

## CREDIT CARDS AND COLLEGE STUDENTS: EFFECT OF MATERIALISM AND RISK ATTITUDE ON MISUSE

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*The topic of credit card misuse among college students has become a significant concern as our nation reexamines financial discipline in the current economic downturn. This study explores students' current credit card usage status and evaluates credit card misuse among college students in relation to their attitude towards risk and materialism. Other areas examined include marketing strategies implemented by credit card vendors and how they affect usage behavior. Based on prior research, proven and reliable theoretical scales were employed to survey a random sample of 335 college students across 16 states. Results indicated that significant relationships exist between a student's credit card misuse, their materialistic values, and their risk attitude. Our research makes academic contributions in refining, integrating, and using theoretical scales in an empirical context. In practical terms, the findings of this study have implications not just for students in college, college administrators, and credit card marketers, but also for those engaged at the crosscurrents of marketing, social responsibility, and public policy.*

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### INTRODUCTION

Although the introduction of the credit card has provided consumers, college students in particular, with more financial flexibility it still has had its drawbacks. With the current state of the economy, the credit card industry has come under scrutiny regarding its credit issuing behavior. Due to high unemployment fluctuation, analysts estimate that the amount of loans being unpaid by consumers are now between 6 percent and 7 percent (Stempel 2008).

With unemployment comes an interruption of income, which makes it extremely difficult for consumers to make large fixed payments. For example, the rate of late payments on indirect auto loans rose to 3.25 percent in the third quarter of 2008 from 3.07 percent in the second quarter, while late payments rose to 2.63 percent from 2.56 percent on home equity loans, to 1.63 percent from 1.49 percent on property improvement loans, and to 2.69 percent from 2.67 percent on personal loans.

Poirier and Stempel (2009) state falling gas prices may bring some relief, but doubt it comes close to balancing out the impact of greater job losses. As a result of these economic realities, credit card companies are exhibiting cautious behavior in extending credit, in contrast to their past behavior. Stempel (2008) also claims issuers are now being extra careful when they extend a line of credit.

Many experts also believe that the health of the credit card industry is closely related to the status of the nation's unemployment rate. In December 2009, unemployment in the United States was 10 percent, with roughly 15.3 million Americans being out of work. As a result, analysts estimate that around 6 percent of loans won't be repaid, which is twice as high as it was in the first quarter of 2006. Stempel (2008) predicts that this could cause credit card companies to realize losses between 8 percent and 10 percent. Unemployment rates have certainly put a scare in college students who are seeing the job market deteriorate. However, it appears that students are still utilizing their credit cards in record numbers. The changing credit environment provides an opportunity for marketers to address the critical issues of credit card misuse among college students and the

role of marketing strategies targeted at this segment.

Our research attempts to uncover elements contributing toward the growing credit card debt among college students and hopes to provide colleges, universities and public policy makers with insight on what attributes need to be monitored attentively. The rest of this paper is structured as follows. First, we present a historical background concerning credit cards followed by secondary data relating to credit card usage by college students, financial literacy and the marketing tactics being aimed at students. Second, we introduce our literature review on materialism and risk attitude based on our integrated approach, which provides the conceptual foundations for our hypotheses. We then discuss our methods for data compilation and provide sample characteristics alongside usage trends. The trends explored focus on an overall analysis of credit card usage along with the behaviors exhibited by credit card vendors.

We then introduce our findings on credit card usage and present our results on each hypothesis tested regarding areas of materialism, risk attitude, and certain aspects of vendor influence on credit card misuse. In the subsequent section we provide further discussion and conclusions on our findings. Finally, we explain the limitations of this study, suggest possible future research avenues, and provide some concluding remarks.

### **Historical Background**

According to Douglas Mudd (2007), the origin of the credit card can be traced to Egypt, Babylon and Assyria approximately 3,000 years ago. By the 18<sup>th</sup> century a form of consumer credit was made accessible through a tallyman, who was an individual who sold clothes in return for small weekly payments. The name “tallyman” was ascribed because they would maintain a tally of what individuals purchased on a wooden stick and tracked the amount of debt and payments received on the stick.

It wasn't until the beginning of World War I that credit cards began to evolve in the United States. Concurrently, one of the first concepts of buying on credit was seen with the introduction of a credit card to be used exclusively for gasoline and with the amount of traveling by the average individual on the rise, consumers gained more flexibility. As a result, the attractiveness of credit cards soon gained momentum.

The concept of credit cards went mainstream in 1950, when an operator of a small loan company in New York City, Francis McNamara, introduced the Diners Club. The Diners Club was intended to be utilized at restaurants and McNamara intended to charge users an annual fee of \$5 to participate. The first Diners Club card was issued to 200 consumers and could be used only in 27 restaurants in New York (Mudd 2007). Each member received a credit card, which was constructed from cardboard with their name and account number on the front and a list of the 27 accepting restaurants on the back. By 1952, the Diners Club was accepted in Canada, Mexico and Cuba, becoming the first international card.

More companies began offering credit cards through the 1960s but positioned them as a timesaving device instead of a form of credit. Companies began to act aggressively, by sending consumers credit cards in the mail that were already activated for them to utilize. This led to massive credit card fraud and a need for government regulation (Mudd 2007). It wasn't until the mid-1970s that the government began regulating the industry by banning companies from mailing active cards to people who had not requested them.

### **Credit Card Usage Among College Students**

Undergraduate college students possess a record number of credit cards. According to a study conducted in 2009 by Sallie Mae, an organization which provides federal and private student loans for undergraduate students, 84 percent of undergraduates had at least one credit card. Some experts estimate the average

credit card debt of a college student to be near \$3,000, with Sallie Mae finding 21 percent of students carrying balances between \$3,000 and \$7,000. As a result, some students even open up new cards to pay off existing debt. The increasing amount of outstanding balances among college students is significant and there appears to be an abundance of causes.

Research indicates that students tend to carry an inordinate amount of credit card debt as they progress through college. One study conducted by Qvisory, a nonprofit online advocacy and service organization, found that students are becoming further concerned about their financial standing. Results from their 2008 study showed that financial concerns top the list of troubles facing students in their lives today. Out of their sample, 55 percent of respondents claimed this to be their most relevant concern, a 10 percent increase from their 2007 study (Greenberg 2008).

Qvisory's study demonstrated that young people experience a significant amount of stress and worry towards their financial status, with 48 percent of respondents saying they frequently worry about having enough funds to pay their bills (Greenberg 2008). With the rise in debt and financial concern, students with higher consumer debt usually work more, resulting in poorer grades. Research shows that these students often suffer from depression and occasionally even have to withdraw from their studies (Manning 2000; Miller 2000; Roberts and Jones 2001).

In relation to Sallie Mae's study, Qvisory's study showed that two thirds of its participants surveyed reported having a credit card, and over half said that they have credit card debt. In addition, the study's projections showed that 41 percent of young adults with credit cards are more likely to have accumulated debt in the last year than those who do not have a credit card (Greenberg 2008).

### Marketing Strategies and Their Impact

With the credit card market being highly saturated, college students are seen as profitable prospects. Companies know that if they can attract young people early and build loyalty that the propensity to capture a lifetime customer increases (Singletary 2007). Essentially, creditors are attempting to establish brand followers, which are essentially individuals who unite around a brand and become long time users (Acosta and Devasagayam 2009). Obtaining a brand follower starts right on campus, as lenders have constructed tables on college campuses offering free goods and services to entice students into signing up for credit cards. These goods range from t-shirts and food to more expensive items such as electronics. However, this raises an ethical question considering the marketing strategies being directed towards students are leading to increased credit card use, and perhaps misuse, among students.

However, colleges may have to share some responsibility for this as well. "Many schools have signed lucrative deals with credit card companies in which they provide contact lists of students or allow sidewalk marketing by the credit pushers" (Singletary 2007). In a sense, the relationship contradicts many colleges' core values, considering colleges try to project themselves as caring for their students. Such actions could be putting their students at potential financial risk. College representatives justify the tactic by arguing that the schools get needed funds which flow back into campus affairs. To further bolster their stance, administrators posit that these credit cards help students build a credit history -- which may be accurate, but often the history being built may not be a healthy one.

The University of Iowa alumni association sent a credit card mailer to students in 2007 advertising "outstanding financial benefits for students," which stated a 4.9 percent interest rate (Silver-Greenberg and Elgin 2007). The mailer went on to inform students not to miss this "unique opportunity" and to show their

school pride. Students who participated certainly received the 4.9 percent interest rate, but only for the first six months after which it skyrocketed to 18.24 percent. The card issuer, MBNA, paid the alumni group \$1 million a year for implementing the marketing program. After negative press coverage, the college stopped providing the company with the students' contact information. However, many colleges across the country may still be continuing this practice.

With many schools not monitoring vendor behavior, the states themselves have taken action. Approximately fifteen states nationwide have restricted/banned credit-card marketers from their campuses (Silver-Greenberg 2007). Many colleges in these states are marketing a new message about credit cards. With assistance from the Ford Foundation, U.S. PIRG has begun staging a national campaign against credit card marketing. Instead of a credit card application, students will be handed literature warning them about the fees and terms of certain credit cards to help them avoid credit card misuse. In this instance, the students still receive a free gift; lollipops that say, "Don't be a sucker" (Singletary 2007). To combat such negative trends, credit-card companies are going above and beyond by seeking out partnerships with third-party marketers to acquire student customers.

### **Financial Education**

Most credit card companies argue that college students are competent individuals and can make responsible decisions. However, this argument doesn't support the true accuracy of a student's knowledge about financial management. Throughout 2008, high school seniors across the nation completed a survey to test their financial literacy. The 31-question survey dealt with everything from credit cards to taxes, with student's having no experience with half of the topics covered (McGuire 2008). The survey resulted in a national average of only 48 percent of questions being answered correctly.

In light of survey results such as this, many lawmakers and financial gurus feel that financial education should be a requirement in schools. Stephen Epstein, an advocate for financial education, started the DollarCamp Financial Survival System, which is a system to provide financial education to students by working through print materials, and completing assignments. The students can collaborate and the site also provides parents with a way to communicate with one another about the way their children handle money. Although it is ultimately up to the student to be responsible, having parents teach them about financial management doesn't appear to be a top priority. Qvisory's study showed that parents are more focused on their children's long term future and happiness than their immediate financial obstacles (Greenberg 2008). Only 20 percent of parents in the study mentioned finances as the top concern for their kids.

Our research builds upon this information and further explores the marketing strategies used by credit card companies toward college students in terms of vendor offerings. This topic underscores ethical and social concerns regarding marketing strategies employed by credit card companies in reaching their targeted college student segment.

### **THEORETICAL FOUNDATIONS**

A cursory review of the financial landscape demonstrates that credit card use among college students has become a topic of escalating concern. With the current state of the economy, it has become more evident that our financial obligations must be prudent and closely monitored to prevent future reoccurrences. With students struggling to pay their credit card expenses, they essentially cut off revenue streams in other markets and put the nation's economy at risk (Pirog and Roberts 2007). We start by exploring the theoretical underpinnings of past research that explore some salient constructs that have been shown to have a bearing on irresponsible consumer decision-

making and purchase behavior: materialism and risk attitudes.

### **Materialism**

Dictionaries define materialism as the emphasis on material objects, comforts, and considerations, with a disinterest in spiritual, intellectual, or cultural values. Originally, materialism was referred to as the philosophic belief that nothing exists except for matter and its movement (Ponchio and Aranha 2008). Richins and Dawson (1992) defined materialism as the significance one places on the possession and pursuit of material goods in hopes of achieving desired states. In pursuit of reaching these states, materialistic consumers fill the void in different ways of possession acquisition and consumption.

Belk (1984) claims that at the most intense levels of materialism, possessions assume a significant role in a person's life and are believed to provide the greatest satisfactions and displeasures in one's life. Bredemeier and Toby (1960) parallel the concept of materialism with religion, where the worship and pursuit of things provides structure to peoples' lives. Religions build on the fundamental aspects of a person's soul and essentially set up a system of values which one will live their life by. Research shows that for many materialists, possessions and their acquisition are the most relevant value and personal goal that influence one's lifestyle (Richins and Dawson 1992).

Keeping in mind that materialists believe that possession and the acquisition of goods is the root to happiness and that it serves as a way of life, materialism can certainly be considered a value. (Webster defines value as the relative worth, utility, or importance that one places on an object or idea). "Defining materialism as a value is consistent with the notion that materialism reflects the importance a person places on possessions and their acquisition as a necessary or desirable form of conduct to reach desired end states, including happiness" (Richins and Dawson 1992). More often than

not, a person who values materialism experiences the "happiness" they seek less frequently than they realize.

Virtually every modern day religion views materialism as a barrier to reaching spiritual fulfillment (Belk 1983). Scientifically, a significant amount of empirical research has suggested that materialism has harmful effects on individuals and society as a whole (Kasser 2002). Schroeder and Dugal (1995), claim that materialists tend to experience high levels of social anxiety and it has been seen that there is an inverse relationship between materialism and happiness and a positive relation in terms of materialism and one's anxiety level (Kasser and Ahuvia 2002).

When viewing materialism at the individual level, research has shown that one's self esteem, well-being, and quality of life are negatively affected by the cycle the individual goes through in trying to bring themselves a sense of fulfillment (Richins and Dawson 1992; Sirgy 1998; Kasser 2002). This can be attributed to the fact that one can never actually reach the desired level of happiness because the pursuit and possession of goods is a continuous cycle. Sirgy (1998) claims that because materialists set such unrealistic standard-of living goals, they experience more dissatisfaction than a person who is a non-materialist.

As a result, the dissatisfaction carries over to a feeling of disappointment with one's life in general. Society is uniquely shaped because those who place a high value on material possessions will behave much differently from those who place a lower value on things (Richins and Dawson 1992). Because of this, research suggests that materialism negatively shapes society and leads to less charitable donations, less community involvement, and less time spent in the family setting (Droge and Mackoy 1995; Kasser 2002; Diener and Robinson 2004).

In relation to society, one of the key concerns for an individual is one's public self-image.

Tunnell (1984) expresses that each member of society has a public self-image, an image of himself or herself that is projected to others. College students are often publicly self-conscious and try to portray an image that is acceptable to their peers. Those high in public self-consciousness are especially concerned about their social identities and constantly strive for approval and avoiding disapproval (Doherty and Schlenker 1991). Materialism can often be a result of one's public self-consciousness (Xu 2008). Individuals high in public self-consciousness are viewed as having low self-esteem and a strong desire for social recognition (Tunnell 1984). Public self-conscious people, much like materialistic people, often judge themselves and others on how much they own and on financial success.

### **Risk Attitude**

Risk is defined as the possibility of loss or injury. Risk assessment is the overall process of using available information to predict the likelihood of hazards or specified events occurring along with the magnitude of their consequences. This "possibility of loss or injury" is analyzed differently from person to person based on their perceived risk of the situation. When it comes to actually assessing these perceived risks, researchers have utilized four methods. One method researchers use is surveys, to uncover people's feelings and attitudes towards certain risks (Slovic, Fischhoff, and Lichtenstein 1979). The second is the use of experimental gambles between an assortment of choices. In the third method, researchers ask respondents how much they are willing to pay to avoid specific risks. The fourth and final method consists of researchers inferring peoples' attitudes towards risks through the observation of the choices they make in particular situations (Hammit and Graham 1999).

Hogarth (2007) argues that although each methodology is unique, the conclusion derived from each of them is that the perception of risk and its assessment is not easily generalizable. Interpretations regarding the meaning of risk

are particularly subjective from one individual to another. This is also directly related to one's decision making process and what they ultimately decide to do.

Lin, Yen and Chuang (2006) claim that the decision making process, which can be an emotional one, can have an impact on one's decision about taking on risk. Studies have shown that mood states can play a significant role in a consumer's behavior and certain aspects of consumer marketing have been shaped by this ideal (Belk 1975; Lutz and Kakkar 1975; Westbrook 1980; Weinberg and Gottwald 1982; Gardner and Vandersteel 1984). Researchers have expanded on this concept and are suggesting that the motive to take on risk is affected by their current mood in that particular situation (Isen and Patrick 1983; Mittal and Ross 1998; Kuvaas and Kaufmann 2004).

However, the influence of one's mood may be more relevant in everyday decision making rather than for major, high involvement choices (Hockey et al. 2000). The amount of time for one to assess the risk in routine decisions is much shorter than for a prolonged decision. Lin, Yen, and Chuang, (2006) present a scenario where a college student purchasing a pair of dress pants for a classroom presentation may face economic, social, and performance risks. In this example, the student is forced to select one of the alternatives, because the product is either needed urgently or one of the options may not be accessible in the future. The prevailing current mood of the decision maker now becomes critical. The researchers state that if the decision maker begins the process with no clear preference, making a choice may be a difficult task because the attractiveness of the available options may be perceived to be too similar. Evaluating the alternatives involves a certain level of risk because the decision maker's final choice could result in regret (a form of loss or injury) if the chosen alternative is a failure.

For the purposes of our study, we are suggesting that this "current mood" is affected

by one's materialistic values. The mood becomes "current" once the person is placed into a position to make a decision at that point in time. This "current" mood of materialism takes over and as a result, one's ability to perceive the risk of their decision could be hindered.

### AN INTEGRATED APPROACH

Acquisitions and the process of acquiring possessions is valued most highly by people ranked high on a materialism scale and lowest by those who report lower materialism scores (Richins and Dawson 1992). Materialists even value these actions and attributes more than their relationships with others. In an attempt to assess these attributes, Richins and Dawson (1992) developed a materialism scale. This scale was a compilation of items from other materialism scales developed over three decades by scholars such as Crowne and Marlow (1960), Rosenberg (1965), Andrews and Whitney (1976), Belk (1984), and Kahle (1986). Each portion of the compilation was used to test one's view of three dimensions: what makes one's life successful, the importance of acquisitions, and how much one's perception of happiness and satisfaction comes from possessions. Tokunga (1993) found that individuals who view money as a sense of power were more likely to engage in credit card misuse. Based on this research stream, Roberts and Jones (2007) developed a scale to assess one's credit card misuse.

We argue that one's materialistic behavior impacts their attitude toward risk. Essentially, the more materialistic a consumer is, the harder it becomes for them to perceive the risk of using their credit card and the financial consequences it entails. Gene Calvert (1993) developed a risk attitude scale for the purpose of evaluating one's attitude toward risk. His scale was designed as a general tool to stimulate reflection and thought about one's risk-taking style and beliefs. Figure 1 summarizes the theoretical scales that we adapt for this study:

Based on our integration of prior research and preceding discussion, we propose the following hypotheses:

- H<sub>1</sub>:** A positive and significant relationship exists between credit card misuse and:
  - a. materialistic values
  - b. risk attitude
- H<sub>2</sub>:** A positive and significant relationship exists between materialistic values and risk attitude.
- H<sub>3</sub>:** A positive and significant relationship exists between credit card misuse and the influence of credit card vendors.

### Data Collection

A 31 question survey was pretested and refined prior to being administered nationally. We asked an assortment of students to participate in a test survey of the final version and through collaboration, we fixed specific aspects of the survey that they either didn't understand or needed more clarification on. A second wave of pretesting was done with an edited and modified questionnaire based on the results of the first pretest. We made every attempt to ensure that the final survey was manageable and efficient in terms of ease of response. We then proceeded to reformat the survey with aesthetics and the logical flow of content in mind. The final version was segmented into four specific sections and was crafted to provide us with information regarding our four main areas of interest.

Our first section was designed to gather information on students' behavior with credit cards and their current status. Section two was added to evaluate students' feelings toward credit card vendors on campus along with the vendors' impact on influencing a student's decision in obtaining a credit card. These two sections were inspired by questions from Sallie Mae's survey of students conducted in 2009. Theoretical Scales rounded out our third section where we presented three scales: Richins and Dawson (1992) materialism scale, Roberts and

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**FIGURE 1**
**Roberts and Jones 2001 Credit Card Misuse Scale**

- a. I am less concerned with the price of a product when using my credit cards
- b. I am more impulsive when I shop with credit cards
- c. I worry how I will pay off my credit card debt
- d. I spend more when I use a credit card
- e. I am seldom delinquent in making payments on my credit cards
- f. I rarely go over my available credit limit
- g. I seldom take cash advances on my credit cards

**Richins and Dawson 1992 Materialism Scale**

- a. I admire people who own expensive homes, cars and clothes
- b. I like to own things that impress people
- c. I don't pay attention to material objects that others own
- d. The things I own say a lot to others in terms of how my life is
- e. I usually only buy things I need (Reverse Scaled)
- f. Buying things gives me a lot of pleasure
- g. I enjoy spending money on things that aren't practical
- h. It sometimes bothers me that I can't afford to buy things I like

**Gene Calvert 1993 Risk Scale**

- a. Taking risks makes good sense only in the absence of acceptable alternatives
  - b. I generally prefer stimulation over security
  - c. I have confidence in my ability to recover mistakes, no matter how big
  - d. I would take safety over achievement
  - e. It is better to ask for permission, than to beg for forgiveness
  - f. Avoiding negative outcomes of risks is as much a matter of luck as ability
  - g. I can handle big losses and disappointments with little difficulty
  - h. I would rather feel intense disappointment than intense regret
  - i. When facing a decision with uncertain consequences, my potential losses are my greatest concern
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Jones (2001) scale regarding credit card misuse and Gene Calvert's (1992) risk assessment scale to assess each respondent's mindset on their attitude towards risk. We asked participants to rank their responses using a modified Likert scale with 1 being "strongly disagree" and 5 being "strongly agree". Our fourth and final section presented a set of demographic questions.

The survey was administered online, respondents were made aware that the research was for academic purposes and that responses were confidential. To generate responses, advertisements were placed on the popular student site Facebook and were distributed

through e-mail on specific college networks. Facebook allowed us to target 18-24 year olds in the United States at a nominal cost. Further we contacted marketing faculty in various educational institutions and sought their cooperation in administering surveys to their students.

Our efforts yielded an effective sample size of 350 students, of which 335 were usable after cleaning the data of respondents who failed to answer a substantial number of questions. It should also be noted that out of the sample of 335 there were still some questions omitted by students, resulting in summary statistics being computed on a question to question basis.

### Sample Profile and Usage Behavior

Our sample includes students across 16 states from California to Connecticut, and from Florida to Montana. The majority of our students were from the Northeast, which is not surprising given the location of the researching institution. Out of the usable sample of 335 students, approximately 45 percent (127) were in the age range of 18-20 with our most frequent age being 21, comprising about 30 percent (85) of our sample. The remaining 25 percent was comprised of students 22 years and older (81). In relation to this, we had a fair representation of each class level with juniors, seniors and graduate students being our most frequent participants, representing approximately 75 percent of our sample. The remaining one-fourth was comprised of freshmen and sophomore students. Sample included students from business, humanities, and natural sciences.

Our sample was divided about 69 percent to 31 percent in favor of females. Some respondents did not specify their gender when responding and some failed to answer all of the demographic questions as we noted earlier. Overwhelmingly, about 80 percent of our sample reported having a GPA between 3.1-4.0 with the remaining 20 percent claiming a GPA between 2.1 and 3.0. As we investigated further, we found that approximately 25 percent of our sample worked between 1-10 hours a week and 23 percent worked between 11-20 hours per week. Approximately 12 percent of respondents worked 21-30 hours with around 25 percent working over 30 hours. Interestingly, approximately 28 percent of respondents reported not working at all. Further, we found that 33 percent of our sample made between \$1-\$500 per month and 17 percent actually did not have an income. Taking into consideration that 21 percent of respondents were graduate students, we weren't surprised that 10 percent reported making over \$2,000 per month with around 11 percent reporting between \$1,001-\$1,500 and 8.3 percent claiming between \$1,501 and \$2,000.

### Credit Card Debt Status Analysis

Out of the 335 participants in our survey, approximately 26 percent of the respondents had 5 or more cards with the remaining having two to four cards. Considering credit card companies' willingness to give students credit cards in hopes of acquiring a lifetime customer, we were surprised to see that approximately 5 percent reported that the reason for not having a card was being unable to get approved.

The majority of card holders (approximately 80 percent) either acquired them before entering college or as college freshmen, with approximately 55 percent getting assistance from their parents in making the decision. However, 33 percent of our participants reported making their decision based on a direct mailer sent from the vendor themselves. In relation to this, approximately 73 percent acquired their first card when they were 18 years old, which makes sense considering most college freshmen are of this age. Out of these students who obtained a card, approximately 35 percent reported having at least one card for three or four years.

More importantly, we saw a split in terms of credit balances the students were carrying, both showing positive and negative outlooks. Approximately 43 percent of students reported having a current balance between \$0-\$200, which is respectable. However, 22 percent of students had a current balance of over \$1,000 with almost 40 percent of respondents having carried a balance of over \$1,000 at some point in time. Although this information is interesting, yet another aspect to consider is the debt payment behavior of these student card holders.

Approximately 56 percent of our sample reported paying off their credit card balances in full each month which is most likely pertaining to those with lower balances, considering 53 percent of our sample had a balance below \$400. Slightly over 20 percent said that they make more than the minimum payment but

always carry a balance, which is in tune with the Sallie Mae findings.

When we saw these large balances occurring we shifted our focus to what the students were actually buying. Around 44 percent of students reported spending between \$500-\$1,500 on educational related expenses in the past year with textbooks and school supplies being the primary purchases. What was more interesting was the amount of money students were spending on non-education related items. Over half of our sample reported gasoline, clothing and dining as their main purchases with approximately 40 percent charging travel expenses, music/movies, and food. Approximately 30 percent reported spending between \$500-\$1,500 on non-education related items with 19 percent charging over \$3,000 in the past year.

**Credit Card Vendors**

As mentioned earlier, credit card vendors have been playing an active part in influencing students to sign up for credit cards. Out of our sample of 335 students, approximately 70 percent of respondents reported being approached by a credit card vendor with about half of respondents being approached about once a month. When we asked students to assess their sentiment on the appropriateness of vendors giving free gifts, nearly 25 percent felt

offering free gifts was inappropriate with around 30 percent stating that they were indifferent about the situation, leaving the remaining 45 percent viewing it as appropriate. Out of the variety of offerings credit card vendors offer to entice students, we found promotional rates to be the most frequent offering. It was surprising to see that money was being offered to students; especially with 12.8 percent of our sample making this claim.

**FINDINGS AND DISSCUSSION**

Before exploring each hypothesis, we computed correlation coefficients to assess the relationship among the three scales. We were exploring for p-values less than or equal to 0.05. However, we were not just interested in the significance levels (0.05 or lower) but also the direction of the relationship. These correlations are presented below in Figure 2.

Results indicated that both risk attitude and materialism had a positive and significant impact on a student’s credit card misuse. As a student’s materialistic attitude increased so did their credit card misuse. Similarly we note that as the propensity to assume risk increased so does the student’s credit card misuse.

The credit card misuse scale was then regressed upon the risk attitude scale and the degree of materialism. The overall model was found to be

**FIGURE 2**

		Credit Card Misuse Scale		
Materialism Scale	Pearson Correlation	.184**		
	Sig. (2-tailed)	.007		
	N	217		
Risk Attitude Scale	Pearson Correlation	.201**	Materialism Scale	
	Sig. (2-tailed)	.003		.009
	N	219		293
<b>** Correlation is significant at the 0.01 level (2-tailed).</b>				

significant at the 0.05 level ( $F=5.297$ ;  $p=0.022$ ). All regression coefficients were found to be significant at the 0.05 level with risk having a t-value of 2.566 ( $p=0.010$ ) and materialism having a t-value of 2.302 ( $p=0.022$ ). As hypothesized, risk attitude and materialism had a positive and significant impact on credit card misuse.

### **Attitude and Behavior towards Materialism**

We then shifted our attention toward examining the relationships between scale items for materialism. Results indicated that students who admire people with expensive homes and luxury items tend to misuse their credit card ( $p= 0.010$ ,  $F: 1.790$ ). Moreover, we observed that students like to own things that impress people ( $p= 0.056$ ,  $F: 1.492$ ) and that a student's perception of how others perceive them is based on what they own ( $p= 0.058$ ,  $F: 1.487$ ). This suggests that they are concerned about how others will perceive them and want to become someone whom others admire for owning expensive goods. As a result, they rely on their credit cards to achieve the desired perception. Many times these purchases are on goods that are impractical and above the students' means. This finding is significant, considering students are placing more emphasis on achieving a materialistic status than on what the product is actually costing them.

In relation to this, results indicated that students who felt their lives would be bettered by owning things they didn't already have, had a higher propensity to misuse their credit card ( $p=0.018$ ,  $F: 1.697$ ). Many students with this mindset were sometimes bothered by not being able to afford things that they like, resulting in their reliance on credit cards to fill the void ( $p=0.038$ ,  $F: 1.563$ ).

These two results reflect the root causes of credit card misuse in terms of materialism. As previously mentioned, Schroeder and Dugal (1995) found that materialists tend to experience high levels of social anxiety. With this in mind, Kasser and Ahuvia (2002) discovered an inverse relationship between

materialism and happiness and a positive relation in terms of materialism and one's anxiety level. Our results lend support to the notion that level of happiness is greatly affected by materialistic values, in turn causing students to abuse their credit cards. This abuse stems from the notion that they view their credit card as a quick way to purchase things they desire, yet can't afford. The problem intensifies when they overspend to narrow the gap between their actual and ideal selves, which results in high debt collection.

Often, this behavior of using credit cards to acquire goods you desire and can't afford is influenced by one's perception of their public self-image. As Doherty and Schlenker (1999) attest, materialism can often be a result of one's public self-image and those who are highly self-conscious in public are especially concerned about their social identities. Individuals fitting this criterion are highly self-conscious and are viewed with having low self-esteem and a strong desire for social recognition. Public self-consciousness driven people, much like materialistic people, often judge themselves and others on how much they own and on financial success. Sirgy (1998) claims that with materialists setting such unrealistic standard of living goals, they often never reach their desired level of happiness and fulfillment because the pursuit of goods becomes a continuous cycle. With this in mind, it was no surprise that we found a relationship between students abusing their credit cards and items on our materialism scale.

### **Risk Attitude of Students**

As theoretically posited, a positive and significant relationship was found for all three areas of the risk scale. Among risk seeking individuals we found a positive and significant relationship at the 0.004 level of significance ( $F: 1.959$ ) for students who have the mindset that taking risks makes sense when no acceptable alternatives are present being more likely to misuse their credit cards. Risk neutral respondents showed a positive and significant relationship ( $p = 0.053$ ,  $F: 1.503$ ) that they

would be more likely to abuse their credit card. Further, findings suggested that there was a positive and significant relationship between materialistic values and risk attitude ( $p=0.010$ ). This would support the notion that a student who ranks high on materialism would have a greater propensity to assume and take on risk.

Past research has stated that our ability to perceive and assess risk can be influenced by our current mood in a particular purchase situation (Lin, Yen, and Chuang 2006). This relationship supports our argument and past research that one's "current mood" is affected by one's materialistic behavior, resulting in one's inability to perceive the risk of their decision at that moment in time. Our findings support the idea that the more materialistic one is, the harder it becomes for them to perceive the risk of using their credit card and consequently respondents take on more risk.

To investigate the impact of vendor strategies and promotions we performed an ANOVA of credit card misuse and approaches used by credit card vendors. Results indicated no significant impact between a student's credit card misuse and if there was credit card vendor contact. However, we ran a similar test using a student's ranking of the appropriateness that vendors give free gifts and if the student was influenced to sign up for a credit card based on the offering of a free gift. Results indicated at the .0001 level of significance ( $F:19.733$ ) that students who felt it was appropriate for credit card vendors to offer free gifts were more likely to be influenced by the offering of the gift to sign up for the credit card. This finding clearly indicates why credit card companies continue to offer promotional gifts to students- they are effective in converting prospects to customers.

#### **LIMITATIONS AND FUTURE RESEARCH**

Although our study expands marketing knowledge of the impact materialism, risk attitude and credit card vendors have on a student's credit card misuse, there are certainly cautions associated with our findings. First, our sample size is relatively small at 335 and may

not be generalizable across the country, although we do have 16 states represented in the sample. Also, our findings are in tune with the national Sallie Mae Studies (2009), which lend credibility to the robustness of our sampling.

This smaller sample may have resulted because we sent out surveys toward the end of August. We felt sending them out during this time frame would be ideal considering students would be arriving back at school. We failed to take into consideration that students would have a decreased amount of free time because of school work and interactions with friends they have been apart from since May.

The reader is cautioned that although our sample was relatively diverse with a variety of students from different states participating, one should still be cautious in generalizing our findings to all students at the national level. When we say diverse, we are speaking of the particular characteristics and backgrounds of each student. We cannot claim total diversity considering two-thirds of our sample was made up of females. We also must be aware of participants having the tendency to boast about themselves and providing us with inaccurate data. For example, almost 80 percent our sample reported having a GPA between 3.1 and 4.0. Although this could be entirely possible, it could well be an inflated response. This also relates to a participant's honesty in their credit card behavior and tendency to downplay a problem.

Future research should consider exploring the public self-consciousness aspect of materialism and how it relates to one's attitude toward risk. It would be interesting to explore if one's perception of their public image would result in them being risk seeking or risk averse. As discussed earlier, individuals who are highly concerned with their public image are viewed as having a low self-esteem and a strong desire for social recognition. These types of people, much like materialistic people, often judge themselves and others on how much they own and on financial success. Viewing this concept

at the collegiate level could help explain some of the risky behaviors college students take not just with credit cards but with life in general, in hopes of achieving their ideal selves.

In addition, it would be interesting to explore the effects of the new credit card regulation implemented in early 2009 via a longitudinal study. Comparing our current study to this new study would be beneficial to policy makers in identifying the effectiveness of the regulation while uncovering new tactics being taken by marketers to combat the regulation. As a precursor to our future research, we provide a brief description on how the new regulation affects college students and credit marketers.

President Obama signed the Credit Card Accountability Responsibility and Disclosure (Credit CARD) Act of 2009 with provisions that are expected to alleviate some of the main issues college students face with credit cards. Under the new Credit CARD Act, there are now specific criteria that an individual under the age of twenty one must meet to obtain a credit card. The regulation states that no individual under the age of twenty one will be allowed to obtain a credit card unless the individual submits an official application to the card issuer that contains specific information (Prater 2010). This application must include the signature of a co-signer age twenty one or older. The co-signer can be a parent, legal guardian, spouse, or anyone that has a means to repay the debt incurred by the primary cardholder. The co-signer will indicate joint liability for the debts by signing the application. If the application does not contain a co-signers signature, it must contain information indicating an independent means of repaying any credit extended (Prater 2010).

From a marketing perspective, no credit card issuer will be allowed to conduct pre-screened credit card offers to individuals under twenty one unless those individuals have consented to receive such offers. Second, credit card issuers are not allowed to present tangible gifts to individuals under 21 in exchange for filling out a credit application. These rules will

significantly impact the involvement and interaction between card issuers and young individuals under the age of twenty one (Hillebrand 2010).

In addition, the Credit CARD Act now regulates marketing contracts between colleges and credit card issuers. Colleges, universities, and alumni associations will now have to disclose any contracts that they sign with credit card issuers and include all details of the contracts. In conjunction, credit card companies will be required to file annual reports with the Federal Reserve Board that include all details and terms of promotional deals with colleges and universities. Congress is trying to limit the number of campus locations where credit card marketing takes place (Hillebrand 2010; Prater 2010). Creditors are not allowed to provide incentives to students on or near campus at all. In fact, creditors can't be within one thousand feet of a student campus if their marketing involves a tangible item giveaway.

### CONCLUDING REMARKS

Our study can have a significant impact on college students as well as on credit card companies to reevaluate their standards. In doing so, students will be able to see the core of the problems and be more aware of what is causing their financial debt to rise. Furthermore, our research can assist policy makers and school officials in assisting college students with this issue. Our study may influence legislative opinion on financial education in public schools, much like Epstein's DollarCamp Financial Survival System (Anonymous 2008).

Our research gives students a better perspective on how serious the issue is. It is imperative that students realize the severity of poor credit card management now so they can avoid hardships in the future. With the current financial crisis and instability of the economy, it is extremely important that our nation's youth exhibit responsible behavior with their credit cards. With new regulations being implemented to deter irresponsible behavior, our future research

should provide additional insight on the status of credit cards while assessing the effectiveness of the new credit card regulations.

Regardless of the new regulations, our study has shown that irresponsible behavior is influenced by the level of materialism students' exhibit as well as their attitude towards risk. Students need to learn how to become more responsible for their credit cards and evaluate themselves in terms of how materialistic they are and if their attitude toward risk influences their decisions to a large degree. This is not to say that these two factors are the only driving factors causing credit card misuse, but they certainly appear to be significant. With everyone in society feeling pressured to achieve a certain social status, it is likely that most people have some sort of materialistic value in which their actions are influenced by their assessment of risk. The essential concept, however, is that they learn to be accountable for their financial behavior and realize the implications of abusing their credit to fill a void that cannot truly be filled with material possessions.

#### REFERENCES

- Acosta, Paul and R. Devasagayam (2009), "The Impact of Consumer Conformity on Brand Following: Preliminary Findings", Marketing Management Association Spring Conference, *Proceedings* (ed. Don Roy), March 2009, 292-297.
- Anonymous (2008), "The Student Money Expert Launches the DollarCamp Financial Survival System, the First-Ever Program to Teach High School and College Kids About Budgeting, Credit Cards and Credit Scores", *Business Wire*, June 10.
- Bdzola L, P.G. Clough, G.R.J Hockey and A.J. Maule (2000), "Effects of Negative Mood States on Risk in Everyday Decision Making", *Cognition and Emotion*, 14, 823-855.
- Belk, Russell (1975), "Situational Variables and Consumer Behavior", *Journal of Consumer Research*, 157-174.
- Belk, Russell (1975), "Three Scales to Measure Constructs Related to Materialism: Reliability, Validity, and Relationships to Measures of Happiness", *Advances in Consumer Research*, 11, 291-297.
- Belk, Russell (1983), "Wordly Possessions: Issues and Criticisms", *Advances in Consumer Research*, 10, 514-519.
- Bredemeier, Harry C. and Toby Jackson (1960), *Social Problems in America: Costs and Casualties in an Acquisitive Society*, New York, Wiley.
- Calvert, Gene (1993), *Highwire Management*, Jossey-Bass, 41-46.
- Dorhety, K. and B.R. Schlenker (1991), "Self-Consciousness and Strategic Self-Presentation", *Journal of Personality*, 59, 1-18.
- Droge C. and R.D. Mackoy (1995), "The Consumption Culture Versus Environmentalism: Bridging Value Systems with Environmental Marketing", Edited by P. Kaufma P. Schildereller, *Marketing and Public Policy Conference*, Atlanta, GA, 227-232.
- Hammit, J.K. and J.D. Graham (1999), "Willingness to Pay for Health Protection: Inadequate Sensitivity to Probability", *Journal of Risk and Uncertainty*, 18(1), 33-62.
- Hillebrand, Gail (2010), "New Consumer Credit Card Protections", Consumers Union, [http://www.defendyourdollars.org/CC%20summary\\_1.25.2010.pdf](http://www.defendyourdollars.org/CC%20summary_1.25.2010.pdf) (accessed April 2, 2010).
- Hogarth, R.M. (2006), "Is Confidence in Decisions Related to Feedback? Evidence and Lack of Evidence from Random Samples of Real World Behavior", In K. Fiedler and P. Justin (Eds.), *In the Beginning There is a Sample: Information Sampling as a Key to Understand Adaptive Cognition*, Cambridge, UK, Cambridge University Press, 456-484.
- Greenburg, Anna (2008), "Young Americans: Living on the Financial Edge", <http://www.gqrr.com/index.php?ID=2217> (accessed August 4, 2008).

- Isen, A. M. and R. Patrick (1983), "The Effects of Positive Affect on Risk-Taking: When the Chips Are Down", *Organizational Behavior and Human Decision Processes*, 31, 194–202.
- Kasser, T. (2002), "The High Price of Materialism: Materialistic Values and Well-Being in Business Students", (MIT Press, Cambridge, Massachusetts), *European Journal of Social Psychology*, 32, 137–146.
- Kuvaas, B. and G. Kaufmann (2004) "Impact of Mood, Framing, and Need for Cognition and Decision Makers' Recall and Confidence", *Journal of Behavioral Decision Making*, 17, 59–74.
- Lutz, R.J. and P. Kakkar, "Toward a Taxonomy of Consumption Situations", In Edward M. Mazze (Ed.), *Marketing in Turbulent Times*, Chicago, IL, American Marketing Association, 206-210.
- M.P. Gardner and M. Vandersteel (1984), "The Consumer's Mood: An Important Situational Variable", *Advances in Consumer Research*, 525-529.
- Mae, Sallie (2009), "How Undergraduate Students Use Credit Cards: Sallie Mae's National Study of Usage Rates and Trends", <http://www.salliemae.com/NR/rdonlyres/0BD600F1-9377-46EA-AB1F-6061FC763246/10744/SLMCreditCardUsageStudy41309FINAL2.pdf> (accessed May 10, 2010).
- Manning, Robert D. (2000), *Credit Card Nation*, New York, Basic Books.
- Mateus Ponchio and Aranha Francisco (2008), "Materialism as a Predictor Variable of Low Income Consumer Behavior When Entering Into Installment Plan Agreements", *Journal of Consumer Behavior*, 7, 1, 21.
- McGuire, Kara (2008), "Pay Dirt: Don't Know Much About Finance; A New Survey Shows Minnesota's High School Seniors Are As Financially Illiterate as the Rest of the Nation's Teens. The Question is What We're Going To Do About It", *Star Tribune*, D.3.
- Miller, Kay (2000), "Credit Conundrum", *Minneapolis Star and Tribune* (August 9), E1, E7.
- Mittal, V and W.T.G Ross (1998), "The Impact of Positive and Negative Affect and Issue Framing on Issue Interpretation and Risk Taking", *Organizational Behavior and Human Decision Processes*, 76, 298–324.
- Mudd, Douglas A. (2007), "Plastic Cash: A History of Money and the Credit Card in America", *Credit Control*, 28(3), 48-49, 51-53.
- Pirog III, Stephen F. and James A. Roberts (2007), "Personality and Credit Card Misuse Among College Students: The Mediating Role of Impulsiveness", *Journal of Marketing Theory and Practice*, Winter 2007, 65-73.
- Poirier, John, and Jonathon Stempel (2009), "Consumer Loan Late Payments at 28-Year High", *Reuters.com*, <http://www.reuters.com/article/topNews/idUSTRE5064FF20090107>, (accessed June 27, 2009).
- Prater, Connie (2010), "What the New Credit Laws Mean for You", <http://www.creditcards.com/credit-card-news/help/what-the-new-credit-card-rules-mean-6000.php> (accessed April 3, 2010).
- Richins, Marsha L. and Scott Dawson (1992), "A Consumer Values Orientation for Materialism and its Measurement: Scale and Development and Validation", *Journal of Consumer Research*, Dec 1992, 303-314.
- Samuelson, Johnathon (2008), "A Darker Future For US", *Newsweek.com*, <http://www.newsweek.com/id166821/page/1> (accessed November 25, 2008).
- Schroeder, J. E. and S.S Dugal (1995), "Psychological Correlates of the Materialism Construct", *Journal of Social Behavior and Personality*, W, 243-253.
- Shin-Chieh Chuang, Chien-Huang and Rebeca HsiuJu Yen (2006), "The Effects of Emotion and Need for Cognition on Consumer Choice Involving Risk", *Marketing Letters* 17, 1, 47-60.
- Silver-Greenberg, Jessica and Ben Elgin (2009), "The College Credit-Card Hustle", *Business Week*, July 29, 38-42.
- Singletary, Michelle (2007), "Colleges Are in Cahoots with Credit Card Companies on Campus", *Boston Globe*, C.4.

- Sirgy, J.M. (1998), "Materialism and Quality of Life", *Social Indicators Research.*, 43, 227-260.
- Slovic, P., B. Fischhoff and S. Lichtenstein (1979), *Rating the Risk Environment*, 21(3), 14-20.
- Solberg, E. G., E. Diener and M.D. Robinson (2004), "Why Are Materialists Less Satisfied?" In T. Kasser and A. D. Kanner (Eds.), *Psychology and Consumer Culture: The Struggle for a Good Life in a Materialistic World*, Washington, DC, *American Psychological Association*, 29-48.
- Stempel, Jonathon (2008), "Credit Card Weakness a Vicious Cycle for Lenders," *Reuters.com*, <http://www.reuters.com/article/reutersEdge/idUSTRE4AI5YG20081119?pageNumber=1&virtualBrandChannel=0> (accessed November 25, 2008).
- Tokunga, Howard (1993), "The Use and Abuse of Consumer Credit: Applications of Psychological Theory and Research", *Journal of Economic Psychology*, 14 June, 285-316.
- Tunnell, G. (1984), "The Discrepancy Between Private and Public Selves: Public Self-Consciousness and its Correlates", *Journal of Personality Assessment*, 48 No.5, 549-555.
- Weinberg, P., and W. Gottwald (1982), "Impulsive Consumer Buying as a Result of Emotion", *Journal of Business Research*, 10, 43-57.
- Weiss, Michael J. (2003), "To Be About to Be", *American Demographics*, 25 (7), 28-36.
- Westbrook, R. A. (1980), "Intrapersonal Affective Influences Upon Consumer Satisfaction with Products", *Journal of Consumer Research*, 7, 49-54.
- Xu, Yingjiao (2008), "The Influence of Public Self-Consciousness and Materialism on Young Consumers Compulsive Buying", *Young Consumers*, 9(1), 37-48.