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The Nexus between Personality Traits and Financial Self-Efficacy of College Students

Lady Bea Tejano[1*], Jamaine Rafaella Larracochea[1], Ashly Mae Pardillo[1], Byrel Nicole Lanzaderas[1], Ralph Joe Dologuin[1], Christian Enad[1], Mark Joshan Veyra[1], Mark Joel Ortiz[1], John Harry Caballo[1], Dianne Mariz Nacua Obenza-Tanudtanud[2]

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ABSTRACT

This quantitative correlational study explores the relationship between personality traits and financial self-efficacy among college students. Data were collected online through Google forms using validated instruments and respondents were identified using stratified random sampling. The study employed descriptive statistics and regression analyses using Jamovi and SmartPLS 4.0 softwares. Anchored in the Big Five Personality Traits model and Financial Self-Efficacy Theory, the results showed that the research constructs meet validity and reliability standards. Findings revealed that Conscientiousness and Extraversion positively influence financial self-efficacy, while Neuroticism has a negative effect. These results highlight the role of personality traits in shaping financial self-efficacy among students.

INTRODUCTION

Financial self-efficacy (FSE) is a learned belief that can be developed over time, rather than an innate quality and has been growing, with studies exploring its antecedents, modifiers, and outcomes, leading to the development of an integrated model and a research agenda for future investigations (Gulati & Singh, 2024). According to Obenza *et al.* (2024c) define financial behavior as a complicated, multifaceted element of personal finance that includes essential decision-making processes such as budgeting, saving, investing, and spending. This research emphasizes that an individual's financial behaviors are firmly based in their personality traits and financial self-efficacy, rather than being influenced by external variables. According to the study, students with higher levels of financial self-efficacy—as evidenced by attributes such as conscientiousness and openness—are more likely to engage in good financial behaviors, which improve their overall financial well-being. The research focuses on the complex relationship between personality, conduct, and financial consequences. According to Obenza *et al.* (2023d), the study investigated the mediating effect of financial self-efficacy on the financial management behavior and well-being of teachers This emphasizes the idea of how self-efficacy plays a role in the decision-making on financial behaviors.

Additionally, according to Asebedo & Seayb (2018), FSE has been shown to positively impact saving behavior in older pre-retirees and can moderate the relationship between market volatility and financial satisfaction. Additionally, Asebedo *et al.* (2019) stated that there are several psychological factors that contribute to FSE, including frequent positive affect, reduced negative affect, stronger mastery beliefs, and higher task orientation, and understanding and improving FSE is crucial for financial professionals working with older adults preparing for retirement. Despite significant advances in the study of financial well-being, self-efficacy, and behavior, there is still a significant gap in our understanding of the complex relationship between personality traits and financial self-efficacy among university students. Numerous research have found a clear link between financial activity and financial well-being (Obenza & Obenza, 2024c; Sabri *et al.*, 2023; Mathew & Kumar, 2022), but few investigate the deeper psychological elements that may underpin these behaviors. This study addresses this gap by studying how individual personality traits influence financial self-efficacy, hence shaping financial actions and outcomes. This method broadens the discussion by relating psychological aspects to financial well-being among university students.

A number of researches have explored the relationship between college students' financial outcomes, self-efficacy, and personality factors. According to Dasigan *et al.* (2024), there is a significant positive correlation between academic self-efficacy and the Big Five personality qualities of agreeableness, extraversion, conscientiousness, and openness, and a negative correlation, with neuroticism. Similar findings have been made by Ye & Yee (2023) and Winata (2019) regarding the influence of personality factors and entrepreneurial self-efficacy on students' entrepreneurial intentions. However the impact of personality factors on entrepreneurial intentions is not reduced by financial competence according to Winata (2019). According to Obenza *et al.* (2024b) that extraversion and neuroticism were shown to be favorably correlated with financial well-being among college students, although agreeableness,

[1] University of Mindanao, Davao City, Philippines
[2] Department of Education, Cotabato Division, Philippines
[*] Corresponding author's e-mail: ladybeatejano@gmail.com

extraversion and openness did not correlate significantly. These findings imply that personality traits are important in determining students' financial results and self-efficacy, which provides valuable insights for creating focused interventions and educational programs.

According to Obenza *et al.* (2024e), recent studies in Davao City have explored the relationships between personality traits, self-efficacy, and financial behaviors. Research on college students found that extraversion and neuroticism positively correlated with financial well-being . Furthermore, among public secondary school teachers, positive personality traits and self-efficacy were found to have significant correlations with career self-management according to Sabanal (2024)

The amount of research on financial self-efficacy (FSE) and how it relates to other psychological characteristics is increasing. However, the knowledge of how personality traits in particular affect FSE in college students is still severely lacking, specifically for the students in the College of Hospitality Education at the University of Mindanao. While other studies have explored correlations between personality traits and self-efficacy in academic and entrepreneurial contexts, the direct impact of personality factors on financial self-efficacy remains underexplored.

Furthermore, while research has shown that personality traits impact financial well-being (Obenza *et al.*, 2024), it is unknown how these traits interact with FSE regarding financial planning and decision-making. By closely investigating this gap, we can get important insights that will help us build focused interventions that can eventually advance the financial success and well-being of college students by raising their financial self-efficacy.

The significance of this research is underscored by various studies that establish significant correlations between personality traits and financial behaviors. Ozer and Mutlu (2019) found that conscientiousness, agreeableness, and openness to experience positively influence financial behaviors, indicating that understanding personality can enhance financial well-being. Khan *et al.* (2021) further demonstrated that personality traits predict financial self-efficacy and emotional biases, mediating financial decision-making. Brooks and Williams (2020) highlighted the significance of personality over emotions in determining attitudes toward financial risk while emphasizing factors like resilience and intolerance of uncertainty. In this context, the present study focuses on college students in Davao City, specifically investigating how personality traits influence financial self-efficacy within this population. These findings highlight the importance of considering personality traits in predicting financial behavior, informing financial institutions on tailoring their services based on personality characteristics, and guiding the development of targeted interventions and strategies that enhance the financial welfare of college students. Furthermore, providing appropriate training and support could improve financial decision-making outcomes over the long term, contributing to the financial well-being of this population.

Research Question

How do different personality traits influence financial self-efficacy among college students?

Hypothesis

There is a significant relationship between personality traits and financial self-efficacy of college students.

MATERIALS AND METHODS

The research design employed in this study is a non-experimental quantitative approach, which focuses on gathering and analyzing numerical data to explore the nexus between personality traits and financial self-efficacy of college students without any manipulation. This type of study design relies on systematic observation and measurement to understand and explain phenomena (Creswell & Creswell 2022).

The research instrument utilized in this study is adapted from John and Srivasta's (1995) Big Five Inventory (BFI) for personality traits which measured is organized into the followings ections: extraversion, conscientiousness, agreeableness, neuroticism, and openness. Additionally, the scale measuring financial self-efficacy was adapted from Prawitz *et al.* (2006). A questionnaire with fewer errors is crucial to guaranteeing the gathering of pertinent data on the research topic (Taherdoost, 2022). Three specialists in the fields of education and instrument development thus validated the surveys.

Expert validation and tests for validity and reliability were implemented for these instruments. Furthermore, Cronbach's alpha and Variance Inflation Factor were utilized to ascertain the instruments' reliability and validity. Moreover, descriptive statistics using Jamovi software version 2.0 were utilized to determine the mean and standard deviation to characterize university students' personality traits and financial self-efficacy. Also, SmarPLS 4.0 software was utilized to evaluate the hypothesized regression model, implement the bootstrapping standardized algorithm, and assess the model's direct effect, including the effect sizes of individual paths.

RESULTS AND DISCUSSION

Discussion

In this study, 296 participants in Davao City were given a questionnaire that contains five different parts measuring personality traits such as openness, conscientiousness, neuroticism, agreeableness, extraversion, and Self-Efficacy as key variables. The descriptive statistics in Table 1 show the mean and standard deviation for each variable. Financial self-efficacy indicates a moderately high mean of 3.854 and a standard deviation of 0.556, showing that participants display trust in their ability to control their financial behaviors.

With all personality traits, Openness (M = 4.287, SD = 1.498) and Conscientiousness (M= 4.848, SD =1.118) both have the highest scores, showing that participants typically are willing to learn and are diligent in their goals.

Extraversion (M = 4.260, SD = 1.391) has moderately high scores, indicating that participants exhibit sociable and energetic behaviors. Neuroticism (M = 3.172, SD = 1.331) and Agreeableness (M = 3.294, SD = 1.387) show a lower means and increased variability, which suggest greater variation of participants emotional stability and agreeableness levels. This is aligned with other studies conducted by Kurnia *et al.* (2023) that show that there is a crucial link between personality traits and financial self-efficacy because it investigates how individual personality traits affect one's trust in managing financial activities. Additionally, the study looked at the personality traits, financial behavior, and investment goals of Young Indonesians who delved into cryptocurrency. The results suggest that the relationship between personality traits, financial self-efficacy, and the purpose of investing in digital currency is statistically significant.

The Cramér-von Mises test, which tests for goodness-of-fit, reports significant p values (all p < 0.001), indicating that the distributions of all variables significantly deviate from normality. These results suggest potential non-normality in the underlying population traits, which is a common occurrence in psychological data.

The findings are consistent with studies such as Obenza *et al.* (2023) Personality Traits and Financial Well-Being of College Students in Davao City. Wherein comparable personality trait patterns were shown to be associated with financial behaviors among different groups, showing the importance of conscientiousness and openness in predicting personal financial patterns. The study examined determining factors of personality traits (extraversion, agreeableness, openness, conscientiousness, and neuroticism) on the financial well-being of college students in Davao City.

Table 1: Descriptive Statistics and Cramér-von Mises Test

	Mean	**Standard deviation**	**N**	**Cramér-von Mises test statistic**	**Cramér-von Mises p value**
Financial Self-Efficacy	3.854	0.556	296	0.129	0.045
Openness	4.287	1.498	296	1.831	0.000
Conscientiousness	4.848	1.118	296	2.585	0.000
Neuroticism	3.172	1.331	296	1.306	0.000
Intercept	0.000	0.000	296	24.667	0.000
Agreeableness	3.294	1.387	296	1.205	0.000
Extraversion	4.260	1.391	296	1.596	0.000

This research used the Variance Inflation Factor (VIF) in the Multicollinearity Diagnostics part, this is to guarantee that independent variables (personality traits) are not overly correlated with each other. As per discussed in Table 2, the VIF values for all the personality traits variables are varied from 1.104 to 1.216, which are significantly below the recognized limit of 10, indicating that there are no significant multicollinearity difficulties. The Conscientiousness (VIF = 1.216) variable has the highest VIF value, while Agreeableness (VIF = 1.104) has the lowest VIF value, confirming that each personality trait correlates independently to determine financial self-efficacy.

As stated by Jamal Daoud (2017) implies that if any of the VIF values exceeds 5 or 10, this indicates that the associated regression is poorly estimated. Multicollinearity is shown if one or more of the variables are small (almost zero) and the corresponding condition number is large. VIF values that are greater than five are indicative of probable collinearity issues among the predictor constructs, as stated by Hair *et al.* (2019). In an ideal situation, the values of the VIF should be close to three or lower. The creation of higher-order models that are capable of being supported by theory is a common solution that is utilized in situations where collinearity is a problem (Hair *et al.*, 2017b).

Table 2: Variance Inflation Factor

	VIF
Openness	1.145
Conscientiousness	1.216
Neuroticism	1.134
Agreeableness	1.104
Extraversion	1.186

The ANOVA results in table 3, with an F-value of 51.284, strongly indicate that the personality traits being studied (Openness, Extraversion, Consciousness, Neuroticism, and Agreeableness) have varying effects on financial self-efficacy (FSE) among university college students. The regression analysis exhibits a significant insight on the relationship between personality traits and financial self-efficacy. The model demonstrates a strong predictive capability, with R-squared values indicating a substantial proportion of variance in financial self-efficacy as explained by the personality traits.

Table 3: Analysis of Variance

	Sum square	df	Mean square	F	P value
Total	91.616	295	0.000	0.000	0.000
Error	48.623	290	0.168	0.000	0.000
Regression	42.993	5	8.599	51.284	0.000

Openness emerges as the strongest positive predictor (B = 0.123, β = 0.333, p < 0.001). This suggests that individuals who are open to new experiences and ideas are more likely to exhibit higher financial self-efficacy. This aligns with existing literature that emphasizes the adaptive advantages of openness, including greater receptivity to financial learning and innovation. The substantial standardized coefficient indicates that openness has a significant and meaningful impact on financial confidence, reinforcing the idea that personality traits can influence financial behaviors.

Conscientiousness also significantly predicts financial self-efficacy (B = 0.118, β = 0.236, p < 0.001). The positive correlation supports previous research that links conscientiousness with effective financial management and planning. Conscientious individuals, characterized by their organization and diligence, may approach financial tasks with more commitment and thoroughness, thereby enhancing their confidence in managing financial matters. On the other hand, neuroticism (B = 0.083, β = 0.198, p < 0.001) presents a nuanced relationship. While traditionally associated with lower self-efficacy in various domains, the positive correlation with financial self-efficacy suggests that individuals with higher levels of emotional instability may paradoxically develop greater confidence in their financial abilities. This could reflect a compensatory mechanism where individuals strive to gain control over their finances in response to their anxiety, warranting further investigation to clarify this counterintuitive finding.

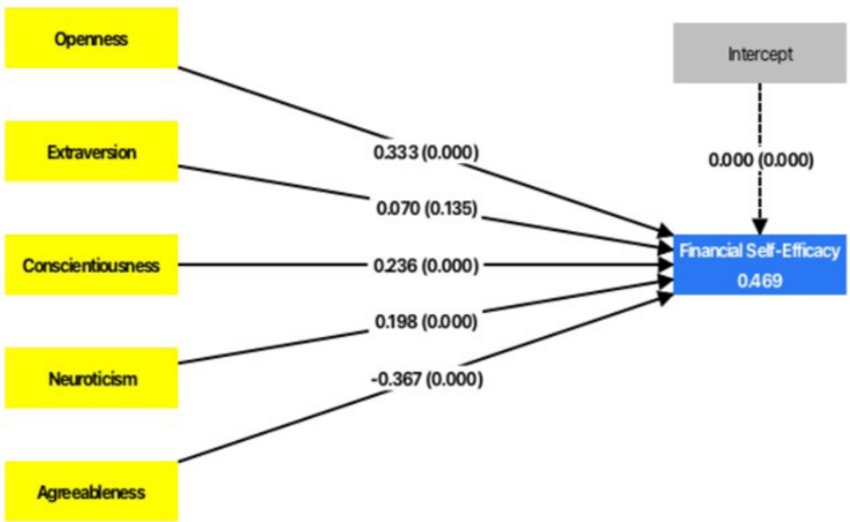

Figure 1: Regression Analysis results from SmartPLS

Conversely, agreeableness is a significant negative predictor of financial self-efficacy (B = -0.147, β = -0.367, p < 0.001). This indicates that individuals who prioritize cooperation and harmony may feel less confident in their financial decision-making. Such findings could imply that those with high agreeableness might avoid confrontational financial decisions or hesitate to prioritize their financial interests, ultimately affecting their self-efficacy.

Lastly, extraversion does not show a significant relationship with financial self-efficacy (B = 0.028, β = 0.070, p = 0.135). This suggests that being outgoing and sociable may not necessarily translate to greater confidence in financial matters. It highlights that financial self-efficacy is more closely linked to other personality traits that drive responsible financial behavior rather than sociability.

Table 4: Unstandardized and standardized coefficients

	Unstandardized coefficients	Standardized coefficients	SE	T value	P value	2.5 %	97.5 %
Openness	0.123	0.333	0.017	7.264	0.000	0.090	0.157
Conscientiousness	0.118	0.236	0.023	5.009	0.000	0.071	0.164
Neuroticism	0.083	0.198	0.019	4.336	0.000	0.045	0.120

Agreeableness	-0.147	-0.367	0.018	8.165	0.000	-0.183	-0.112
Extraversion	0.028	0.070	0.019	1.501	0.135	-0.009	0.065
Intercept	2.859	0.000	0.164	17.482	0.000	2.537	3.181

The significant roles of openness, conscientiousness, and agreeableness underscore the complexity of financial confidence and behavior, suggesting that interventions aimed at enhancing financial self-efficacy may benefit from incorporating personality assessments. Further research is encouraged to explore the underlying mechanisms driving these relationships, particularly regarding neuroticism's unexpected positive correlation.

Table 5: Model Fit and Explained Variance

	Financial Self-Efficacy
R-square	0.469
R-square adjusted	0.460
Durbin-Watson test	1.935

The table 5 model fit and explained variance projects 46.9% of the variance in financial self-efficacy, as indicated by the R-squared value (R^2=0.469). The adjusted R-squared value of 0.460 suggests minimal shrinkage, demonstrating that the model performs well when generalized to other data. The substantial R-squared value confirms that the selected personality traits account for nearly half of the variance in financial self-efficacy, underscoring the importance of these traits in predicting financial behaviors. Additionally, the Durbin-Watson statistic of 1.935 suggests no autocorrelation in the residuals, supporting the assumption of independent errors.

This study offers evidence supporting this idea in the field of education. While research into student self-efficacy has yielded mixed results regarding gender differences (Byrne *et al.*, 2014) and prior high school learning, the overall link between self-efficacy and academic performance is generally affirmed. According to Dogan (2015) and Patricia *et al.* (2019), self-efficacy refers to a person's confidence in their ability to succeed in particular situations or accomplish specific tasks. As such, self-efficacy is key in influencing and determining academic outcomes.

The study "Personality Traits and Financial Management Behavior of University Students" by Obenza *et al.* (2024) aligns with the findings of this research. The R^2 value of 0.143 indicates that these traits can explain approximately 14.3% of the variation in financial management behavior. This suggests that these characteristics provide a significant, though not exhaustive, explanation of the diversity in FMB. Although this R^2 value is lower than that of this study—0.469—comparing both studies underscores the importance of personality traits in influencing college students' financial self-efficacy.

CONCLUSION

This study provides robust empirical evidence on the role of personality traits in predicting financial self-efficacy. Openness, conscientiousness, and neuroticism positively contribute to higher financial self-efficacy, while agreeableness has a negative impact. The finding that extraversion does not significantly predict financial self-efficacy suggests that financial confidence is more strongly related to internal traits like openness and conscientiousness than external social behaviors.

These results offer valuable insights for personal financial planning interventions, suggesting that fostering openness and conscientiousness in individuals could enhance their financial confidence. Furthermore, the significant negative relationship between agreeableness and financial self-efficacy suggests that individuals who are highly cooperative may need tailored interventions to boost their financial confidence.

The study advances the understanding of how personality shapes financial behaviors, with implications for both psychological theory and practical applications in financial education and counseling. Future research could explore the mechanisms behind the observed relationships and examine potential moderating factors, such as socioeconomic status or education level, to provide a more nuanced understanding of financial self-efficacy determinants

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