genders. There was a significant difference between male and female for the effect of careful spending on compulsive buying, with Henseler’s MGA $p$-value of 0.042. Also, a significant difference was found for male and female groups in the relationship between loan dependence and financial trouble, with Henseler’s MGA $p$-value of 0.033. However, there were no significant differences in term of gender for the effects of careful spending on loan dependence (Henseler’s MGA $p$-value = 0.412) and financial trouble (Henseler’s MGA $p$-value = 0.833). Next, the findings of this study indicated no significant differences between male and female groups in regard to the effects of compulsive buying on loan dependence (Henseler’s MGA $p$-value = 0.543) and financial trouble (Henseler’s MGA $p$-value = 0.819). Therefore, hypotheses $H8$ and $H13$ were supported but $H9$ to $H12$ were not. The result of the present study found support for seven hypotheses.

6. Discussion and implication

From our findings, careful spending has a significant negative direct effect on compulsive buying, consistent with Bauer and Mitev’s (2012) study. Individuals who uphold less careful spending attitude are more likely to involve in compulsive buying behavior. Upholding less careful spending attitude exposes consumers to the internal urge to buy compulsively, which originates from unstable mood and online marketing cues. Online shopping websites not only offer large discount but also use marketing strategies such as, cross-selling, limiting availability and price discount duration and showing peer purchases. Some of these cues lead to higher perceived monetary value and enhanced hedonic motivation, thus compelling consumers’ purchase behavior. The result provides support for the new perspective of short-term money attitude-compulsive buying relationship, complementing previous studies used MAS in compulsive buying context.

This study answered the question, “Does compulsive buying behavior necessarily lead to negative financial implication?” Compulsive buying is positively related to loan dependence, reinforcing findings from previous studies (Weinstein et al., 2016; Phau and Woo, 2008). Often, compulsive buying causes individuals to spend above their affordability, which leads to loan dependence such as credit card usage. This, in turn, drives them to be in debt, and such condition is exaggerated by the easy access to credit cards and presence of online shopping.

The financial consequences of compulsive buying are often measured by loan dependence such as, credit card usage (Bauer and Mitev, 2012). However, the effect of credit card usage on financial trouble is under-researched. Thus, this study examined the relationship between loan dependence (credit card debt) and financial trouble. As shown in this study, loan dependence is positively related to financial trouble. The more individuals depend on credit card loan to sustain their compulsive buying habits, the more likely they fall into financial trouble because spending on credit gives individuals an illusion and lead them to overspend, which eventually results in out of control debts. Similar to the finding of Phau and Woo (2008), most compulsive buyers tend to have difficulty in terms of credit card payment. The result provides some insight on how high loan dependence results in financial trouble in the context of compulsive consumption as a consequence of uncontrolled consumption behavior.

The result shows that the direct effects of careful spending on loan dependence and financial trouble is not significant. However, an interesting result that has stemmed out of this research is the serial mediation linking the following factors: careful spending,
compulsive buying, loan dependence and financial trouble. Our findings clearly show the following:

- lack of careful spending attitude of consumers leads to high compulsive buying;
- high compulsive buying leads to high dependence on loan (mainly related to credit cards); and
- high loan dependence leads to serious financial troubles faced by the consumers.

The serial mediation explains the mechanism that leads to financial trouble because of poor spending attitude of consumers. Careless spending makes consumers prone to buying compulsively as they are irresistible to stimulation, thus resulting in overspending on credit and becoming insolvent subsequently.

MGA reveals significant differences between genders with respect to the direct effect of careful spending on compulsive buying, and the effect of loan dependence on financial trouble. The negative effect is stronger in male than female in careful spending-compulsive buying relationship, implying that males who uphold careful spending attitude are less likely to buy fashion products compulsively compared to female. This can be explained by the reason that women often view money as a tool to attain gratification and their careful spending attitude are easier to be overwhelmed by online marketing cues, which eventually lead them to be more compulsive in buying. The positive relationship between loan dependence and financial trouble has shown to be significant in females but not males. This result exhibits a situation where females who have high loan dependence are more likely to fall into financial trouble trap. This may be owing to the fact that females have less financial knowledge and lower financial literacy. Besides, females tend to have higher neuroticism than males (Chapman et al., 2007), rendering them to be more susceptible to stress and anxiety, and lose control over urge and gratification, thus accumulating debt more easily, and being unable to manage debts well. Therefore, females are deemed to be more incompetent in managing their debts and causing them to fall into financial trouble.

6.1 Theoretical implications

This study provides empirical evidences for the interrelationships among careful spending, compulsive buying, loan dependence and financial trouble by examining the direct effects and sequential mediating effects among constructs. This study focuses on short-term money attitude (careful spending) as the antecedent of compulsive buying compared to previous literature, which did not differentiate short- and long-term money attitude. Also, financial trouble is examined, complementing previous studies, which mainly concentrated on loan dependence. Aside, the mechanism of careful spending-compulsive buying-loan dependence-financial trouble is uncovered through sequential mediation test, which has not been tested in previous literature. This study enriches the current literature on compulsive buying through an Asian developing country perspective, which is often overlooked. Besides, this study confirms and adds more to the arguments in previous research regarding the significance of gender role in compulsive buying context (Li et al., 2014; Koran et al., 2006; Dittmar, 2005). Findings reveal that the relationships between careful spending and compulsive buying, and loan dependence and financial trouble are moderated by gender. The difference between male and female in compulsive buying and financial matters offers a fresh view to previous literature on what and how gender moderates the relationship between antecedent and consequences of compulsive buying.

6.2 Practical implications

This study has explored the antecedent and outcomes of compulsive buying. In line with our findings, fostering careful spending attitude can be posited as a preventive measure for compulsive buying. To rehabilitate and educate individuals, especially females, to handle
financial matters, consumer education program and counseling should be established, and the focus should be on both financial management and psychological handling skills. Women need to be educated to improve careful spending attitude tightly and strengthen psychological handling skills, so that they do not easily succumb to compulsive buying.

In recent years, credit card ownership has been boosted owing to the enormous increase in credit card acceptance and usage. Credit card issuers have been promoting and marketing their credit card products aggressively. On this issue, policies should be made stringent to filter the credit card applicants based on their financial background. This is because low credit card access means low loan dependency. Also, the enhancement of financial literacy should be done to curb over-indebtedness in a long run (Achtziger et al., 2015) to weaken the link among compulsive buying, loan dependence and financial trouble. Inclusion of financial literacy program into school curriculum does provide benefits for youngsters with low level of financial literacy, and is expected to have an impact on compulsive buying (Pham et al., 2012). The financial literacy and careful spending attitude can help young consumers to face fewer financial problems.

This study also provides fashion product marketers an insight for strategy planning. From marketers’ pure profit-seeking perspective, female consumers should be targeted as they are more vulnerable than male. As careful spending attitude determines compulsive buying, marketers need to countermine such attitude by enforcing more marketing stimuli in online shopping environment.

7. Conclusion, limitation and suggestions for future research

In brief, within a sample of Malaysia young consumers, this study empirically validates the role of careful spending as a short-term money attitude in determining compulsive buying and the associate consequences. In addition, the sequential relationship of careful spending-compulsive buying-loan dependence-financial trouble is confirmed. Finally, this study found the differences in male and female in terms of short-term money attitude and handling financial consequences of compulsive buying.

Geographical focus in this study is posed as a limitation because data were collected from a single country. Future research is suggested to determine the reliability of current research in other cultural context, and study on culture comparison should be done to enhance compulsive buying knowledge. This study sampled young consumers from urban areas; thus, the result may not be generalized to young consumers from rural areas. Besides, more moderating variables can be investigated as the relationship between an individual’s money attitude and compulsive buying can be contingent on other factors, either situational or personality. Subsequently, this study does not use a sample of solely compulsive buyers. Future studies are suggested to explore research model from this study with individuals who score extremely high in compulsive buying to test whether our findings hold true for clinical samples.

References


Corresponding author

Eugene Cheng-Xi Aw can be contacted at: eu0419@hotmail.com.