



The Effects of Credit Card Knowledge, Social Norms, and Materialism on Young Professional Credit Card Usage: The Mediating Role of Self-Efficacy

Article History:

Initial submission:	09 December 2025
First decision:	13 December 2025
Revision received:	26 May 2026
Accepted for publication:	03 June 2026
Online release:	09 June 2026

Eliza Marie Cesista, CPA, ORCID No. 0009-0006-3869-3430

Master in Business Administration, Polytechnic University of the Philippines, Sta. Mesa, Manila, Philippines

Abstract

Credit card usage among young professionals has grown rapidly in the Philippines due to digitalization, financial inclusion, and evolving consumer habits. This study examines how credit card knowledge, social norms, and materialism influence credit card usage, with self-efficacy as a mediating factor. A sample of 166 young professionals in Makati City was determined using G*Power. Data were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM) to test relationships among the variables. Findings revealed that credit card knowledge significantly influenced self-efficacy ($\beta = 0.166, p = 0.022$) but did not directly affect credit card usage ($\beta = 0.078, p = 0.221$). Social norms negatively impacted self-efficacy ($\beta = -0.425, p = 0.000$) yet showed no significant effect on usage ($\beta = -0.085, p = 0.322$). Materialism was negatively associated with self-efficacy ($\beta = -0.211, p = 0.042$) but did not significantly predict usage ($\beta = -0.027, p = 0.736$). Overall, self-efficacy emerged as a crucial mediator, translating knowledge into responsible financial behavior. Future research should explore cultural comparisons and the influence of digital media on financial practices.

Keywords: credit card knowledge, social norms, materialism, self-efficacy, young professionals



Copyright © 2026. The Author/s. Published by VMC Analytik's Multidisciplinary Journal News Publishing Services. The Effects of Credit Card Knowledge, Social Norms, and Materialism on Young Professional Credit Card Usage: The Mediating Role of Self-Efficacy © 2026 by Eliza Marie Cesista is an open access article licensed under [Creative Commons Attribution \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/). This permits the copying, redistribution, remixing, transforming, and building upon the material in any medium or format for any purpose, even commercially, provided that appropriate credit is given to the copyright owner/s through proper and standard citation.

INTRODUCTION

Credit card usage has become a significant financial behavior globally, impacting economies and individual financial health. In the United States, Regulations like the Credit Card Accountability Responsibility and Disclosure (CARD) Act of 2009 have been implemented to protect consumers and promote responsible credit practices (Elliehausen & Hannon, 2018). In Asia, there has been an increase in the number of credit card companies, especially after financial sector reforms. Singapore and South Korea have experienced adoption rates while some countries are still, in the early stages of developing their credit card markets.

Due to the rise of digitalization, numerous individuals transitioned to online shopping and digital payment methods. Furthermore, this pattern has continued and can still be observed here in the Philippines because of the growing popularity of online shopping among young,

urban Filipinos (Nair, 2016). The influence of Western culture, coupled with the growing availability of credit, has shaped the spending habits of Filipino youth. The Bangko Sentral ng Pilipinas (BSP) has implemented regulations to protect consumers from predatory lending practices and promote financial literacy.

The Philippine credit card market has experienced fast growth since 2010 because of financial inclusion initiatives and digital payment system development and increasing credit card adoption by young tech-savvy workers. The Philippine card payment sector will achieve P4.2 trillion in 2025 through 18.8% yearly growth because the nation continues its transition from cash to electronic payment systems (BusinessWorld, 2025). The number of outstanding credit cards in the Philippines experienced a significant increase from 9.3 million in 2022 to 11.2 million during 2023 according to TransUnion Philippines (2024). The credit card market expansion during 2024

resulted from first-time cardholders under 35 years old who made up 50% of new credit card issuances (TransUnion Philippines, 2024).

The number of credit card users continues to rise because financial service technology advances at a rapid rate. The Philippines stands as the world leader for online financial service usage because its internet users actively use banking and investment and payment applications throughout each month (BusinessWorld, 2025). The fast growth of credit card usage creates new economic and financial stability problems.

This study about credit card knowledge, social norms and materialism effects on self-efficacy and credit card usage becomes essential for both economic and social development. The research investigates young professionals who represent the credit card user base that also uses digital payments and changes their buying habits. The analysis of credit card usage factors helps financial institutions and consumer education programs and policymakers create effective strategies to teach responsible credit management and stop debt accumulation and support financial stability and inclusion.

The reason for conducting this study arises from the noticeable gap in understanding how various psychological and social factors impact credit card usage of young professionals. Young professionals often have limited experience of managing finances as they are in the early years of earnings in their lives. Starting to accumulate debt at this stage may result in long-term financial difficulties and a lower standard of living. (Lusardi & Mitchell, 2014). According to Lusardi & Mitchell (2014), increased credit card knowledge is linked to more responsible usage. This includes the prevention of high-interest debt and ensuring payments are made on time. Meanwhile, it is mentioned in the study of Islam et al. (2018), due to materialistic spending pattern, that was driven by social media and digital media, as comparison, this portrays the same pattern as what observed in other developing countries. This indicates that as young professionals

possess materialism, this leads to affect their financial choices, which sought to be alarming to the extent of their spending. Furthermore, Kim (2003) suggested that young adults are frequently influenced by expectations and influences from their peers to participate in various spending levels. This behavior leads to a rise in credit card debt, among this demographic as cited by Nanda & Banerjee (2021). Additionally, materialism has also been associated with overspending habits and mishandling credit cards. This highlights the importance of exploring these factors in connection with the use of credit cards (Li et al., 2024).

According to Farrell et al. (2016), self-efficacy is a significant indicator of responsible financial management, like following a budget and steering clear of unnecessary debt. Their research also highlights how self-efficacy plays a part in translating knowledge into actual practical applications. Moreover, in a study by Lim et al. (2014), they pointed out that self-efficacy mediates financial knowledge and behavior of young adults enabling them to effectively apply what they know to enhance their financial situations.

Young professionals employed in Makati City were studied through their credit card behavior for the reason that Makati City is a financial district contains many multinational companies and banking institutions and professional services. The city's concentration of employed, financially active individuals provide a suitable environment to explore how credit card knowledge, social norms, and materialism influence credit card behavior, with self-efficacy as a mediating factor. Research has demonstrated that Makati professionals base their financial choices on their understanding of money management and their social environment (Pinca et al., 2024). Research in Metro Manila shows that young professionals who understand personal finance better handle their money and credit responsibilities which makes studying credit card behavior in this age group essential (Eloriaga et al., 2022). The research study investigates Makati employees

because they represent a group that faces credit card exposure while demonstrating typical financial behavior of urban Filipino workers.

While previous studies have delved into topics like financial knowledge and consumer behavior separately; a comprehensive examination of how credit card knowledge intersects with social norms alongside materialism and self-efficacy still needs to be explored. This study aims to bridge this gap by exploring the relationship among these variables with a specific focus on the mediating role of self-efficacy. By addressing this research gap, the study strives to offer a comprehensive understanding of what influences credit card usage among young professionals, thereby aiding in developing better financial education and intervention approaches. Filling this gap will also enhance both theoretical understanding and practical approaches to improving credit card behavior.

Building on this gap, the present study advances a conceptual framework in which credit card knowledge, social norms, and materialism function as exogenous determinants of young professionals' credit card usage – both directly and indirectly through self-efficacy as a mediating variable. Drawing on the Theory of Planned Behavior (Ajzen, 2020) and self-efficacy theory (Bandura, 2006), the framework posits that informational, social, and value-based influences shape credit card behavior primarily through an individual's confidence in their ability to manage credit responsibly.

Accordingly, the following hypotheses were tested:

H1a. Credit card knowledge significantly influences self-efficacy.

H1b. Credit card knowledge significantly influences credit card usage.

H2a. Social norms significantly influence self-efficacy.

H2b. Social norms significantly influence credit card usage.

H3a. Materialism significantly influences self-efficacy.

H3b. Materialism significantly influences credit card usage.

H4. Self-efficacy significantly influences credit card usage.

H5. Self-efficacy mediates the relationship between credit card knowledge and credit card usage.

H6. Self-efficacy mediates the relationship between social norms and credit card usage.

H7. Self-efficacy mediates the relationship between materialism and credit card usage.

LITERATURE REVIEW

Credit Card Knowledge. Credit card knowledge encompasses understanding interest rates, fees, and credit scores, which are integral to financial literacy and responsible credit card use (Lusardi & Mitchell, 2014; Kaiser & Menkhoff, 2017). Awareness of interest rates is crucial, as focusing only on minimum payments can obscure how debt accumulates over time, leading to repayment challenges (Lusardi & Mitchell, 2014). Similarly, fees such as annual, foreign transaction, balance transfer, and cash advance charges often go unnoticed by young professionals, despite their significant financial implications (Goyal & Kumar, 2021). Credit scores, shaped by credit card usage, further determine future access to credit, with delinquency lowering scores and limiting opportunities (Butaru et al., 2016).

Despite the importance of knowledge, studies reveal that awareness does not always translate into responsible behavior. Goyal and Kumar (2021) found that peer influence often shapes credit card usage more than theoretical understanding. Likewise, confidence in knowledge does not consistently guide

decisions (Allgood & Walstad, 2016). Financial education programs improve comprehension but applying this knowledge remains difficult (Lusardi & Mitchell, 2014). These findings highlight that knowledge alone is insufficient, as behavior is influenced by social and psychological factors beyond financial literacy.

Nevertheless, higher levels of credit card knowledge are linked to better practices, such as paying balances in full and avoiding high-interest debt (Klapper et al., 2019). Financial literacy, when combined with practical experience and education, positively impacts credit card usage and broader financial behaviors (Kaiser & Menkhoff, 2017). Collectively, these studies emphasize that while knowledge is not the sole determinant, it remains a critical foundation for shaping responsible financial decisions.

Social Norms. Social norms refer to the perceived standards and expectations regarding credit card use within an individual's social circle or broader society. Scholars make a distinction between descriptive norms (what people actually do) and injunctive norms (what people believe is acceptable). Descriptive norms relate to perceptions of behaviors in a situation. They affect behavior by providing information, on actions (Melnyk et al., 2018). Injunctive norms pertain to perceptions of behaviors that are either approved or disapproved by others. They often work by evoking feelings of obligation or approval (Kimbrough & Vostroknutov, 2023).

Considering social norms in relation to the respondents is essential because young professionals operate within social and professional networks that may influence their financial decisions. Normative expectations from peers, family, or colleagues can shape attitudes toward credit card use, including whether credit cards are perceived as status symbols or necessary tools. Perceived peer norms significantly influenced credit card spending among young professionals (Zainudin, R., et al 2019). The research findings indicate that social influence is a significant determinant

of consumer intention to use a credit card (Trinh et al., 2020). In addition, Pahlevan and Yeoh (2018) found that excessive use of social media had a positive effect on money attitude dimensions and online compulsive buying. The research study by Bursztyn et al. (2018) demonstrates that framing debt repayment as a moral obligation can significantly impact behavior. This suggests that social norms, which often carry moral undertones, can be a powerful driver of credit card usage.

It is important to comprehend how social norms, and the use of credit cards are interconnected in order to tackle the root causes of consumer debt. As social norms change over time, they can either help reduce or worsen financial practices. By promoting healthy financial standards, in local communities there is a chance to promote responsible use of credit cards and decrease problems related to consumer debt. (Gaganis et al., 2023)

Materialism. Materialism is the importance individuals place on material possessions and their acquisition to achieve personal success and happiness (Richins, 2017). Many people associate materialism with consumer behavior believing that possessing goods is a key for their happiness and social status (Kasser, 2016).

Lim et al., (2024) concluded that materialism and social norms have a positive relationship with credit card misuse. Furthermore, other studies corroborated with this as they suggested that significant associations between materialism, financial socialization, and perceived financial capability with credit card repayment behaviors (Li et al., 2024) and Zainudin, 2019). Materialism drives increased credit card use and impulsive buying, which in turn lead to compulsive buying habits (Pradhan, Israel & Jena, 2018).

Analyzing materialism among the young professionals highlights the role of personal values in shaping credit card usage. Materialistic tendencies, defined as the importance placed on possessions and status,

can increase the likelihood of impulsive spending or misuse of credit (Ahamed & Limbu, 2018).

Self-efficacy. Self-efficacy in credit card usage refers to an individual's belief in their ability to manage credit responsibly, emphasizing judgment over skills (Bandura, 2006). It influences financial management, stress handling, and decision-making, with confidence enabling budgeting, expense tracking, and planning (Goyal & Kumar, 2021). It also supports coping with financial stress such as debt or unexpected costs (Klapper et al., 2019) and strengthens decision-making in credit management (White et al., 2019). While knowledge of interest rates and repayment terms is essential, self-efficacy determines whether individuals apply this knowledge effectively. Confident users are more likely to pay promptly and avoid excessive borrowing (Farrell et al., 2016), whereas those lacking self-efficacy may struggle to act on their knowledge. Studies highlight its mediating role in financial behavior, linking knowledge, attitudes, and social norms to consumer decisions (Lone & Bhat, 2024; Handayati et al., 2023). Liu & Zhang (2021) further demonstrated that financial self-efficacy partially mediates the relationship between financial literacy and risky credit behavior among college students.

Empirical evidence underscores self-efficacy's predictive power in financial outcomes. Liu & Zhang (2021) found that self-efficacy explains how financial literacy influences student credit card use, while Zainudin (2019) showed higher self-efficacy reduces balances and impulse purchases. Chong et al. (2021) revealed that self-efficacy is a stronger predictor of financial behavior than literacy, suggesting belief in one's ability outweighs knowledge alone. By contextualizing these findings for young professionals, self-efficacy emerges as a critical mediator, demonstrating that internal financial confidence, rather than external cues, drives responsible credit card behavior and long-term financial decision-making..

Credit card usage. According to Trinh et al. (2020), credit card usage is determined by consumers' frequency of using credit cards, the types of purchases they make, and how they manage their accounts including paying off balances or carrying over debt. The concept of credit card ownership reflects the proportion of individuals holding one or more credit cards. This measure is commonly employed to gauge the prevalence of credit card usage, within a population and to understand consumer behavior. Factors like income, age, financial literacy and societal attitudes towards credit can impact credit card ownership rates. Higher ownership levels may indicate an inclination towards using credit for purchase transactions. (Allgood & Walstad, 2016).

Utilization rate is the percentage of available credit that a customer is using at any time. High rates of utilization are frequently linked with higher financial risk and could suggest a dependence on credit for daily needs or financial challenges (Klapper et al., 2019). Furthermore, according to Goyal & Kumar (2021), payment behavior encompasses the patterns of how individuals use credit cards, including the frequency of use and payment methods. A consumer's behavior in paying for goods or expenses can reveal how dependent they are on credit (Goyal & Kumar 2021). Payment methods refer to how individuals manage their balances- whether they pay off the amount monthly or make minimum payments. This behavior significantly impacts interest accumulation and debt potential (Lusardi & Mitchell 2014).

Xiao and O'Neill (2018) suggested that people who have a positive credit card attitude tend to regularly utilize credit cards but may also end up in debt if they don't manage their finances well enough. The research highlighted the significance of having not only a positive credit card attitude but also possessing good financial planning abilities. Therefore, having a positive attitude towards credit cards usually leads to higher usage levels whereas negative attitudes are linked to more careful or restricted use.

According to Pradhan et al. (2018), materialism influences credit card uses and increases the propensity for impulsive buying which then precipitates compulsive buying habits. Furthermore, reduction in credit card use can decrease both impulsive buying and compulsive buying. Mediation relationships were identified, where credit card use and impulsive buying act as mediators between materialism and compulsive buying.

Credit card usage within the context of the respondents in this study is important, as young professionals are highly active credit users influenced by digital platforms, peer networks, and lifestyle preferences according to TransUnion (2024). Analyzing their usage patterns provides insight into how credit card knowledge, social norms, materialism, and self-efficacy collectively shape financial behavior.

This study uniquely contributes to the existing literature by examining the mediating role of self-efficacy in the relationship between credit knowledge, attitudes, social norms, materialism, and credit card usage specifically among young professionals. By concentrating on this group and factoring the variables, it presents a thorough framework, for comprehending credit habits during a life stage that could be considered as financially critical. This study was relevant in the context of Makati, Philippines. As this setting was commonly composed of employed, financially active individuals and known for having banking institutions, this environment significantly shapes how young professionals manage their finances and respond to social influences.

METHODS

Research Design. This study utilized both a quantitative research approach and a causal research approach. Quantitative research approach is a systematic empirical investigation of occurrences by gathering numerical data. (Apuke, 2017) Causal research approach aims to recognize and isolate the exact reasons why things happen, focusing on

cause-and-effect relationships. Its goal is to establish if one variable triggers a change in another. This entails gathering data in a manner that enables researchers to distinguish the influence of an independent variable on a dependent variable while managing other potential factors. (Small & Mardis, 2018)

Population Sample Size and Sampling Techniques. The population for this study covers young professionals working in professional services firm. The researcher used G*power formula to determine the sample size. (Kang, 2021). Using the formula, the researcher came up with a total of 166 young professionals to participate in the study. The sample size is computed as shown in

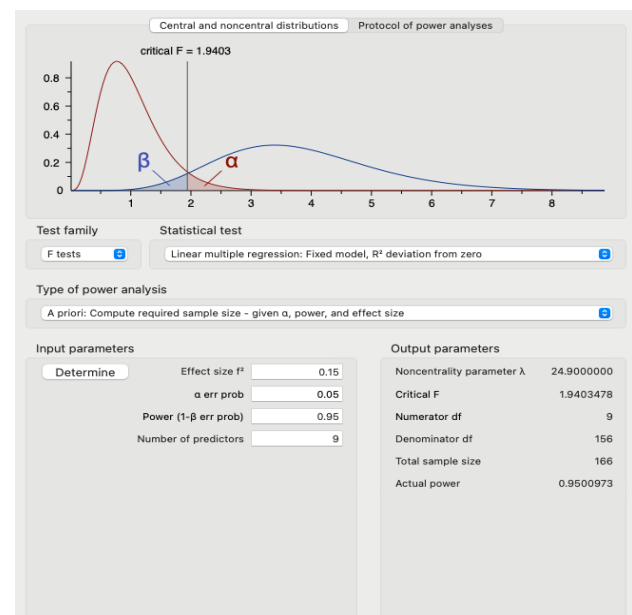


Figure 1
*Sample Size using G*power*

The research study employed purposive snowball sampling as a non-probability method which chose participants based on specific characteristics and let initial participants refer suitable additional participants (Makwana, Engineer, Dabhi, & Chudasama, 2023). The research used purposive sampling to target young professionals between 20 and 35 years old who work in Makati while snowball sampling facilitated the researcher to find more participants through their social connections. This method suits exploratory research as it

enables researcher to study behaviors and attitudes and motivations instead of population parameter estimation.

The Makati Central Business District (CBD) serves as the financial center of the Philippines because it houses major banks and multinational corporations and the Philippine Stock Exchange which draws numerous young finance and accounting and business service professionals (Makati City Government, 2024; MakeltMakati, 2023). With the above setting, the research population consists of Makati employees who are actively using credit card products and make financial decisions.

The research participants worked in various sectors of professional services which demonstrates the wide range of young professionals found in Makati. The research included participants with different financial knowledge, work experience and income levels to obtain diverse opinions about credit card behavior. It is to be noted that the research included 49 participants who worked in finance at a rate of 30% over the total sample size. Although the study may benefit from finance professionals' dominance, this could reduce the study's ability to represent all young professionals; the finance sector employees may demonstrate superior knowledge about credit products and repayment methods and financial planning techniques which provides essential data about the psychological elements that affect credit card usage.

The respondents included both finance and non-finance participants to achieve better results as it is a representation of different professional backgrounds of young workers.

Research Instrument. A researcher-made questionnaire is necessary since there is no existing standardized instrument that directly measures all the constructs in the study (credit card knowledge, attitudes, social norms, materialism, self-efficacy, and credit card usage).

The first part of the instrument covered the profile of the respondents as to sex, occupation, income and education level. Initially, the second part of the questionnaire consists of 42 statements which are divided into sections which correspond to the different constructs. Each subsection contains 7 statements. However, due to validity and reliability issues, some items were removed in the questionnaire. The revised second part consists of four statements under Credit Card Knowledge; six statements under Self-efficacy; five statements under Credit Card Usage; four statements under Social Norms and three statements under Materialism.

The use of 4-point Likert-scale, ranging from 1 to 4, was used since this is appropriate for measuring attitudes, beliefs, and perceptions. The scale "1" indicates strongly disagree while "4" means the respondent strongly agrees with the statement.

The researcher utilized Cronbach's alpha to assess the internal consistency reliability of the scales. A Cronbach's alpha value of 0.7 or higher will be considered acceptable for each construct.

Assessment of the Measurement Model. The measurement model was evaluated to ensure indicator reliability, internal consistency, and construct validity. As shown in Table 1, factor loadings demonstrated that all items exceeded the minimum threshold of 0.50, with most surpassing 0.70, confirming strong representation of their respective constructs (Hair et al., 2017). Although a few items (e.g., SE5 = 0.565, SN3 = 0.599, CCU3 = 0.609) fell below 0.70, they were retained as acceptable indicators. The strongest loadings were observed in Subjective Norms (SN1 = 0.914) and Materialism (MAT1 = 0.914; MAT2 = 0.892), underscoring their robust measurement properties.

Table 1
Factor Loadings

	CCK	SN	MAT	SE	CCU
CCK1	0.696				
CCK2	0.794				
CCK3	0.712				
CCK4	0.724				
SN1		0.914			
SN2		0.640			
SN3		0.599			
SN4		0.902			
MAT1			0.914		
MAT2			0.892		
MAT3			0.835		
	CCK	SN	MAT	SE	CCU
SE1				0.836	
SE2				0.876	
SE3				0.887	
SE4				0.672	
SE5				0.565	
SE6				0.897	
CCU1					0.824
CCU2					0.790
CCU3					0.609
CCU4					0.675
CCU5					0.833

Legend: CCK = Credit Card Knowledge; SN = Subjective Norms; MAT = Materialism; SE = Self-Efficacy; CCU = Credit Card Usage

Reliability analysis in Table 2 confirmed high internal consistency across constructs, with Cronbach's Alpha and Composite Reliability values exceeding the 0.70 benchmark (Sujati et al., 2020). Self-Efficacy ($\alpha = 0.883$; CR = 0.912) and Materialism ($\alpha = 0.856$; CR = 0.912) achieved the highest reliability scores, consistent with prior findings that credit card knowledge and self-efficacy predict responsible usage (Limbu & Sato, 2019), while materialism has been linked to compulsive behavior (Felipe, Silva, & Ceribeli, 2023).

Table 2
Construct Reliability Analysis (Cronbach Alpha and Composite Reliability)

	CA	CR
CCK	0.716	0.822
SN	0.804	0.855
MAT	0.856	0.912
SE	0.883	0.912
CCU	0.805	0.865

Legend: CA = Cronbach Alpha; CR = Composite Reliability; CCK = Credit Card Knowledge; SN = Subjective Norms; MAT = Materialism; SE = Self-Efficacy; CCU = Credit Card Usage

Convergent validity results in Table 3 established that all constructs achieved AVE values above 0.50, including Materialism (0.776), Self-Efficacy (0.638), Subjective Norms (0.604), and Credit Card Knowledge (0.536), confirming adequate convergence.

Table 3
Construct Convergent Validity

	AVE
CCK	0.536
SN	0.604
MAT	0.776
SE	0.638
CCU	0.564

Legend: AVE = Average Variance Extracted; CCK = Credit Card Knowledge; SN = Subjective Norms; MAT = Materialism; SE = Self-Efficacy; CCU = Credit Card Usage

Discriminant validity was assessed using both the Fornell-Larcker criterion (Table 4) and HTMT ratios (Table 5). While the Fornell-Larcker test indicated a minor overlap between Self-Efficacy and Credit Card Usage (AVE = 0.751 < correlation = 0.784), HTMT values remained below the 0.90 threshold, confirming that constructs were empirically distinct (Ab Hamid, Sami, & Mohmad Sidek, 2017; Sujati et al., 2020).

Table 4
Discriminant Validity using Fornell-Larcker Criterion

	CCK	SN	MAT	SE	CCU
CCK	0.732				
SN	0.072	0.777			
MAT	0.104	0.788	0.881		
SE	0.114	-0.580	-0.529	0.799	
CCU	0.150	-0.513	-0.462	0.784	0.751

Legend: CCK = Credit Card Knowledge; SN = Subjective Norms; MAT = Materialism; SE = Self-Efficacy; CCU = Credit Card Usage

Finally, common method bias was ruled out, as all full-collinearity VIF values in Table 6 were below 3.33 (Kock et al., 2012). Collectively, these results demonstrate that the measurement model possesses strong reliability, convergent validity, and discriminant validity, thereby supporting its suitability for subsequent structural analyses.

Table 5
Discriminant Validity using Heterotrait-monotrait (HTMT) Criterion

	CCK	SN	MAT	SE	CCU
CCK					
SN	0.158				
MAT	0.186	0.879			
SE	0.160	0.544	0.566		
CCU	0.199	0.493	0.513	0.896	

Legend: CCK = Credit Card Knowledge; SN = Subjective Norms; MAT = Materialism; SE = Self-Efficacy; CCU = Credit Card Usage

Table 6
Common Method Bias Test

	VIF
CCK → SE	1.011
CCK → CCU	1.056
SN → SE	2.642
SN → CCU	2.933
MAT → SE	2.658
MAT → CCU	2.730
SE → CCU	1.606

Legend: VIF = Variance Inflation Factor; CCK = Credit Card Knowledge; SN = Subjective Norms; MAT = Materialism; SE = Self-Efficacy; CCU = Credit Card Usage

Data Gathering Procedure. The process of data gathering for the study involved several critical steps that ensured the collection of reliable and valid data. First, the researcher completed the details and information needed in Ethics Review Application Form and obtained approval from the research adviser and program chair. Then, the researcher also accomplished the Ethics Review Approval, Recommendation, and Endorsement signed by the panel members and the Program chair to ensure the research adheres to ethical standards and protects participant rights.

Data collection was administered by using both printed and online (via Google) forms. Online questionnaires were distributed through email and social media, while printed questionnaires were administered in person. The researcher ensured that all respondents are fully informed about the study's purpose, their role, and their rights.

Statistical Treatment. The study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the relationships among credit card knowledge, social norms, materialism, self-efficacy, and credit card usage. PLS-SEM is a quantitative method particularly effective for analyzing models involving constructs and relationships which is in line, with investigating how different factors impact credit card usage. It has become a key approach for validating the conceptual models across many disciplines in general. (Al-Emran, 2019).

RESULTS

This study examined how Credit Card Knowledge (CCK), Subjective Norms (SN), and Materialism (MAT) influence Credit Card Usage (CCU) among young professionals in Makati City, with Self-Efficacy (SE) functioning as a mediator. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to evaluate both direct and indirect relationships, with results organized below into descriptive statistics, model quality and predictive power, direct effects, and mediating effects.

Respondents' Profile. The demographic composition of the respondents (Table 7) provides essential context for interpreting the study's findings. In terms of sex, the majority were female (60.24%), followed by male (33.73%), with a small proportion preferring not to disclose (6.02%). This distribution suggests that women's perspectives dominate the dataset, which may influence patterns of credit card knowledge, self-efficacy, and use behavior.

Occupationally, respondents were concentrated in Accounting/Finance (29.52%) and Management/Administration (25.90%), with notable representation in Marketing/Advertising (12.05%) and Consulting/Advisory (11.45%). Smaller groups were drawn from IT (9.04%), Health Care (4.22%), and Legal Services (3.01%), while other fields such as Engineering, Architecture, and Teaching were minimally represented. This occupational spread indicates that the sample

is largely composed of professionals in finance, management, and business-related sectors, aligning with the study's focus on financial literacy and credit card practices.

Table 7
Demographic Characteristics of the Respondents

Sex	f	%
Male	56	33.73
Female	100	60.24
Prefer not to say	10	06.02
Occupation	f	%
Accounting/Finance	49	29.52
Analysts	1	00.60
Architectural	1	00.60
Clinical Research	1	00.60
Consulting/Advisory	19	11.45
Engineering/Construction	4	02.41
Health Care	7	04.22
Information Technology (IT)	15	09.04
Legal Services	5	03.01
Management/Administration	43	25.90
Marketing/Advertising	20	12.05
Professional Teacher	1	00.60
Income	f	%
Below ₱20,000	14	08.43
₱20,000 - ₱49,999	100	60.24
₱50,000 - ₱99,999	44	26.51
₱100,000 and above	8	04.82
Highest Educational Attainment	f	%
High School	8	04.82
Bachelor's degree	136	81.93
Graduate degree	22	13.25

The demographic profile (Table 7) shows a sample dominated by women (60.24%) and bachelor's-degree holders (81.93%), concentrated in Accounting/Finance (29.52%) and Management/Administration (25.90%). Most respondents earned ₱20,000–₱49,999 (60.24%), placing them in middle-income brackets with moderate repayment capacity. This profile — college-educated professionals in finance- and management-related roles — aligns with the

study's focus on credit card knowledge and usage, while the spread across occupation and income supports the relevance of self-efficacy and social influence to their financial behavior.

Descriptive Statistics of Constructs. Table 8 summarizes the central tendencies of the five constructs measured among the 166 respondents. Respondents reported moderate to high credit card knowledge (M = 3.33, SD = 0.69) and self-efficacy (M = 3.30, SD = 0.67), indicating that young professionals in Makati possess a working understanding of credit card mechanics and feel confident managing them. Credit card usage was also moderate (M = 3.17, SD = 0.80), reflecting regular but controlled engagement with credit cards for everyday and reward-driven purchases. By contrast, social norms (M = 1.89, SD = 0.94) and materialism (M = 2.31, SD = 1.04) registered low mean scores, suggesting that perceived peer pressure and material acquisition motives are not dominant drivers in this group. The relatively higher standard deviations for materialism and social norms indicate greater variability in these constructs, implying that while normative and materialistic influences are weak on average, they remain pronounced for a subset of respondents.

Table 8
Descriptive Statistics of the Latent Constructs

Construct	M	SD	Interpretation
Credit Card Knowledge (CCK)	3.33	0.69	Agree
Subjective Norms (SN)	1.89	0.94	Disagree
Materialism (MAT)	2.31	1.04	Disagree
Self-Efficacy (SE)	3.3	0.67	Agree
Credit Card Usage (CCU)	3.17	0.8	Agree

Note. N = 166. Scale: 1.00 to 1.50 = Strongly Disagree; 1.51 to 2.50 = Disagree; 2.51 to 3.50 = Agree; 3.51 to 4.00 = Strongly Agree.

Model Quality and Predictive Power. The measurement model previously satisfied the criteria for indicator reliability, internal consistency, convergent validity, and discriminant validity (Tables 1 to 6). For the structural model, predictive accuracy was evaluated through the coefficient of determination (R²), the recommended quality criterion for PLS-SEM analyses. Following Hair et al. (2017), traditional covariance-based fit indices such as CFI, TLI, RMSEA, and χ^2/df are

not applicable to PLS-SEM, which instead relies on R² values, path significance, and full-collinearity diagnostics to assess model adequacy.

Table 9

Predictive Power of the Structural Model (R ² Values)		
Endogenous Construct	R ²	Interpretation
Self-Efficacy (SE)	0.377	Moderate
Credit Card Usage (CCU)	0.625	Moderate to Substantial

Note. R² thresholds per Hair et al. (2017): 0.25 = weak; 0.50 = moderate; 0.75 = substantial.

As shown in Table 9, R² for Self-Efficacy was 0.377, indicating that 37.7% of its variance is explained by Credit Card Knowledge, Subjective Norms, and Materialism. This value reflects moderate predictive power. R² for Credit Card Usage reached 0.625, signifying that 62.5% of its variance is jointly explained by the three exogenous constructs together with Self-Efficacy, a value approaching the threshold for substantial predictive power (Hair et al., 2017). Common method bias was previously ruled out, as all full-collinearity VIF values were below 3.33 (Kock & Lynn, 2012). Collectively, these results confirm that the structural model is robust and possesses adequate predictive validity to support hypothesis testing.

Direct Effects of Exogenous Variables. Table 10 reports the standardized path coefficients (β), t-statistics, and p-values for all direct relationships, along with the hypothesis decisions.

Table 10

Direct Effects: Path Coefficients and Hypothesis Decisions					
Path	β	t-value	p-value	Hypothesis	Decision
CCK → SE	0.166	2.283	0.022	H1a	Supported
CCK → CCU	0.078	1.224	0.221	H1b	Not Supported
SN → SE	-0.425	4.415	0	H2a	Supported
SN → CCU	-0.085	0.99	0.322	H2b	Not Supported
MAT → SE	-0.211	2.03	0.042	H3a	Supported
MAT → CCU	-0.027	0.338	0.736	H3b	Not Supported
SE → CCU	0.711	12.736	0	H4	Supported

Note. Significance evaluated at p < 0.05.

The findings reveal a consistent pattern: each exogenous construct exerts a significant effect on Self-Efficacy, but none directly influences Credit Card Usage. Credit Card Knowledge positively predicted Self-Efficacy (β = 0.166, p = 0.022), supporting H1a and indicating that greater familiarity with credit card mechanics strengthens financial confidence. However, CCK

did not directly predict Credit Card Usage (β = 0.078, p = 0.221), so H1b was not supported. This suggests that knowledge alone is insufficient to shape behavior.

Subjective Norms exerted a strong negative effect on Self-Efficacy (β = -0.425, p < 0.001), supporting H2a, which suggests that perceived social pressure undermines respondents' confidence in managing credit responsibly. The direct effect of SN on CCU was not significant (β = -0.085, p = 0.322), and H2b was not supported. Materialism likewise negatively influenced Self-Efficacy (β = -0.211, p = 0.042), supporting H3a, but did not significantly predict CCU directly (β = -0.027, p = 0.736), rendering H3b unsupported.

The strongest relationship in the model was between Self-Efficacy and Credit Card Usage (β = 0.711, p < 0.001), confirming H4. Self-Efficacy thus emerges as the most powerful direct predictor of responsible credit card behavior in the model, substantially exceeding the explanatory contribution of knowledge, social norms, or materialism considered independently.

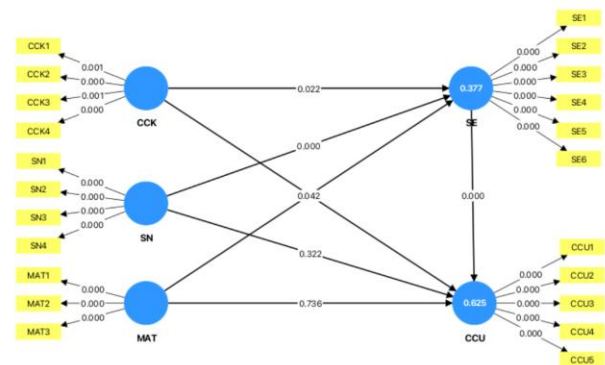


Figure 2
Structural Model of Credit Card Knowledge, Subjective Norms, Materialism, and Self-Efficacy on Credit Card Usage

Figure 2 presents the complete structural model evaluated through PLS-SEM. The diagram illustrates that Credit Card Knowledge, Subjective Norms, and Materialism each influence Self-Efficacy, which in turn shapes Credit Card Usage. The R² values confirm moderate predictive power for Self-Efficacy

(0.377) and moderate to substantial predictive power for Credit Card Usage (0.625).

Mediating Effects of Self-Efficacy. Because none of the three exogenous constructs directly influenced Credit Card Usage, the role of Self-Efficacy as a mediating mechanism becomes central to interpreting the model. Table 11 presents the indirect effects.

Table 11
Indirect Effects: Mediating Role of Self-Efficacy

Indirect Path	β	t-value	p-value	Hypothesis	Decision
CCK → SE → CCU	0.118	2.252	0.024	H5	Significant mediation
SN → SE → CCU	-0.302	3.988	0	H6	Significant mediation
MAT → SE → CCU	-0.15	2.068	0.039	H7	Significant mediation

Note. All three indirect effects achieved statistical significance at $p < 0.05$, confirming the mediating role of Self-Efficacy in each relationship.

All three indirect effects were statistically significant, supporting H5, H6, and H7. Self-Efficacy significantly mediated the relationship between Credit Card Knowledge and Credit Card Usage ($\beta = 0.118$, $p = 0.024$), indicating that knowledge translates into responsible usage only when accompanied by confidence in one's ability to apply it. Self-Efficacy also significantly mediated the relationship between Subjective Norms and Credit Card Usage ($\beta = -0.302$, $p < 0.001$), showing that social pressures shape credit behavior indirectly by influencing financial confidence rather than by directly compelling usage. Similarly, Materialism's influence on Credit Card Usage operated through Self-Efficacy ($\beta = -0.150$, $p = 0.039$), suggesting that materialistic tendencies undermine usage discipline by reducing self-belief in financial control rather than by directly increasing spending.

Taken together, the structural model demonstrates that the three psychosocial constructs influence credit card behavior through their effect on Self-Efficacy. This pattern positions Self-Efficacy not merely as a contributing variable but as the principal mechanism linking financial knowledge, social environment, and personal values to actual credit card behavior among young professionals.

DISCUSSION

Main Findings and Theoretical Contribution. Taken as a test of the proposed framework, the results yielded a consistent pattern: H1a, H2a, H3a, and H4 were supported and the mediated paths H5–H7 were all confirmed, whereas the direct effects on usage (H1b, H2b, H3b) were not. The findings of this study converge on a single, theoretically significant insight. Among young professionals in Makati City, credit card behavior is shaped less by what individuals know, by what their peers expect, or by what they value materially than by what they believe about their own capacity to manage credit. As shown in Table 10, none of the three exogenous constructs (Credit Card Knowledge, Subjective Norms, or Materialism) exerted a significant direct effect on Credit Card Usage. Yet each significantly predicted Self-Efficacy, which in turn was the strongest predictor of usage behavior in the model ($\beta = 0.711$, $p < 0.001$). The mediation results in Table 11 reinforce this pattern, with Self-Efficacy serving as a statistically significant mediator in every case.

These findings extend self-efficacy theory (Bandura, 2006) and the Theory of Planned Behavior (Ajzen, 2020) by demonstrating that in a financially active, urban Filipino professional population, internal control beliefs override both informational and normative determinants of behavior. While prior studies established self-efficacy as a contributing factor in financial decision-making (Farrell et al., 2016; Lim et al., 2014; Xiao & Porto, 2017), the present study advances the literature by showing that self-efficacy is not merely one influence among many but the principal channel through which knowledge, social norms, and materialism translate into actual credit card behavior. The negative influence of subjective norms and materialism on self-efficacy is particularly noteworthy. It suggests that external social pressure and consumerist values do not simply add to credit risk; they actively erode the psychological resource of financial confidence that protects young professionals from credit misuse. This finding aligns with Liu and Zhang (2021), who demonstrated that self-efficacy

mediates the relationship between financial literacy and risky credit behavior, while extending this insight to the underexamined context of Filipino young professionals.

Practical Implications. The dominance of self-efficacy as the mediating mechanism carries direct implications for stakeholders engaged in promoting responsible credit behavior. For financial institutions and educators, the results indicate that financial literacy programs must move beyond information delivery and explicitly build behavioral confidence. Curricula that combine knowledge acquisition with practical exercises, such as budget simulations, scenario-based credit decisions, and structured coaching, are more likely to produce behavioral change than content-only training.

Given the increasing role of digital platforms such as mobile banking applications, e-wallets, and online marketplaces in shaping spending behavior, financial institutions should also develop in-app tools (e.g., spending alerts, repayment simulators, confidence-building micro-lessons) that reinforce users' sense of financial control at the point of decision-making, particularly because digital payment transactions in the Philippines are projected to exceed ₱4.2 trillion by 2025 (BusinessWorld, 2025).

For policymakers and regulators, the finding that subjective norms diminish self-efficacy suggests that public financial education campaigns should pay attention to how peer narratives and social signals around credit card ownership are framed. In the Philippine context, cultural values such as *utang na loob* (debt of gratitude), familial financial obligation, and communal spending norms likely shape the self-efficacy and usage relationship in ways that universal financial literacy frameworks do not capture. Culturally congruent interventions that acknowledge these dynamics, for instance programs that explicitly address peer comparison, familial financial expectations, and digital social influence, are likely to be more effective than generic curricula imported from Western contexts. Finally, employers,

particularly in finance and service-sector workplaces such as those in Makati CBD, are well-positioned to integrate financial wellness initiatives into employee development, treating financial confidence as a workplace competency rather than a private matter.

Limitations and Directions for Future Research.

Several limitations of this study should be acknowledged. First, the research employed a cross-sectional design, which captures relationships at a single point in time and cannot establish how self-efficacy, knowledge, and credit behavior co-evolve over the course of a young professional's career. Second, the sample was geographically limited to Makati City and drawn through purposive snowball sampling, which constrains generalizability to young professionals in other Philippine cities, in rural settings, or in other emerging economies. Third, finance-sector employees comprised approximately 30% of the sample. While their inclusion enriched the dataset, it may have elevated the average financial literacy of the respondent group beyond what would be observed in a broader professional population. Fourth, all measures were self-reported, which introduces the possibility of social desirability bias, particularly in items concerning materialism and responsible payment behavior. Finally, the researcher-made instrument, although validated for the present sample, has not yet been tested in other Philippine or Southeast Asian contexts.

Building on these limitations, future research could pursue several directions. Longitudinal designs would help reveal how self-efficacy and credit card behavior evolve as young professionals progress through career and life-stage transitions, and how exposure to digital financial platforms, peer networks, and algorithmic marketing reshapes these dynamics over time. Comparative studies across Philippine regions, between finance and non-finance sectors, or across Southeast Asian economies would clarify the boundaries of the present findings and identify cultural moderators of the self-efficacy and usage relationship. Researchers could also explore

segmentation approaches that identify behavioral subgroups, for example high-knowledge but low-efficacy users, or low-materialism but high-norm-sensitivity users, to inform precision-targeted interventions. Finally, mixed-methods designs incorporating qualitative interviews could illuminate the lived experiences underlying the statistical relationships, particularly regarding how Filipino cultural values shape financial confidence in ways that quantitative measures may not fully capture.

Author contributions. The author solely performed all aspects of the study, including conceptualization, methodology, data collection, analysis, interpretation, and manuscript preparation.

Conflict of interest. The author declares no conflict of interest.

Funding source. This research received no external funding.

Artificial intelligence use. The author affirms that no artificial intelligence (AI) tools or applications were used in the conceptualization, data collection, analysis, interpretation, or writing of this manuscript. All work was conducted and prepared solely by the author.

Ethics approval statement. Ethical approval was obtained from the Polytechnic University of the Philippines-Open University System, Center for Research and Extension Office, under the Office of the Vice President for Academic Affairs, through the Chief of the Center for Research and Extension Office.

Data availability statement. All data supporting the findings of this study are included within the manuscript and its supplementary materials.

Acknowledgement. This study would not have been possible without the help and support of the following individuals. The researcher would like to thank them all sincerely. Foremost, to Almighty God for His divine guidance, wisdom, and strength, which made the completion of this

thesis possible. To the researcher's family, friends and colleagues for their continued support and encouragement throughout this academic endeavor. To Dr. Mark Christian Catapang, the researcher's adviser, for invaluable guidance, encouragement, and expertise that greatly contributed to the success of this study. To the distinguished panel members headed by John Mark S. Distor with Dr. Jerielyn V. Reyes, Dr. Andrea Rose Rimorin and Dr. Glaiza Ortiguero for their critical evaluation, constructive comments, and valuable suggestions that strengthened the quality of this work. Lastly, to all respondents for their cooperation and honest response to all the questions solicited in this paper.

Publisher's disclaimer. The views expressed in this article are those of the authors and do not necessarily reflect the views of the publisher. The publisher disclaims any responsibility for errors or omissions.

REFERENCES

- Ab Hamid, M. R., Sami, W., & Mohmad Sidek, M. H. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. *Journal of Physics: Conference Series*, 890(1), 012163. <https://doi.org/10.1088/1742-6596/890/1/012163>
- Agarwal, V. (2013). Investigating The Convergent Validity Of Organizational Trust. *Journal of Communication Management*, 17(1), 24–39. doi:10.1108/13632541311300133
- Ahamed, A. F. M. J., & Limbu, Y. B. (2018). Dimensions of materialism and credit card usage: An application and extension of the theory of planned behavior in Bangladesh. *Journal of Financial Services Marketing*, 23(3), 200–209. <https://doi.org/10.1057/s41264-018-0058-5>
- Al-Emran, M., Mezhuiev, V., & Kamaludin, A. (2019). PLS-SEM in information systems research: A comprehensive

- methodological reference. In A. Hassanien, M. Tolba, K. Shaalan, & A. Azar (Eds.), Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2018. AISI 2018. *Advances in Intelligent Systems and Computing (Vol. 845)*. Springer. https://doi.org/10.1007/978-3-319-99010-1_59
- Allgood, S., & Walstad, W. B. (2016). The effects of perceived and actual financial literacy on financial behaviors. *Economic Inquiry*, 54(1), 675–697. <https://doi.org/10.1111/ecin.12255>
- Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 6(10), 1–9. <https://doi.org/10.15295/bmij.v8i3.1540>
- Badura, A. (2006). Self-Efficacy Beliefs of Adolescents, 307–337
- Bangko Sentral ng Pilipinas. (2024). *Financial stability report: September 2024*. https://www.bsp.gov.ph/Media_And_Research/FSR/FSR2024.pdf
- Bangko Sentral ng Pilipinas. (2023, December). *Recent trends in the Philippine financial system*. https://www.bsp.gov.ph/Media_And_Research/Publications/ReportonRecentTrends2023-12.pdf
- Butaru, F., Chen, Q., Clark, B., Das, S., Lo, A. W., & Siddique, A. (2016). Risk and risk management in the credit card industry. *Journal of Banking & Finance*, 72, 218–239. <https://doi.org/10.1016/j.jbankfin.2016.07>
- Bursztyn, L., Fiorin, S., Gottlieb, D., & Kanz, M. (2018). Moral incentives in credit card debt repayment: Evidence from a field experiment. *Journal of Political Economy*. <https://doi.org/10.1086/701605>
- BusinessWorld. (2025, February 11). *Philippines ranks first globally in regular use of online financial services, says report*. <https://www.bworldonline.com/banking-finance/2025/02/11/652340/philippines-ranks-first-globally-in-regular-use-of-online-financial-services-says-report>
- BusinessWorld. (2025, November 28). *PHL card payments seen growing to P4.2 trillion*. <https://www.bworldonline.com/banking-finance/2025/11/28/715133/phl-card-payments-seen-growing-to-p4-2-trillion>
- Chong, K. F., Sabri, M. F., Magli, A. S., Abd Rahim, H., Mokhtar, N., & Othman, M. A. (2021). The effects of financial literacy, self-efficacy, and self-coping on financial behavior of emerging adults. *The Journal of Asian Finance, Economics and Business*, 8(3), 905–915. <https://doi.org/10.13106/JAFEB.2021.VOL.8.N03.0905>
- Elliehausen, G., & Hannon, S. M. (2018). The Credit Card Act and consumer finance company lending. *Journal of Financial Intermediation*, 34, 109–119. <https://doi.org/10.1016/j.jfi.2018.01.007>
- Eloriaga, E., Roxas, E., Cuaresma, P., & Cabauatan, R., [CC41] “A Study on Financial Literacy and Financial Behavior of Young Professionals in Metro Manila”, *IJRESM*, vol. 5, no. 1, pp. 226–236, Jan. 2022. <https://journal.ijresm.com/index.php/ijresm/article/view/1713>
- Farrell, L., Fry, T. R. L., & Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behaviour. *Journal of Economic Psychology*, 54, 85–99. [doi:10.1016/j.joep.2015.07.001](https://doi.org/10.1016/j.joep.2015.07.001)
- Felipe, I. J. S., Silva, M. M., & Ceribeli, H. B. (2023). Precedents of the compulsive use of a

- credit card: An analysis of university students' buying behavior. *Revista de Gestão*, 30(1), 47–61. <https://doi.org/10.1108/REGE-12-2020-0122>
- Gaganis, C., Papadimitri, P., Pasiouras, F. et al. Social traits and credit card default: a two-stage prediction framework. *Ann Oper Res* 325, 1231–1253 (2023). <https://doi.org/10.1007/s10479-022-04859-1>
- Goyal, K., & Kumar, S. (2021). Financial literacy: A systematic review and bibliometric analysis. *International Journal of Consumer Studies*. <https://doi.org/10.1111/ijcs.12605>
- Hair, J. F., Jr., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: Updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107–123. <https://doi.org/10.1504/IJMDSA.2017.087624>
- Handayati, P., Restuningdyah, N., Ratnawati, & Meldona. (2023). Proceedings of the BISTIC Business Innovation Sustainability and Technology International Conference (BISTIC 2022). *In Advances in Economics, Business and Management Research*. Atlantis Press. https://doi.org/10.2991/978-94-6463-178-4_30
- Islam, T., Sheikh, Z., Hameed, Z., Azam, R. I., & Khan, S. U. (2018). Social comparison, materialism, and compulsive buying based on stimulus–response model: A comparative study among adolescents and young adults. *Young Consumers*, 19(3), 00–00. <https://doi.org/10.1108/YC-07-2017-00713>
- Kang, H. (2021). Sample size determination and power analysis using the G*Power software. *Journal of Educational Evaluation for Health Professions*, 18, Article 17. <https://doi.org/10.3352/jeehp.2021.18.17>
- Kaiser, T., & Menkhoff, L. (2017). Does financial education impact financial literacy and financial behavior, and if so, when? *The World Bank Economic Review*, 31(3), 611–630. <https://doi.org/10.1093/wber/lhx018>
- Kasser, T. (2016). Materialistic Values and Goals. *Annual Review of Psychology*, 67(1), 489–514. doi:10.1146/annurev-psych-122414-033344
- Kim, K. (2003), Money attitudes and personal finance of college students, *Journal of Consumption Culture*, Vol. 6 No. 3, pp. 33–50.
- Kimbrough, E. O., & Vostroknutov, A. (2023). *A theory of injunctive norms*. SSRN. <https://doi.org/10.2139/ssrn.3566589>
- Klapper, L., & Lusardi, A. (2019). *Financial literacy and financial resilience: Evidence from around the world*. *Financial Management*, (), fima.12283–. doi:10.1111/fima.12283
- Kock, N. & Lynn, G. (2012) Lateral Collinearity and Misleading Results in Variance-Based SEM: An Illustration and Recommendations. *Journal of the Association for Information Systems*, 13(7), DOI: 10.17705/1jais.00302 Available at: <https://aisel.aisnet.org/jais/vol13/iss7/2>
- Li, Z., Chatterjee, S., & Moorman, D. (2024). Exploring the interplay of materialism, financial socialization, financial capability, and credit card debt. *International Journal of Bank Marketing*. <https://doi.org/10.1108/IJBM-02-2024-0106>
- Lim, Y. Z., & Ng, J. Y. W. (2024). Role of credit attitude on credit card misuse: A study of Malaysian working adults. *In N. Mansour & L. Bujosa (Eds.), Islamic Finance*.

- Contributions to Management Science. Springer. https://doi.org/10.1007/978-3-031-48770-5_44
- Lim, H., Heckman, S., Letkiewicz, J., & Montalto, C. (2014). Financial stress, self-efficacy, and financial help-seeking behavior of college students. *Journal of Financial Counseling and Planning*, 25(2), 148-160. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84916880674&partnerID=40&md5=a4d015bb6aa999984a907d60b5631bd2>
- Limbu, Y. B., & Sato, S. (2019). Credit card literacy and financial well-being of college students: A moderated mediation model of self-efficacy and credit card number. *International Journal of Bank Marketing*, 37(4), 991-1003. <https://doi.org/10.1108/IJBM-04-2018-0082>
- Liu, L., & Zhang, H. (2021). Financial literacy, self-efficacy and risky credit behavior among college students: Evidence from online consumer credit. *Journal of Behavioral and Experimental Finance*, 32, 100569. <https://doi.org/10.1016/j.jbef.2021.100569>
- Lone, U. M., Bhat, S. A. Impact of financial literacy on financial well-being: a mediational role of financial self-efficacy. *J Financ Serv Mark* 29, 122-137 (2024). <https://doi.org/10.1057/s41264-022-00183-8>
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5-44. <https://doi.org/10.1257/jel.52.1.5>
- Makwana, D., Engineer, A., Dabhi, B., & Chudasama, K. (2023). Sampling methods in research: A review. *International Journal of Trend in Scientific Research and Development*, 7(3), 123-127. <https://www.ijtsrd.com/medicine/ayurvedic/57470/sampling-methods-in-research-a-review/dhaval-makwana>
- Makati City Government. (2024). *Makati Web Portal*. makati.gov.ph
- Make It Makati. (2023). *Makati | An Ayala Land Estate in Makati City* makeitmakati.com
- Manila Standard. (2025, January 15). *Philippines' card payments seen hitting P4.2 trillion in 2025*. <https://manilastandard.net/business/314673553/philippines-card-payments-seen-hitting-p4-2-trillion-in-2025.html>
- Melnyk, V., van Herpen, E., Trijp, H. C. M., & Kraemer, E. (2018). The effect of descriptive and injunctive social norms on consumer behavior: The moderating role of involvement and habit strength. *Psychology & Marketing*, 35(8), 613-624. <https://doi.org/10.1002/mar.21117>
- Mindra, R. and Moya, M. (2017), Financial self-efficacy: a mediator in advancing financial inclusion, *Equality, Diversity and Inclusion*, Vol. 36 No. 2, pp. 128-149. <https://doi.org/10.1108/EDI-05-2016-0040>
- Müller, A., Claes, L., & Kyrios, M. (2021). Object attachment in buying-shopping disorder. *Current Opinion in Psychology*, 39, 115-120. <https://doi.org/10.1016/j.copsyc.2020.08.019>
- Nair, V. (2016). Eschewing cash: The challenges of cashless transactions in the Philippines. *Journal of Southeast Asian Economies*, 33(3).428-430. <https://doi.org/10.1355/ae33-3f>
- Nanda, A. P., & Banerjee, R. (2021). Consumer's subjective financial well-being: A systematic review and research agenda. *International Journal of Consumer*

- Studies*, 45(4), 750–776.
doi:10.1111/ijcs.1266
- Pahlevan Sharif, S., & Yeoh, K. K. (2018). Excessive social networking sites use and online compulsive buying in young adults: The mediating role of money attitude. *Young Consumers*, 19(3), 310–327. <https://doi.org/10.1108/YC-10-2017-00743>
- Pinca J., NG J., Lacerona R., Minorca J., Rodriguez N., and Ramos J. (2024). Financial literacy practices on the investment decisions of accounting professionals in Makati City, *Can. J. Bus. Inf. Stud.*, 6(3), 91–105. <https://doi.org/10.34104/cjbis.024.0910105>
- Pradhan, D., Israel, D., & Jena, A. K. (2018). Materialism and compulsive buying behaviour: The role of consumer credit card use and impulse buying. *Asia Pacific Journal of Marketing and Logistics*, 30(5), 1239–1258. <https://doi.org/10.1108/APJML-08-2017-0164>
- Richins, M. L. (2017). Materialism pathways: The processes that create and perpetuate materialism. *Journal of Consumer Psychology*, 27(4), 480–499. doi:10.1016/j.jcps.2017.07
- Robb, C. A., & Woodyard, A. (2011). Financial knowledge and best practice behavior. *Journal of Financial Counseling and Planning*, 22(1). Available at SSRN: <https://ssrn.com/abstract=2061308>
- Saat, M. K., Shaari, S. A., & Fauzi, T. A. (2024). *Materialism and consumerism through urban social lifestyle in the context of shopping malls: Malaysian perspective*. openlibrarypublications.telkomuniversit y.ac.id/index.php/bcm/article/view/5918
- Sari, M. P., & Suyasa, P. T. Y. S. (2017). Materialistic value and credit card usage as predictors of compulsive clothing buying among young adult women. *Makara Human Behavior Studies in Asia*, 2(2), 83–91. <https://doi.org/10.7454/mssh.v2i1i2.3503>
- Small, R. V., & Mardis, M. A. (Eds.). (2018). *Research methods for librarians and educators: Practical applications*. Libraries Unlimited. https://books.google.com.sg/books?hl=en&lr=&id=yknEEAAAQBAJ&oi=fnd&pg=PA145&dq=causal+research+approach&ots=yLEZUUHghu&sig=dxJg2aLEg0Q2slCfXd8sNMWNo&redir_esc=y#v=onepage&q=causal%20research%20approach&f=false
- Sujati, H., Sajidan, Akhyar, M., & Gunarhadi. (2020). Testing the construct validity and reliability of curiosity scale using confirmatory factor analysis. *Journal of Educational and Social Research*, 10(5), 74–84. <https://doi.org/10.36941/jesr-2020-0080>
- TransUnion Philippines. (2024). *Consumer Pulse Q1 2024: Philippines consumer pulse study [Infographic]*. TransUnion. <https://newsroom.transunion.ph/philippines-robust-credit-card-market-poised-for-further-growth-driven-by-greater-financial-inclusion/>
- Trinh, H. N., Tran, H. H., & Vuong, D. H. Q. (2020). Determinants of consumers' intention to use credit card: A perspective of multifaceted perceived risk. *Asian Journal of Economics and Banking*, 4(3), 105–120. <https://doi.org/10.1108/AJEB-06-2020-0018>
- White, K., Park, N., Watkins, K., McCoy, M., & Thomas, M. (2019). *The relationship between financial knowledge, financial management, and financial self-efficacy among African-American students*. SSRN.

<https://ssrn.com/abstract=3468751> or
<http://dx.doi.org/10.2139/ssrn.3468751>

- Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction. *International Journal of Bank Marketing*, 35(5), 805-817. <https://doi.org/10.1108/ijbm-01-2016-0009>
- Xiao, J.J., & O'Neill, B. (2018). *Propensity to plan, financial capability, and financial satisfaction. International Journal of Consumer Studies*, (), - . doi:10.1111/ijcs.12461
- Zainudin, R., Mahdzan, N. S., & Yeap, M.-Y. (2019). Determinants of credit card misuse among Gen Y consumers in urban Malaysia. *International Journal of Bank Marketing*, 37(5), 1350-1370. <https://doi.org/10.1108/IJBM-08-2018-0215>
- Wang, J. and Xiao, J.J. (2009), Buying behavior, social support and credit card indebtedness of college students, *International Journal of Consumer Studies*, 33(1), 2-10. <https://doi.org/10.1111/j.1470-6431.2008.00719.x>