

PSYCHOLOGICAL ANTECEDENTS OF IMPULSIVE & COMPULSIVE BUYING: A HIERARCHICAL PERSPECTIVE

Tao Sun
Emerson College

Guohua Wu
San Jose State University

Seounmi Youn
Emerson College

Abstract

This study developed a structural equation model that investigates the hierarchical relationships among Big Five factors, impulsive buying and compulsive buying. It identified positive relationships between impulsive buying and compulsive buying, between emotional instability and the two traits, and between impulsive buying and two other personality traits (openness and extraversion).

Introduction

Quality research has been conducted in the areas of impulsive buying (e.g., Rook & Fisher, 1995) and compulsive buying (e.g., O'Guinn & Faber, 1989) separately. Arguments and propositions have been made on the relationship between the two purchase-related traits. Although Mowen (1999) found that impulsiveness (not impulsive buying) was a strong predictor of compulsive buying, no formal publication has examined the relationship between impulsive buying and compulsive buying at the same time on the same population (or sampling) base. This study represents an effort to examine the purchase-related scales concurrently. More importantly, it seeks to uncover the hierarchical relationships among Big Five personality traits, impulsive buying and compulsive buying. This is a significant area to study, since detailed analyses of the relationships between scales representing different forms of purchase behavior will offer insights into the structure of purchase-related traits, while at the same time provide evidence about the usefulness of the proposed typology. Also, consumers' standing on the purchase-related traits could be related to more basic personality dimensions (e.g., Big Five factors) so as to find out to what extent different purchase behaviors have their roots in more basic tendencies of the individual consumer (Baumgartner, 2002).

Hypotheses and Research Question

Impulse buying tendency is defined as the "degree to which an individual is likely to make unintended, immediate, and unreflective purchases" (Weun et al., 1997, p. 306). Impulsive buyers tend to purchase things spontaneously and kinetically (Rook & Fisher, 1995). Considered a common consumer behavior, impulsive purchases are usually made in a store that are different

from those a consumer planned to make entering the store. High impulse buyers are more likely to have more open shopping lists, are more likely to be receptive to sudden and unexpected buying ideas, and are more apt to respond to spontaneous buying stimuli (Bearden & Netemeyer, 1999). Many stores rely on impulse spenders for profit and arrange their products to make an impulse purchase more likely. Verplanken and Herabadi (2001) developed a 20-item scale to measure general impulse buying tendency, which included cognitive aspects (e.g., lack of planning) and affective aspects (e.g., feeling of excitement). Then they correlated their scale with the five-factor personality inventory (extraversion, agreeableness, conscientiousness, emotional stability and autonomy) (Hendriks et al., 1999). They found that the complete scale correlated positively with extraversion, negatively with conscientiousness and autonomy. Emotional stability and agreeableness were unrelated to impulse buying tendency.

Compulsive shopping is different from impulsive buying in that the trait, also known as oniomania, has been classified by the American Psychological Association as an under-recognized and hard-to-treat disorder. Compulsive buying disorder is characterized by excessive or poorly controlled preoccupations, urges, or behaviors regarding shopping and spending (Black, 2001). As an abnormal or aberrant form of consumer behavior, compulsive consumption is “typified by chronic buying episodes of a somewhat stereotyped fashion in which the consumer feels unable to stop or significantly moderate the behavior(s)” (Bearden & Netemeyer, 1999, p. 52). Psychiatric research indicated that compulsive buying has the earmarks of a psychiatric disorder (Black, 1996). Desarbo and Edwards (1996) linked compulsive consumption to such traits as dependence, materialism, perfectionism, denial, depression, approval seeking, low self-esteem, excitement seeking, and lack of impulse control. Valence et al. (1988) identified positive and significant correlations between compulsive buying scale on the one hand and depression, anxiety and nervousness on the other. Black et al. (1998) also found that compulsive buyers were more likely than comparison subjects to develop lifetime mood disorders (especially major depression).

Mowen and Spears (1999) developed a hierarchical model in which the Big Five personality factors were employed as cardinal traits (independent variables), the needs for arousal and for materialism as central traits (mediating variables), and compulsive buying as the surface traits (dependent variables). Mowen and Spears (1999) employed the traits of extraversion, agreeability, conscientiousness, emotional stability, and openness to experience that were found in the Big Five model developed by Goldberg (1992) and refined by Saucier (1994). Among other things, Mowen and Spears (1999) found positive relationships between compulsive buying and neuroticism (emotional instability), and between compulsive buying and agreeableness. A negative relationship was found between compulsive buying and conscientiousness. No relationships were established between compulsive buying and the other two Big Five factors, extraversion and openness (or creativity). By modeling the cardinal, central and surface traits at the same time, Mowen and Spears (1999) demonstrated a means for understanding the psychological antecedents of certain surface traits. Another study by Mowen (2000) investigated the mediating role of impulsivity. In his diagram, Mowen included the Five-Factor traits, as well as need for material resources (materialism), need for body resources, and need for arousal, as elemental traits (independent variables), with impulsiveness and competitiveness as mediating variables, and compulsive buying as dependent variable. The results revealed that emotional stability, introversion, openness to experience, and conscientiousness were negatively related to a measure of impulsiveness. Materialism was positively related to impulsiveness. The model accounted for 30 percent of its variance of

impulsiveness. In turn, a positive relationship was found between impulsiveness and compulsive buying. Other significant predictors of compulsive buying were emotional instability (negative relation), conscientiousness (negative relation), and materialism (positive relation). The model accounted for 31 percent of the variance in compulsive buying.

One of Mowen's above findings confirmed a well-documented relationship between impulsivity and compulsive buying (e.g., DeSarbo and Edwards, 1996; Lejoyeux et al., 1997). Nonetheless, the relationship between impulsive buying (a purchase-related trait) and compulsive buying has been suggested by many, but not been proven empirically. For example, as O'Guinn and Faber (1989) argued, impulsive buyers undergo an acute loss of impulse control while they are shopping, whereas compulsive buyers suffer from a chronic loss of impulse control that develops into a repetitive pattern marked by much more dire consequences than that experienced by the impulsive shopper. Thus they suggested that compulsive buying is a much more serious phenomenon than impulsive buying. According to them, impulsive consumers are not as extreme in their behavior as compulsive consumers, and they merely qualify as being materialistic. In other words, impulsive buying is a behavior pattern that happens to ordinary consumers.

Both of these two purchase-related constructs seem to be related to a loss of impulse control. The difference tends to lie in the degree of the loss of impulse control, which we believe can be measured by the same impulsiveness scale developed by Puri (1996) and used by Mowen (1999). It is also our belief that impulsiveness has the same psychological valence as emotional instability. Other sources even suggested that impulsive buying could lead to compulsive buying behavior (Zanella, 2001). In sum, our inspection of previous literature seems to suggest that both impulsive buying and compulsive buying can be traced to the same cardinal psychological traits. It is also possible that impulsive buying as a central trait, along with cardinal traits (Big Five factors), will help predict compulsive buying as a surface trait. These propositions and previous literature review lead to the development of two hypotheses and three research questions (RQ) for this study.

H₁: A positive relationship will be found between impulsive buying and compulsive buying.

H₂: Both impulsive buying and compulsive buying will be positively related to neuroticism (emotional instability).

RQ₁: Can previously reported correlates of impulsive buying and compulsive buying be replicated in this study? Such as positive relationship between extraversion and impulsive buying, positive relationship between agreeableness and compulsive buying, and negative relationships between conscientiousness and each of the two purchase-related traits.

RQ₂: How much variance in impulsive buying can be accounted for by Big Five factors?

RQ₃: How much variance in compulsive buying can be accounted for by Big Five factors and impulsive buying?

Method

The objective of this study is not to find diagnosable compulsive and impulsive consumers among a sample of subjects. Instead, it aims at examining the hierarchical relationships among Big Five personality traits, impulsive and compulsive buying tendencies that exist in the same sample of subjects.

Using three previously established scales, the study developed a questionnaire with three major sections. The first section contained questions designed to measure a person's level of compulsive buying. Participants were instructed to read a series of statements regarding their consumption tendencies and rated how strongly they personally agree or disagree with these statements, where “-3” indicates “strong disagreement,” “0” means “neither agreement nor disagreement” and “3” signifies “strong agreement.” There are a total of fourteen questions, which were taken verbatim from Faber and O’Guinn’s compulsive consumption scale (1989).

The second section contained questions designed to measure the impulsive buying. It is a combination of buying impulsiveness scale developed by Rook and Fisher (1995) and impulse buying tendency scale by Weun et al. (1997). These two scales were put together in our survey because the impulse buying tendency scale by Weun et al. (1997) took account of a new dimension of impulsive buying, that is, the hedonic (or emotional) dimension of engaging in impulsive buying (e.g., It is fun to buy spontaneously). However, this dimension was not covered in the buying impulsiveness scale (Rook & Fisher, 1995). It is hoped that a combined scale of impulsive buying reflects both the cognitive and emotional aspect of the impulsive buying. Thus this study combined the scales by Rook and Fisher (1995) and Weun et al. (1997) and created a 14-item scale, which contains two items with reverse scoring. Like the compulsive buying scale, the combined impulsive buying scale was measured on a 7-point Likert scale from “-3” to “3”.

The third section was designed to examine the participant’s personality traits. The 50-item personality questions were adapted from the 40-item Big Five personality scale developed by Saucier (1994), with additional question items taken by Mowen and Spears (1999) from Trapnell and Wiggins (1990), and Duijsens and Diekstra (1995). The confirmatory factor analysis conducted by Mowen and Spears on Saucier’s 40-item scale failed to confirm the structure of Five-Factor model. We were concerned that we would not be able to successfully confirm the structure either by simply adopting Mowen and Spears’ refined scale. So we decided to combine both of them in the hope of developing a satisfactory Five-Factor model out of these combined items by using confirmatory factor analysis. The personality items, which ask respondents how accurately they describe themselves, were measured on a 9-point scale, from “1” (extremely accurate) to “9” (extremely inaccurate).

Two hundred and twenty-four college students (at both graduate and undergraduate levels) volunteered to participate in the study. These subjects mainly attended a state university on the west coast and the rest of them went to a private college on the east coast. Once the surveys were collected, questions and answers were coded and entered into the SPSS for data mining and analyses. Recodings were done on reverse scored questions. Separate reliability tests for both compulsive and impulsive questions were conducted. The Cronbach’s alpha was 0.79 for 14 compulsive questions, close to the alpha level (alpha = .82) originally reported by Faber and O’Guinn (1989) in their 14-item initial scale development. The 14 impulsive questions produced an alpha of 0.90, higher than the alpha of .82 reported by Rook and Fisher (1995) for their original 9-item buying impulsiveness scale (the alpha level for the 5-item impulsive buying tendency scale by Weun et al. was not reported). Impulsive questions were thus averaged to form an overall score that measures impulsive buying. Compulsive questions were averaged to create an overall composite score that measures compulsive buying.

An exploratory factor analysis with the expectation of extracting 5 factors was first conducted on the 50-item personality questions. Items with factor loadings lower than .50 were deleted from the original list (because they tended to spread across several factors). There were 33 items left with 5 items measuring conscientiousness, 7 items for extraversion, 7 items for

neuroticism (emotional instability), 7 items for agreeableness, and 7 items for openness. Using Amos 4.01, we performed a confirmatory factor analysis on the 33 items. The results revealed a satisfactory fit, with $\chi^2 = 1149.4$, $df = 495$, $p < .00$, CFI = .97, NFI = .95, TLI = .96, RFI = .94, RMSEA = .08. The paths between the five latent variables (Big Five factors) and their corresponding items were all significant at $p < .00$. As a result, new scales that measure Big Five personality traits were created out of the 33 items. All coefficient alphas were higher than .81 (Table 1).

With the help of Amos 4.01, a structural equation model was established, with the Big Five personality traits serving as exogenous variables (cardinal traits), impulsive buying scale as the mediating variable (central traits), and compulsive buying scale as the dependent variable (surface trait). The modification indexes were examined to eliminate or add path as necessary. Figure 1 provides the results of this model.

Results and Discussion

The fit indexes for the hierarchical model were satisfactory, with $\chi^2 = 14.4$, $df = 6$, $p < .05$, CFI = .99, NFI = .99, TLI = .99, RFI = .98, RMSEA = .08 (Figure 1). A path from impulsive buying to compulsive buying was significant at $p < .00$, supporting the first hypothesis that these two purchase-related traits are significantly related. The paths from neuroticism (emotional instability) to compulsive buying, and from neuroticism to impulsive buying, were both significant at $p < .01$, thus supporting the second hypothesis that both consumption traits were positively related to the psychological trait of emotional instability. As was also indicated in Figure 1, the path from extraversion to impulsive buying was also marginally significant at $p < .10$, further replicating a previous finding by Verplanken and Herabadi (2001). However, this model was not able to replicate previous reports about the positive relationship between agreeableness and compulsive buying (Mowen & Spears, 1999), negative relationship between conscientiousness and impulsive buying (Verplanken & Herabadi, 2001), negative relationship between conscientiousness and compulsive buying (Mowen & Spears, 1999;) (Tao, the relationship between conscientiousness and compulsive buying is confusing because even Mowen contradicts himself in his 1999 and 2000 articles)(though this study indicated a negative relationship, but it was not statistically significant). It shows the necessity of more extensive future research on investigating correlates of impulsive buying and compulsive buying. The hierarchical model also identified an additional significant direct path to impulsive buying that was not originally hypothesized or reported elsewhere. The path from openness to impulsive buying was significant (at $p < .05$), a seemingly surprising finding, since a negative relationship was previously identified between impulsiveness (though not impulsive buying) and openness to experience by Mowen (2000). However, we believe the positive path from openness to experience to impulsive buying is understandable, because unplanned and impulsive purchase is associated with tendencies to be creative, original and imaginative. Despite the significant direct paths from neuroticism, extraversion and openness to impulsive buying, only 6% of the variance in impulsive buying was accounted for by the Big Five personality traits. As a comparison, impulsive buying, along with the Big Five factors, accounted for 44% of the variance in compulsive buying (which also demonstrates the effectiveness of this model). The discrepancy in terms of the variances explained for impulsive buying and compulsive buying provides empirical evidence for the argument that impulsive buying occurs as a response to external stimuli (e.g., situational factors such as point-of-purchase displays), while compulsive buying results from an

internal and psychological trigger, such as emotional instability, anxiety and impulsivity (DeSarbo & Edwards, 1996), and in this study, impulsive buying.

Conclusion

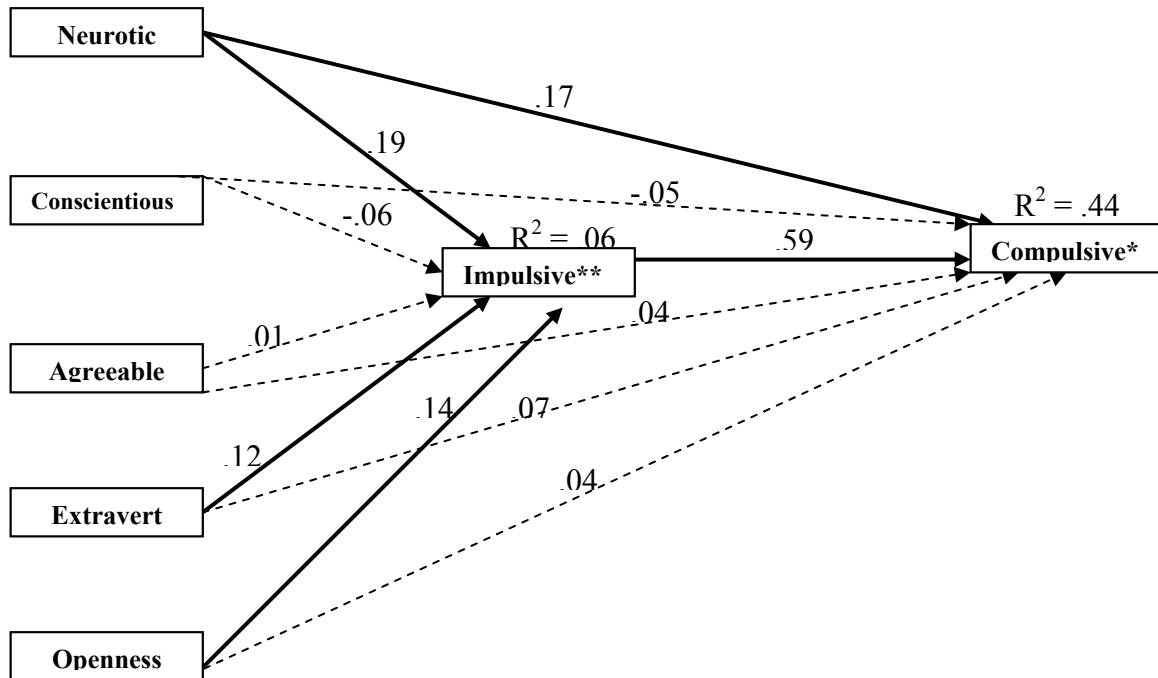
This study developed a structural equation model that investigates the hierarchical relationships among Big Five personality traits, impulsive buying and compulsive buying. It identified positive relationships between impulsive buying and compulsive buying, between emotional instability and the two purchase-related traits, and between impulsive buying and two other personality traits (openness and extraversion). While the study replicated previous findings on the characteristics of impulsive buying and compulsive buying, it provided partial (if not indirect) evidence for previous suggestions that impulsive buying behavior tends to be motivated by immediate gratification and are more likely to be prompted by the physical proximity of a desired product (Rook & Fisher, 1995), and less likely by inner (cardinal) personality traits. On the other hand, the study demonstrated that a significant amount of variance in compulsive buying can be accounted for by cardinal and central traits, especially emotional instability and impulsive buying, further supporting the argument that compulsive purchases are activated by psychological tension (Valence et al., 1988) and respond to negative feelings or events (Faber & O'Guinn, 1992). As previous studies suggested (O'Guinn & Faber, 1989), impulsive buying might be derived from an occasional loss or lack of impulse control. When the occasional lack of impulse control accumulates to a certain point where a chronic loss of impulse control occurs, impulsive buying might develop into compulsive buying.

Table 1. Items Included to Measure Big Five Personality Traits

A. Neuroticism (Emotional Instability) ($\alpha = .81$)
1. Moody more than others
2. Emotions go way up and down
3. Testy more than others
4. Temperamental
5. Fretful
6. Jealous
7. Touchy
B. Conscientiousness ($\alpha = .82$)
1. Organized
2. Disorganized R
3. Orderly
4. Efficient
5. Sloppy R
C. Agreeableness ($\alpha = .81$)
1. Sympathetic
2. Kind to others
3. Warm
4. Tenderhearted with others
5. Cold to others R
6. Unsympathetic R
7. Rude with others R
D. Extraversion ($\alpha = .84$)
1. Quiet when with people R
2. Shy R
3. Talkative when with others
4. Withdrawn from others R
5. Feel uncomfortable in a group of people R
6. Feel bashful more than others R
7. Extroverted when with people
E. Openness ($\alpha = .82$)
1. More original than others
2. Frequently feel highly creative
3. Appreciate art
4. Enjoy beauty more than others
5. Find novel solutions
6. Imaginative
7. Uncreative R

Note: R indicates that item is reverse scored.

Figure 1. Path Model for Big Five Personality Traits, Impulsive Buying and Compulsive Buying



Note: All the above paths represented by solid lines were statistically significant at least at $\rho < .10$. The paths represented by dotted lines were not significant.

*Compulsive = Compulsive Buying; **Impulsive = Impulsive Buying.

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