

The Effect of Credit Card on the Compulsive Buying Behavior Intention

Wan-Rung Lin^{8*}, Yi-Hsien Wang¹, Fu-Ju Yang¹, NiLuh Shanthi Sekarini¹

Received: 29 August 2013 / Received in revised: 18 September 2013 / Accepted: 3 October 2013

Abstract

Compulsive buying behavior is increasingly recognized as a growing problem among consumers in general. Considered as a side effect of materialism and the dark side of consumer behavior, compulsive buying has been under scrutiny by numerous customer researchers as well as marketers because of its serious impact on the individual and the public. The key determinant of compulsive buying behavior is credit card. Therefore, the increasing of credit card use in consumer lifestyle can bring an effect to the compulsive buying behavior. This study regards the intention to use credit card and possibility of overuse credit card as a crucial factors for compulsive buying behavior. Percieved value of credit card, fashion oriented, self esteem, power prestige, risk taking elemental personality traits are important factors that determines the intention to use credit card and possibility of overuse credit card. This study aims to fill this research gap by firstly developing a comprehensive research framework for compulsive buying behavior. The research model will be evaluated through questionnaire survey by targeting the samples from the bank credit card customers in Indonesia. Multivariate data analyses will be adopted to empirically test the developed research hypotheses. The preliminary result of this study are the intention to use credit card and possibility of overuse credit card tend to have a positive relationship to compulsive buying behavior.

Keywords: *Compulsive Buying Behavior, Percieved Value of Credit Card, Fashion Oriented, Self Esteem, Power Prestige, Risk Taking and Elemental Personality Traits*

JEL Classification: G10, G20, G21

⁸ Department of Banking and finance, ChineseCulture University, Taipei, Taiwan.

* Corresponding author, E-mail address: linyumiko@gmail.com.

1. Introduction

Compulsive buying is chronic, repetitive purchasing that becomes a primary response to negative events or feelings (O'Guinn and Faber, 1989) is increasingly recognized as a growing problem among consumers in general (Benson, 2000). One of the primary factors attributed to this increase is that we live in a consumer culture that embraces materialism (Belk, 1985; Chaplin and Roedder John, 2007). Considered as a side effect of materialism and the dark side of consumer behavior, compulsive buying has been under scrutiny by numerous consumer researchers as well as marketers because of its serious impact on the individual and the public. The variables of intention to use credit card and possibility of overuse credit card are adopted as a determinants of compulsive buying behavior (Park and Burns, 2005 ; Amin, 2007 ; Palan et.al, 2011 ; Pirog and Roberts, 2007).

Evidence of consumers desire to consume is increased credit card use among that cohort (Dickler 2008; Hook 2006; Mansfield and Pinto 2007). Sallie Mae (2009), a national provider of savings and paying for college programs, reported that 23 percent of college freshmen arrived on campus with credit cards in 2001 but that this percentage increased to 39 percent in 2008. Some of the credit card charges are related to attending college, such as books and supplies, and about 30 percent put tuition on their credit cards (Sallie Mae 2009). However, college students freely acknowledge that they use their credit cards to pay for discretionary items such as food away from home, entertainment, alcoholic beverages, and tobacco (Joo, Grable, and Bagwell 2003).

Moreover, Park (2003) found credit card usage to be the most influential factor as a determinant of compulsive behavior. Based on the research of Amin (2007) and Park & Burns (2005), the fashion orientation and perceived value of credit card will be the determinants of the intention of using credit card. TV home shoppers who purchased fashion goods showed a higher degree of compulsive buying than those who purchased non-fashion goods. Based on this finding, Park (2003) raised the need for further research encompassing various fashion-related variables to better understand compulsive buying behavior. Perceived value of credit card also an important factor that determines the intention of credit card usage. Since, many researchers have found that security and privacy influence

consumer behavior (Luarn and Lin, 2005; Kleijnen et al., 2004; Wang et al., 2003; Warrington et al., 2000; Hoffman et al., 1999), this study also included that variables into the perceived value of credit card.

The personal financial problems will be compounded for those costumers with compulsive buying tendencies—they potentially face not just credit card debt, but also depression, anxiety, and broken relationships (Roberts and Jones 2001). Given these issues, this study posits credit card misuse as a behavior that mediates relationships between personal characteristics and compulsive buying behavior. Based on the research of Pirog and Roberts (2007) and Palan et.al (2011), the personal characteristics that will be the determinants of possibility of overuse credit card is elemental personality traits, self-esteem, power prestige and risk taking. The consumption lifestyle have been raised drives individuals to use the power and prestige that money represents to enhance their self-esteem (Watson 2003). Self-esteem and power-prestige have been previously identified as significantly related to compulsive buying (Norum 2008; O’Guinn and Faber 1989; Roberts and Jones 2001), and risk-taking, a dimension of self-control, has been shown to be significantly related to whether or not costumers carry credit card debt (Mansfield, Pinto, and Parente 2003). This study present a brief literature review on the variables in the model and then report the results of survey data collected from online questionnaire. Implications of the study’s findings for public policymakers, business managers, and researchers are discussed.

The objectives of this study are to examine the effect of intention to use credit card and possibility of overuse credit card on compulsive buying behavior, to investigate the effect of fashion oriented and perceived value of credit card on intention to use credit card, and to investigate the effect of elemental personality traits, self esteem, power prestige and risk taking on possibility of overuse credit card. This paper proceeds as follows: the next section will present a discussion on literature review, hypotheses development and followed by research model. Followed by the section that renders a discussion on research methods employed in this study. The last section will provide findings of the research in order to support the research objective. Finally in the last part, conclusion, practical implications and limitations of the study are discussed.

2. Literature Review and Hypotheses Development

2.1 Fashion Orientation

In identifying clothing-fashion life style segment, Gutman and Mills (1982) developed fashion orientation factor composed of four dimensions :

- (1) Fashion leadership
- (2) Fashion interest
- (3) Importance of being well dressed
- (4) Anti-fashion attitude

Sharing the common ground with Gutman and Mills (1982), Huddleston et al. (1993) used fashion orientation to identify lifestyle characteristics that are directly related to shopping behavior and Lumpkin (1985) included it as a variable in identifying shopping orientation segment. In addition, Darley and Johnson (1993) found that American female adolescents' shopping behaviors were influenced by fashion orientation.

According to Richins (1994), materialists are more likely to value possessions for their status and appearance. As pursuing fashion is important to people living materialistic lifestyles, fashion orientation itself may be considered as materialistic. Considering that clothing is one of the best means to show off status and appearance, it may be reasonable to assume there is a strong relationship between fashion orientation and materialism. This assumption together with the finding that there is a strong relationship between materialism and credit card use by Rindfleisch et al. (1997), it is hypothesized that fashion orientated consumers to be heavy credit card users. Consumers who tend to have fashion leadership and interests and know the importance of being well dressed might use their credit cards more often to "buy now and pay later" for clothing they might not be able to afford to buy without credit cards, while those who have anti-fashion attitude are least likely to use their credit cards to buy clothing they cannot afford. Therefore, we propose the following hypothesis:

Hypothesis 1: Among the factors of fashion orientation, three factors - fashion leadership (a), fashion interest (b), and importance of being well dressed (c) - have a positive effect on intention to use credit card, while anti-fashion attitude (d) does not promote credit card use.

2.2 Perceived Value of Credit Card

Davis (1989) defined perceived usefulness as the degree to which a person believes that using a particular system would enhance his or her job performance was based on. There is extensive research in the IS community that provides evidence of the significant effect of perceived usefulness on usage intentions (Cheong and Park, 2005; Chiu et al., 2005; Luarn and Lin, 2005). Moreover, Cheong and Park (2005) and Chiu et al. (2005) found that perceived usefulness positively influences online purchase intentions and mobile internet, respectively. These studies results are consistent with the Luarn and Lin (2005) findings, who found that perceived usefulness has a positive effect on usage intentions of mobile banking.

The usage intentions for mobile credit card can also be affected by the security and privacy concerns. Indeed, these issues are classified as perceived credibility. This perceived credibility refers to the two important dimensions namely security and privacy (Wang et al., 2003). By definition, perceived credibility is one's judgment on the privacy and security issues of the mobile credit card system. Further, Wang et al. (2003) found perceived credibility is significantly related to the technology acceptance of internet banking. Luarn and Lin (2005) also found that there exists a positive causality between perceived credibility and intention to use mobile banking. In more detail, the importance of security and privacy to the acceptance of banking technologies has been noted in many banking studies (Howcroft et al., 2002; Polatoglu and Ekin, 2001; Sathye, 1999).

In general, the amount of information related to mobile credit card is important. If an individual has adequate information on mobile credit card, there is a higher possibility he or she will adopt the system. Furthermore, extensive research over the past decade provides evidence of the significant effect of information on newly emerging technologies and usage intentions (Pikkarainen et al., 2004; Sathye, 1999; Howard and Moore, 1982). According to Sathye (1999) the low awareness of online banking is a major factor causing people ignore online banking because of their lack of knowledge of the system. Howard and Moore (1982) reported that consumers must be aware of the new product prior to the adoption. Pikkarainen et al. (2004) found information possessed by bank customers has a positive affect over online banking acceptance. The importance of knowledge of computer-based technologies is appropriate to extend to

mobile credit card. Mobile credit card acceptance also relies on the information published by banks to their bank customer. Therefore, we propose the following hypothesis :

Hypothesis 2: *Among the factors of perceived value of credit card, three factors - perceived usefulness (a), perceived credibility (b), and the amount of information (c) - have a positive effect on intention to use credit card.*

2.3 Elemental Personality Traits

Individual differences in personality have long been acknowledged to play a role in behavior, but until recently, they have been assigned minor or secondary status in predictive models of consumer behavior (Endler and Rosenstein, 1997; Sujan, 2001). The framework of personality (Mowen, 2000) diverges from this trend by focusing exclusively on consumers' personality traits in predicting behavior. The framework incorporates a hierarchical theory of personality originally proposed by Allport (1961) which distinguishes among levels of personality systems that program the individual's response patterns to various environmental situations. At the ultimate level lie surface traits, "the most concrete, enduring dispositions in the hierarchical model" (Mowen, 2000). Surface traits essentially represent situation specific behavior that researchers wish to predict (such as proneness to credit card abuse and, therefore, are virtually limitless in number.

Five elemental traits are hypothesized to influence credit card habits - need for arousal, introversion conscientiousness, emotional instability, and materialism. Roberts (1998) found that credit card misuse was the strongest predictor of compulsive buying. So, it appears that the elemental traits of emotional instability and materialism drive credit card misuse. Moreover, Roberts and Jones (2001) found that materialistic college students' shopping was influenced by their misuse of credit cards. Tokunga (1993) found that individuals who viewed money as a source of power and prestige were more likely to be "unsuccessful" credit users.

The need for arousal refers to a chronic need to increase one's level of stimulation (Mehrabian and Russell, 1974; Zuckerman, 1979). The purchase act is frequently cited as a stimulant for some buyers because it represents power and status (Yamauchi and Templar, 1982) satisfies urges

for desirable goods or service.

Baumeister (2002) proposes that loss of self-control results from a failure to keep track of one's own behavior. Students who score high on conscientiousness would be expected to be more meticulous in their credit card use, such as conducting comparison shopping, tracking purchases, and reviewing monthly accounts statements. In Soman's (2001) terminology, credit cards are low salience payment mechanism that does not require the user to either write down the amount spent or experience an immediate depletion of one's wealth. Students scoring high on conscientiousness should be less susceptible to the low salience nature of credit card use.

The important element of credit card abuse is passivity in the face of growing account balances. Introverted individuals have been found to be less assertive, talkative, and active than extravert (Mooradian and Olnver, 1997), and less likely to complain (Harris and Mowen, 2001; Richins 1983), which intuitively makes them more prone to growing balances.

***Hypothesis 3:** Among the factors of elemental personality traits, five factors -emotional instability (a), introversion (b), conscientiousness (c), materialism (d) and need for arousal (e) - have a positive effect on possibility of overuse credit card, while conscientiousness does not promote credit card misuse.*

2.4 Self Esteem

Self-esteem is an individual's sense of self-worth and how much a person likes, accepts, and respects him- or herself for who he or she is. Pascarella and Terenzini (1991) suggest that college students' sense of self-worth is influenced by their environment and life experiences and will be particularly influenced by relationships and evaluations of others. Salient to this study is that self-esteem, although formed in childhood, tends to undergo some adjustment during the college years (Pascarella and Terenzini 1991), in part because identity formation does not begin until the late teens and early twenties, when most individuals are in college (Erikson 1950). High self-esteem individuals are self-confident and less susceptible to emotional problems, such as depression and mood swings (Yelsma and Yelsma 1998). They have better coping skills, making them better able to deal with uncertainty and difficult situations, whereas low self-esteem individuals report more negative emotional states and experience higher

anxiety and distress (Brown and Marshall 2001; Cast and Burke 2002; Yelsma and Yelsma 1998).

Research on self-esteem and credit card behavior is sparse. Contrary to expectations, Pinto, Mansfield, and Parente (2004) did not find any significant relationship between self-esteem and credit card debt. But when debt is more broadly defined, that is, not limited to credit card debt, a clearer pattern emerges. Norvilitis et al. (2006) indicate that the research supports a negative relationship between self-esteem and acquisition of debt. They further stipulate, however, that it is unclear as to whether low self-esteem causes people to go into debt, debt decreases self-esteem, or some third factor is at work. Therefore, we propose the following hypothesis:

***Hypothesis 4:** Self esteem have a negative effect on possibility of overuse credit card*

2.5 Power Prestige

Power-prestige is one of the dimensions of the money attitude scale developed by Yamauchi and Templer (1982) and represents the use of money to influence and impress others and to symbolize success. Money, of course, is generally necessary to obtain goods and services, serving in an instrumental capacity. But for some people, money is equivalent to power and to status (Roberts and Jones 2001; Rubenstein 1981). Money enables consumers to engage in status consumption, a “form of power that consists of respect, consideration, and envy from others and represents the goals of a culture” (Csikszentmihalyi and Rochberg-Halton 1981, p. 39). Thus, consumers demonstrate their social power to others by engaging in conspicuous consumption and display of status products (Bell 1998; Eastman et al. 1997). Both male and female young adults closely link money with esteem and power (Prince 1993), and, particularly relevant to this study, education has been significantly positively correlated to status-seeking behaviors (Chao and Schor 1998). Importantly, Tokunaga (1993) found that individuals were likely to be irresponsible credit users when they viewed money as a source of power and prestige.

As previously noted, power-prestige has been found to be significantly positively related to compulsive buying behaviors among college students (see, e.g., Roberts 1998). Moreover, this relationship has

been found to be significantly moderated by credit card behavior. Specifically, power-prestige was significantly related to compulsive buying when college students were irresponsible with respect to their credit card use; when credit cards were used responsibly, the relationship between power-prestige and compulsive buying was not significant (Roberts and Jones 2001). Power-prestige has also been reported as significantly higher when individuals report a lower level of economic self-efficacy, defined as the confidence an individual has to cope with his or her financial situation (Engelberg 2007). Therefore, we propose the following hypothesis:

***Hypothesis 5:** Power prestige have a positive effect on possibility of overuse credit card.*

2.6 Risk taking

A variable that has not received much attention with respect to college students' compulsive buying behaviors is risk-taking. Risk-taking is the tendency to be adventuresome and to engage in exciting, risky, or thrilling activities (Barlow 1991; Gottfredson and Hirschi 1990; Grasmick et al. 1993). Risk-taking is associated with adolescence and early adulthood (Scott, Reppucci, and Woolard 1995) and, in fact, is considered to be a normal part of the developmental process (Baumrind 1987). Individuals in these age groups participate in various kinds of risky behaviors—drug and alcohol use, unprotected sex, extreme and dangerous sports, driving fast, illegal activities—because they feel they are immune to anything bad happening to them. This sense of invulnerability stems from their assessment of and attitude toward risk, although there may also be a relationship to self-control and impulsivity (Scott, Reppucci, and Woolard 1995). However, risk-taking is not necessarily always associated with problem behaviors; risk-taking can be functional, purposive, instrumental, and goal directed (Jessor 1991).

As reported, two studies (Norum 2008; Roberts and Tanner 2000) have linked risky behaviors of high school teens and college students with compulsive buying. Within the context of consumer research, risk is associated with uncertainty and ambiguity (Campbell and Goodstein 2001; Kahn and Sarin 1988) and will be affected significantly by context (Kahn and Sarin 1988) and the expected outcome (Oglethorpe and Monroe 1987). For example, the more important the situation or desired outcome, the more likely it will be for a consumer to experience higher perceived risk.

Research suggests that individuals will respond to different domains of risk depending on the importance, familiarity, and moral relevance of the choices (Rettinger and Hastie 2001). With respect to the current study, two domains of risk—financial and social—are relevant. The outcomes associated with financial risks are either a monetary gain or loss, and, as long as the payoffs and probabilities are equivalent, the assumption is that consumers will respond to gambles consistently (Mandel 2003). The consequences of social risk, however, are either embarrassment/disapproval or esteem/approval among one's friends and family (Mandel 2003). Importantly, individuals who are interdependent, that is, their status depends on membership within a larger social group, are more likely to focus on preventing losses (Aaker and Lee 2001) because they want to avoid embarrassment. Mandel (2003) found that when the interdependent self was activated, individuals took more financial risks but fewer social risks.

Risk-taking has been identified as one of six dimensions of self-control (Barlow 1991; Grasmick et al. 1993). Self-control, defined as an individual's capacity to regulate his or her cognitive, emotional, and behavioral states and responses (Baumeister 2002), has been shown to be significantly related to credit card use among college students and compulsive buying (Mowen 2000). Kidwell and Turrisi (2004) found that perceived control played an important role in college student intent to maintain a budget. In addition, another dimension of self-control, impulsivity, was positively associated with credit card debt among college students (Mansfield, Pinto, and Parente 2003). Because credit card misuse and compulsive buying both reflect a lack of self-control, we expect to see higher levels of risktaking to be associated with higher levels of credit card misuse and compulsive buying. Therefore, we propose the following hypothesis :

Hypothesis 6: *Risk taking have a positive effect on possibility of overuse credit card*

2.7 Intention to Use Credit Card

Credit card debt has grown more rapidly than other debt for decades; however, in the mid-1990s it increased even more rapidly. This is mainly attributable to the increased marketing efforts of bank and credit card issuer. With over 100 million credit cards issued to the public around the end of

2002 (Kim, 2002), consumer bankruptcies have erupted in recent years and there are grave concerns that the number will significantly increase as credit card debts mount up and distress more consumers financially. However, despite the tremendous impact of credit card use on individual consumer, business and society, little research has been done on it to date.

The relationship between credit card use and compulsive buying seems to be clear considering the rapid increase of both credit card use and compulsive buying behavior in recent years. In addition to the number of credit cards owned, D'astous (1990) found that the extent of irrational credit card usage was strongly associated with compulsive buying. Most researches show that credit card use is a critical factor to compulsive buying. Feinberg (1986) found credit cards as spending-facilitating stimuli. Roberts (1998) and Robert and Jones (2001) found strong relationship between credit card use and compulsive buying. D'atous (1990) and Magee (1994) also found that compulsive buyers to be more likely to use credit card more. O'Guinn and Faber (1989) identified that compulsive buyers had more credit cards than non-compulsive buyers. Heavy credit card users have been found to be fewer prices conscious (Tokunga, 1993). Deshpande and Khrisnan (1980) found that credit card possession was related to buying higher price items. Therefore, we propose the following hypothesis:

Hypothesis 7: Intention to use credit card have a positive effect on compulsive buying behavior.

2.8 Credit Card Misuse

College students are a very attractive credit card market (Mansfield and Pinto 2007), in part because there is a continual influx of potential credit card owners into this age group every year who may develop into lifelong users (Hayhoe et al. 2000), but also because college students' brand loyalty to credit cards is stronger than to most other products or services (Hein 2003). In the minds of college students, credit cards are associated with spending. Feinberg (1986) found that when college students were exposed to a credit card logo when evaluating a product, they were more likely to quickly decide to purchase, to make the purchase, and to spend more than students who were not exposed to a credit card logo. Moreover, college students perceive themselves as lacking the knowledge they need to effectively manage their credit card use (Norvilitis

and Santa Maria 2002; Yarema and Sampson 2001), which may contribute to overspending and credit card abuse.

Compulsive buying is more likely to be found among consumers who have a large number of credit cards (O'Guinn and Faber 1989; Roberts 1998) and who carry large credit card balances (Ritzer 1995). Compulsive buying has also been significantly linked to irrational use of credit (d'Astous 1990; Roberts 1998). Previous research has established that credit card use moderated the relationship between money attitudes and college students' compulsive buying behavior (Roberts and Jones 2001), finding that greater misuse of credit cards exacerbated compulsive buying. Thus, we expect credit card misuse to significantly mediate the relationships between the independent variables—elemental personality traits, self-esteem, power-prestige, and risk-taking—and the dependent variable, compulsive buying, and propose the following hypotheses:

***Hypothesis 8:** Possibility of overuse credit card has positive effect to compulsive buying behavior*

2.9 Compulsive Buying Behavior

Compulsive buying, a behavior distinct from compulsive shopping (Natarajan and Goff 1992), is medically defined as an impulse control disorder, a mental disorder characterized by irresistible impulses to engage in harmful or senseless behaviors (Black 2007; McElroy, Phillips, and Keck 1994) in order to counteract negative emotional situations such as depression and loneliness (Krueger 1988). Consistent with the medical definition, early conceptualizations of compulsive buying within the field of marketing defined it as “chronic, repetitive purchasing that becomes a primary response to negative events or feelings” (O'Guinn and Faber 1989, p. 155). Using this definition, a relatively small percentage of the population is classified as being compulsive; recent estimates range from 6 to 12.2 percent of young adults (Hassay and Smith 1996; Roberts 1998; Roberts and Jones 2001). Research studies that adopt this perspective of compulsive buying tend to compare consumers classified as compulsive with “normal” consumers (e.g., Faber and O'Guinn 1988; O'Guinn and Faber 1989; Roberts and Jones 2001). The current study, however, adopts an alternative conceptualization of compulsive buying, consistent with more recent marketing research that considers compulsive buying to be a behavior in which a much larger proportion of the population engages

(Neuner, Raab, and Reisch 2005; Norum 2008; Ridgway, Kukar-Kinney and Monroe 2008; Wang and Xiao 2009). This perspective considers compulsive buying to be less extreme than previously thought and akin to an episodic urge to buy (d'Astous 1990; Manolis and Roberts 2008).

Wang and Xiao (2009) assert that college students are especially vulnerable to compulsive buying because they seek peer approval through participation in activities and acquisition of material goods that require financial resources they may not have. Based on this understanding, Edwards defined compulsive buying as an abnormal form of shopping and spending in which the afflicted consumer has an overpowering, uncontrollable, chronic and repetitive urge to shop and spend as a means of alleviating negative feelings of stress and anxiety. (1992, p.7) Research studies taking this approach view compulsive buying behaviors as lying along a continuum anchored with recreational and incidental uncontrolled buying on one end to chronic and addictive buying on the other end (Edwards 1992, 1993). The recreational/incidental uncontrolled buying end of the continuum might also be considered to be impulse buying, which has been defined as unplanned purchases, undertaken with little or no deliberation, accompanied by effectual or mood states, which furthermore are not compelled, and which, finally, are contrary to the buyer's better judgment. (Wood 1998, p. 299) Several different variables have been associated with compulsive behavior, including obsessiveness-compulsiveness, self-esteem, fantasy, materialism, envy, object attachment, emotional lift, risky behaviors, remorse, number of credit cards owned, credit cards paid in full each month, credit cards within \$100 of their limit, and percent of monthly income going to debt (O'Guinn and Faber 1989).

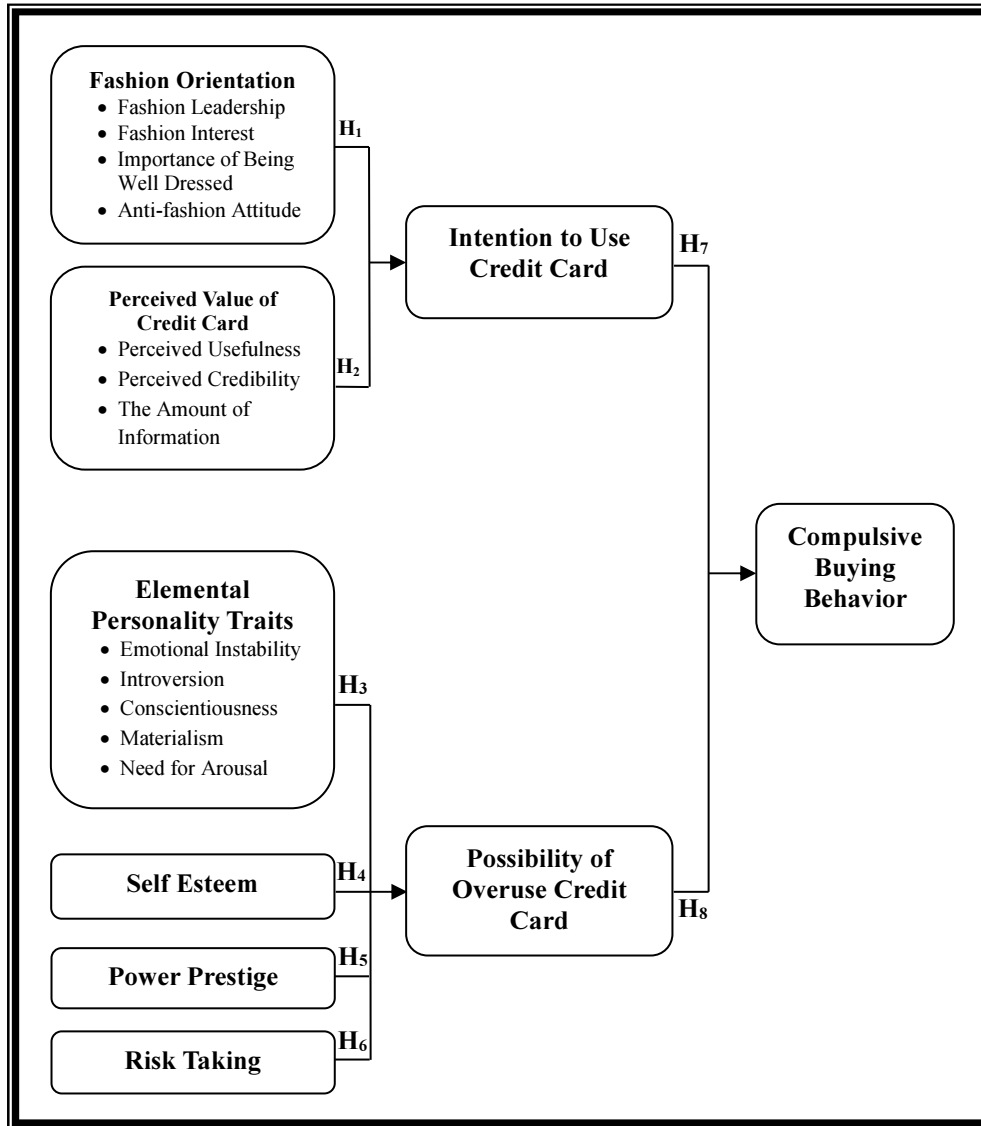


Figure 1 : Research Framework

3. Research Methodology

3.1 Sample

The data for this study is obtained through an online survey questionnaire conducted in <http://www.my3q.com>. The survey was

conducted in February 2013 - March 2013. A convenience sampling of credit card users was conducted. A total of 33 questionnaires were collected, but only 31 (93 percent) responses were valid. The descriptive statistics of the respondents are summarized in Table 1.

3.2 Measures

All measures used seven-point Likert-type scales, which ranged from strongly disagree (1) to strongly agree (7).

3.2.1 Fashion Orientation

Fashion orientation was measured using Gutman and Mills (1982) fashion oriented scale, with its four factors of fashion leadership, fashion interest, importance of being well-dressed and anti-fashion attitude.

Table 1. Demographic Result

	Profile	Description	Respondent	Percentage
1)	Gender	Male	14	45.2%
		Female	17	54.8%
2)	Status	Single	22	71.0%
		Married	9	29.0%
3)	Income	below US\$50	1	3.2%
		50-100	2	6.5%
		101-200	6	19.4%
		Above 200	22	71.0%
4)	Age	Below 20	2	6.5%
		21-30	26	83.9%
		31-40	2	6.5%
		Above 40	1	3.2%
5)	Occupation	College/Graduate Student	14	45.2%
		K12-student	2	6.5%
		Professional (doctor, lawyer,etc)	4	12.9%
		executive/managerial	2	6.5%
		academic-educator	3	9.7%
		sales-marketing	2	6.5%
		tradesment-craftsment	1	3.2%
		unemployed-looking for work	1	3.2%
		other	2	6.5%

3.2.2 *Perceived Value of Credit Card*

The questionnaire items were extracted from selected studies. Questionnaire items were adapted from prior studies which are described as follows: perceived usefulness (Davis, 1989), perceived ease of use (Davis, 1989), perceived credibility (Wang et al., 2003) and the amount of information on mobile credit card (Pikkarainen et al., 2004).

3.2.3 *Elemental Personality Traits*

Items for the elemental personality traits were taken from Mowen (2000); scale items are shown in the appendix. The low rate indicates that the element of personality is extremely inaccurate in describing a respondent personality.

3.2.4 *Self-Esteem*

Three indicators for self-esteem were adapted from a scale developed by Rosenberg (1965) traditionally used in compulsive buying and credit card studies (e.g., Roberts 1998).

3.2.5 *Power-Prestige*

Three items were selected as indicators of power-prestige from the power-prestige dimension of Yamauchi and Templer's (1982) money attitude scale. Responses were indicated Likert-type response format with higher scores indicating a stronger need for power-prestige.

3.2.6 *Risk-Taking*

Risk-taking, sometimes called "risk-seeking," was measured with three items adapted from a risk-taking scale developed by Grasmick et al. (1993) and used extensively by others (Mansfield, Pinto, and Parente 2003). The scale employs Likert-type response format with higher scores indicating higher risk-taking.

3.2.7 *Credit Card Use*

Three items were selected as indicators of credit card misuse from Roberts and Jones's (2001) propensity to misuse credit cards measure. The

measure Likert-type response framework and is scored such that lower scores indicate good credit card habits.

3.2.8 *Credit Card Misuse*

Three items were selected as indicators of credit card misuse from Roberts and Jones's (2001) propensity to misuse credit cards measure. The measure used Likert-type response framework and is scored such that higher scores indicate poor credit card habits.

3.2.9 *Compulsive Buying*

Three items from the compulsive buying measurement scale developed by Faber and O'Guinn (1992) were selected as indicators of compulsive buying. The measure utilized a 1 = "never" to 7 = "very often" response option framework, with higher scores indicating higher levels of compulsive buying. Traditionally, this measure has been used to identify individuals who have a chronic tendency to purchase in excess of their needs and means. However, based on the growing opinion that compulsive buying behavior may be more commonplace, this study conceptualized and measured compulsive buying as a continuous phenomenon. Other researchers (e.g., Rindfleisch, Burroughs, and Denton 1997; Wang and Xiao 2009) have also followed this approach.

4. **Empirical Result**

The means, standard deviations, and inter-correlations of the main variables are presented in Table 2. As expected, the intention to use credit card scores correlates significantly with compulsive buying behavior ($r = 0.859$; $p < 0.01$). The possibility of overuse credit card also correlates significantly with compulsive buying behavior ($r = 0.520$; $p < 0.01$). The standard deviation for all variables is smaller than mean value indicates that the data points are clustered closely around the mean.

To test the study's hypotheses, regression analysis was used. The analysis consists of eight regressions, focusing on different levels of variable in this research. The first model uses the intention to use credit card as a dependent variable and the fashion orientation as an independent variable. As shown in Table 3, there is four factors that is included in construct of fashion orientation. The coefficient for fashion interest is

significant ($t = 2.967$; $p < 0.01$) and the beta value show the positive sign, supporting the hypothesis 1b. However, the coefficients of fashion leadership, importance of being well dressed and anti-fashion attitude are not significant. The beta value for fashion leadership and importance of being well dressed shows the negative sign which are different with the hypothesis. Therefore, hypotheses 1a, 1c and 1d are rejected. The R² of this regression model is 0.412 means that the intentions of using credit card are affected 41.2% by the fashion orientation.

The second model of regression is still uses the intention to use credit card as a dependent variable but use the perceived value of credit card as an independent variable. Model estimates in Table 4 shown there are three factors that is included in construct of perceived value of credit card. The coefficient for perceived use fullness and perceived credibility are not significant, and hypothesis 2a and 2b are rejected. The coefficient for the amount of information is acceptable ($t = 2.876$ and $p < 0.01$), supporting the hypothesis 2c. The R² of this regression model is 0.364 means that the intentions of using credit card are affected 36.4% by the perceived value of credit card.

The Effect of Credit Card on the Compulsive Buying Behavior Intention

Table 2. Mean, Standard Deviation, and Intercorrelation

	Mean	Std.Dev	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Fashion Leadership	3.6387	1.34305	31	1.000	0.753 ***	0.315*	0.046	-0.021	-0.035	0.065	0.030	-0.116	0.236	0.583**	0.287	0.053	0.071	0.206	0.301*	0.037	0.259
2 Fashion Interest	3.5548	1.10720	31		1.000	0.204	-0.129	0.067	0.114	0.218	0.301	-0.010	0.189	0.659**	0.408*	0.082	0.177	0.235	0.561**	0.206	0.600**
3 Importance of being well dressed	4.8065	1.08149	31			1.000	0.157	-0.258	-0.527**	-0.348*	-0.186	0.084	0.477**	0.333*	0.080	-0.203	-0.019	0.123	-0.124	-0.383*	-0.057
4 Anti-fashion attitude	5.3978	.86247	31				1.000	-0.188	-0.205	-0.019	0.049	0.078	0.111	-0.112	-0.053	-0.017	-0.068	-0.164	-0.281	-0.250	-0.414*
5 Perceived Usefulness	4.0565	1.61981	31					1.000	0.745 ***	0.453**	0.214	-0.142	-0.062	-0.044	-0.028	0.245	-0.243	-0.320	0.194	0.639**	0.170
6 Perceived Credibility	3.8495	1.28478	31						1.000	0.691**	0.228	-0.157	-0.061	-0.081	0.082	0.176	-0.153	-0.296	0.387*	0.819**	0.264
7 Amount of Information	3.6667	1.61015	31							1.000	0.308*	0.096	0.228	-0.055	0.089	-0.125	0.107	-0.066	0.597**	0.633**	0.388*
8 Emotional Instability	3.6452	1.29224	31								1.000	0.196	-0.088	0.306*	0.262	-0.036	0.134	0.272	0.430**	0.442**	0.549**
9 Introversion	3.4839	1.33843	31									1.000	-0.109	0.115	0.181	-0.667	0.291	0.427	0.133	-0.153	0.226
10 Conscientiousnes	5.2661	1.06053	31										1.000	0.222	0.042	0.125	0.016	-0.134	0.057	0.002	-0.098
11 Materiality	3.9597	1.23338	31											1.000	0.529	0.092	0.314	0.390	0.370*	0.049	0.421**
12 Need for Arousal	3.8952	1.06218	31												1.000	-0.089	0.574	0.377	0.479**	0.232	0.369*
13 Self Esteem	4.9785	1.19547	31													1.000	-0.084	-0.302	-0.089	0.096	-0.127
14 Power Prestige	3.2043	1.24923	31														1.000	0.719	0.608**	0.067	0.467**
15 Risk Taking	3.9032	1.08250	31															1.000	0.514**	0.026	0.592**
16 Intention to Use Credit Card	2.8978	1.48366	31																1.000	0.613	0.859**
17 Possibility of Overuse Credit Card	3.6129	1.32385	31																	1.000	0.520**
18 Compulsive Buying Behavior	2.8664	1.35221	31																		1.000

Note:*** Correlation is significant at the $p < 0.001$ level (one-tailed); ** correlation is significant at the $p < 0.01$ level (one-tailed); * correlation is significant at the $p < 0.05$ level (one-tailed).

Table 3. Results from Regressing Intention to Use Credit Card onto Fashion Orientation

	Coefficient	Standard Error	t-value	P-value
Fashion Leadership	-0.160	0.265	-0.664	0.512
Fashion Interest	0.701**	0.317	2.967	0.006
Importance of Being Well Dressed	-0.192	0.220	-1.199	0.241
Anti Fashion Attitude	-0.153	0.270	-0.975	0.339

Note: R square = 0.412; *** p < 0.001; ** p < 0.01; * p < 0.05

Table 4. Results from Regressing Intention to Use Credit Card onto Perceived Value of Credit Card

	Coefficient	Standard Error	t-value	P-value
Perceived Usefulness	-0.125	0.212	-0.540	0.594
Perceived Credibility	0.055	0.330	0.192	0.849
The Amount of Information	0.616**	0.197	2.876	0.008

Note: R square = 0.364; *** p < 0.001; ** p < 0.01; * p < 0.05

The third model uses possibility of overuse credit card as a dependent variable and elemental personality traits as an independent variable. As shown in Table 5, there are five factors that is included in construct of elemental personality traits. The coefficient for emotional instability is significant ($t = 2.780$; $p < 0.01$) and the beta value show the positive sign, supporting the hypothesis 3a. However, the coefficients of another four factors are not significant. The beta value signs are different with the hypothesis. Therefore, hypotheses 3b, 3c and 3d are rejected. The R2 of this regression model is 0.313 means that the possibility of overuse credit card is affected 31.3% by the elemental personality traits.

Table 5. Results from Regressing Possibility of Overuse Credit Card onto Elemental Personality Traits

	Coefficient	Standard Error	t-value	P-value
Emotional Instability	0.499**	0.184	2.780	0.010
Introversion	-0.267	0.170	-1.556	0.132
Conscientiousness	0.056	0.217	0.320	0.752
Materialism	-0.227	0.222	-1.097	0.283
Need for Arousal	0.268	0.248	1.346	0.191

Note: R square = 0.313; *** p < 0.001; ** p < 0.01; * p < 0.05

The Effect of Credit Card on the Compulsive Buying Behavior Intention

The fourth model of regression is uses the possibility of overuse credit card as a dependent variable and self esteem as an independent variable. Model estimates in Table 6. The coefficient for self esteem is not significant, and hypothesis 4 is rejected.

Table 6. Results from Regressing Possibility of Overuse Credit Card onto Self Esteem

	Coefficient	Standard Error	t-value	P-value
Self Esteem	0.096	0.205	0.521	0.606

Note: R square = 0.009; *** p < 0.001; ** p < 0.01; * p < 0.05

The fifth model of regression is uses the possibility of overuse credit card as a dependent variable and power prestige as an independent variable. Model estimates in Table 7. The coefficient for power prestige is not significant, and hypothesis 5 is rejected.

Table 7. Results from Regressing Possibility of Overuse Credit Card onto Power Prestige

	Coefficient	Standard Error	t-value	P-value
Power Prestige	0.067	0.196	0.363	0.719

Note: R square = 0.005; *** p < 0.001; ** p < 0.01; * p < 0.05

The sixth model of regression is uses the possibility of overuse credit card as a dependent variable and risk taking as an independent variable. Model estimates in Table 8. The coefficient for risk taking is not significant, and hypothesis 6 is rejected.

Table 8. Results from Regressing Possibility of Overuse Credit Card onto Risk Taking

	Coefficient	Standard Error	t-value	P-value
Risk Taking	0.026	0.227	0.140	0.890

Note: R square = 0.001; *** p < 0.001; ** p < 0.01; * p < 0.05

The seventh model uses compulsive buying behavior as a dependent variable and intention to use credit card as an independent variable. As shown in Table 9, the coefficient for intention to use credit card is significant ($t = 9.016$; $p < 0.000$) and the beta value shows the positive sign, supporting the hypothesis 7. The R^2 of this regression model is 0.737 means that the compulsive buying behavior are affected 73.7% by the intention to use credit card. The value of R^2 is high shows that the intention to use credit card is the main factor that affect the compulsive buying behavior.

Table 9. Results from Regressing Compulsive Buying Behavior onto Intention to Use Credit Card

	Coefficient	Standard Error	t-value	P-value
Intention to use Credit Card	0.859***	0.087	9.016	0.000

Note: R square = 0.737; *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

The final model uses compulsive buying behavior as a dependent variable and possibility of overuse credit card as an independent variable. As shown in Table 10, the coefficient for possibility of overuse credit card is significant ($t = 3.277$; $p < 0.01$) and the beta value shows the positive sign, supporting the hypothesis 8. The R^2 of this regression model is 0.270 means that the compulsive buying behavior are affected only 27% by the possibility of overuse credit card.

Table 10. Results from Regressing Compulsive Buying Behavior onto Possibility of Overuse Credit Card

	Coefficient	Standard Error	t-value	P-value
Possibility of Overuse Credit Card	0.520***	0.162	3.277	0.003

Note: R square = 0.270; *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

5. Conclusion, Implications and Limitations

The results are largely support the intention to use credit card and

possibility of overuse credit card are impact on compulsive buying behavior. Consumers that tend to use credit card are more compulsive than consumers who tend to not use the credit card. Consumers possible to overuse their credit card and also more compulsive than others keep their credit card in the minimum limit. The result is in line with the result of Pirog and Roberts (2007) and also Park and Burns (2005) that imply the relationship between the credit card use and credit card misuse toward compulsive buying behavior.

The antecedents of intention to use credit card are fashion orientation and perceived value of credit card. The relationship of intention to use credit card with fashion orientation is straightforward with the study of Park and Burns (2005) which found that only the fashion interest will give a significant impact to the intention to use credit card. However, the relationship of perceived value of credit card to intention to use credit card is less of surprise because the factor of perceived use fullness and perceived credibility is not significantly correlate with intention to use credit card as proposed by Amin (2007).

The antecedents of possibility of overuse credit card are elemental personality traits, self-esteem, power prestige and risk taking. The relationship of possibility of overuse credit card with elemental personality traits is partially in line with the study of Pirog and Roberts (2007) which found that five factor of elemental personality traits are a significant impact to the possibility of overuse credit card. However, the relationship of self-esteem, power prestige and risk taking is also partially in line with the study of Palan, et.al (2011) because the factor of self-esteem and power prestige is not significantly correlated with possibility of overuse credit card.

The implications of this study are for researcher, marketers and government. First, consumers have easy access to too much credit. Access to too much credit is one of the causes of overspending. Once realizing that credit card use is more or less controllable variable while fashion interest variable and other variables triggering compulsive buying are not, the choice is clear for policy makers and marketers, especially fashion retailers issuing in-store credit cards. Credit card issuers' operations should be more tightly in regulated new credit card issuance, considering the most users of credit card is the young generations. The last, researchers should consider another factor that might be affect in the intention to use credit card.

Although this study expands our knowledge of the role of some variables in affecting compulsive buying behavior, it must be tempered by certain limitations. The limitation is the heterogenous sample consists of various respondents which are freely answering the questionnaire through the online questionnaire system. Thus, this study is difficult to generalize based on certain consumers.

Acknowledgement

This study was partially supported by the National Science Council with the grant number of NSC 101-2410-H-034-062.

References

- [1] Aaker, Jennifer L., & Angela Y. L. (2001). I seek pleasures and 'We' avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28(1), 33-39.
- [2] Allport, G. W. (1961). *Pattern and Growth in Personality*, New York: Holt, Rinehart, & Winston.
- [3] Amin, H. (2007). An analysis of mobile credit card usage intentions. *Information Management & Computer Security*, 15(4), 260-269.
- [4] Barlow, H. D. (1991). Explaining crimes and analogous acts, or the unrestrained will grab at pleasure whenever they can. *Journal of Criminal Law and Criminology*, 82(2), 229-242.
- [5] Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of Consumer Research*, 28(4), 670-676.
- [6] Baumrind, D. (1987). A development perspective on adolescent risk-taking in contemporary America. *New Directions for Child and Adolescent Development*, 37(2), 93-125.
- [7] Belk, R. W. (1985). Materialism: Trait aspects of living in the material world. *Journal of Consumer Research*, 12(3), 265-280.
- [8] Benson, A. L. (2000). *I Shop Therefore I Am: Compulsive Buying and the Search for Self*, Northvale, NJ: Jason Aronson.
- [9] Black, D. W. (2007). A Review of Compulsive Buying Disorder. *World Psychiatry*, 6(1), 14-18.
- [10] Brown, J. D., & Margaret A. M. (2001). Self-esteem and emotion: Some thoughts about feelings. *Personality and Social Psychological Bulletin*, 27(5), 575-584.