

The Effect of Financial Knowledge and Financial Attitude on Credit Card Usage Among Credit Card Holders in General Santos City

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Abstract—This study examined the influence of financial knowledge and financial attitude on credit card usage among credit card holders in General Santos City, Philippines using a quantitative descriptive-correlational design. A total of 420 respondents completed a structured survey based on a five-point Likert scale. Financial knowledge was measured through interest rates, payment readiness, and fee awareness, while financial attitude was assessed using risk tolerance, budget discipline, and impulse control. Credit card usage was evaluated through fraud and security awareness, payment behavior, and debt accumulation. Descriptive analysis revealed very high levels of financial knowledge, financial attitude, and credit card usage among respondents. Pearson correlation and multiple regression analyses indicated strong, statistically significant positive relationships between financial knowledge and credit card usage, and between financial attitude and credit card usage. Financial knowledge explained 63% of the variance in credit card usage, and financial attitude accounted for 70%. To investigate the moderating effects of demographic variables—age, sex, marital status, education, employment status, industry, and income—normality tests using Shapiro-Wilk and Kolmogorov-Smirnov methods were performed. Due to non-normal data, bootstrap mediation analysis was conducted, showing no significant mediation by demographic factors. The null hypotheses regarding the effects of financial knowledge and financial attitude were rejected, confirming their significant influence on credit card usage. However, the null hypotheses for demographic moderation were accepted. The findings highlight the importance of enhancing financial knowledge and fostering responsible financial attitudes to promote mindful credit card use. Future studies should explore other potential mediators such as financial anxiety, self-control, and access to financial education.

Index Terms—Credit Card Holders, Credit Card Usage, Financial Attitude, Financial Knowledge, General Santos City.

1. Introduction

The usage of credit cards in the Philippines has grown immensely and signifies an evolving financial behavior in the country, along with improvements in financial opportunities. As of March 2024, there were more than 13.9 million credit cards in the Philippines [1]. While credit cards do offer an easy and flexible way to spend, they also present some challenges such as increased spending and a rising debt load, specifically

in quickly growing bases like General Santos.

With this upward trend in credit card usage, one major question is the financial readiness of Filipinos. Even if usage rates of financial products have improved and the ways that Filipinos are spending their money have changed, the financial literacy of Filipinos has a lot of growing to do. The Bangko Sentral ng Pilipinas (BSP) has reported that a huge percentage of the population is unbanked and financially illiterate [2]. Despite the launch of multiple initiatives from the BSP aimed at improving financial literacy including training sessions for people on personal finance in person and virtually [3], the observations around money management continue to be glimpsed among credit card users [4].

Concerns around debt are growing along with the usage of credit cards. By late November 2023, total consumer loans to Filipinos increased from PHP1.12 Trillion to PHP1.69 trillion with credit card loans increasing from PHP428 billion in 2022 to over PHP680 billion in one year [5]. Instances of post pandemic revenge spending, rising prices, and increased consumer spending could be contributing factors to the growth. In the first quarter of 2023 alone, credit card billings increased 41% from Q1 in the last year to more than PHP410 billion [6]. Credit card penetration has also increased rapidly, rising over 15% for Filipino adults by Q4 2023, up from less than 3% in early 2021. The total amount of credit card increased from 9.3 million in 2022 to 11.2 million in 2023 [7].

General Santos City reflects this trend at the national level, and the increase in incomes and access to finance have resulted in higher disposable incomes for professionals who could afford to have a credit card. However, having and using credit cards without proper financial knowledge and/or financial attitude can quickly lead to financial issues. Professional workers are more likely to forget the financial implications of having credit as they occupy their time with obligations towards family, self, and work.

Financial knowledge is typically one of two determinants of using credit cards. Financial knowledge is defined as (1) awareness of budgeting, (2) managing debt, and (3) understanding interest rates. The OECD [8] found that people

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with higher financial literacy were more likely to make "good credit decisions," which included repaying their credit cards in full and carrying low-interest debt. Ali et al [9] stressed that those who had more financial knowledge were also less likely to accumulate debt and manage their finances more effectively.

On the contrary, if one is not financially literate, one is often apt to make poor decisions with credit cards such as overspending or missing payments; both of which could result in long-term implications of poor financial situation contemplation. Financial attitude, which refers to how the individual thinks about money and spending and the value assigned to it, is also key. Individuals with positive financial attitudes tend to be moderately goal-oriented and deliberate with their borrowing practices. Dewi and Suprapti [10] found individuals with positive financial attitudes were less likely to miss-use credit and more concentrated about long-term financial security.

On the other hand, impulsive tendencies and short-term considerations towards spending are often associated with poor financial credit card practices. Putri and Lestari [11] claimed that negative financial attitudes are an important contributor to debt from people's credit cards, especially among young adults.

As General Santos is experiencing some economic growth and the financial products available to residents continue to increase, it is important for the residents, especially those who have credit cards, to have financial knowledge and a responsible attitude towards money [3], [12]. If both knowledge and attitude are absent among residents, the accumulation of debt or financial instability is highly likely.

This study will examine how financial knowledge and attitudes influence the usage of credit cards among credit card holders in General Santos City. Prior studies illustrate that higher levels of financial literacy and positive financial attitude, promote responsible borrowing, mitigate financial worry, and improve one's financial standing [13], [14]. The outcomes could support the development of programs which target financial education initiatives, practices and, policies that encourage responsible credit activities which advance one's financial inclusion in the long run [15], [16].

2. Objectives of the Study

The primary goal of this study is to analyze financial knowledge, financial attitude, and usage of credit cards by credit card holders in General Santos City, and see the relationship between these factors. Specifically, the study will look into the demographic profile of credit card holders in General Santos City related to age, sex, marital status, highest educational attainment, employment status, industry of employment, and monthly income; the level of financial knowledge related to understanding interest rates, payment, and fee awareness; the level of financial attitude related to risk tolerance, budgeting discipline, and impulse control; and level of credit card use in terms of fraud and security awareness, payment measures, and accumulation of debt. The main focus of this study will be to determine if financial knowledge and financial attitude will be significantly related to credit card usage. The final goal of this study will examine if the

demographic profile of age, income, and employment status moderate the relationship of financial knowledge and financial attitude, with credit card usage.

Based on the purposes of study, the following null hypothesis will be examined: (1) financial knowledge will not significantly affect credit card usage by credit card holders in General Santos City, (2) financial attitude will not significantly affect credit card usage of credit card holders in General Santos City, (3) the demographic profile of respondents will not moderate the relationship of financial knowledge with credit card usage, and (4) the demographic profile will not moderate the relationship of financial attitude with credit card usage.

This study has significant implications in that it investigates the financial knowledge, financial attitude, and use of credit cards of credit card holders in General Santos City, thereby providing several implications for people with credit cards, financial institutions, and the Bangko Sentral ng Pilipinas (BSP). For credit card holders, this study raises awareness of how a greater knowledge of financial practice can aid decision-making and in not incurring unnecessary debt. For financial institutions, and the BSP, the findings can be used to shape more targeted financial products, financial literacy programs, and financial inclusion strategies suited for the particular needs of consumers in a locality. On a final note, the research offers the researcher valuable learning, and ultimately has implications for furthering research that looks toward bridging the gap of financial literacy and good practise for credit card use.

3. Literature Review

This section provides a review of the literature and associated empirical studies that relate to financial knowledge and attitudes towards credit cards including demographic factors. Also, under this section is the conceptual framework of the study.

A. Financial Knowledge on Credit Cards

Financial literacy is associated with moderate to high knowledge of working adults, depending on the country, although middle and higher order financial knowledge related to using cash, credit or saving as money is still not clearly understood by adults. However, a good example would be that Malaysian professionals generally understand basic financial concepts. However, financial literacy related to trying to calculate loan interest and understanding fees levied for credit cards and related products are examples of higher order financial literacy that have been reported to be unrecognized by Malaysian professionals [17]. Working individuals in America are known for their ability to understand and apply basic financial literacy but if the situation requires advanced critical thinking then typically the individual has less understanding of terms related to compound interest or diversification risk [18]. In comparison to the previous example, working adults in Pakistan may also understand financial terms, but typically a lack of application in using financial information for repayment planning and other financial strategies [19]. Professionals in South African companies have also identified moderately

knowledgeable learners, but moderate financial knowledge does not guarantee sound financial decision making [20]. Indian young adults are reported to have enough knowledge, however behaviourally they are not disciplined enough to implement a budget [21].

Turning to Southeast Asia, working Malaysian graduates demonstrated reasonable financial knowledge, but high limit credit cards and other financial decisions related to credit have not been fully prepared for [22]. Looking at it from a different perspective, many adults in Malaysia may treat credit cards as just another utility for their daily spending, forgetting the long-term financial risks of long-term credit card debt [23]. Looking at the Philippine context, working individuals have moderate financial knowledge which processes normally from experience rather than education. Davao City employees reported to understand basic concepts of credit cards; however, Davao City employees either did not understand or were unaware of the importance of annual percentage rates and compounded interest costs [24]. Alternatively, professionals working in Manila drew from a stronger level of financial knowledge to manage their credit obligation usages better [25]. Taken as a whole and across these findings, teaching basic financial literacy is important, however teaching individuals to work through using higher level or complex concepts in finance may help inform how to improve personal financial management and use of credit cards.

B. Financial Attitude on Credit Cards

Generally, workers and young professionals in several countries tend to have responsible attitudes toward financial behavior like budgeting, saving and future planning. In the United States, research has noted a strong connection between restrictive attitudes toward credit—with limited and organized use of credit—and improved repayment behavior, which resulted in a reduction in credit misuse [26]. In India, despite a few young professionals exhibiting impulsive use of credit, a good number have positive attitudes toward their financial behavior to build upon [27]. Studies of young workers in Malaysia found similar results; young workers were willing to save, reduce debt, and also adjusted their behaviors with respect to social and lifestyle pressures that do not fit with their positive attitudes [28].

Workers and professionals in the Philippines generally demonstrated positive financial attitudes. For example, in Davao City, working identified the necessity of managing their money and limiting debt, especially when debt was not required [29]. In Metro Manila, they were aware of budgeting and saving but did not always put it into practice [30]. While workers were more consistent in their attitudes toward their finances and more consistently repaid their credit card balances. This connection indicates a correlation between responsible use of credit cards and a more consistent attitude toward finances [31]. One, and only one, take-away, and in reviewing the studies, is the need to develop positive attitudes toward finances and financial knowledge, to be able to engage in positive behaviors pertaining to credit management and personal financial wellness.

C. Demographic Factors in Credit Card Usage

Demographic factors are fundamentally important and will affect the patterns of credit card usage. Age is significant—with young adults adopting credit products quickly driven by their level of digital connectivity, but have only superficial financial experience. Older users are more sophisticated financially and exhibit more financial discipline with strategic credit usage [32]. Gender and credit behaviour—men are generally more confident using credit for large purchases, while women tend to be more risk averse, budget-conscious and financially savvy [33]. Marital status affects spending and credit profile of consumers; married people will have higher usage of debt but have better credit profiles. In contrast, non-married people are guarded but may have financial challenges [34]. Education is related with financial literacy with all levels of education being inextricably linked with more responsible usage of credit cards, or could be related to many higher education consumers holding more debt if it was being managed well [35]. Employment has an impact on credit usage and access—employed full time are utilizing an income steadiness allowing more extensive credit card usage compared to employees that work part-time, or contract or gig work [36]. Employment institutions interest in credit card behaviour. Workers in the private sectors have more aggressive and frequent credit marketing performed on them and subsequently will incur more debt. In contrast, public sector employees are generally more conservative with financial behaviour with risk or fraud a bigger focus than generating debts [37]. Lastly, income plays a direct impact on credit card usage, with middle income consumers frequently using credit cards very carefully managing both their everyday spending and inflation [38].

D. Conceptual Framework

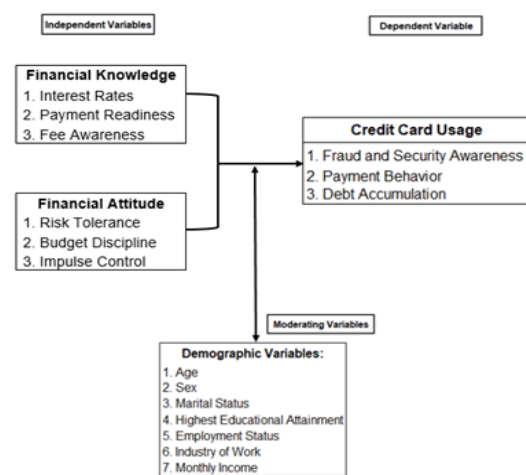


Fig. 1. Conceptual framework: effect of financial knowledge and financial attitude towards credit card usage

This study uses three theories to understand the relationship between financial knowledge, attitudes and credit card usage among holders in General Santos City. Behavioral Finance Theory illustrates how emotional biases lead to illogical financial decisions, even though it is clear that consumers know financial principles (Thaler, 2016) [39]. The Theory of Planned

Behavior describes how behavior is formed by attitudes, social norms, and perceived control over the behavior, which explains how credit card usage is beyond knowledge (Ajzen, 1991) [40]. Consumer Socialization Theory argues that our early social experiences shape our financial behavior and attitudes into adulthood, especially through family influence (Sohn et al., 2020) [41].

This diagram presents the constructs of this research, which explains how financial knowledge and financial attitude (independent variables) operationally intersect with credit card usage (dependent variable), along with demographic variables acting as moderating variables. Financial knowledge refers to interest rates, readiness to pay and fees, which together explain whether credit card acceptance is a limited or no commitment in its usage. Financial attitude refers to risk tolerance, budget discipline, and impulse control, indicative of the behavioral aspects of credit decisions. Also related to the dependent variable, Credit Card Usage has associated constructs of fraud and security awareness, payment patterns, and debt building. The nature of prior knowledge and attitude can lead to credit card usage. Finally, there are demographic variables (age, sex, marital status, education, work status, industry, and income) which might be account for the inter-relation between financial knowledge/attitude, and credit card usage, and also can explain differences in behavior, sometimes by groups.

4. Methodology

This section describes the research design, the respondents, the locality of the study, the data gathering steps and instrument utilized for the study, and the statistical analysis employed for the study.

In this research, a quantitative descriptive-correlational design was utilized to determine how financial knowledge and attitude influence the credit card usage among credit card holders in General Santos City. Quantitative-correlational design provides the opportunity to relate to variables without manipulation. The study applied the Input-Process-Output (IPO) model as a framework for analysis, where demographic factors (age, sex, marital status, educational attainment, employment status, industry of employment, and income) served as moderating variables; financial knowledge and attitude served as predictive variables, and credit card usage served as the outcome variable. To collect data, an adapted modified questionnaire was utilized and measured with a 5-point Likert scale; described by the author as having a moderate amount of items. The data were analyzed with descriptive statistics, Pearson correlation and multiple regression design and analysis techniques. Support was found in the literature to support the use of an IPO model, suggesting that increased financial literacy leads to increased positive attitudes towards consumers using credit responsibly, and considering influences of demographic data on credit behavior [42]-[44].

The respondents were credit card holders in General Santos City, and the respondents included employed individuals, business operators and self-employed individuals, and were retired and earning income or pensions. The sample size of the research was determined by using Cochran's formula based on

an expected total population of 198,000 credit card holders whereby a minimum sample of 420 was determined. To assist with increased response rates, and for safety concerns, data were collected using a mixed mode of online and face-to-face research. General Santos City was chosen for its growing economy and sample of credit card users within its diverse population [45], [46].

Simple random sampling was used to select the respondents, so all respondents had the same opportunity to participate. The adapted modified questionnaire was designed to measure financial knowledge, financial attitudes, and credit card usage. The topics of credit card interest rates and payment behavior were key areas of focus in the questionnaires. The appropriateness of the instrument was validated for clarity and content prior to implementing the survey and all responses were taken on a 5-point Likert scale [47], [48].

Upon the clearing of ethics and validation of survey instrument from the MSU-Gensan Ethics Review Committee, data collection was attempted. The initial data collection of online surveys produced very low participation and therefore the survey and data collection changed to printed, and face-to-face survey instruments. Ultimately, the sample of interest would contain 117 online surveys and the remaining 303 printed surveys to make up a total submission of 420 surveys. The total process of data collection took approximately 1.5 months, after which data cleaning and encoding occurred to prepare for any statistical analysis [49], [50] of the data received.

The overall demographic data, including financial knowledge, financial attitude, and credit card usage was measured by descriptive statistics, while the predictive relationships of financial knowledge and financial attitude as they relate to credit card use was analyzed through correlation and multiple regressions. The normal distribution testing revealed that the data cannot be assumed normally distributed using conventional methods therefore bootstrap mediation analysis was considered in order to reduce chance into systematic bias to strengthen results within other mediated influences that extend the complexity of the possible mediation and moderation roles performed of demographic data as predictors of credit card use. This study used weighted means for the Likert responses, whether for agreement or pooled proportion in order to present arranged and more responsive patterns of tendencies to the topics of inquiry general through descriptive research [51]-[53].

The study complied with ethical standards and was issued a Certificate of Exemption from the Institutions MSU-Gensan Ethics Review Committee, and maintained the anonymity and confidentiality of all participants in the study. Informed consent was clear in the introduction of the questionnaire, and in the face-face survey participation and assuring that ever participant knew how the information was collected. The use of bootstrap mediation analysis in the data was a more viable option for an analysis as it allowed for an honest indication of more complicated mediation and moderation effects without requiring the assumptions of using normal or think data distribution [54], [55].

5. Results and Discussion

This section presents, analyzes, and interprets the results of the data gathered in this study. The various results are presented in the succeeding tables along with the relevant discussions and explanations.

Table 1
Demographic profile of credit card holders in general santos

Age	Frequency	Percentage
18-24 years old	60	14.3%
25-34 years old	258	61.4%
35-44 years old	75	17.9%
45-54 years old	18	4.3%
55 years old and above	9	2.1%
Total	420	100%
Sex		
Male	274	65.2 %
Female	146	34.8 %
Total	420	100%
Marital Status		
Single	259	61.7 %
Married	157	37.4 %
Separated	2	0.45%
Widowed	2	0.45 %
Total	420	100%
Highest Educational Attainment		
High school graduate	64	15.2%
Vocational/Technical	39	9.3%
College Graduate	288	68.6%
Post Graduate (Masteral/Doctoral)	29	6.9%
Total	420	100%
Employment Status		
Employed (Part-time)	46	10.9%
Employed (Full-time)	350	83.4%
Unemployed	22	5.2%
Retired/Pensioner	2	0.5%
Total	420	100%
Industry of Work		
Government Sector	93	22.1%
Private Sector	268	63.8%
Business/Self-employed	59	14.0%
Total	420	100%
Monthly Income		
Below P10,000	71	16.9%
P10,001-P30,000	226	53.8%
P30,001-P50,000	90	21.4%
P50,001-P100,000	23	5.5%
Above P100,000	10	2.4 %
Total	420	100%

The demographic profile for credit card holders from General Santos City showed that the majority of the 420 respondents were aged 25 to 34 years old (61.4%) and male (65.2%) and single (61.7%). Most respondents had four-year college level education (68.6%) and worked as a full-time employee (83.4%). Most of the sources of personal income were derived from the private sector (63.8%) with a monthly income ranging from P10,001 to P30,000 (53.8%). The demographics showed that credit card holders in General Santos City are mostly young, educated and professionally employed individuals.

Credit card holders in General Santos City were very high in financial knowledge, with an overall weighted mean of 4.25. This indicates that most of the respondents were very knowledgeable about essential financial concepts such as being aware of interest rates, the willingness to make repayments, and understanding credit card fees. These results highlight that the

sample had a good understanding of financial knowledge, which is important when making wise decisions with credit.

Table 2
Level of financial knowledge toward credit card usage

Financial Knowledge	Mean	Interpretation
Interest Rates	4.05	High
Payment Readiness	4.46	Very High
Fee Awareness	4.24	Very High
Overall Mean	4.25	Very High

Legend:

1.00-1.79 -Very Low 3.40-4.19 -High
1.80-2.59 -Low 4.20-5.00 -Very High
2.60-3.39 -Moderate

Table 3
Level of financial attitude toward credit card usage

Financial Attitude	Mean	Interpretation
Risk Tolerance	4.27	Very High
Budget Discipline	4.40	Very High
Impulse Control	4.19	High
Overall Mean	4.29	Very High

Legend:

1.00-1.79 -Very Low 3.40-4.19 -High
1.80-2.59 -Low 4.20-5.00 -Very High
2.60-3.39 -Moderate

Likewise, the financial attitude held by respondents was very high, with an overall mean of 4.29. This implies that credit card holders and active users in the city held a positive and responsible attitude toward using credit cards. Their financial attitudes were built on being able to control risk, budget, and being disciplined with impulsivity, all of which linked to good credit card management. A positive financial attitude is important to lessen the risks of irresponsible use of credit.

Table 4
Level of credit card usage of credit card holders in general santos city

Credit Card Usage	Mean	Interpretation
Fraud and Security Awareness	4.48	Very High
Payment Behavior	4.46	Very High
Debt Accumulation	4.17	High
Overall Mean	4.37	Very High

Legend:

1.00-1.79 -Very Low 3.40-4.19 -High
1.80-2.59 -Low 4.20-5.00 -Very High
2.60-3.39 -Moderate

In regard to credit card usage, the study found a very high overall mean of 4.37, reflecting that cardholders were both active and diligent users. The highest mean was in awareness of fraud and security issues (mean = 4.48). This number indicates that the respondents were aware of protecting the security of their credit card transactions.

The data from Table 5 provides a very strong and significant positive correlation between financial knowledge and credit card usage for credit card holders from General Santos City ($r = 0.80$, $r^2 = 0.63$, $p = 0.000$). The use of a high correlation value indicated how strongly the null hypothesis could be rejected in terms of being explained with the 63% of variance in credit card usage related to financial knowledge. The research team found that all three components of financial knowledge—interest rates, readiness of payment, and fees—were all uniquely significant to using credit cards responsibly.

Table 5

Significant relationship between financial knowledge and credit card usage of the credit card holders

Variables	Credit Card Usage of Credit Card Holders				
	Correlation Coefficient (r)	r ²	p-value	Remarks	Decision
Financial Knowledge	0.80**	0.63	0.000	significant	Reject Ho
Interest Rate			0.000	significant	
Payment Readiness			0.000	significant	
Fee Awareness			0.000	significant	

** Correlation is significant at the 0.05 level (2-tailed)

Table 6

Significant relationship between financial attitude and credit card usage of the credit card holders

Variables	Credit Card Usage of Credit Card Holders				
	Correlation Coefficient (r)	r ²	p-value	Remarks	Decision
Financial Attitudes	0.84**	0.70	0.000	significant	Reject Ho
Risk Tolerance			0.000	significant	
Budget Discipline			0.000	significant	
Impulse Control			0.007	significant	

** Correlation is significant at the 0.05 level (2-tailed)

The research findings were supported by the previous research completed by Alagao and Uy [24] and, Cabrera and Luna [25], which also related increased financial knowledge to prudent outcomes when using credit cards. The international studies undertaken by OECD/INFE [8], and, Xu and Zia [56] similarly support the proposition that financial literacy results in lower unpaid balances and lower late payments.

The findings were similarly consistent with the Behavioral Finance Theory, Theory of Planned Behavior, and User Socialization Theory. All of the theoretical factors influence how people will act with respect to their credit cards but importantly, people need motivation, and through the growth of people's financial knowledge may provide some influence. More or less, all theory helps us to think that emotional and social influences on credit behavior are equally as important as credit knowledge [39]-[41].

The statistical finding from Table 6 describe that there is a very strong, and significant, positive relationship between financial attitudes and credit card usage for credit card holders from General Santos City ($r = 0.84$, $r^2 = 0.70$, $p = 0.000$). This clearly indicates that 70% of the variance of credit card usage was explained by financial attitudes. Financial attitudes acted as a better predictor of credit card usage than financial knowledge base on strength of correlation and the null hypothesis could be reject for the association of financial attitudes.

All areas of financial attitudes—risk tolerance, budget implementation, and impulse control—were still significant to credit card usage with impulse control having a slightly lesser significance ($p = 0.007$). As outlined above, these findings indicate that relatively successful finances during periods of moderate risk will prompt a greater level of responsible credit. Better budgeting will also subsequently control some impulsiveness as suggested by the literature.

The results are similar to work that has been done locally by Alagao and Uy [24], and Bayangos and Jugarap [30], and, several, international studies by Xiao and Porto [26], Dhar and Agarwal [27], Sabri and Aw [28], and again, several other studies which illustrate a favorable attitude towards finance will reduce credit misuse, despite possible imposed social pressures.

The strong relationship associated with financial attitudes does point to some of the relationship in Behavioral Finance

Theory, Theory of Planned Behavior, and Consumer Socialization Theory that asserted psychological, social and developmental factors influence behavior of credit cards [39][40][41]. The findings put forth from this study do suggest that these attitudes and behaviors can be positively influenced through financial education in conjunction with, all the other preferred variables like attitude, and experience. Therefore, in summation, the findings support the conclusion that level of awareness and development of strong financial attitudes and the developing field of financial knowledge for improved responsible usage of credit cards in General Santos City.

A. Demographic Profile as Moderating Variables

To determine the suitability of parametric tests and inform the selection of the appropriate statistical procedures, tests of normality were performed on the variables. The Case Processing Summary and results of the Kolmogorov-Smirnov and Shapiro-Wilk tests are presented below:

Table 7
Case processing summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Knowledge	420	100.0%	0	0%	420	100.0%
Attitude	420	100.0%	0	0%	420	100.0%
CCUsage	420	100.0%	0	0%	420	100.0%

The Shapiro-Wilk and Kolmogorov-Smirnov test results above show that the p-values associated with financial knowledge, financial attitude, and credit card usage were less than 5% significance level. This indicates that financial knowledge, financial attitude, and credit card usage are not normally distributed. Thus, the bootstrap mediation analysis was employed to test whether demographic profile significantly mediate the relationship between financial knowledge and credit card usage, as well as financial attitude and credit card usage.

The mediation analysis above showed no significant mediation effects of demographic profile on the relationship between financial knowledge and credit card usage. The 95% Confidence Interval (CI) is a range of values within which the true population effect is likely to fall with 95% certainty. This means that the true average causal mediation effects of

Table 8
Tests of normality

	Kolmogorov-Smirnova			Shapiro-Wilk			Interpretation
	Statistic	df	Sig.	Statistic	df	Sig.	
FK	0.117	420	0	0.833	420	0	<i>are not normally distributed</i>
FA	0.147	420	0	0.866	420	0	<i>are not normally distributed</i>
CCUsage	0.159	420	0	0.798	420	0	<i>are not normally distributed</i>

Table 9
Moderating effect of demographic profile towards the relationship between financial knowledge and credit card usage

Variable	Estimate	Std. Error	95% CI Lower	95% CI Upper	Interpretation
TOTAL	-0.0007	0.0065	-0.0123	0.0136	<i>no mediating effect</i>
Highest Educational Attainment	0.0007	0.003	-0.0051	0.0076	<i>no mediating effect</i>
Marital Status	0	0.003	-0.0062	0.0066	<i>no mediating effect</i>
Employment Status	0.0002	0.0029	-0.0047	0.0074	<i>no mediating effect</i>
Monthly Income	-0.0011	0.0029	-0.008	0.0044	<i>no mediating effect</i>
Industry of Work	0.0002	0.0019	-0.0038	0.0045	<i>no mediating effect</i>
Age	-0.0008	0.0028	-0.0069	0.005	<i>no mediating effect</i>
Sex (not applicable with binary data)	NA	NA	NA	NA	NA

Table 10
Moderating effect of demographic profile towards the relationship between financial attitude and credit card usage

Variable	Estimate	Std. Error	95% CI Lower	95% CI Upper	Interpretation
TOTAL	-0.0028	0.0064	-0.0154	0.0104	<i>no mediating effect</i>
Highest Educational Attainment	0.0003	0.0028	-0.0059	0.0061	<i>no mediating effect</i>
Marital Status	-0.0026	0.0033	-0.01	0.0033	<i>no mediating effect</i>
Employment Status	0.0006	0.0023	-0.0034	0.0063	<i>no mediating effect</i>
Monthly Income	-0.0012	0.0029	-0.0081	0.0043	<i>no mediating effect</i>
Industry of Work	-0.0001	0.0019	-0.0052	0.0031	<i>no mediating effect</i>
Age	0.0002	0.002	-0.0026	0.0061	<i>no mediating effect</i>
Sex (not applicable with binary data)	NA	NA	NA	NA	NA

demographic profile are likely to fall between the limits with 95% confidence. Since the 95% Confidence Intervals contain 0, this shows that the mediation effects of demographic profile were not statistically significant in this study.

The mediation analysis above showed no significant mediation effects of demographic profile on the relationship between financial attitude and credit card usage. The 95% Confidence Interval (CI) is a range of values within which the true population effect is likely to fall with 95% certainty. This means that the true average causal mediation effects of demographic profile are likely to fall between the limits with 95% confidence. Since the 95% Confidence Intervals contain 0, this shows that the mediation effects of demographic profile were not statistically significant in this study. One finding of this study is that demographic factors (i.e., age, education, income, marital status, employment, and industry) do not serve as significant mediators between the two internal psychological factors (i.e., financial knowledge and financial attitudes) and credit card use. This finding also indicates that the two internal psychological factors persist as factors impacting credit card behavior regardless of demographic profile and other external factors.

The study found that an individual's financial knowledge and their financial attitude—rather than age, education level, or income—are the prevailing influences on credit card use. The demographic influences did not show significance in the relationship, meaning that knowledge and attitudes act as the more central, internal psychological drivers that shape the actual credit card behavior across all selected demographics.

This presents interesting implications for financial education programs and credit management programs—the programs should be geared towards improving financial knowledge and improving people's attitudes, as opposed to arbitrarily targeting

specific demographic groups (i.e. the rich, the educated, etc.).

The findings are consistent with theoretical concepts that relate to psychology or behavioral finance theories, such as the Theory of Planned Behavior [40] which indicates that financial behaviors are a function of attitudes, beliefs, knowledge, etc., rather than demographic background. This indicates that in order to promote responsible credit card behavior, it is fundamental to foster greater beliefs and attitudes regarding finance; demographic background is irrelevant. On top of that, this lead to the global importance of financial education for credit holders in General Santos City, Philippines.

6. Conclusions

After analyzing the results of this study, it was determined that financial knowledge has a significant and very strong positive effect on credit card behavior, which is important to note for credit card holders in General Santos City. In particular, those who did better in knowing what interest rates were, if they were able to make their payments, knowing fees associated with card purchases were more likely to use their credit cards responsibly. This strong relationship explained 63% of the variation in credit card behavior, rejecting hypothesis 1 that stated that financial knowledge will have no significant effect.

Likewise, it was found that financial attitude also had a very strong and statistically significant effect on credit card behavior. In this finding, positive financial attitudes, including disciplined budgeting, restricting impulse purchases, positive risk-taking accounted for 70% of the differences in credit card behavior. This reinforced the idea that responsible credit use is consistent with one's financial attitude, rejecting hypothesis 2 that financial attitudes will not affect credit card behavior.

However, when considering demographic variables of age,

gender, income, marital status, education, and employment status, didn't seem to have a change or moderated the relations between financial knowledge, financial attitude, and credit card behavior. Both financial knowledge and financial attitude major influences on credit card behavior remain constant regardless of any demographic differences. Therefore, hypotheses 3&4 stating that asking for the demographic profile would moderate the effects of financial knowledge and financial attitudes on credit card behavior can be accepted.

In conclusion, the study emphasizes that internal psychological factors, such as financial knowledge and financial attitudes, ultimately lead to responsible credit card use—that is, regardless of demographic variables. Thus, if financial education is to be improved, or credit card behavior is to be improved, financial literacy should be targeted and positive financial attitudes should be approached across all demographics.

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