Antecedents and consequences of compulsive buying behaviour: the moderating effect of financial management

Antecedents of compulsive buying behaviour

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Abstract

Purpose – This paper investigates the determinants of compulsive buying behaviour (CBB) and ascertains the effect of CBB on the propensity of an individual to be dependent on loans and fall into financial trouble. The study additionally examines the moderating effect of financial management on the hypothesized relationships. **Design/methodology/approach** – The survey method of research was adopted using questionnaires as the principal means of data collection. The predicted relationships of the study were tested using the partial least square structural equation modelling technique.

Findings – The authors' results suggest materialism, socioeconomic status and financial management skills of an individual are significant predictors of CBB. The authors also find CBB to be positively associated with loan dependence and the authors' analysis suggests financial management skills moderate the hypothesized relationships. Social implications – Findings of this study suggest buying compulsively increases the risks of overdependence on loans and can be indirectly associated with the risk of individuals falling into financial trouble. Originality/value – The findings highlight the adverse effects of CBB on loan dependence and financial trouble and the moderating effect of financial management on the dominant factors that influence CBB.

Keywords Financial management, Compulsive buying behaviour, Financial trouble, Loan dependence, Materialistic value

Paper type Research paper

Introduction

Studies into shopping and buying behaviour of people argue that although the essence of shopping traditionally is to satisfy utilitarian needs of individuals, the objective of shopping in contemporary times for some individuals goes beyond the satisfaction of utilitarian needs. While shopping is considered by some as a leisure activity and a form of entertainment, others use shopping to manage their emotions and express self-identity (Black, 2007; Dittmar, 2005; Hudson et al., 2017). However, a major challenge often associated with shopping meant to serve other purposes other than utilitarian is that it can sometimes lead to uncontrolled buying behaviour especially for people plagued with self-control issues. Commonly described as compulsive buying behaviour (CBB), the concept has been conceptualized as a chronic tendency to spend beyond one's needs and means occasioned by the gratification of the inner urge to make repeated purchases in order to provide relief from mental disquiet (Mittal et al., 2008).

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Journal of Business and Socioeconomic Development Vol. 3 No. 3, 2023 pp. 197-213 Emerald Publishing Limited e-ISSN: 2635-1692 p-ISSN: 2635-1374 DOI 10.1108/JBSED-04-2021-0049 According to Aw *et al.* (2018) buying becomes compulsive when accompanied by a seemingly beneficial component often used as a means of coping with disappointment, frustration or even a distortion of autonomy. Buyers in this category in effect have the urge and intense desire to obtain possessions regardless of the harmful psychological and financial consequences (Iqbal and Aslam, 2016). Closely related to this abnormal shopping behaviour and sometimes mistakenly used interchangeably is the concept of impulsive buying. Yingjiao (2008), however, points out that while compulsivity deals with being plunged into venturing to blunt negative events and feelings, individuals who are impulsive buyers tend to employ buying as a strategy to seek pleasure, arousal and self-gratification. When buying impulsively becomes entrenched (a frequent strategy for an individual's mood repair), it gives rise to compulsive buying (Silvera *et al.*, 2008). Notwithstanding the conceptual differences, it has been acknowledged that compulsivity and impulsivity tendencies can exist simultaneously in the same individual, even though the emotional triggers associated with each may be different (Flight *et al.*, 2012).

Classified as the worse form of buying behaviour, CBB has been recognized as a growing global problem among consumers particularly students having been associated with a number of undesirable outcomes (Mestre-Bach *et al.* 2017; Palan *et al.*, 2011). Black (2007), for instance, concludes that 85% of individuals who are compulsive buyers tend to have debt related problems with 74% of them usually with debt levels out of control. In part, the surge in this unusual behaviour has been attributed to the incessant desire of individuals to consume, the appetite for material things and the culture of using material possessions as a symbol of status and show of power in society (Chaplin and John, 2007; Palan *et al.*, 2011). Indeed, Islam *et al.* (2018) posit that material possession is seen by compulsive buyers in particular as a way to happiness, success and self-identity.

The relationship between materialism and CBB has therefore, been a subject of interest to many academic researchers. While some existing studies have shown that materialism correlates positively with CBB (Islam *et al.*, 2018), the current study provides some new perspective on the materialism and CBB nexus from an African context. Notwithstanding the fact that the evidence from this context is relevant given the scarcity of research on this subject from the African context, our study contributes theoretically to the literature in three important ways.

First, in addition to materialism, we examine other predictors of CBB by highlighting the role of time affluence and socio-economic status of an individual on the tendency to buy compulsively. We argue that individuals with a lot of time at their disposal are more likely to buy compulsively given that such individuals tend to experience negative emotional states like anxiety, insecurity, guilt and often cope poorly with boredom (Giluk and Postlethwaite, 2015). Heightened levels of stress may induce compulsive buying in time affluent individuals. Also, this study argues that individuals who perceive high social status as desirable are more prone to buy compulsively. The quest for recognition of status may be associated with CBB because of the believe that the frequency of buying status products or owning a number of possessions matters for an individual's status (Wang and Tsai, 2017).

Second, we examine some outcomes of CBB by highlighting its impact on loan dependence and financial trouble. This study argues that CBB could lead to dependence on loans and advances by individuals as the cycle of purchases continue and the individual is unable to fund future purchases from personal resources. The increasing reliance on loans to finance such a behaviour exposes such individuals to the risk of falling into financial trouble.

Third, this study uniquely examines whether financial management skills can moderate favourably the perceived impact of materialism, time affluence and socio-economic status on CBB. Empirical studies on financial management have shown that the frequency with which individuals with strong financial management background buy compulsively is by far less compared to individuals who have not mustered this skill (Wang and Tsai, 2017). On the basis

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of this, we argue that the effect of materialism, time affluence and socio-economic status on CBB could change in the presence of strong financial management skills.

The rest of the article is organized as follows: the next section reviews literature on compulsive buying behaviour and the key constructs of the study followed by the hypotheses of the study. The subsequent section discusses the research methodology. Discussion of the study results follows and the paper ends with concluding remarks.

Literature review and hypotheses development

Buying behaviours and the concept of compulsive buying behaviour (CBB)

CBB refers to the incessant and buying without respite to make up for a void created in life as a result of negative feelings or emotions (Johnson and Attmann, 2009). CBB falls under the three specific behaviours under the consumer buying process: rational, impulsive and compulsive buying (Sulehri and Ahmed, 2017). In terms of order, the buying process usually begins with the rational buying which basically entails the execution of planned purchases and sticking to budget control. A "rational buyer" therefore plans and carefully allocate resources before the actual acquisition is made. A shift from this rational process by an individual leads to the impulsive state of buying. According to Risqiani (2015) impulsive state of buying involves the prompt decision of making unplanned purchases subconsciously. Closely related to impulsive buying is the concept of compulsive buying which has been described as an impulsive disorder (Asad Shahjehan, 2012). Kellett and Bolton (2009) intimate that compulsivity sets in at the stage where there is a failure of impulse control backed by the need to repair the mood of the individual. As Moon et al. (2015) point out individuals are able to lighten their mood by gaining control over their boredom, stress, and anxiety through the act of buying compulsively.

A distinguishing factor between CBB and the other buying behaviours is the strong and irresistible urge to buy that accompanies it (Donnelly *et al.*, 2016). Compulsive buyers almost always possess persistent obsessions, anxiety reactions, higher levels of depression, lower self-esteem, weaker impulsive control, stronger desire for superior achievement and the greater tendency for approval (Iqbal and Aslam, 2016; Johnson and Attmann, 2009).

Hypotheses development

The tendency to buy compulsively is influenced by a multiplicity of factors. Following prior literature however (Ahmed, 2018; Islam *et al.*, 2018; Khandelwal *et al.*, 2021; Manolis and Roberts, 2012), three factors – materialism, socio-economic status, time affluence – which have been found on a consistent basis to be good predictors of CBB are examined in this study. Also, we investigate the role of financial management on CBB and further predict that the effect of materialism, socio-economic status, time affluence on CBB could be moderated by financial management skills of an individual. Lastly, the framework also suggests CBB may be associated with loan dependence and financial trouble.

Materialism and CBB

Considered to be an intense desire to give relevance to material possessions, the concept of materialism has been a key focus for studies into psychological aspect of consumer behaviour (Dittmar, 2005; Dittmar *et al.*, 2014; Iqbal and Aslam, 2016). Materialism has been conceptualized to mean that material possessions constitute an important part of an individual's happiness in life (Richins and Dawson, 1992). According to Richins (2004), a highly materialistic person believes in the acquisition of material goods as a key indicator of success, a measure of self-identity, and central to life goal. Such individuals are attention seeking, love to impress others and value highly the acquisition of objects (Iqbal and Aslam,

2016; Martinez-Novoa and Hodges, 2016a; Pham *et al.*, 2012). Because of their materialistic pursuit, such individuals have pro-spending attitudes usually aimed at owning material possessions. According to Pham *et al.* (2012), compulsive buyers do not only have strong emotional attachment to material possessions but also derive some form of relief from negative emotions through the acquisition of material things. Buying compulsively is also a means by which some individuals repair their negative emotions (Ching and Wu, 2018), rebuild their self-esteem (Martinez-Novoa and Hodges, 2016b), obtain pleasure, arousal and gratification from material goods (Hollander and Rosen, 1998). The expression of materialistic pursuit implies that materialistic individuals would do whatever it takes to be recognized as wealthy, hence would be engaged in constant purchases of material goods.

Empirically, findings by many extant studies (Donnelly et al., 2016; Pham et al., 2012; Yingjiao, 2008) support the assertion that individuals with high materialistic values are more prone to buy compulsively. On the basis of this, this study hypothesized that:

H1. A positive relationship exists between materialistic values and CBB.

Socio-economic status and CBB

Socioeconomic status (SES) plays a crucial role in the wellbeing of people, their education, their psychological, physical and mental health. The term SES refers to the level of comfort in the lives of people as well as the sort of opportunities and privileges accorded them in society. Oakes (2012) argues that individuals with high socio-economic status are generally wealthy as such have a high frequency of buying luxury products which reaffirms their identity and high standing in society. Individuals with high SES have an orientation to promptly satisfy their gratifications and love to be noticed by all (Adler and Ostrove, 1999; Gaur, 2013; Huang and Hsieh, 2011; Oakes, 2012). Because of their recognition seeking nature, such individuals get upset when they feel less valuable or important. Owing to this, they are intrinsically motivated to buy compulsively in hope of getting the attention they require.

Empirically, SES has been associated with the inclination to buy compulsively CBB (Cirino *et al.*, 2002; Mestre-Bach *et al.*, 2017). Thus, we hypothesize that:

H2. A positive relationship exists between SES and CBB.

Financial management and compulsive buying

Financial management generally refers to being in the position of exerting self-mastery over mundane finances and recognizing traces of financial shocks to be tackled. A key to financial management are the ability to fulfil financial goals and being able to find life appealing as a result of being unburdened financially (Maraz et al., 2015). Financial management skills are essential in promoting responsible financial behaviour. As a concept, individuals with proper financial management skills usually have lower compulsive buying tendencies. Lim et al. (2017) argue that such individuals are discipline and cope better with uncertainties. Several studies (Lim et al., 2017; Ramalho and Forte, 2019) have provided results consistent with the fact that financial management is negatively associated with compulsive buying behaviour.

This study therefore hypothesizes that:

H3. A negative relationship exists between financial management skills and CBB.

Time affluence and CBB

Time has been accorded much prominence in recent times. As a concept, Time Affluence describes the sense of having enough time to explore one's own interests and thoughts. Individuals who rank high on the time affluence scale are deemed time affluent while

individuals who feel their lives are rushed or busy rank low on the time affluence scale (Manolis and Roberts, 2012). As Manolis and Roberts (2012) opine, individuals with high levels of engagement in activities (low time affluence) may resort to acts of buying as an avenue of handling and alleviating stress associated with hectic schedules. Such individuals according Lajeunesse and Rodríguez (2012) may buy compulsively with the intention of coping with stress and other negative emotions that come with their tight schedules. Thus, engaging in compulsive buying is a means by which some individuals who rank low on time affluence deal with their negative emotions. Generally, the argument that low time affluence influences individuals to buy compulsively is supported by many empirical studies (Gärling et al., 2014; Kasser and Sheldon, 2009; Lajeunesse and Rodríguez, 2012; Nilsson et al., 2017). Based on this, this study hypothesized that:

H4. A positive relationship exists between low time affluence and CBB.

CBB and loan dependence

Buying compulsively could have dire financial consequences for an individual. A common practice by compulsive buyers is the dependence on loans to finance their purchases. The argument is that such individuals consider buying of things as a means of alleviating unpleasant emotions and hence, may resort to borrowing when personal resources are not enough to finance the desire to purchase things (Black, 2007). Credit card debt, personal loans and advances are amongst the many forms loan dependence takes (Duh and Thorsten, 2019; Maraz et al., 2015; Mccarthy, 2011; Prawitz et al., 2006). Individuals who engage in compulsive buying struggle to control spending and may end up in high debt (Achtziger et al., 2015). In line with the proposition by Aw et al. (2018), this study posits that individuals with high compulsive buying tendencies are more likely to rely on other external parties or sources such as buying on credit and advances from financial institutions. Therefore, this study hypothesizes that:

H5. A positive relationship exists between CBB and loan dependence.

Loan dependence and financial trouble

Compulsive buyers who have access to credit facilities usually have an erroneous mental representation of being in control of their purchases (Aw et al., 2018). This illusion drives such individuals to unconsciously keep buying incurring excessive debts in the process. Such individuals therefore risk falling into financial trouble defined as the inability to make basic payments or promptly fulfil loan instalments (Black, 2007). Existing studies (Achtziger et al., 2015; Brougham et al., 2011; Roberts and Jones, 2001) generally conclude that compulsive buyers who are loan dependent tend to have difficulty in fulfilling their debt obligations and risk running into financial problems such as insolvency.

Accordingly, this study hypothesizes that:

H6. A positive relationship exists between loan dependence and financial trouble.

The moderating role of financial management

Financial management skills have implications on the savings and spending behaviour of individuals. Individuals with proper financial management skills do not spend or use money indiscriminately and tend to have some level of control over spending, especially, the unplanned ones. However, when financial management skills are weak, the tendency for an individual to spend and buy compulsively will be high (Duh and Thorsten, 2019). Accordingly, this study examines the effect of individuals' financial management skills on the predictors of CBB. Specifically, we argue that the effect of materialism, SES and time

affluence on CBB will vary in the presence of strong financial management skills. Again, it is predicted that the urge to depend on loans for a compulsive buyer is likely to change when financial management background of the individual is strong. Accordingly, the following hypotheses are proposed:

- H7. Financial management moderates the relationship between materialism and CBB.
- H8. Financial management moderates the relationship between SES and CBB.
- H9. Financial management moderates the relationship between time affluence and CBB.
- H10. Financial management moderates the relationship between CBB and loan dependence.

Methodology

Population, sampling technique and sample size

All business students in the University of Ghana Business school constituted the population of this study. Data was collected using multi-stage sampling technique by first classifying the population into the different department in the business school. Each department was further classified into four groups based on the different academic levels. This approach was adopted to improve the representativeness of the sample and to account for the differences in some key demographic characteristics of the respondents in our analysis. A total of 500 questionnaires were administered to different groups during class sessions in the first semester of 2019/2020 academic year. To ensure voluntary participation, encourage honest responses and minimize socially desirable responses from respondents, the purpose of the survey was explained to them, and respondents were assured of confidentiality of their responses. A total of 477 valid responses were used for the analysis out of the 500 questionnaires that were administered.

Descriptive characteristics of respondent

The questionnaire contained information on the demographic characteristics of respondents including the gender, age, year of study, course majors and socio-economic status (SES). Following prior studies (Abraham, 2016; Gaur, 2013; Huang and Hsieh, 2011) we measured the SES of our respondents who belonged to the youthful age group by reference to the educational level, occupation and housing status of their parents details of which are presented in Table 1. From the descriptive statistics shown in Table 1, there was almost an equal distribution of males and females with the females outnumbering the males by 48. Majority of the respondents were between the ages of 18–22 (83%) an indication the sample respondents belong to a very youthful population. Students in their final year constituted almost half of the respondents (43.2%) distantly followed by the second-year students. The socioeconomic information shows majority of the students are in the upper class (43%), with 33.3% of the respondents in the middle-class status. Details of the characteristics of the respondents are shown in Table 1.

Measurement of study construct

The dependent variable of the study, CBB, was measured by adopting the Faber and Christenson (1996) scale which assesses thoughts, effects and behaviour (before, during and after the purchase) and has been employed in many empirical studies (Iqbal and Aslam, 2016; Martinez-Novoa and Hodges, 2016a). Materialistic value was measured using the materialism scale (Rindfleisch *et al.*, 1997) while the indicators of personal financial management behaviour were adopted from Parrotta and Johnson (1998). Time affluence was measured

Demographic variable	Categories	Frequency	Percent	Antecedents of compulsive
Gender	Male	213	44.7	buying
	Female	264	55.3	
Age	Below 18	34	7.1	behaviour
8-	18–22	396	83.0	
	23–25	42	8.8	
	Above 25	5	1.0	203
Class level	100	53	11.1	
Oldes level	200	177	37.1	
	300	41	8.6	
	400	206	43.2	
Area of major	Not determined yet	88	18.4	
	Accounting	238	49.9	
	Finance	65	13.6	
	Marketing	7	1.5	
	Human resource	55	11.5	
	Public administration	24	5.0	
Nationality	Ghanaian	451	94.5	
rationality	Non-ghanaian	26	5.5	
SES information	Low class	113	23.7	Table 1.
SES IIIOIIIau0II	Middle class	159	33.3	
	Upper class	205	43.0	Descriptive Statistics on respondents
	Opper class	203	40.0	on respondents

using the validated Time Affluence Scale developed by (Kasser and Sheldon, 2009). Indicators of Loan dependence and financial trouble were adapted from (Black, 2007). The specific indicators used to measure each of the constructs are shown in Table 2.

Descriptive statistics of constructs

Table 2 presents the mean scores and standard deviations of the respondents' compulsive buying tendencies and the others constructs. Compulsive buying behaviour recorded an overall mean of 3.24 an indication that the propensity of students buying compulsively exists though not too high. The indicators "At times, I feel guilty after buying something" and "There are times when I have a strong urge to buy clothing, tapes, jewellery, etc." had the highest scores (Mean = 4.12 and 3.88 respectively; SD = 2.199 and 2.161 respectively). The indicator "Shopping is a way of relaxing and forgetting my problems" had the lowest average score (Mean = 2.44, SD = 1.924).

The overall mean score of the Material Value Scale was slightly above average (M=3.86, SD = 2.049), meaning that respondents endorse materialistic values to an extent. The indicator "My life would be better if I own certain things I do not have" had the highest score (M=4.52, SD = 2.139) whilst "I like to own things that impress people" had the lowest score (M=3.01, SD = 2.018).

The construct Financial Management had an overall mean score of 4.65, indicating that respondents exhibit a high level of personal management of finances. The indicator "I compare prices when I'm purchasing a product or service" had the highest mean score (M = 5.45, SD = 1.961) whilst "I keep a written or electronic record of my monthly expenses" had the lowest mean score (M = 3.72, SD = 2.025).

The construct loan dependence had an overall mean of 2.29. Given that the study adopted a seven-point Likert scale, this result suggests that dependence on loan is generally low among the sampled respondents. The indicator "I often buy products on credit" had the highest rating (Mean = 2.29, SD = 1.868) whilst the indicator "I buy almost everything on credit" recorded the least average score (Mean = 2.24, SD = 1.91).

IBSED Compulsive buying behaviour Mean Std. Deviation 324 2.075 When I have money, I cannot help but spend part or all of it 314 1978 I Often buy something I see in a store without planning, just because I've got to have it 2.88 2.027 Shopping is a way of relaxing and forgetting my problems 2.44 1.924 I Sometimes feel that something inside pushes me to go shopping 2.71 1.984 204 There are times when I have a strong urge to buy clothing, tapes, jewellery, etc 2.161 3.88 At times, I feel guilty after buying something 4.12 2.199 I Often have a real desire to go shopping and buy something 3.67 2.138 I Have often bought things that I do not need even when I knew I had very little money 2.181 3.17 As soon as I enter a shopping centre, I want to go in a store and buy something 3.16 2.082 Material values scale 3.86 2.049 My life would be better if I own certain things I don't have 4.52 2.139 The things I own say a lot about how well I'm doing 4.06 2.071 I Like to own things that impress people 3.01 2.018 I Admire people who own expensive homes, cars, and clothes 3.76 2.157 I Like a lot of luxury in my life 3.95 2.054 I Would be happier if I could afford to buy more things 4.41 2.124 Some of the most important achievements in life include acquiring material 3.75 2.010 possessions I Have all the things I really need to enjoy life 3.70 1.927 I Would not be any happier if I owned nicer things 3.33 1.939 The things I own are not all that important to me 3.65 2.012 I Put less emphasis on material things than most people I know 4.31 2.087 Financial management 4.65 1 970 I Compare prices when I'm purchasing a product or service 5.45 1.961 I Pay all my bills on time 4.91 1906 I Keep a written or electronic record of my monthly expenses 3.72 2.025 I Stay within my budget or spending plan 4.54 1.990 Loan dependence 2.26 1.89 2.29 1.868 I Often buy products on credit I Buy almost everything on credit 2.24 1.910 Financial trouble 2.83 2.01 2.83 1.999 I Had problems with monthly payments Last year, I often had longer financial trouble 2.91 1.971 I Could not pay my loan instalment because of other expenditures 2.76 2.065 Time affluence 1.93 3.61 My life has been too rushed 2.99 2.000 3.49 1.978 I Have had plenty of spare time 3.37 1.866 I Have been racing from here to there I Have had enough time to do what I need to do 3.67 1889 I Have been able to take life at a leisurely pace 3.72 1.902 There have not been enough minutes in the day I have had enough time to do things 3.80 1.928 Table 2. that are important to me Descriptive statistics of 4.23 1.938 constructs I Have felt like things have been really hectic

With respect to the construct financial trouble, the overall mean was 2.83 which indicates that respondents experience trouble with finances at a lower level. The indicator "Last year, I often had longer financial trouble." had the highest score (M=2.91, SD = 1.971) while the indicator "I could not pay my loan instalment because of other expenditures" had the lowest score (M=2.76, SD = 1.065).

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The construct time affluence had an overall mean score of 3.61 an indication that respondents generally have a balance in time. The indicator "I have felt like things have been really hectic". had the highest score (M = 4.23, SD = 1.938) while the indicator "My life has been too rushed" had the lowest score (M = 2.99, SD = 2.000).

Data analysis technique

Tests of the hypotheses of the study were done using the tested using the Partial Least Square (PLS) structural equation modelling (SEM) technique. SEM-based techniques are useful in testing and validating relationships and enable researchers to more effectively evaluate measurement models and structural paths involving latent constructs with multi-item indicator variables (Astrachan *et al.*, 2014). All constructs were modelled using reflective indicators. First, an assessment of the measurement model aimed at achieving an adequate level of construct reliability and validity was done and results are as shown in Tables 3 and 4.

Reliability and validity tests

Reliability of each construct was measured using the composite reliability (CR) scores as recommended by Hair *et al.* (2012). All the constructs of the study proved to be adequately reliable as the scores for the composite reliability measure exceeded the recommended threshold of 0.70 (Fornell and Larcker, 1981; Nunnally and Bernstein, 1978).

	CR	AVE
CBB	0.851	0.536
FM	0.748	0.608
FT	0.771	0.533
LD	0.905	0.827
MVS	0.835	0.599
SES	0.851	0.591
TA	0.778	0.637

Note(s): CR-Composite Reliability, AVE-Average Variance Extracted CBB-Compulsive Buying Behaviour; FM-Financial Management; FT-Financial Trouble; LD-Loan Dependence; MVS-Materialistic Values; SES-Socioeconomic Status and TA-Time Affluence

Table 3. CR and AVE

Construct	CBB	FM	FT	LD	MVS	SES	TA
CBB	0.732						
FM	-0.144	0.787					
FT	0.030	-0.121	0.820				
LD	0.247	-0.234	0.155	0.909			
MVS	0.313	-0.002	-0.012	0.072	0.748		
SES	0.072	0.007	-0.018	-0.081	0.011	0.769	
TA	0.213	-0.012	-0.029	0.188	0.268	0.027	0.724

 $\label{eq:Note} \textbf{Note(s):} \textit{CBB}-\textbf{Compulsive Buying Behaviour;} \textit{FM}-\textbf{Financial Management;} \textit{FT}-\textbf{Financial Trouble;} \textit{LD}-\textbf{Loan Dependence;} \textit{MVS}-\textbf{Materialistic Values;} \textit{SES}-\textbf{Socioeconomic Status and} \textit{TA}-\textbf{Time Affluence}$

Table 4. Fornell-larcker results

To test for validity, convergent and discriminant validity of the instruments were checked. Convergent validity was assessed using the average variance extracted (AVE). The AVE scores of all the constructs met the recommended minimum threshold of 0.5 (Hair *et al.*, 2013) as shown in Table 3. For discriminant validity to be assured, the square root of the AVE scores of the factors should be larger than the correlations between the constructs (Fornell and David, 1981). Again, the results of this test as presented in Table 4 demonstrate that discriminant validity is assured as the AVE scores for the factors were greater than the squared cross-correlations of the constructs.

Lastly, multicollinearity test was conducted to ensure that our results are not influenced negatively by collinearity problems. Test results as shown in Table 5 suggest the absence of multicollinearity problem as the Variance Inflation Factor (VIF) values for the constructs were far below the maximum threshold of 10 (O'Brien, 2007). Based on these satisfactory results the structural was assessed using the bootstrapping procedure. The final model showing the indicators included in the structural model analysis with their respective loadings is as shown in Figure 1.

Discussion of results

The bootstrapping results as shown in Table 5 suggest materialism has a positive and highly significant relationship ($\beta = 0.279$, and p-value = 0.000) with CBB. This is an indication that

Hypothesis	Hypothesis	Coefficients	p values	Remarks
H1	$MVS \rightarrow CBB$	0.291	0.000	Accepted
H2	$SES \rightarrow CBB$	0.013	0.187	Rejected
НЗ	$FM \rightarrow CBB$	-0.128	0.005	Accepted
H4	$TA \rightarrow CBB$	0.216	0.000	Accepted
H5	$CBB \rightarrow LD$	0.211	0.000	Accepted
H6	$LD \rightarrow FT$	0.151	0.001	Accepted
R^2	CBB	0.066		_
	FT	0.535		
	LD	0.019		
Q^2	CBB	0.066		
-	FT	0.535		
	LD	0.019		

Table 5. Coefficients and *p*-values for hypotheses

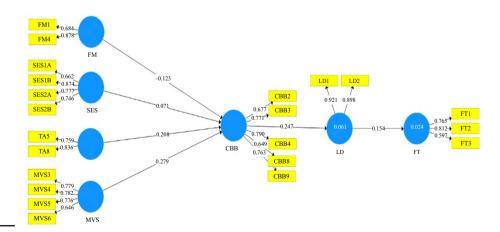


Figure 1. A structural model showing the antecedents and consequences of compulsive buying behaviour

the tendency to buy compulsively is high when one an individual has a strong attachment to material possession. Materialistic individuals according to Donnelly *et al.* (2016) exhibit tendencies that suggest that happiness is tied up to material possessions and would therefore go lengths to acquire them. Indeed, materialistic individuals do not only acquire material possessions to obtain pleasure, arousal and gratification from them but also tend to buy compulsively to make up for their negative feelings. Several empirical studies (Dittmar *et al.*, 2014; Donnelly *et al.*, 2016; Johnson and Attmann, 2009; Unger and Raab, 2015) have reported results consistent with the fact that materialism has a positive effect on compulsive buying tendencies of individuals. This finding, therefore, supports the predicted hypothesis (H1).

Our results also suggest that socioeconomic status (SES) correlates positively with compulsive buying tendencies though the relationship is statistically insignificant. Notwithstanding this, the positive coefficient demonstrates that individuals who have higher levels of socio-economic status have greater motivation to buy compulsively compared with lower-level socioeconomic status people. Although individuals belonging to high social class are believed to be future oriented and rational in decision making and would usually save their incomes and delay gratification, it has been argued that individuals who perceive high social status as desirable are more prone to buy compulsively. Given that the frequency of buying status products or owning a number of possessions matters for an individual's status (Wang and Tsai, 2017), the quest for recognition of status may be associated with CBB. This result supports the findings of Michael (1998) and the argument of a shift in cultural identity and the unique characteristics of individuals with high socioeconomic status.

As expected, our results show a negative and highly significant relationship between financial management and CBB. By implication, individuals with strong financial management background tend to have lower compulsive buying tendencies. The argument is that such individuals generally exert self-mastery over mundane finances and are able to take rational decisions on consumption. Regardless of their emotional feelings, such individuals are inherently driven to compare intended compulsive purchases with actual budgeted purchases which tends to limit them in terms of buying compulsively to alleviate negative feelings. Empirically, findings in most existing studies (Alemis and Yap, 2013; Bir, 2014; Taft *et al.*, 2013) support the assertion that individuals with proper financial management practices are more likely to stick to their budgets even when plagued with negative emotions. This finding thus, confirms the stated hypothesis (H3) and the assertion that financial management is an important predictor of compulsive buying tendencies.

The result also shows a positive association between low time affluence and CBB. These findings indicate that CBB is high among individuals with heightened levels of busyness. It has been established that low time affluent individuals do not only experience negative emotional states like anxiety, insecurity, guilt etc. often but also cope poorly with stress (Giluk and Postlethwaite, 2015). Heightened levels of stress may induce compulsive buying in low time affluent individuals motivating them to continuously engage themselves with purchases and other inappropriate behaviour. As demonstrated by some studies, there is a strong positive connection between heightened levels of busyness and CBB (Manolis and Roberts, 2012; Lajeunesse and Rodríguez, 2012). The result supports the stated hypothesis (H4).

An important objective of this study was to ascertain whether CBB could be associated with Loan dependence of individuals. In line with the predicted hypothesis, we find CBB to be significant and positively associated with the tendency of an individual to depend on loans. This is an indication that the tendency to borrow or resort to other forms of credit is high with individuals who buy compulsively. This result in effect supports the argument of existing empirical studies (Aw et al., 2018; Brougham et al., 2011; Prawitz et al., 2006). As pointed out by Aw et al. (2018), the persistent purchase of material goods as a result of negative feelings

leads to dependence on credit as incomes of compulsive buyers at a point may not be enough to support such lifestyle.

Lastly, we find a positive and significant relationship between Loan dependence and Financial trouble which suggests that the likelihood of getting into financial trouble is high among individuals who depend on loans as a result of their compulsive buying tendencies. This finding is supported by a number of existing studies (Aw et al., 2018; Mccarthy, 2011).

Moderation analysis

To ascertain whether in the presence of strong financial management background the relationship between the identified predictors and CBB as well as the effect of CBB on loan dependence could change in any way, we performed a moderation analysis with financial management as the moderator.

Discussion of moderation results

As shown in Table 6, the interaction between financial management and materialism resulted in a negative and highly significant relationship with CBB. This is a demonstration that good financial management background moderates the relationship between materialism and CBB. By implication, regardless of one's endorsement and indulgence in materialistic values, there would be minimal motivation to engage in CBB if individuals have developed their financial management skills to the extent that it is ingrained in them. As Asad Shahjehan (2012b) surmise when materialistic individuals have a strong mastery over the use of their finances, the likelihood engaging in CBB as a means of combating negative emotions would be low. Financial management skills are therefore relevant in minimizing the tendency to buy compulsively by materialistic individuals.

The interaction of financial management with time affluence also yielded a negative path coefficient in line with our expectation but statistically insignificant relationship. Similarly, the interactive effect of financial management on loan dependence was negative an indication that the tendency to resort to loans will be low for a compulsive buyer with strong financial management background. The interaction of financial management and socioeconomic status however, yielded a positive relationship with CBB an indication financial management failed to moderate the predicted relationship.

Conclusion

Research into why some individuals consistently spend beyond their needs and the inability to resist the inner urge to make repeated purchases has been on ascendency in recent times. While literature on this subject matter is rich, extant studies have focused predominantly on the antecedents and consequences of compulsive buying behaviour (CBB). In particular, the

Hypothesis path	Coefficients	p values	Remarks
FM* MVS \rightarrow CBB	$\begin{array}{c} -0.084 \\ 0.013 \\ -0.030 \\ -0.054 \end{array}$	0.056	Accepted
FM *SES \rightarrow CBB		0.799	Rejected
FM *TA \rightarrow CBB		0.291	Rejected
FM* CBB \rightarrow LD		0.561	Rejected

Note(s): FM*MVS—Financial Management interacting with Materialism, FM *TA—Financial Management interacting with Time Affluence, FM *SES—Financial Management interacting with Socioeconomic Status: FM*CBB—Financial Management interacting with Compulsive buying

Table 6. Moderation results

role of materialistic values and its relationship with CBB has received significant research attention with most studies concluding that materialism correlates positively with CBB (Islam *et al.*, 2018). The current study examines the materialistic values and CBB-nexus from a developing country setting while highlighting the role of time affluence and socio-economic status of an individual on the tendency to buy compulsively. Additionally, the study investigates the effect of CBB on the tendency of an individual to depend on loans and the risks of falling into financial trouble. Unlike most existing studies however, this study ascertains moderating role of financial management in these relationships.

In line with our expectation and consistent with existing studies, we find materialism, socioeconomic status, time affluence and financial management to be important predictors of CBB. CBB was found to be positively associated with loan dependence while the risk of falling into financial trouble was found to be high among individuals who depend on loans to buy compulsively. Our results suggest financial management skills moderate favourably the effect of these relationships. While the findings of this study emphasize the role of financial management in dealing with addictive behaviours such as the tendency to buy compulsively, the results also indicate that CBB may not only lead to short-term problems in life (e.g. increased stress, low grades, problems with family and friends) as documented in empirical studies but may also have long term consequences such as debt burdens and getting an individual into financial trouble.

Taken together, our findings suggest equipping young people with financial management skills is key in minimizing their compulsive buying tendencies and the consequences thereof. Given that the tendency to buy compulsively is suppressed even among high materialistic individuals when financial management skills is strong, an important way of changing the attitude of individuals caught in this addictive behaviour is to improve their financial management skills. On the basis of this we recommend that any intervention meant to address the compulsive buying tendency of individuals especially the youth should among other things focus on financial education and counselling directed at improving financial management skills. Specifically, the teaching of basic personal financial management skills such as cash and credit management, budgeting, and savings at school should form an important component of the training of young people at the foundation stage of their schooling life.

Also, as financial management skills are not only obtained through the formal education system, parents, who play an active role in the informal socialization development of their wards should nurture the financial knowledge and skills of their children. This would go a long way to expose the young people to financial concepts, planning of finances and improvement in their capacity to understand and handle their finances.

Like all research, this study suffers from potential limitations including the fact the sample is primarily made up of university students thereby not representing a greater spectrum of consumers. Using a more diverse sample could help improve the generalization of the findings. Also, the study only examined students who are likely to have compulsive buying tendencies rather than identified chronic compulsive buyers alongside its connectivity with an array of other disorders. The results should, therefore, be interpreted with care as tendencies most certainly change overtime. These limitations, however, provide important avenues for future research.

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