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## **Examining the Contributory Factors Influencing Credit Card Debt among Consumers in Malaysia**

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**Abstract:** The purpose of this study is to analyze the key factors of socioeconomic, psychological behavioral, and credit card practices that contribute to credit card debt accumulation among Malaysian consumers. The aim is to understand debt patterns and develop evidence-based recommendations for improved financial management and policy intervention. It acknowledges a lack of understanding and a single definitive credit card debt. The study observed frameworks from impulsive buying theory, terror management theory, and neoclassical theory. The study uses a quantitative method based on a survey conducted on 384 respondents from various demographics in Malaysia and analyzed using SPSS software. This study found that impulsive buying, self-esteem, financial education, marketing and promotion, and interest rates play key roles in fostering consumer credit card debt. These findings have important implications for consumers, financial institutions, and policymakers in



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establishing responsible lending practices. Understanding the intricate relationship between these factors sheds light on the psychological underpinnings of consumers' financial decisions. The sensitivity of consumer behavior towards credit card debt underscores the pivotal role that policymakers can play in shaping a financial environment conducive to economic growth and the protection of consumers.

**Keywords:** credit card debt, impulsive buying, financial knowledge, marketing & promotion and interest rate.

## 研究影响马来西亚消费者信用卡债务的因素

**摘要:** 本研究的目的是分析导致马来西亚消费者信用卡债务积累的社会经济、心理行为和信用卡实践的关键因素。目的是了解债务模式并制定基于证据的建议,以改善财务管理和政策干预。它承认缺乏了解和单一的明确信用卡债务。该研究观察了冲动购买理论、恐怖管理理论和新古典理论的框架。该研究采用定量方法,基于对马来西亚不同人口统计数据的384名受访者进行的调查,并使用SPSS软件进行分析。这项研究发现,冲动购买、自尊、金融教育、营销和促销以及利率在促进消费者信用卡债务方面发挥着关键作用。这些发现对消费者、金融机构和政策制定者建立负责任的贷款实践具有重要意义。了解这些因素之间的错综复杂的关系有助于揭示消费者财务决策的心理基础。消费者行为对信用卡债务的敏感性凸显了政策制定者在塑造有利于经济增长和保护消费者的金融环境方面可以发挥的关键作用。

**关键词:** 信用卡债务、冲动购物、金融知识、营销和促销以及利率

### 1. Introduction

Credit cards were originally introduced by major hotels and retail stores in the early 20th century in the United States. In developed nations such as the U.S. and Europe today, credit cards represent an increasingly cashless society in which economic transactions occur electronically without physical currency-exchanging hands [1]. Credit cards allow customers to make purchases on credit, providing a convenient form of financing that requires monthly payments calculated based on the outstanding balance owed [2]. According to [3], frequent credit card users tend to make more transactions, often exceeding their financial means. This can lead to significant credit card debt, as consumers sometimes only make the minimum payments required by lenders.

In the mid-1970s, the utilization of credit cards in Malaysia was first restricted to those belonging to the upper socioeconomic strata, symbolizing a notable indicator of social distinction [2]. Over time, the criteria for owning credit cards have gradually become less stringent. According to [4], the rapid growth in the population of credit cardholders in Malaysia has given rise to indiscriminate and impulsive spending behaviors among users, giving rise to a range of adverse outcomes [2]. The Malaysian government is strongly inclined to reduce personal debt and express apprehension regarding the rising prevalence of credit card utilization. The government introduced a service tax of RM 50 in 2010 to promote a prudent attitude toward credit card regulations. In 2018, the Service Tax Act of 2018 was enacted, which imposed a service tax of RM 25 on anyone who obtained new credit cards or renewed their existing cards [4]. Especially in the wake

of the financial crisis, this strategy effectively incentivized a significant portion of credit card holders to terminate certain credit card accounts.

Gaining a comprehensive understanding of the differences between unsecured and secured credit, as well as their impact on total credit card debt, is crucial. Credit card companies introduced secure credit cards in the late 1970s to provide consumers with a way to establish or enhance their credit records [5]. The allocation of credit card debt across individuals is uneven, as certain individuals have a greater inclination to accumulate credit card-related debt compared to others. According to [1], it is possible for researchers to anticipate the probability of some individuals amassing greater amounts of credit card debt than others by considering a range of criteria, including personality traits, social norms, socioeconomic position, and other demographic data. The distribution of credit card debt among individuals is uneven, indicating varying levels of vulnerability to credit card-induced indebtedness across different parts of the population [4]. Academic research indicates that it is possible to forecast the probability of some individuals amassing higher levels of credit card debt than others by examining criteria such as personality traits, social norms, socioeconomic position, and different demographic information [1, 2].

This research paper presents a study examines the relationship between various factors and the accumulation of credit card debts. Drawing from previous research, the authors identify many factors that contribute to credit card debt levels. However, many cardholders continue to grapple by repaying their debts for prolonged periods. This behavior has led researchers to explore the dynamic interplay between

credit card debt and the factors influencing its build-up.

The objective of this study is to investigate the contributory factors that influence consumers' credit card debt levels in Malaysia by analyzing five independent variables: impulsive buying behavior, self-esteem, financial education, marketing and promotional strategies by lenders, and prevailing interest rates. By examining variables such as impulsive spending tendencies, self-worth/control, financial literacy, targeted marketing tactics, and interest rate policies, researchers aim to shed light on the underlying drivers that cause individuals to accrue problematic credit card balances over time. This enhanced understanding could inform efforts to promote healthier borrowing habits and help cardholders avoid becoming trapped in cycles of debt that have become increasingly difficult to escape.

## 2. Literature Review

Credit card debt is a type of consumer debt that includes outstanding credit card balances, auto loans, personal loans, scheduled payments and unpaid bills. It refers to the amount owed when purchases are made using a credit facility [6]. Credit cards provide an easier method for cardholders to obtain loans. However, some credit card users misuse their cards and take excessive debt [7]. Major credit cards such as Visa, Mastercard, American Express, and Diners Club allow people to borrow money for short periods and pay it back later based on the terms. There are records of credit cards used in Europe as early as the 1800s. In the U.S., businesses such as hotels, department stores, and oil companies began issuing credit cards to customers in the 1920s [8]. This allows people to make purchases on credit. The use of credit cards has expanded over time, providing convenience but also leading some people to debt [4].

Credit cards have become a common payment method for consumers to purchase goods and services. Their widespread use has led to growth in credit card spending, even as other forms of consumer credit such as personal loans have risen [6]. Credit cards can give people more purchasing freedom and encourage additional spending; however, they can also lead to frustration. The recent expansion of financial services has increased the availability and use of credit, directly increasing consumer debt levels, especially from credit cards. Research shows that credit card users often buy extra items and spend more overall, leaving them with large balances because they only pay the minimum amount due. This indicates that easy access to credit cards can promote overspending [6, 7].

### 2.1. Impulsive Buying

In recent years, the study of consumer behavior has been marked by significant changes, mainly in the decision-making process and, consequently, in the

influence of purchase intention. The markets exhibit distinctiveness because of heightened rivalry, continual product and service innovation, and a larger presence of enterprises within the same market. It is crucial to have a deep understanding of consumers in this situation [8]. By analyzing the aspects that directly influence customer behavior, it becomes feasible to innovate and fulfil their expectations. This study is crucial for marketers to enhance their campaigns and efficiently target desired audiences [9]. Impulse buying has been examined from several perspectives, including (i) logical decision-making processes, (ii) emotional factors, (iii) cognitive processes influenced by social judgment theory, (iv) persuasive communication, and (v) the impact of advertising on consumer behavior [10]. This phenomenon may be explained by the necessity for consumers to endure a waiting period for product delivery while making online purchases, which renders impulsive buying impractical. Personal quality has a significant effect on impulsive purchase. Impulsive purchasers exhibit elevated levels of anxiety, despair, and bad emotions as well as a pronounced inclination towards developing obsessive-compulsive disorders. Nevertheless, the level of uncertainty resulting from the global epidemic and subsequent economic crisis has influenced individuals to adopt a more deliberate and knowledgeable approach to their consumption habits [11].

### 2.2. Self-Esteem

Self-esteem is defined as an individual's feelings about the value or worth of oneself and is the degree of positivity of self-concept [12]. Self-esteem is a frequently employed psychological concept that denotes an individual's self-evaluation. Based on personality theory, self-esteem refers to an individual's perception of their own capability, significance, success, and worthiness. According to [13], self-esteem is an environmental and life experience that shapes students' perception of themselves, with external evaluations and relationships with significant others playing a particular role. Self-esteem is commonly evaluated during the formative years of infancy, and remains relatively stable and enduring thereafter.

Furthermore, they seem to possess an abundance of cognitive resources that empower them to manage unsatisfactory circumstances. Individuals with low self-esteem are prone to experiencing challenges in recognizing and articulating their emotions; they tend to exhibit a greater propensity for negative affect and melancholy and tend to downplay or ignore any positive experiences that may occur. Individuals with low self-esteem experience higher anxiety and distress, which can lead to emotional instability and ultimately to certain affective disorders [14]. Low self-esteem has been correlated with higher drug use in adolescents with eating disorders and compulsive shopping behaviors. As a result, when confronted with the

temptation to spend freely afforded by access to credit cards, individuals with low self-esteem are expected to engage in excessive spending.

### 2.3. Financial Knowledge

Financial literacy refers to an individual's capacity to comprehend, evaluate, control, and communicate their financial situation, which impacts their material welfare. It involves understanding financial options, discussing financial matters without discomfort, and effectively planning and managing daily financial decisions [15]. According to [16], financial knowledge refers to the amalgamation of awareness, information, skills, attitudes, and conduct that enables individuals to make informed financial decisions.

As indicated in [17], consumers often make incorrect assessments of their monthly credit card payments due to a lack of knowledge of the information shown in their statements. Furthermore, we demonstrated that those who possess proficient numerical abilities are more inclined to overcome this cognitive bias. Many students who possess credit cards are uninformed of the crucial aspects of their cards, such as the interest rate and penalties for late payments.

### 2.4. Interest Rate

Interest rates are defined as the rate at which money is borrowed in an economy [18]. This is the primary element that determines the cost of credit in an economy. According to [18], interest rate refers to the amount added to the saved or capitalized effort. Interest rates have a significant influence on the economy, particularly in the banking industry, because they directly affect the value of money. Credit cards play a crucial role in consumer finances, making it intriguing to investigate the interest rates associated with them [19]

Credit card firms profit from this tactic as they accrue interest in higher credit debt, given that consumers who make minimum payments tend to carry their balance over an extended period. Conversely, lower interest rates provide cardholders with more favorable conditions for managing their credit card balances. With lower borrowing costs, individuals have a better chance of paying down their debt more quickly, saving money on interest payments, and ultimately achieving financial stability. Therefore, the interest rate is a critical factor that significantly influences the trajectory and management of credit card debt [19].

### 2.5. Marketing and Promotion

Conversely, a counterpoint was made, highlighting the significant absence of proactive and preventative intervention efforts by the corporate sector to address the issue of youth debt. The comprehensive marketing and promotional tactics employed to attract young customers are considered excessively productive

without substantial instructive components. For example, in the United States, credit card marketers strategically carry out promotional efforts near colleges to attract and enroll students during their orientation period [20]. In selecting credit cards, the annual fee plays a significant part in the adoption decision, as most customers seek cards with no annual fee. Other factors include high incentives for promotion, such as 0% installments and co-retailer discounts. Comprehending the psychological stimuli that drive the process of making a purchase is crucial, which is why consumer psychology is connected to marketing methods [10].

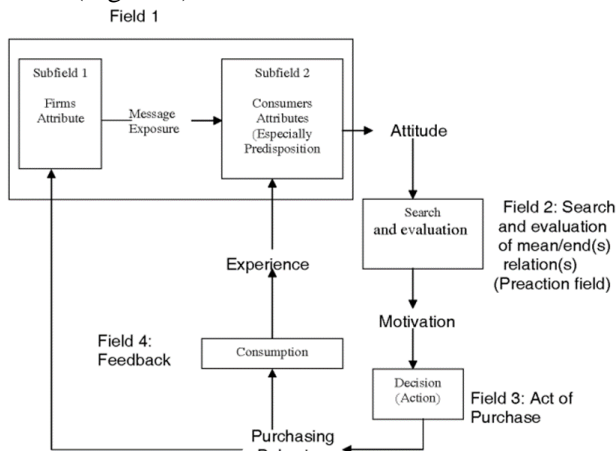
### 2.6. Underpinning Theories

The Impulse Buying Theory, also known as Hawkins Stern's theory, was introduced by Hawkins Stern in 1962. According to Hawkins Stern's impulsive Buying Theory, purchases are not always driven by logical deliberation. Instead, impulsive buying is more likely to occur when purchasing conditions are favorable. The model developed by Hawkins Stern provides a vital addition by classifying impulsive purchasing behavior into four distinct categories: pure impulsive purchasing, reminder impulse buying, suggested impulse buying, and planned impulse buying [21].

The inception of the terror management theory marked the advent of an experimentally driven theory aimed at exploring the psychological purpose of self-esteem. Terror management theory suggests that individuals are driven to seek good self-assessment because self-esteem acts as a protective barrier against the constant threat of anxiety caused by the distinct human realization of mortality. Thus, self-esteem functions as a mechanism to alleviate anxiety and control fear of mortality [22]. This existential theory aims to elucidate two fundamental inclinations believed to typify human behavior: a drive to uphold a positive self-perception, namely elevated self-esteem, and concurrently, a drive to advocate for the convictions and principles of one's society. Self-esteem and cultural worldviews serve as protective barriers against existential dread or anxiety that arise from the recognition of the inescapable reality of death and the potential disappearance of one's civilization. Culture uses self-esteem to mitigate or diminish existential fear linked to death and dying.

The Nicosia model introduced in [23] focuses on purchasing decisions for novel products. Figure 1 displays this model. This approach centers on the correlation between a company and its prospective customers. The company engages in communication with customers through promotional and marketing communication, and consumers respond to these messages by making purchases. Examining the model reveals a mutual connection between the company and customer. The firm endeavors to exert influence over

the consumer, while the consumer, via their decisions, wields power over the firm. The concept focuses on the firm’s efforts to engage with consumers and consumers’ inclination to behave in a specific manner. These two characteristics are commonly known as Field 1 (Figure 1).



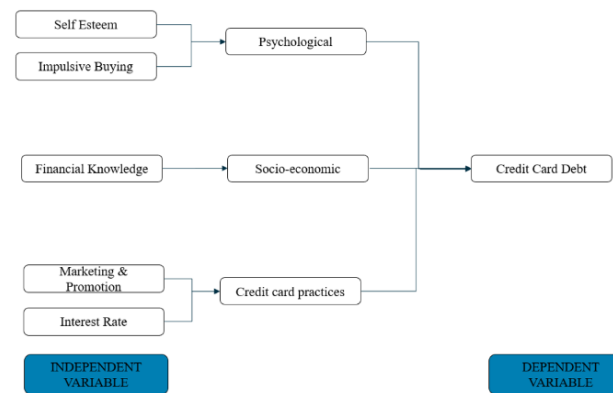
**Figure 1. Nicosia Model of Decision Process (Source [24])**

The contemporary neoclassical theory of interest rate, sometimes referred to as the loanable funds theory, posits that the interest rate, like other prices, is determined by the interaction between demand for and supply of loanable funds. This theory also suggests that the demand for lendable money and interest rates changes in divergent directions. As stated in [18], all forms of interest rates are interconnected and mutually affect each other. Thus, the operations of financial markets and their global connections play a significant role in explaining swings in interest rates. This research

primarily focuses on the impact of interest rate changes on economic growth; however, several factors influence these changes. The consequence of this is that the economy’s GDP would diminish, as relying solely on equity financing is insufficient to sufficiently support productive activities inside an economy.

**2.7. Research Framework & Hypothesis Statement**

The framework consists of five independent variables and their corresponding hypotheses, which were developed after reviewing the relevant literature, theories, and models relevant to the manufacturing sector. The effects on the dependent variable of credit card debt were measured using self-esteem, impulsive buying, financial knowledge, marketing and promotion, and interest rate, as described in the conceptual framework in figure 2 and the research hypothesis in Table 1.



**Figure 2. Conceptual Framework (developed by the authors)**

**Table 1. Hypothesis Statement (developed by the authors)**

NO	Hypothesis
H1	Low self-esteem has a positive correlation with credit card debt.
H2	Impulsive buying tendencies are positively correlated with credit card debt.
H3	Financial Knowledge has a positive correlation on credit card debt.
H4	Marketing and promotions have a positive correlation to consumer credit card debt.
H5	Low interest rates have a positive correlation to consumer credit card debt.

**3. Methodology**

The approach to quantitative research was the methodology adopted in this study. Data were acquired using questionnaires, divided into three main sections: the first Section A Section A, had five questions about the respondents’ demographics. This questionnaire identified the respondents’ demographic details, including gender, race, educational background, occupation level, and income level. Section B contains four questions on the dependent variable credit card debt, and Section C is further divided into five smaller parts with four questions for each of the independent variables, for a total of 30 questions. Respondents were given five options on a Likert scale ranging from one (strongly disagree) to five (strongly agree).

The research made use of Statistical Package for Social Sciences (SPSS) version 26. The surveys were distributed to 500 respondents, including leaders addressing manufacturing companies. In total, 384 respondents answered the survey; they were then returned and subjected to data screening because no polls were rejected. A total of 384 acknowledged responses, which corresponded to 76.8% of the total respondents, were used. According to [26], the minimum sample size for the Maximum Likelihood (ML) method should be between 150 and 400 responses. The 384 replies satisfied the criteria for both the needs. Utilizing frequency measurement to ascertain the respondents’ background is the fundamental descriptive statistic used to characterize

the respondent profile.

#### 4. Results

A feasibility analysis, also known as a pilot study, was conducted using SPSS to ascertain the long-term reliability and viability of the project. Fifty individuals

in Malaysia completed a questionnaire using Google Forms. From the reliability test, this questionnaire is reliable and suitable for use in the study, as all Cronbach's alpha values are deemed 0.7 and above for all variables, as displayed in Table 2.

**Table 2. Summary of Pilot Test Reliability & Validity Statistics (developed by the authors)**

Variables	Cronbach's Alpha	Reliability	Validity	N of Items
Credit Card Debt	0.879	Good	Valid	4
Self-Esteem	0.832	Good	Valid	4
Impulsive Buying	0.751	Acceptable	Valid	4
Financial Knowledge	0.723	Acceptable	Valid	4
Interest Rate	0.830	Good	Valid	4
Marketing & Promotion	0.789	Acceptable	Valid	4

After the initial pilot study ensured the instrument's reliability and validity, data collected from the respondents were analyzed. Table 3 summarizes the demographic information of the participants,

encompassing the relevant factors. These demographic variables were further examined to observe their effects on this study.

**Table 3. Summary of Demographic Variables (N=384) (developed by the authors)**

Demographic variable	Options	Frequency	Percentage
Sex	Male	187	48.7
	Female	197	51.3
Ethnic	Malay	230	59.9
	Chinese	115	29.95
	Indian	36	9.35
	Others	3	0.8
Income	Below RM2000	26	6.77
	RM2001- RM4000	171	44.53
	RM4001-RM6000	98	25.52
	RM6001-RM8000	39	10.15
	Above RM8001	50	13.03
Occupation Level	Students/Non-Executive	5	1.3
	Non-Executive	38	9.8
	Executive	220	57.29
	Manager	98	25.52
Education Level	Top-Management	23	6
	SPM	15	4
	STPM/Diploma	20	5.2
	Degree	271	70.57
Type of Credit Card	Master's degree	76	19.8
	PHD	2	0.52
	Master	170	44.25
	Visa	174	45.25
	Amex	37	9.75
Number of credit card	Diners	3	0.75
	Only 1	190	49.5
	2 to 4	176	46
	5 to 7	14	3.5
	8 to 10	4	1
Usage Frequency	Once a month	105	27.5
	Once fortnightly	103	26.75
	Once a week	142	36.75
	Everyday	34	9
Purpose of Usage	Business	22	5.75
	Shopping	92	23.75
	Groceries	108	27.75
	Entertainment	45	11.5

Continuation of Table 3		
Purely personal reason	35	9
Education	30	7.75
Others		
Convenience	5	1.5
Insurance	7	2
Medical	2	0.75
Online ticket	2	0.75
Petrol	36	9.5

Reliability analysis was conducted to guarantee the internal consistency of the instruments employed in the questionnaire. According to [27], a Cronbach's alpha of at least 0.7 is considered acceptable. Cronbach's alpha coefficient for Credit Card Debt was 0.879, self-esteem was 0.832, Impulsive Buying was 0.751, Financial Knowledge was 0.723, interest rate was 0.830, and Marketing & Promotion was 0.789. The variable with the highest reliability score was Credit Card Debt, whereas Financial Knowledge had the lowest reliability score (0.723). This study used the skewness and kurtosis assessment normality tests. To investigate this, an acceptable threshold of skewness between -2 and +2, and kurtosis between -7 and +7. The results show that the skewness and kurtosis values of the variables are below the predetermined thresholds, proving that all the data gathered for this study have a normal distribution. Table 4 shows the descriptive analysis and reliability of all the items within the variables.

**Table 4. Summary of Descriptive & Reliability Analysis – All Items of Variables (developed by the authors)**

Variable	N	Mean	Std. Deviation
Credit Card Debt	384	4.69	0.512
Impulsive Buying	384	4.35	0.541
Self-Esteem	384	4.33	0.581
Financial Knowledge	384	4.21	0.678
Marketing & Promotion	384	4.41	0.542
Interest Rate	384	4.29	0.645

The degree of similarity between the research variables, indicated by a correlation ( $r$  or  $R$ ), was determined using Pearson's correlation evaluation [28]. Table 5 shows the results obtained. It is often a number without units between 1 and -1. Pearson's correlation was chosen because the data in this investigation were normally distributed. Overall, all the correlation analysis data were above 0.50, which indicates that there is a strong positive association between each variable. In addition, the correlation is significant at the 0.01 level (2-tailed), where the  $p$  value is less than 0.005. The results of the Pearson's correlation test are shown in Table 6.

**Table 5. Summary of Correlation Level (developed by the authors)**

Independent Variable	R value	Correlation level
Self-Esteem	0.865	strong positive
Impulsive Buying	0.736	strong positive
Financial Knowledge	0.519	Fairly strong positive
Interest Rate	0.641	strong positive
Marketing& Promotion	0.752	strong positive

For the dependent variable Credit Card Debt, the correlations of the independent variables were as follows: self-esteem ( $r=0.865$ ), Impulsive Buying ( $r=0.736$ ), Financial Knowledge ( $r=0.519$ ), Interest Rate ( $r=0.641$ ), and Marketing& Promotion ( $r=0.752$ ). All independent variables showed a strong positive correlation, whereas Financial Knowledge showed only a strong positive correlation.

**Table 6. Pearson's Correlation Test Results (developed by the authors)**

Variables	Self-esteem	Impulsive buying	Financial knowledge	Interest rate	Marketing & promotion	Credit card debt
Self-esteem	Correlation Sig. (2-tailed)					
Impulsive buying	Correlation Sig. (2-tailed)	0.512** 0	1			
Financial knowledge	Correlation Sig. (2-tailed)	0.645** 0	0.384** 0	1		
Interest rate	Correlation Sig. (2-tailed)	0.718** 0	0.652** 0	0.651** 0	1	
Marketing & promotion	Correlation Sig. (2-tailed)	0.802** 0	0.523** 0	0.645** 0	0.852** 0	1
Credit card debt	Correlation Sig. (2-tailed)	0.865** 0	0.736** 0	0.519** 0	0.641** 0	0.752** 0

Multiple Regression analysis was carried out to determine how much variation in employee engagement in manufacturing companies could be explained by the independent variables. The calculated R<sup>2</sup> in table 7 is 0.970, whereas the adjusted R-squared value is 0.892. Thus, self-esteem, impulsive buying,

financial knowledge, marketing and promotion, and interest rate factors explain 0.89% of the variance in credit card debt. This also demonstrates that other research factors, not included in this survey, account for approximately 11% of the difference in credit card debt.

**Table 7. Regression Model Summary (developed by the authors)**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.970 <sup>a</sup>	0.892	0.89	0.36421
a. Dependent Variable: Credit Card Debt				
a. Predictors: (Constant), Self-esteem, Impulsive Buying, Financial Knowledge, Interest Rate, Marketing& Promotion				

F-statistic is used to test whether the null hypothesis should be accepted or disregarded. Through the ANOVA test, the F-statistic result along with the p-value indicated that the entire set of results from the analysis were significant. The table below demonstrates that the explanatory variables are statistically significant, that is, the model fits the data

well, with a p-value of 0.000. The regression analysis in Table 8 yielded an F-value of 34.213 and p-value of 0.000. A p-value less than 0.05 suggests that the independent factors have a substantial impact on employee engagement. This reveals a substantial relationship between employee engagement and the independent variables.

**Table 8. ANOVA test result (developed by the authors)**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2345.67	5	469.134	34.213	.000 <sup>b</sup>
Residual	1209.45	378	3.2		
Total	3555.12	383			
a. Dependent Variable: Credit Card Debt					
b. Predictors: (Constant), Self-esteem, Impulsive Buying, Financial Knowledge, Interest Rate, Marketing& Promotion					

The standardized coefficients ( $\beta$ ) represent the strength of the effects of the explanatory variables on the dependent variable. If the significance level was less than 0.05, the factor had a significant effect on employee engagement; however, if the value was greater than 0.05, the factor had an insignificant effect. As we investigate the standardized coefficients ( $\beta$ ) in Table 9, self-esteem ( $\beta=0.125$ ,  $P=0.000$ ) had the highest positive significance, followed by impulsive buying ( $\beta=0.257$ ,  $P=0.009$ ). There were no known

negative significances due to the nil-negative ( $\beta$ ) values.

To identify the strongest and weakest relationships, the focus is on the magnitude of the regression coefficients (beta values). The higher the absolute value of the coefficient, the more pronounced is the relationship, with positive coefficients indicating a positive relationship and negative coefficients indicating a negative relationship (Table 10).

**Table 9. Multiple regression analysis coefficients (developed by the authors)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.888	0.190		4.671	0.000
Self Esteem	0.125	0.047	0.141	2.651	0.009
Impulsive Buying	0.257	0.050	0.298	5.12	0.000
Financial Knowledge	-0.106	0.035	-0.129	-3.054	0.003
Interest rate	0.133	0.032	0.217	4.183	0.000
Marketing & Promotion	0.323	0.048	0.406	6.779	0.000
a. Dependent Variable: Credit Card Debt					

**Table 10. Summary of Hypotheses (developed by the authors)**

No.	Hypothesis	P	Result
H1	Low self-esteem has a positive correlation with credit card debt.	0.009	Supported
H2	Impulsive buying tendencies are positively correlated with credit card debt.	0.000	Supported
H3	Financial Knowledge has a significant influence on credit card debt.	0.003	Supported
H4	Marketing promotions have a significant impact on consumer credit card debt.	0.000	Supported
H5	Low interest rates have a significant impact on consumer credit card debt.	0.000	Supported

## 5. Discussion

### 5.1. Hypotheses verification

**H1:** There is a significant relationship between self-esteem and credit card debt in Malaysia.

Self-esteem has a significant impact on credit card debt in Malaysia, as indicated by the beta value of 0.125 ( $p=0.000$ ). Therefore, Hypothesis 1 was confirmed because there was a significant correlation between self-esteem and credit card debt. This conclusion is consistent with several lines of evidence [28]. Unquestionably, low self-esteem may be associated with lower financial literacy and decision-making skills. Individuals with low self-esteem may be less likely to engage in effective financial planning and budgeting, leading to poor money management and increased reliance on credit. According to [28], individuals with lower self-esteem may engage in conspicuous consumption beyond their means to boost their perceived social status or self-worth. This desire to keep up with others in terms of lifestyle and possessions can lead to increased credit card usage, and consequently, higher levels of debt. Consequently, the relationship between self-esteem and credit card debt is multifaceted. Understanding these psychological factors can be crucial in addressing and managing individuals' financial behavior.

**H2:** There is a significant relationship between impulsive buying and credit card debt in Malaysia.

The study found that impulsive purchases have a significant impact on credit card debt in Malaysia under the present circumstances. The study found that H2 was supported, indicating that impulsive buying had a significant influence on credit card debt in Malaysia. The beta coefficient for this relationship was 0.257 ( $P = 0.009$ ). This result aligns with previous studies indicating that impulse purchase behavior frequently entails emotional decision-making motivated by the quest for instant gratification. Credit cards enable people to fulfil these impulsive desires without immediate financial consequences [10]. Impulsive buying typically involves smaller spontaneous purchases that may accumulate over time. While each individual purchase may seem insignificant, the cumulative effect can lead to substantial credit card debts.

**H3:** There is a significant relationship between financial knowledge and credit card debts in Malaysia.

The research findings indicate that financial awareness is a key factor that has a limited impact on consumer motivation to acquire goods and services, perhaps leading to debt accumulation. This conclusion was supported by a  $p$ -value of 0.003. The findings are

similar to those of [29, 30], concluding that individuals with limited financial knowledge may struggle to create and adhere to a budget. Without a clear understanding of income, expenses, and financial goals, they may overspend and rely on credit cards to cover shortfalls. Limited financial literacy can lead to misunderstandings of how credit cards work. Individuals may not fully grasp concepts, such as interest rates, minimum payments, and the consequences of carrying a balance. This lack of understanding can result in the accrual of high-interest debt.

**H4:** There is a significant relationship between interest rate and credit card debt in Malaysia.

The interest rate has a significant influence on consumer credit card debt in Malaysia, with a coefficient of 0.217 and  $p$ -value of 0.000. Therefore, the study indicates that interest rates have a considerable impact. This result is consistent with the findings of [31]. As stated in [32], credit card companies charge interest in the outstanding balances that users carry from month to month. This interest is typically expressed as the annual percentage rate (APR). When credit card interest rates are high, it becomes more expensive for individuals to balance credit cards. Higher interest rates result in greater financial costs for maintaining outstanding balances. As interest rates increase, borrowing costs also increase. This can discourage some individuals from promptly paying off their credit card balances, leading to the accumulation of credit card debt over time.

**H5:** There is a significant relationship between marketing promotions and credit card debt in Malaysia.

Marketing and promotion have a considerable influence on consumer credit card debt in Malaysia, as evidenced by the beta value of 0.406 ( $p$ -value= 0.000). Therefore, Hypothesis 5 is confirmed, because there is a significant correlation between marketing and promotion activities and credit card debt. This conclusion agrees with several lines of evidence of [33] that credit card companies invest heavily in marketing to attract new customers. They use various channels, such as television, online advertising, direct mail, and in-person promotions, to create awareness about their credit card products. Marketing efforts often highlight the benefits of owning credit cards, such as convenience, reward programs, cashback offers, and exclusive perks. These promotions aim to entice individuals to apply for and use credit cards.

### 5.2. Practical Implications

The intersection of self-esteem, impulsive buying behavior, financial knowledge, interest rates, and marketing/promotion strategies presents several

practical implications for managing and mitigating consumer credit card debt. Understanding the link between self-esteem and impulsive buying can inform targeted interventions to promote healthier spending habits. Financial education programs should not only focus on enhancing consumers' knowledge, but should also address the emotional aspects tied to self-esteem to foster responsible financial behavior. Additionally, financial institutions could tailor credit card terms and interest rates based on consumers' financial literacy levels, ensuring that those with lower financial knowledge are not disproportionately burdened by high interest charges.

Moreover, recognizing the impact of marketing and promotion on consumer behavior underscores the need for ethical marketing practices in the credit card industry. Regulators and industry stakeholders should collaborate to establish guidelines that promote transparent communication about credit card terms and discourage misleading promotions that may contribute to impulsive buying. Financial literacy campaigns should also include information on recognizing and resisting the influence of marketing tactics to empower consumers to make informed decisions.

A holistic approach that combines emotional and financial education, responsible lending practices, and ethical marketing strategies can contribute to reducing consumer credit card debt. Policymakers, financial institutions, and educators must work in tandem to create an environment that fosters responsible financial decision making and empowers individuals to manage their credit responsibly.

### 5.3. Contribution

The key theoretical contribution of this study is the understanding of the complex study of consumer credit card debt behaviors and the interplay between self-esteem, impulsive buying behavior, financial knowledge, interest rates, and marketing and promotion strategies. Self-esteem, as a psychological factor, can affect an individual's financial decisions, potentially leading to impulsive buying habits. Individuals with lower self-esteem may be more susceptible to seeking momentary satisfaction through impulsive purchases, consequently accumulating credit card debt. Financial knowledge plays a crucial role in shaping consumer behavior because individuals with a better understanding of personal finance are more likely to make informed choices and manage their credit responsibly. Interest rates are a pivotal factor in the credit card debt equations. High interest rates can exacerbate debt accumulation, especially for those who carry monthly balances. Consumers may find themselves trapped in a cycle of debt because of compounding interest charges. Additionally, the marketing and promotional strategies employed by credit card companies can have a profound impact on consumer behavior. Aggressive marketing campaigns

may tempt individuals to apply for credit cards or increase their spending, thus contributing to the accumulation of debt.

The practical contribution of this study is to understand the intricate relationship between the studied behaviors, which is crucial for developing effective models aimed at promoting responsible financial behaviors. Strategies that enhance financial literacy, bolster self-esteem, and regulate impulsive tendencies can empower consumers to make more prudent credit decisions. Enhancing financial education initiatives can equip consumers with the necessary tools to understand interest rates and the potential consequences of debt accumulation. In the realm of consumer credit card debt, various factors intertwine to shape individuals' financial behavior and ultimately influence their debt levels. Self-esteem plays a significant role in this context, as individuals with lower self-esteem may succumb to impulsive buying tendencies as a means of seeking momentary gratification and boosting their self-worth through material possession.

The legal contribution perspective formulated from the results of this research considers how regulatory frameworks can address credit card debt behavioral issues. Consumer protection laws should focus on fostering financial literacy and knowledge to empower individuals to make informed decisions about credit card usage. Similarly, regulatory measures to control interest rates and promote transparent marketing practices can mitigate the risk of excessive consumer credit card debt. As the nexus between psychology, finance, and marketing continues to shape consumer behavior, comprehensive approaches are necessary to address the multifaceted challenges associated with credit card debt. Furthermore, legal measures should be implemented to regulate marketing and promotional practices in the credit industry. Stricter guidelines on the transparent disclosure of interest rates and potential long-term financial implications should be enforced to ensure that consumers are not misled or enticed into credit arrangements that may lead to unsustainable debt levels. By promoting responsible marketing practices, the legal framework can contribute to reducing the prevalence of impulsive buying and its subsequent impact on consumer credit card debt.

## 6. Conclusion

This research indicates a widespread lack of understanding among cardholders regarding the crucial aspects of credit cards, including their terms, interest calculations, and how minimum payment choices can lead to substantial debt accumulation. Understanding these contributing factors is essential for developing viable solutions for these financial challenges. This study found that impulsive buying, self-esteem, financial education, marketing and promotion, and

interest rates play key roles in fostering consumer credit card debt. These insights offer valuable perspectives on Malaysian consumer debt behavior and suggest pathways for enhancing financial management strategies. To address these challenges effectively, stakeholders, including financial institutions, regulatory authorities, educational organizations, and consumers, must work together to foster responsible credit card usage and reduce debt-related problems. However, it is important to note that this research is limited by its focus on the Malaysian market. To develop a more comprehensive understanding of credit card debt patterns, researchers should expand their studies to include different geographical regions, and explore additional hypotheses and variables. Such expanded research could provide valuable insights for both academic studies and practical applications, particularly in helping consumers avoid excessive credit card debts.

## Declarations

### Author Contributions

Conceptualization, P.A.M. and T.M.; methodology, E.T. and W.G.M.; formal analysis, P.A.M., A.A. and A.A.; visualization, W.G.M. and L.; writing—original draft preparation, all coauthors contributed equally; writing—review and editing, P.A.M.; project administration, P.A.M. and T.M. All authors have read and agreed to the published version of the manuscript.

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The data presented in this study are available in this article.

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### Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki and approved by the Health Research Ethics Committee of UNITAR International University, Malaysia, and Al-Madinah International University, Malaysia.

### Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

### Conflicts of Interest

The authors declare that there is no conflict of interests regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

## References

- [1] LEANDRO J. C., & BOTELHO D. Consumer over-indebtedness: A review and future research agenda. *Journal of Business Research*, 2022, 145: 535-551.
- [2] WONG Z. J. R., & TANG T. C. Credit card usage and inflation: A case study of a small open economy. *Jurnal Ekonomi Malaysia*, 2020, 54(1): 19-32.
- [3] HADI R., MELUMAD S., & PARK E. S. The Metaverse: A new digital frontier for consumer behavior. *Journal of Consumer Psychology*, 2024, 34(1): 142-166.
- [4] YAHAYA S. N., & BAKAR M. H. The critical factors influencing consumer spending by using credit card. *Journal of Technology Management and Technopreneurship*, 2020, 8(1): 117-128.
- [5] BALATIF M. R., FACHRUDIN K. A., SILALAH I. A. S., & TORONG M. Z. B. The Effect of Financial Education and Financial Stress on Financial Well-Being with The Use of Financial Technology. *Calitatea*, 2024, 25(199): 108-118.
- [6] HAMID F. S., & LOKE Y. J. Financial literacy, money management skill and credit card repayments. *International Journal of Consumer Studies*, 2021, 45(2): 235-247.
- [7] RAHMAN M. F., & HOSSAIN M. S. The impact of website quality on online compulsive buying behavior: evidence from online shopping organizations. *South Asian Journal of Marketing*, 2023, 4(1): 1-16.
- [8] HAJABDULKADER F. Institutionalization of a Practice in an Organizational Field: Installment Payment with Credit Card Practice in Turkish Retail Industry. Doctoral dissertation, Bursa Uludag University (Turkey), 2023.
- [8] KHANDELWAL R., KOLTE A., VEER N., & SHARMA P. Compulsive Buying Behaviour of Credit Card Users and Affecting Factors Such as Financial Knowledge, Prestige and Retention Time: A Cross-sectional Research. *Vision*, 2022, 26(2): 172-180. <https://doi.org/10.1177/0972262920981428>
- [9] PARRIS D. L., & GUZMÁN F. Evolving brand boundaries and expectations: looking back on brand equity, brand loyalty, and brand image research to move forward. *Journal of Product & Brand Management*, 2023, 32(2): 191-234.
- [10] MALTER M. S., HOLBROOK M. B., KAHN B. E., PARKER J. R., & LEHMANN D. R. The past, present, and future of consumer research. *Marketing Letters*, 2020, 31(2-3): 137-149. <https://doi.org/10.1007/s11002-020-09526-8>
- [11] ELSHAER I. A., ALRAWAD M., LUTFI A., & AZAZZ A. M. Social commerce and buying intention post COVID-19: Evidence from a hybrid approach based on SEM-fsQCA. *Journal of Retailing and Consumer Services*, 2024, 76: 103548.
- [12] DARRAT A. A., DARRAT M. A., & DARRAT M. A. Does wanting more lead to losing control? Examining the psychological drivers of compulsive buying. *Young Consumers*, 2023, 24(1): 56-73.
- [13] MILENKOVA V., & NAKOVA A. Personality Development and Behavior in Adolescence: Characteristics and Dimensions. *Societies*, 2023, 13(6): 148.
- [14] CHEN X., & MA R. Adolescents' Self-Esteem: The Influence Factors and Solutions. *Journal of Education, Humanities and Social Sciences*, 2023, 8: 1562-1566.
- [15] GHOSH M. Financial inclusion studies bibliometric analysis: Projecting a sustainable future. *Sustainable Futures*, 2024, 7: 100160.

<https://doi.org/10.1016/j.sftr.2024.100160>

- [16] HE H., LUO W., GONG Y., BERSON I. R., & BERSON M. J. Digital financial literacy of young Chinese children in Shanghai: A mixed method study. *Early Education and Development*, 2024, 35(1): 57-76.
- [17] XIAO J. J., & BIALOWOLSKI P. Consumer financial capability and quality of life: a global perspective. *Applied Research in Quality of Life*, 2023, 18(1): 365-391.
- [18] AL-AJLOUNI S. A., & SANAJLEH B. M. The Effect of Real Interest Rate on Real Economic Growth in Jordan. *Jordan Journal of Economic Sciences*, 2023, 10(2): 184-192.
- [19] AYDIN D. Consumption response to credit expansions: Evidence from experimental assignment of 45,307 credit lines. *American Economic Review*, 2022, 112(1): 1-40.
- [20] MADHURI, K., & PANDA, D. S. (2023). Analysing the Public Sentiments and Perception Towards the Credit Card. *Iconic Research and Engineering Journals*, 2023, 6(12): 1233-1237.
- [21] REDINE A., DESHPANDE S., JEBARAJAKIRTHY C., & SURACHARTKUMTONKUN J. Impulse buying: A systematic literature review and future research directions. *International Journal of Consumer Studies*, 2023, 47(1): 3-41.
- [22] KILPATRICK, M., HUTCHINSON, A., MANIAS, E., & BOUCHOUCHA, S. L. Applying terror management theory as a framework to understand the impact of heightened mortality salience on children, adolescents, and their parents: A systematic review. *Death Studies*, 2023, 47(7): 814-826. <https://doi.org/10.1080/07481187.2022.2132550>
- [23] HANAFI S. Toward a dialogical sociology: Presidential address—XX ISA World Congress of Sociology 2023. *International Sociology*, 2024, 39(1): 3-26.
- [24] ETUK A., AWAH A. E., & AKPAN A. O. Physical ambience and customer behaviour in selected microfinance banks in Uyo metropolis, Akwa Ibom state. *Top American Journal of Marketing and Management*, 2024, 9(1): 1-24.
- [26] HAIR JR, J. F., HULT, G. T. M., RINGLE, C. M., SARSTEDT, M., DANKS N. P., RAY S., ... & RAY S. *An introduction to structural equation modeling. Partial least squares structural equation modeling (PLS-SEM) using R: a workbook*, (1-29), 2021.
- [27] MOSES R. N., & YAMAT H. Testing the Validity and Reliability of a Writing Skill Assessment. *International Journal of Academic Research in Business and Social Sciences*, 2021, 11(4): 202-208. <https://doi.org/10.6007/ijarbss/v11-i4/9028>
- [28] BINH M. C., GHI T. N., HIEN N. N., NHUNG N. T. T., & NGOC P. H. B. Factors Influencing Students' Dropout Intentions in Ho Chi Minh City, Vietnam. *International Journal of Cognitive Research in Science, Engineering and Education*, 2023, 11(3): 417-437.
- [28] SENTHILNATHAN S. Usefulness of correlation analysis. Available at SSRN 3416918, 2019. <https://dx.doi.org/10.2139/ssrn.3416918>
- [29] DEWI F. M., & SULIVYO L. Influence of Consumer Behavior and Marketing Mix on Product Purchasing Decisions. *Aptisi Transactions on Management (ATM)*, 2022, 6(2): 151-157. <https://doi.org/10.33050/atm.v6i2.1737>
- [30] FAN, L., & HENAGER, R. A structural determinants framework for financial well-being. *Journal of Family and Economic Issues*, 2022, 43(2): 415-428. <https://doi.org/10.1007/s10834-021-09798-w>
- [31] BRAXTON J. C., CHIKHALE N., HERKENHOFF K.

F., & PHILLIPS G. M. *Intergenerational mobility and credit* (No. w32031). National Bureau of Economic Research, 2024.

[32] MAWAD J. L., ATHARI S. A., KHALIFE D., & MAWAD N. Examining the Impact of Financial Literacy, Financial Self-Control, and Demographic Determinants on Individual Financial Performance and Behavior: An Insight from the Lebanese Crisis Period. *Sustainability*, 2022, 14(22): 15129. <https://doi.org/10.3390/su142215129>

[33] ALIC A., & KADRIĆ A. Effects of compulsive buying on debt avoidance and self-esteem: Can brand addiction serve as a socially responsible mediator? *Strategic Management*, 2024, 20: 1-22. <https://doi.org/10.5937/StraMan2400001A>

## 参考文献:

- [1] LEANDRO J. C. , 和 BOTELHO D. 消费者过度负债：回顾和未来研究议程。《商业研究杂志》，2022，145：535-551。
- [2] WONG Z. J. R. , 和 TANG T. C. 信用卡使用和通货膨胀：小型开放经济案例研究。《马来西亚经济杂志》，2020，54(1)：19-32。
- [3] HADI R.、MELUMAD S. 和 PARK E. S. 元宇宙：消费者行为的新数字前沿。《消费者心理学杂志》，2024，34(1)：142-166。
- [4] YAHAYA S. N. 和 BAKAR M. H. 影响信用卡消费的关键因素。《技术管理与技术创业杂志》，2020，8(1)：117-128。
- [5] BALATIF M. R.、FACHRUDIN K. A.、SILALAH I. A. S. 和 TORONG M. Z. B. 金融教育和金融压力对使用金融技术的金融福祉的影响。卡利塔泰亚，2024，25(199)：108-118。
- [6] HAMID F. S. 和 LOKE Y. J. 金融知识、理财技能和信用卡还款。《国际消费者研究杂志》，2021，45(2)：235-247。
- [7] RAHMAN M. F. 和 HOSSAIN M. S. 网站质量对在线强迫性购买行为的影响：来自在线购物组织的证据。《南亚营销杂志》，2023，4(1)：1-16。
- [8] HAJABDULKADER F. 组织领域实践的制度化：土耳其零售业的信用卡分期付款实践。博士论文，布尔萨乌鲁达大学（土耳其），2023。
- [8] KHANDELWAL R.、KOLTE A.、VEER N. 和 SHARMA P. 信用卡用户的强迫性购买行为及其影响因素（例如金融知识、声望和保留时间）：一项横断面研究。愿景，2022，26(2)：172-180。<https://doi.org/10.1177/0972262920981428>
- [9] PARRIS D. L. 和 GUZMÁN F. 不断发展的品牌边界和

期望：回顾品牌资产、品牌忠诚度和品牌形象研究以向前迈进。《产品与品牌管理杂志》，2023，32(2)：191-234。

[10] MALTER M. S.、HOLBROOK M. B.、KAHN B. E.、PARKER J. R. 和 LEHMANN D. R. 消费者研究的过去、现在和未来。《营销快报》，2020，31(2-3)：137-149。  
<https://doi.org/10.1007/s11002-020-09526-8>

[11] ELSHAER I. A.、ALRAWAD M.、LUTFI A. 和 AZAZZ A. M. 新冠肺炎后的社交商务和购买意向：基于 SEM-fsQCA 的混合方法的证据。《零售与消费者服务杂志》，2024，76：103548。

[12] DARRAT A. A.、DARRAT M. A. 和 DARRAT M. A. 想要更多会导致失去控制吗？研究强迫性购买的心理驱动因素。《年轻消费者》，2023，24(1)：56-73。

[13] MILENKOVA V. 和 NAKOVA A. 青少年人格发展和行为：特征和维度。《社会》，2023，13(6)：148。

[14] CHEN X. 和 MA R. 青少年自尊：影响因素及解决方案。《教育、人文和社会科学杂志》，2023，8：1562-1566。

[15] GHOSH M. 金融包容性研究文献计量分析：预测可持续发展的未来。《可持续未来》，2024，7：100160。  
<https://doi.org/10.1016/j.sft.2024.100160>

[16] HE H.、LUO W.、GONG Y.、BERSON I. R. 和 BERSON M. J. 上海中国儿童的数字金融素养：一项混合方法研究。《早期教育与发展》，2024，35(1)：57-76。

[17] XIAO J. J. 和 BIALOWOLSKI P. 消费者金融能力和生活质量：全球视角。《生活质量应用研究》，2023，18(1)：365-391。

[18] AL-AJLOUNI S. A. 和 SANAJLEH B. M. 实际利率对约旦实际经济增长的影响。《约旦经济科学杂志》，2023，10(2)：184-192。

[19] AYDIN D. 消费对信贷扩张的反应：来自 45,307 条信贷额度实验分配的证据。《美国经济评论》，2022，112(1)：1-40。

[20] MADHURI, K., 和 PANDA, D. S. (2023). 分析公众对信用卡的情绪和看法。《标志性研究与工程期刊》，2023，6(12)：1233-1237。

[21] REDINE A.、DESHPANDE S.、JEBARAJAKIRTHY C. 和 SURACHARTKUMTONKUN J. 冲动购买：系统文献综述和未来研究方向。《国际消费者研究杂志》，2023 年，47(1)：3-41。

[22] KILPATRICK, M.、HUTCHINSON, A.、MANIAS, E. 和 BOUCHOUCHA, S. L. 应用恐怖管理理论作为框架来了解死亡率增加对儿童、青少年及其父母的影响：系统评价。《死亡研究》，2023，47(7)：814-826。

<https://doi.org/10.1080/07481187.2022.2132550>

[23] HANAFI S. 走向对话社会学：总统致辞—2023 年第 20 届 ISA 世界社会学大会。《国际社会学》，2024，39(1)：3-26。

[24] ETUK A.、AWAH A. E. 和 AKPAN A. O. 阿夸伊博姆州乌约大都市部分小额信贷银行的物理氛围和客户行为。《美国顶级市场营销和管理杂志》，2024，9(1)：1-24。

[26] HAIR JR, J. F.、HULT, G. T. M.、RINGLE, C. M.、SARSTEDT, M.、DANKS N. P.、RAY S.、..... 和 RAY S. 结构方程模型简介。使用 R 的偏最小二乘结构方程模型 (PLS-SEM)：工作簿，(1-29)，2021。

[27] MOSES R. N. , 和 YAMAT H. 测试写作技能评估的有效性和可靠性。《国际商业和社会科学学术研究杂志》，2021，11(4)：202-208。  
<https://doi.org/10.6007/ijarbs/v11-i4/9028>

[28] BINH M. C.、GHI T. N.、HIEN N. N.、NHUNG N. T. T. 和 NGOC P. H. B. 影响越南胡志明市学生辍学意向的因素。《国际科学、工程和教育认知研究杂志》，2023，11(3)：417-437。

[28] SENTHILNATHAN S. 相关性分析的实用性。可在 SSRN 3416918 获得，2019。  
<https://dx.doi.org/10.2139/ssrn.3416918>

[29] DEWI F. M. 和 SULIVYO L. 消费者行为和营销组合对产品购买决策的影响。《阿普蒂斯管理学汇刊 (ATM)》，2022，6(2)：151-157。  
<https://doi.org/10.33050/atm.v6i2.1737>

[30] FAN, L. 和 HENAGER, R. 财务状况的结构决定因素框架。《家庭与经济问题杂志》，2022，43(2)：415-428。  
<https://doi.org/10.1007/s10834-021-09798-w>

[31] BRAXTON J. C.、CHIKHALE N.、HERKENHOFF K. F. 和 PHILLIPS G. M. 代际流动性和信贷 (No. w32031)。美国国家经济研究局，2024。

[32] MAWAD J. L.、ATHARI S. A.、KHALIFE D. 和 MAWAD N. 研究金融知识、金融自控和人口决定因素对个人财务表现和行为的影响：从黎巴嫩危机时期获得的见解。《可持续性》，2022，14(22)：15129。  
<https://doi.org/10.3390/su142215129>

[33] ALIC A. , 和 KADRIĆ A. 强迫性购买对债务避免和自尊的影响：品牌成瘾能否充当社会责任调解人？《战略管理》，2024，20：1-22。  
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