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Credit Attitude, Money Attitude and Credit Misuse among University Students in China  
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# CREDIT ATTITUDE, MONEY ATTITUDE AND CREDIT MISUSE AMONG UNIVERSITY STUDENTS IN CHINA

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## Abstract

The purpose of this paper is to investigate the relationship between credit and money attitudes with credit misuse among university students in Sichuan, China. A sample of 150 undergraduate students was collected from Sichuan University, the University of Electronic Science and Technology, and the Southwestern University of Finance and Economics. Descriptive analysis and Pearson correlation coefficient were used to analyze the data. Pearson correlation analyses found that affective, cognitive, and behavioral credit attitudes had no significant relationship with credit misuse. On the other hand, the five components of money attitude namely achievement and success, saving concerns, mindfulness and responsible, power and status as well as financial literacy worries had a significant positive relationship with credit misuse. This study provided relevant information to relevant parties to prevent credit misuse from becoming widespread among university students.

**Keywords:** Credit misuse; Credit attitude; Money attitude; Theory of reasoned action

## Abstrak

*Tujuan kajian ini adalah untuk mengkaji hubungan di antara sikap kredit dan wang dengan penyalahgunaan kredit di kalangan pelajar university di Sichuan, China. Satu sampel 150 pelajar sarjana muda dikumpulkan dari Universiti Sichuan, Universiti Sains dan Teknologi Elektronik serta Southwestern Universiti Kewangan dan Ekonomi. Analisis deskriptif dan pekali korelasi Pearson digunakan untuk menganalisis data. Analisis korelasi Pearson mendapati bahawa sikap kredit afektif, kognitif dan tingkah laku tidak mempunyai hubungan yang signifikan dengan penyalahgunaan kredit. Sebaliknya, lima komponen sikap wang iaitu pencapaian dan kejayaan, kebimbangan menabung, prihatin dan bertanggungjawab, kuasa dan status serta kebimbangan celik kewangan mempunyai hubungan positif yang signifikan dengan penyalahgunaan kredit. Kajian ini memberi maklumat yang relevan kepada pihak yang berkaitan bagi mengelakkan penularan penyalahgunaan kredit di kalangan pelajar universiti.*

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**Kata Kunci:** *Penyalahgunaan kredit; Sikap kredit; Sikap wang; Teori tindakan bersebab*

## Introduction

In recent years, the rapid development of the Internet in China has brought great convenience to people's lives and thus impacted people's consumption habits. Credit cards were first introduced in China in 1986 and expanded dramatically to the current size of \$1.3 trillion ("China tightens rules", 2022). The increased number and type of credit cards on university campuses has seen an explosive level of growth in the past decade. University students became the target of financial companies such as Alibaba, Jingdong, and Baidu as they represent a huge chunk of the population of credit card users. Online credit facility comes with fewer restrictions on consumers compared to traditional consumer credit services. This makes it a popular option among university students, who are experts at shopping online. They can instantly obtain credit after registering on online credit platforms and purchases can be repaid in installments. The Internet financial credit platform brings convenience and encourages a higher level of consumption among university students but it also comes with a series of social problems. One of the downsides includes the misuse of cards which leads to high levels of debt among university students (Norvilities, 2014).

Credit misuse refers to behaviors that negatively affect the credit score of an individual such as exceeding credit limits, using cash advances, and failing to make payments (Ahn et al., 2018). As a huge consumer group, university students have strong spending power but they often lack correct consumer concepts. Generally, these young consumers are unable to balance their actual spending power with economic capabilities, thus making it a topic of great concern among policymakers and practitioners. Students who misuse credit cards indiscriminately tend to suffer financially and psychologically (Liu & Zhang, 2021) as most of them do not have a regular stream of income and savings.

Because young adults represent an important consumer segment in many countries, it is necessary to understand the factors that explain students' misuse of the credit card. Among the common ones investigated are knowledge, awareness, and attitudes (Ismail et al., 2014), sociodemographic characteristics (Lin, Gan & Cohen, 2019), and internet usage (Zhu et al., 2020). This study attempts to contribute to the existing literature by looking into the relationship between credit attitudes and money attitudes with credit misuse among young university students in China. While past studies have utilized credit attitudes in understanding consumer credit behaviors (e.g. Hancock, Jorgensen, and Swanson, 2013; Ismail et al., 2014; Khare, 2016) but few looked into the effect of sub-components of attitudes on the same behaviors. In addition, our study focused on a new measure for money attitude to investigate the relationship between its sub-components and credit misuse. The identification of

factors that influence college students' usage of credit cards will be helpful to consumer credit educators and practitioners when they are helping these young adults achieve their financial well-being.

## **Literature Review**

### ***Theory of Reasoned Action (TRA)***

The TRA proposed by Ajzen and Fishbein (1975) postulates that individuals normally behave in a sensible and guided manner where they make systematic use of available information and implicitly or explicitly consider the consequences of their actions (Ajzen, 1985). The theory assumes that behavior can be predicted from attitude, which is a personal or individual influence where it represents the overall favorable or unfavorable appraisal of performing the behavior. According to Fishbein & Ajzen (2010), beliefs play a central role in the TRA as they reflect the foundations for the predictors of behavior. As such, in accordance with an expectancy-value formulation, the attitude component in the model is a function of belief held about the target behavior that is the possible outcomes of performing the behavior weighted by the evaluation of these outcomes. Hence, a person who believes that performing a target behavior will produce mostly positive outcomes will have a favorable attitude toward performing the behavior and vice versa (Ajzen, 1985). This study uses the TRA to understand the relationship between credit attitudes and money attitudes with credit misuse behavior among young university students.

### ***Credit Misuse***

Credit misuse is defined as spending behaviors that lead to substantial debt on one's credit card (Palan et al., 2011; Zainudin, Mahdzan, and Yeap, 2019). Examples of these risky credit behaviors are compulsive and impulsive buying (Palan et al., 2011; Pradhan, Israel, and Jena, 2018), overspending (Paul, Nolan, and Smith-Hunter, 2017), frequent cash advances (Robb and Pinto, 2010) and high-interest borrowing (Shen, 2016). People tend to spend more when using a credit card compared with cash because the pleasure of unconscious spending makes them fail to realize the accumulated outstanding balance (Runnemark, Hedman, and Xiao, 2015). Furthermore, frequent credit card users are less price-conscious and were more like to purchase compulsively (Phau and Woo, 2008)

Credit card use by college students is often associated with living beyond their means (Zhu, 2019), high dropout rates (Lyons, 2008), high levels of debt (Singh, Rylander, and Mims, 2018,) and loans default (Looney and Yannelis, 2022). College students are good customers for credit cards (Mansfield & Pinto, 2008), partly, because that age group constantly grows, including new potential cardholders every year (Hayhoe et al., 2000). Moreover, college students rely more on credit cards in purchasing

products and services compared to other age groups (Hein, 2003). The lack of credit card knowledge among college students may contribute to overspending and credit card abuse (Norvilitis & Maria, 2002; Yarema & Sampson, 2001). Consumers who carry large credit card balances (Ritzer, 1995) and have a lot of credit cards are more likely to have compulsive buying behaviors (O'Guinn & Faber, 1989; Roberts, 1998). The mentality of 'buy now, pay later drives young consumers to choose instant gratification and delay debt into the future. Abusive credit card usage may lead to delinquency, a situation where payments are overdue for a certain period or cardholders are unable to pay the monthly minimum payment on the due date of their credit card (Kim, 2000; Kim, Cho, and Ryu, 2018). On top of that, late fees, finance charges, and interest rates levied on outstanding credit card debts will accumulate and become a bigger burden to cardholders. This situation could eventually lead to bankruptcy, particularly among the youth (Kim, Cho, and Ryu, 2018; Razak, 2015).

### ***Credit Attitudes***

Credit card behavior varies with the attitude consumer holds toward credit card usage. In general, people with favorable attitudes were more likely to possess and use credit cards and vice versa (Dong, 2007) as they had some beliefs about the pros and cons of credit card use. Joo et al. (2003) found that a positive credit card attitude is linked to more credit cards and their usage frequency while a fearful attitude toward credit cards leads to fewer cards and lower usage. Similarly, Jirotmontree (2010) outlined that credit card attitudes are directly related to the likelihood of credit card use. Past studies have indicated that college students tend to show favorable attitudes toward credit card use (e.g. Hancock, Jorgensen, and Swanson, 2013; Li, Wang, and Xu, 2014) because it offers a sense of security and convenience to pay for things (Blankson, Paswan and Boakye, 2012). Moreover, people tend to feel wealthier when they possess credit cards and this may lead to adverse effects of indebtedness (Barboza, 2018). For instance, Zainudin, Mahdzan, and Yeap (2019) revealed that credit card attitudes have a positive impact on the tendency to misuse credit cards among Malaysian Gen Y.

One of the widely used instruments for measuring attitudes toward credit cards is the credit attitude scale by Xiao, Noring, and Anderson (1995). The original scale was formulated with a tripartite classification of credit attitude, namely affective, cognitive and behavioral components. Although there were other credit card attitude scales before this, these instruments failed to identify the possible components related to attitudes toward credit cards. Xiao, Noring, and Anderson (1995) believed that different components of attitude may have different impacts on college students' practices of using credit cards. Their arguments were based on the premise that attitude was a multi-component construct, which was commonly used in consumer behavior literature. Affective attitudes are defined as individual emotional reactions and feelings toward credit cards (e.g. using a credit card makes me happy). It

determines an individual's overall assessment of credit cards and is often expressed in terms of a favourableness rating. Cognitive attitudes involve thoughts, beliefs and knowledge individuals have about credit cards (e.g. knowledge about the cost of using credit). This component describes an intention to behave in a specific fashion toward credit cards. Lastly, behavioral attitudes refer to the way individuals act when dealing with credit cards (e.g. apply for credit cards at every opportunity and hold multiple cards).

Kerre et al. (2018) and Kinyua (2015) found that feelings toward credit cards were positively related to credit card adoption and usage. In addition, Hayhoe (2002) discovered that higher affective credit attitude scores are related to a higher likelihood of having outstanding balances on multiple credit cards among students. While the relationship between affective attitudes and credit behaviors was more straightforward, it is of mixed outcomes for cognitive attitudes. Robb (2011) and Xiao et al. (2014) explained that higher financial knowledge is associated with less risky use of credit cards and avoiding future financial problems. Similarly, Khandelwal et al. (2022) discovered those with a higher financial understanding are less likely to spend compulsively off the credit card. On the other hand, Anh et al. (2018), Kerre et al. (2018) and Norvilities and MacLean (2010) claimed that higher financial knowledge was positively related to frequent credit misuse and debt. Borden et al. (2008) and Braunsberger, Lucas, and Roach (2005) asserted that students could have inaccurately gauged their financial knowledge and thus feel overconfident in their financial decisions. Nonetheless, some studies (e.g. Dewi et al., 2020; Jusoh and Lin, 2012) found an insignificant relationship between financial knowledge and credit card practices. For the behavioral component, Hayhoe, Leach, and Turner (1999) stated that students with four or more credit cards were less likely to borrow from friends or relatives while Hamid and Loke (2021) indicated that the number of credit cards held by users influence credit card repayment decisions. In contrast, Hayhoe et al. (2005) discovered a different outcome when they found that college students with four or more credit cards were more reluctant to spend money (retention) and less willing to use the money to solve problems (obsession). In another study, Limbu and Sato (2019) reported an insignificant inverse relationship between credit card numbers with financial well-being.

Based on the above, the following hypotheses are proposed:

*H1.* There is a significant relationship between effective components and credit misuse.

*H2.* There is a significant relationship between the cognitive component and credit misuse.

*H3.* There is a significant relationship between behavioral components and credit misuse.

## ***Money Attitudes***

Money attitudes can be defined as an individual's opinion, cognitions, and feelings toward money (Rutherford and deVaney, 2009). Similarly, Oei (2020) viewed money attitude as a person's perspective on the purpose and way of using money. Attitude towards money is learned through the socialization process established early in childhood and maintained in adult life. Money attitudes of a person can be perceived as a 'frame of reference' that can be used to examine his or her daily life (Tang, 1995). Various attempts to develop a scale demonstrated that money attitude is a multidimensional and complex construct that produces both positive feelings (happiness and freedom) and negative feelings (inadequacy and anxiety). A commonly used scale was the one developed by Yamauchi and Templer (1982) called the Money Attitude Scale (MAS). The scale considers four dimensions concerning money namely power prestige (use of money to gain power and as a symbol of success), retention-time (the tendency of financial planning and preparation for the future), distrust (doubt and hesitation in situations involving money) and anxiety (money as a cause of fear and anxiety as well as a tool to protect oneself from those feelings). Before the development of MAS, there was Furham's (1984) Money Beliefs and Behavior Scales (MBBS). It had similar dimensions to those of MAS such as money as a tactic to gain power, retention or budgeting with money, security or having an old-fashioned approach to money, inadequate or a feeling that one does not have enough money, and obsession or the effort of how one gets money (Yang and Lester, 2002). The sixth dimension that is not measured by MAS involved effort or the relationship between one's effort and financial well-being (Roberts and Jones, 2001).

This study uses a new measure by Lay and Furnham (2018) named the New Money Attitudes Questionnaire. As outlined by the authors, most money attitudes scales have four clear factors specifically achievement and success, power and status, security and safety as well as savings issues. The main contribution of this scale is the dimension of financial literacy worries that has often been neglected in the literature. Money as a measure of success and self-worth is related to achievement and success. The amount of money one has is a powerful measure of success in life and gives people a sense of accomplishment (Durvasula and Lysonski, 2010). Power and status are related to the idea that money is something that many people strive for as it is a major source of social status. Individuals tend to enjoy the respect gained through displaying their wealth. The dimension mindful and responsible look into people's thoughts about money as a form of protection. Those with these beliefs tend to save money through budgeting and paying bills to avoid being fined. Savings concerns are related to the adequacy of savings. People with this money attitude fear that their savings are never enough or that they will run out of money. Lastly, financial literacy worries refer to the worry and anxiety related to a lack of knowledge about financial matters. People with this concern often feel anxious and ashamed to talk to

others about financial affairs.

Generally, money attitude was found to be more important in describing card spending and variation in debt compared to socio-demographic variables (Lin et al. 2019). Specifically, the power dimension of money attitude influenced compulsive buying behavior (Khare, 2016). Similarly, motives toward saving were also found to predict compulsive buying (Harnish et al., 2018). In addition, self-esteem had a negative influence on credit card misuse (Omar et al. 2014). Financial anxiety was significantly related to the misuse of credit cards (Veludo-de-Oliveira, Falciano & Perito, 2014). and subsequently lead to higher credit card debt (Limerick and Peltier, 2014). Accordingly, it is hypothesized that:

- H4.* There is a significant relationship between achievement and success and credit misuse.
- H5.* There is a significant relationship between saving concerns and credit misuse.
- H6.* There is a significant relationship between mindful and responsible components and credit misuse.
- H7.* There is a significant relationship between power and status and credit misuse.
- H8.* There is a significant relationship between financial literacy worries and credit misuse.

## **Method**

### ***Sample and sampling method***

Survey data were obtained from undergraduate students from three public universities in Sichuan, China. In total there are 35 public universities and researchers randomly selected Sichuan University, the University of Electronic Science and Technology as well as Southwestern University of Finance and Economics to represent the study population. All three universities are located in Chengdu, which is the capital city of Sichuan. Before distributing the questionnaire, it is necessary to pretest the scale on a small sample size of between 20-50 people (Hair et al. 2014). Based on this recommendation, a pilot study was conducted with 50 respondents. The main purpose of this process is to develop quality questions and avoid ambiguity among respondents. Feedback was given about grammar mistakes and unclear questions. According to Fraenkel and Wallen (2009), the minimum acceptable sample size for a correlational study must not be fewer than 30 to ensure an accurate result of the degree of correlation. Therefore, the finalized version of the survey was distributed to 150 respondents with 50 respondents for each university. During two weeks in the month of June 2022, these students were conveniently recruited at the university library. There were no incentives given and respondents were assured that their personal information would be kept strictly confidential.

## **Research instrument**

The study used questionnaires as the major method to understand the research objectives in this study. In a questionnaire survey, information is collected about specific questions from interviewees. These types of surveys are typically used to collect direct information about the behavior of respondents or to find out the opinions of a group of respondents on a specific subject. In addition, questionnaires are cost-effective when the sample size is large and they are very easy to use.

Section A contains questions about the background information of the respondents. There are three main questions namely gender, the number of credit cards owned, and usage frequency of credit cards. Section B consists of 12 questions on credit attitudes, which are adopted from Hayhoe, Leach & Turner (1999). The scale comprises three sub-components of credit attitudes – affective, cognitive, and behavioral. Example of an item measuring each sub-component is “*I like using credit cards*”, “*The cost of using a credit card is too high*” and “*I would like to apply for more credit cards*”, respectively. All items are rated on a 5-point Likert scale, with the lowest score being 1 (*strongly disagree*) and the highest score being 5 (*strongly agree*). In section C, there are a total of 28 questions about the attitude toward money. The scale is adopted from Lay and Furnham (2018) and there are five sub-components namely achievement and success, saving concerns, mindful and responsible, power and status as well as financial literacy worries. Sample question for each sub-component is “*Being rich is a sign of a great achievement*”, “*I never seem to have enough money*”, “*I am pretty good at budgeting*”, “*I enjoy buying expensive products to impress others*” and “*I really don’t understand financial talk and jargon*”, respectively. All items are measured on a 5-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Credit misuse was measured in Section D using the scale adopted by Watson (2009). A sample item from the scale is “*I am more impulsive when I shop with credit cards*”. The Cronbach’s alpha for each sub-component is listed in Table 1.

From Table 1, based on criteria suggested by Hair et al. (2019), only the credit misuse scale has a very good level of reliability ( $\alpha = 0.889$ ). All sub-components of the credit attitude scale demonstrated good reliability with alpha values between 0.751 and 0.784. The sub-component financial literacy worries of money attitude scale showed good reliability of 0.703 while other sub-components of the same scale demonstrated a moderate level of reliability with Cronbach’s alphas between 0.642 and 0.684.

**Table 1: Cronbach's Alpha Results**

<b>Variables</b>	<b>No. of items</b>	<b>Pilot Test</b>	<b>Actual Study</b>
Affective attitude	4	0.889	0.784
Cognitive attitude	4	0.608	0.751
Behavioral attitude	4	0.606	0.781
Achievement and Success	6	0.635	0.648
Saving Concerns	6	0.692	0.663
Mindful and Responsible	6	0.720	0.684
Power and Status	5	0.672	0.642
Financial Literacy Worries	5	0.710	0.703
Credit misuse	12	0.870	0.867

## Results

### *Respondents' basic information*

Table 2 below presented the basic data of 150 respondents that participated in this study. Among the 150 respondents, 49.3% were male and 50.6% were female. In terms of the number of credit cards, the majority of the respondents (52.7%) possessed 2-4 credit cards followed by 29.3% with 5-7 credit cards and 14% with one credit card. For usage frequency, 40% of the respondents reported using a credit card once a month while 28 % of them used a credit card once fortnightly and 25.3 % used it once a week.

**Table 2: Basic Information of Respondents**

<b>Characteristics</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Gender</b>		
Male	74	49.3
Female	76	50.6
<b>Number of credit card</b>		
only 1	21	14.0
2-4	79	52.7
5-7	44	29.3
8-10	6	4.0
<b>Usage frequencies</b>		
Once a month	60	40.0
Once fortnightly	42	28.0
Once a week	38	25.3
Everyday	10	6.7

### Descriptive Analysis

Table 3 presents the descriptive data for affective attitude. The majority of the respondents stated that credit card makes them feel happy (93.3%) and that they enjoy the pleasure of using credit cards (80.1%). Similarly, almost all (97.3%) agreed that they love to possess at least one credit card. Concerning these, most of the respondents did not see the act of using credit cards as a disgusting act.

**Table 3: Descriptive Analysis for Affective Credit Attitude**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. My credit card makes me feel happy.	0 (0%)	2 (9.2%)	8 (15%)	60 (40%)	80 (53.3%)
2. I like using credit cards.	8 (5.3%)	18 (12%)	4 (2.6%)	62 (41.4%)	58 (38.7%)
3. The very thought of using credit cards disgusts me.	120 (80%)	24 (16%)	0 (0%)	6 (4%)	0 (0%)
4. I love to have a credit card.	0 (0%)	4 (2.6%)	0 (0%)	58 (38.6%)	88 (58.7%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly agree

Table 4 below presents the descriptive data for cognitive attitude. All respondents believed that using a credit card is not a wise act and a big portion of them (80.1%) agreed that heavy use of credit cards tends to get them involved in heavy debt. In a similar vein, all of them agreed that credit card users tend to increase their debts daily. Having said that, the majority of the respondents (96%) did not perceive the cost of using credit cards as too high.

**Table 4: Descriptive Analysis of Cognitive Credit Attitude**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. I think it is unwise to use any credit card(s).	0 (0%)	0 (0%)	0 (0%)	79 (52.7%)	71 (47.3%)
2. Heavy use of credit cards results in heavy debt.	8 (5.3%)	10 (12%)	12 (2.6%)	62 (41.4%)	58 (38.7%)
3. The cost of using credit cards is too high.	106 (80%)	24 (16%)	14 (0%)	6 (4%)	0 (0%)
4. Because I use a credit card, my debt rises every day.	0 (0%)	0 (0%)	10 (0%)	62 (41.3%)	78 (58.7%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly agree

The next table is descriptive data for behavioral components of money attitude. For the first statement, nearly half of the respondents (71.3%) revealed that they would like to apply for more credit cards and that although the application process is not easy for them they always try to apply for an additional credit card (67.3%). This is also in line with the fourth statement where 79.9% stated that they would like to try various kinds of credit cards available in the market. However, a big majority of them (86.6%) indicated that they have no intention to obtain additional credit cards than what they have at the current moment.

**Table 5: Descriptive Analysis of Behavioral Credit Attitude**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. I would like to apply for more credit cards.	5 (3.3%)	15 (10%)	23 (15.3%)	39 (26%)	68 (45.3%)
2. Even though I know it's not easy for college students to acquire credit cards, I always try to apply for one more.	7 (4.6%)	9 (6%)	33 (22%)	29 (19.3%)	72 (48%)
3. I want to possess more credit cards than I now have	106 (70.6%)	24 (16%)	10 (6.6%)	6 (4%)	4 (2.6%)
4. I would like to try all kinds of credit cards	6 (4%)	14 (9.3%)	10 (6.6%)	62 (41.3%)	58 (38.6%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly disagree

Table 6 displays the number and percentage of respondents' choices for achievement and success sub-component of money attitude. All statements in this sub-component showed high agreement among the respondents. The majority of the respondents agreed that money is a good indicator of life achievements and success (84%) and that the quantity of money earned is one of the best measures of success in life (72.6%). Similarly, 79.2% indicated that earning a lot of money is one of the best achievements in life and being rich is a sign of great achievement (73.9%). In terms of status, more than 70% of the respondents saw money as a symbol of status and that they need money to buy good things in life.

**Table 6: Descriptive Analysis of Achievement and Success**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. Money is a really good indicator of a person's life achievements and success	5 (3.3%)	8 (5.3%)	11 (7.3%)	99 (66%)	27 (18%)

**Table 6 (continues)**

Statement	Number of Respondents (%)				
	1	2	3	4	5
2. One of the best measures of success in life is how much money you have earned	13 (8.6%)	11 (7.3%)	17 (11.3%)	86 (57.3%)	23 (15.3%)
3. Earning a lot of money is one of the best achievements in life.	1 (0.6%)	3 (2%)	27 (18%)	100 (66.6%)	19 (12.6%)
4. Being rich is a sign of a great achievement	6 (4%)	14 (9.3%)	19 (12.6%)	94 (62.6%)	17 (11.3%)
5. Money really talks: it talks about your status in life	2 (1.3%)	15 (10%)	14 (9.3%)	93 (62%)	26 (17.3%)
6. You need money to buy the good things in life	3 (2%)	18 (12%)	25 (16.6%)	82 (54.6%)	22 (14.6%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly agree

Table 7 below shows the descriptive analysis for saving concerns. Given the indiscriminate spending habit among young adults, it is understandable that the majority of the respondents (76%) revealed that they never seem to have enough money. Such a situation has caused great fear of running out of money among many respondents (78.7%) and they feel that the amount of money saved is never quite enough (79.3%). As a consequence, many constantly worry about how little savings they have (82%), worry more about money (81.3%) and are concerned about whether they have enough savings (72.7%).

**Table 7: Descriptive Analysis of Saving Concerns**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. I never seem to have enough money	4 (2.6%)	16 (10.6%)	16 (10.6%)	95 (63.3%)	19 (12.7%)
2. I have a real fear of running out of money	2 (1.3%)	10 (6.7%)	20 (13.3%)	97 (64.7%)	21 (14%)
3. The amount of money that I have saved is never quite enough	1 (0.7%)	17 (11.3%)	10 (6.7%)	93 (62%)	26 (17.3%)
4. I constantly worry about how few savings I have	1 (0.7%)	1 (0.7%)	25 (16.7%)	102 (68%)	21 (14%)
5. I seem to worry more than most people about money	4 (2.6%)	5 (3.3%)	18 (12%)	98 (65.3%)	24 (16%)
6. I am really concerned about whether I have enough money saved	9 (6%)	15 (10%)	17 (11.3%)	75 (50%)	34 (22.7%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly agree

Next is Table 8 which presents the descriptive data for the sub-component of mindful and responsible. Although the majority of the respondents were quite concerned about the adequacy of savings, a lot of them were still quite optimistic about their ability to do budgeting (82.6%). A big portion also feels proud of their ability to save (78%) and that they are more of a saver than a spender (78.6%). In addition, a great deal is aware of the importance to save money for a rainy day (81.2%) and therefore they tend to keep close track of their money affairs (75.9%). When asked about how soon they pay credit card bills, 74% stated that they tend to pay immediately to avoid interest and penalties.

**Table 8: Descriptive Analysis for Mindful and Responsible**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. I am pretty good at budgeting	0 (0%)	1 (0.7%)	25 (16.6%)	109 (72.6%)	15 (10%)
2. I am really proud of my ability to save money	5 (3.3%)	10 (6.6%)	18 (12%)	96 (64%)	21 (14%)
3. I am much more of a saver than a spender	4 (2.6%)	6 (4%)	22 (14.6%)	95 (63.3%)	23 (15.3%)
4. It is very important for me to save money for a rainy day	3 (2%)	7 (4.6%)	17 (11.3%)	97 (64.6%)	25 (16.6%)
5. I keep a close track of my money affairs	8 (5.3%)	12 (8%)	15 (10%)	94 (62.6%)	20 (13.3%)
6. I pay bills immediately to avoid interest and penalties	4 (2.6%)	16 (10.6%)	18 (12%)	84 (56%)	27 (18%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly agree

Table 9 illustrates the descriptive analysis of power and status. The results came as no surprise with the great desire to spend among young adults. More than three-quarters of the respondents enjoy buying expensive products to impress others and they are happy to show others how much money they have. Subsequently, they tend to show off the brand name of products they bought (88.7% and are happy to use the money to persuade people in favor (73.4%). In short, all the above are seen as 'financial victories' that majority of the respondents are proud to show others (82.7%).

**Table 9: Descriptive Analysis of Power and Status**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. I enjoy buying expensive products to impress others	2 (1.3%)	14 (9.3%)	6 (4%)	106 (70.7%)	22 (14.7%)

**Table 9 (continues)**

Statement	Number of Respondents (%)				
	1	2	3	4	5
2. I am quite happy to let people know how much money I have	5 (3.3%)	5 (3.3%)	17 (11.3%)	108 (72%)	15 (10%)
3. I show off to people with the brand name of products I have bought	1 (0.7%)	6 (4%)	10 (6.6%)	106 (70.7%)	27 (18%)
4. I am happy to use money to persuade people to help me	4 (2.7%)	12 (8%)	24 (16%)	67 (44.7%)	43 (28.7%)
5. I am proud of my financial “victories” and tell people about them	1 (0.7%)	16 (10.7%)	9 (6%)	108 (72%)	16 (10.7%)
6. I enjoy buying expensive products to impress others	2 (1.3%)	14 (9.3%)	6 (4%)	106 (70.7%)	22 (14.7%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly agree

The descriptive analysis for the final component of financial literacy worries is shown in Table 10. Similar to statements on savings, a big majority feel embarrassed talking about many money issues (86.7%) and they wished they could understand financial affairs better (80%). In line with this, they tend to be anxious and defensive when talking about their finances (77.4%). A such negative response is probably the outcome of high ignorance among respondents regarding financial talk and jargon (76%) as well as the anxiety that they experienced when thinking about their money (79.3%).

**Table 10: Descriptive Analysis of Financial Literacy Worries**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. I feel foolish and embarrassed talking about many money issues	2 (1.3%)	10 (6.6%)	8 (5.3%)	108 (72%)	22 (14.7%)
2. I wished that I understood financial affairs better than I do	1 (0.7%)	17 (11.3%)	13 (8.7%)	94 (62.7%)	26 (17.3%)
3. I feel anxious and defensive when talking about my personal finances	1 (0.7%)	12 (8%)	21 (14%)	94 (62.7%)	22 (14.7%)
4. I really don't understand financial talk and jargon	1 (0.7%)	14 (9.3%)	21 (14%)	82 (54.7%)	32 (21.3%)
5. Even thinking about my money makes me anxious	2 (1.3%)	9 (6%)	20 (13.3%)	92 (61.3%)	27 (18%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly agree

The final table below illustrates the descriptive analysis for credit misuse. A vast majority of the respondents (76%) were less concerned with the price of a product when they use a credit card for the purchase, which makes them more impulsive when they do shopping (79.4%). With this being said, however, a majority said that they rarely go over the credit limit (83.4%) and they always pay off their credit cards at the end of each month (83.3%). With regards to the number of credit cards, many believed they are holding too many credit cards (81.3%) and thus worried about their ability to pay off credit card debt (81.3%). Although respondents tend to spend more when using credit cards (80.7%), they seldom take cash advances on credit cards (82%).

Most respondents indicated that their credit cards are usually at the maximum credit limit (78%) and they frequently use available credit on one credit card to make a payment on another credit card (79.4%). When making payments, they often make only minimum payments (78.6%) and they are seldom delinquent in making credit card payments (76.7%).

**Table 11: Descriptive Analysis of Credit Misuse**

Statement	Number of Respondents (%)				
	1	2	3	4	5
1. I am less concerned with the price of a product when I use a credit card.	2 (1.3%)	9 (6%)	25 (16.7%)	90 (60%)	24 (16%)
2. I am more impulsive when I shop with credit cards.	1 (0.7%)	7 (4.7%)	23 (15.3%)	85 (56.7%)	34 (22.7%)
3. I rarely go over my available credit limit.	12 (8%)	7 (4.7%)	6 (4%)	106 (70.7%)	19 (12.7%)
4. I always pay off my credit cards at the end of each month.	2 (1.3%)	9 (6%)	14 (9.3%)	92 (61.3%)	33 (22%)
5. I have too many credit cards.	2 (1.3%)	14 (9.3%)	12 (8%)	102 (68%)	20 (13.3%)
6. I worry how I will pay off my credit card debt	4 (2.7%)	6 (4%)	18 (12%)	96 (64%)	26 (17.3%)
7. I seldom take cash advances on my credit cards.	3 (2%)	8 (5.3%)	16 (10.7%)	96 (64%)	27 (18%)
8. I spend more when I use a credit card.	1 (0.7%)	11 (7.3%)	14 (9.3%)	88 (58.7%)	33 (22%)
9. My credit cards are usually at their maximum credit limit	1 (1.3%)	24 (16%)	8 (5.3%)	92 (61.3%)	25 (16.7%)
10. I frequently use available credit on one credit card to make a payment on another credit card.	1 (1.3%)	8 (5.3%)	22 (14.7%)	82 (54.7%)	37 (24.7%)

**Table 11 (continues)**

Statement	Number of Respondents (%)				
	1	2	3	4	5
11 I often make only the minimum payment on my credit card bills	2 (1.3%)	11 (7.3%)	19 (12.7%)	92 (61.3%)	26 (17.3%)
12. I am seldom delinquent in making payments on my credit cards.	3 (2%)	22 (14.7%)	10 (6.6%)	90 (60%)	25 (16.7%)

Note: 1=Strongly disagree, 2=Disagree, 3=Neither agree/disagree, 4=Agree, 5=Strongly agree

Table 12 shows the mean score for all variables. Based on Landell (1997), the mean score that scores between 1.00 to 2.33 is a low level, the mean between 2.34 to 3.67 is a moderate level, and the mean score between 3.68 to 5.00 is a high level. Among the variables, only behavioral credit attitude was at a moderate level (3.66) while cognitive credit attitude was barely above the moderate level (3.68) and effective credit attitude was at a high level (3.76). On the other hand, the mean for all money attitude components was at a high level with values between 3.96 and 3.98.

**Table 12: Mean Score for Variables**

Variables	Mean Score
Affective Attitudes	3.76
Cognitive Attitudes	3.68
Behavioral Attitudes	3.66
Achievement and Success	3.94
Saving Concerns	3.96
Mindful and Responsible	3.96
Power and Status	3.98
Financial Literacy Worries	3.96
Credit Misuse	3.97

**Hypothesis Testing**

Hypothesis testing for this study was carried out using Pearson's correlation. It measures the degree of correlation between two variables and its value ranges from -1 to 1. A value of 1 or -1 indicates a perfect linear negative correlation between the two variables while a correlation of 0 indicates no linear relationship between the two variables. The size of a correlation coefficient is interpreted based on Guildford's rule of thumb (1973).

The table below illustrates the correlation coefficient for all variables. From the table, it is found that none of the credit attitude components are significantly correlated with credit misuse. The correlation coefficients for affective, cognitive and behavioral

components are  $r = 0.120$ ,  $p = 0.143$ ;  $r = 0.001$ ,  $p = 0.995$ ;  $r = 0.092$ ,  $p < 0.262$ , respectively. Therefore, hypotheses 1 to 3 are rejected.

For money attitudes, only money achievement and success components have a significantly moderate positive relationship with credit misuse ( $r = 0.687$ ,  $p < 0.001$ ). The other four components have significant high positive correlations with credit misuse where financial literacy worries have the strongest high positive correlation with credit misuse ( $r = 0.829$ ,  $p < 0.001$ ) followed by money power and status ( $r = 0.793$ ,  $p < 0.001$ ), saving concern ( $r = 0.711$ ,  $p < 0.001$ ) as well as mindful and responsible ( $r = 0.784$ ,  $p < 0.001$ ). Therefore, hypotheses 4 to 8 are accepted.

**Table 13: Pearson’s Correlations for All Variables**

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Affective attitudes	-	0.920*	0.955*	0.011	0.022	0.090	0.040	0.022	0.120
2. Cognitive attitudes		1	0.864*	-0.110	-0.0121	-0.023	-0.093	-0.055	0.001
3. Behavioral attitudes			1	0.002	0.025	0.052	0.005	0.007	0.092
4. Achievement and success				1	0.809*	0.756*	0.745*	0.678*	0.687*
5. Saving concern					1	0.714*	0.733*	0.656*	0.711*
6. Mindful & responsible						1	0.773*	0.776*	0.784*
7. Power & status							1	0.789*	0.793*
8. Financial literacy worries								1	0.829*
9. Credit Misuse									1

\* $p < .001$

### Conclusion and Implications

The purpose of this study is to determine the relationship between credit attitudes, money attitudes, and credit misuse among young Chinese university students. Data was gathered from undergraduate students at the University of Electronic Science and Technology, Sichuan University as well as the Southwestern University of Finance and Economics. Eight hypotheses were presented to test the relationship between the independent variables (affective attitudes, cognitive attitudes, behavioral attitudes, achievement and success, saving concern, mindful and responsible, power and status, financial literacy worries) with the dependent variable (credit misuse). This study found that affective, cognitive, and behavioral attitudes have no significant relationship with credit misuse among young Chinese university students. On the other hand, all components of money attitude have a significant positive relationship with credit misuse.

The positive relationship between achievement and success as well as power and status with credit card misuse came as no surprise as younger generations in modern society possess greater status consumption tendencies. Money is a specialized form of social power and status. The current social environment has led young university students to understand the relationship between rights, money, and status, but it had some negative impacts on them. They believe that money is a representation of status and display of material wealth is the best indicator of power. This leads them to pursue an affluent lifestyle and acquire products to improve their self-worth. Khare (2013) and Van Schalkwyk and Bevan-Dye (2020) revealed that materialism among students has led them to overspend and be trapped in excessive debt.

What is more perplexing is the positive relationship between the other three money attitude factors with credit card misuse. Results indicated that those who are anxious about financial matters, believe in careful budgeting, and are concerned about the adequacy of savings tend to misuse their credits. A plausible explanation for this is that the process of worrying may have elicited negative outcomes on problem-solving thinking and behavior among the respondents. For instance, Winchester and Huston (2020) found that worry about one's finances has been associated with suboptimal financial decision-making. High anxiety and stress levels paralyzed individuals' ability to make informed and rational financial decisions. When individuals are worried and stressed, they are less in control of their expenditures and saving and thus may become more impulsive in spending their money. Our findings have implications for educators, university administrators, parents, and credit card companies.

The findings from this study showed that financial education and behavioral intervention that inculcate responsible financial choices are crucial in shaping individuals' behavior. To achieve this, universities could offer formal courses in the degree program to instill positive credit management behavior and healthy financial habits among university students. In these courses, students should be made aware of the disadvantages of unplanned purchases and the consequences of excessive credit card debt. Peer education and interactions could also be established and expanded in which students shared financial knowledge and learn from each other. Apart from peer support, student counselors in the university could provide social networks for students to assist them in financial planning. As values begin at home, parents should also participate actively in educating their children about financial issues. Good personal finance management could be developed in their teenage years by providing the first supplementary card. This strategy allows parents to monitor and understand their children's spending habits. On top of that, credit card companies should be informed and constantly reminded of their social responsibilities toward society and younger generations. Credit cards should be marketed to young consumers with information about financial risk and consequences of debt, particularly the first-time user. This help to ensure a sustainable long-term relationship between the credit card providers and their consumers.

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ISSN 1511-998X

