

Personality Traits and Financial Management Behavior of University Students

Brandon Nacua Obenza^{1*}, Johanna Paula Torrefranca², Jerald Dave Amarilla³, Jobea Pandamon⁴, Shaira Encarnacion⁵, Genesis Getalado⁶, Abdulnaim H. Azis⁷

University of Mindanao

Corresponding Author: Brandon Nacua Obenza bobenza@umindanao.edu.ph

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ABSTRACT

This non-experimental quantitative study investigated the association of the five big personality traits with the financial management behavior (FMB) of university students in Davao City. Using stratified random sampling, three hundred twenty-two respondents participated in the survey. The adopted questionnaires used in collecting the data were tested using Cronbach's Alpha and Cronbach's Alpha to ascertain their reliability and validity. Using regression analysis through SmartPLS 4.0 software, the findings revealed that conscientiousness ($\beta=0.296$, $p\text{-value}=0.000$), extraversion ($\beta=0.181$, $p\text{-value}=0.001$), and openness ($\beta= -0.110$, $p\text{-value}=0.045$) showed significant link towards FMB. Nevertheless, Agreeableness ($\beta= -0.056$, $p\text{-value}=0.324$) and Neuroticism ($\beta= -0.034$, $p\text{-value}=0.553$) were insignificant. Finally, the regression model explains that 14.30% of the variance in FMB of university students ($F = 10.540$, $P\text{-value} = 0.000$, $R^2 = 0.143$, Adjusted $R^2 = 0.129$).

INTRODUCTION

Financial management behavior is the gathering, distributing, and applying monetary resources with a specific objective. It refers to how well individuals or households manage their financial resources, such as earning money, controlling finances, and handling cash and credit (Winarta & Pamungkas, 2020). Terriquez and Gurantz (2015) emphasized that university students often face financial challenges and new responsibilities as they transition from college to adulthood. Their financial habits, influenced by various situational, cognitive, and emotional factors, significantly impact their financial well-being in the present and future. According to Chavali et al. (2021), a range of components, including financial management behavior, significantly influence an individual's financial well-being. Various factors have been found to impact financial management behavior significantly. Mien and Thao (2015) highlight the positive influence of financial attitude and knowledge on financial management behaviors. However, studies have reported that students struggle to increase their income, leading to financial problems and the impact of internet consumer finance on students' financial behavior (Azer & Mohamad, 2018; Wan, 2021).

A range of studies have explored the financial management behavior of university students. Wan (2021) found that investment tendency and financial literacy significantly influence students' financial behavior. Zulfaris et al. (2020) identified financial literacy and parental socialization as critical factors, with peer influence and self-control having a negative impact. Astuti (2021) highlighted the role of academic ability and allowance in shaping students' financial behavior, with financial knowledge as a mediating factor. Azer and Mohamad (2018) emphasized the importance of financial education in addressing students' financial problems and promoting sound financial management practices. Finally, Bapat (2019) found that help-seeking behavior, financial knowledge, and electronic banking positively influence the financial management behavior of young adults in India. The findings of these studies collectively highlight the necessity of focused interventions to enhance students' financial behavior and literacy.

University students are experiencing financial independence at the same time. This independence may have many factors that could lead to risky financial behavior. Individuals with self-perceived solid knowledge but a low actual knowledge are more likely to exhibit risky and costly financial behaviors (Asaad, 2015; Aristei & Gallo, 2021). However, in the study of Yahaya et al. (2019), financial knowledge alone does not significantly impact financial behavior. However, it influences financial attitudes, which in turn play a significant role in shaping financial behavior. In addition, personality impacts

an individual's financial behavior (Ozer & Mutlu, 2019; Luksander et al., 2017). Personality refers to the consistent thoughts, emotions, and actions exhibited by an individual, and we refer to these stable characteristics as personality traits (Kramer & Gosling, 2022). There are five main personality traits: conscientiousness, agreeableness, neuroticism, openness to experience, and extraversion (Soto, 2018). When evaluating an individual's financial behavior, several researchers frequently employ these characteristics: traits, financial literacy, parental involvement, and financial experience. Extrovertism hurt financial planning, whereas neuroticism and conscientiousness had a positive influence, according to a study by Ghaffar et al. (2022). Lastly, Sahara et al. (2022) discovered that financial attitudes and personality did not significantly affect personal financial management behavior, but financial experience and knowledge did. These findings imply that a variety of personality traits may have an impact on students' financial management practices.

Numerous studies have been done on financial management behavior, including its relationship to investment literacy (Topa et al., 2018), its moderating effect on neurotic personality traits and socioeconomic factors on financial satisfaction (Fachrudin et al., 2022), its relationship to financial well-being and financial self efficacy (Obenza et al., 2023) and its relationship to openness to experience (Özer & Mutlu, 2019). However, these studies have been conducted focusing on the financial management behaviors of working adults. This paper intends to shift the focus towards university students and investigate the impact of personality traits on their financial management behaviors. Finally, This research is of significant importance as it broadens our understanding of financial behaviors among the younger demographic, thus contributing valuable insights to the field of finance.

LITERATURE REVIEW

Behavioral Finance Theory

The Behavioral Finance Theory, introduced by Prosad et al. (2015), amalgamates elements of psychology and economics to comprehend how cognitive biases and emotional factors impact financial decision-making. Behavioral finance theory, which incorporates psychological and sociological aspects into studying investment behavior, has been the focal point of numerous studies. Martins et al. (2015) observed that students in accounting programs exhibit cognitive and emotional biases in decision-making that Prospect Theory influences. Yang (2019) found that overconfidence, loss aversion, and mental accounting are important factors that contribute to the high occurrence of defaults on school loans. Shim et al. (2009) emphasized the significant influence of parents, employment experiences, and financial education throughout high school on the financial learning, attitudes, and behavior of college students. These studies collectively emphasize the

significance of behavioral finance in comprehending and tackling the financial decisions and actions of university students.

Big Five Model

Personality trait is the unique set of ideas, feelings, and behaviors that distinguish one person from another (Ferguson, 2022). The Big Five Model, also called the Five-Factor Model, is the most widely accepted personality theory among psychologists (Lim, 2023). This theory suggests that an individual's personality can be distilled into five fundamental aspects: Conscientiousness, Agreeableness, Neuroticism, Openness, and Extraversion, known as CANOE or OCEAN (Ackerman, 2023). The concept of five essential personality traits was initially proposed by Fiske (1949). This theory was later elaborated and expanded by various researchers, including Norman (1967), Smith (1967), Goldberg (1981), and Costa & McCrae (1987). Another theory proposed by Deci and Ryan (1985), The Self-Determination Theory, posits that individuals have three fundamental psychological needs: autonomy, competence, and relatedness, which are crucial in shaping motivation, well-being, and optimal functioning. Personality traits, such as self-control, impulsivity, future time orientation, and risk tolerance (Grable & Lytton, 1999; Lytton & Grable, 2018), are relevant factors in financial management behavior. Countless research studies have used personality to predict and explain an individual's behavior (Cherry, 2023). As said, personality traits and personal values are important psychological characteristics that significantly predict many outcomes (Parks-Leduc et al., 2015). In psychology, personality was used to study individual differences in thoughts, feelings, and behaviors that persist over time and place and have experienced a renaissance in the last few decades (Roberts & Yoon, 2022). Personality also was used in marketing. Studies by Liu et al. (2017), Varnali (2011), and Quintelier (2014) used personality to understand how it affects consumer behavior. Aside from that, it was also used in human resources. According to Dimovska-Kotevska and Solunchevski (2015), a person's personality affects how they perform or behave well in their work. Furthermore, personality plays a crucial role in how students experience school, impacting their relationships with peers and teachers, influencing their behavior in the classroom, and contributing to their academic success (Matthews et al., 2006). Moreover, Louwen, Reidlinger, and Milne (2023) stated that non-cognitive traits have been proposed as predictors of healthcare professionals' characteristics, career choices, and outcomes, potentially representing a homogeneous group. Plus, personality traits can enhance our understanding of the paths toward health and longevity (Friedman et al., 2010).

Research Hypotheses

H1: There is a significant relationship between agreeableness and the financial management behavior of university students.

H2: There is a significant relationship between conscientiousness and the financial management behavior of university students.

H3: There is a significant relationship between Extraversion and the financial management behavior of university students.

H4: There is a significant relationship between neuroticism and the financial management behavior of university students.

H5: There is a significant relationship between Openness and the financial management behavior of university students.

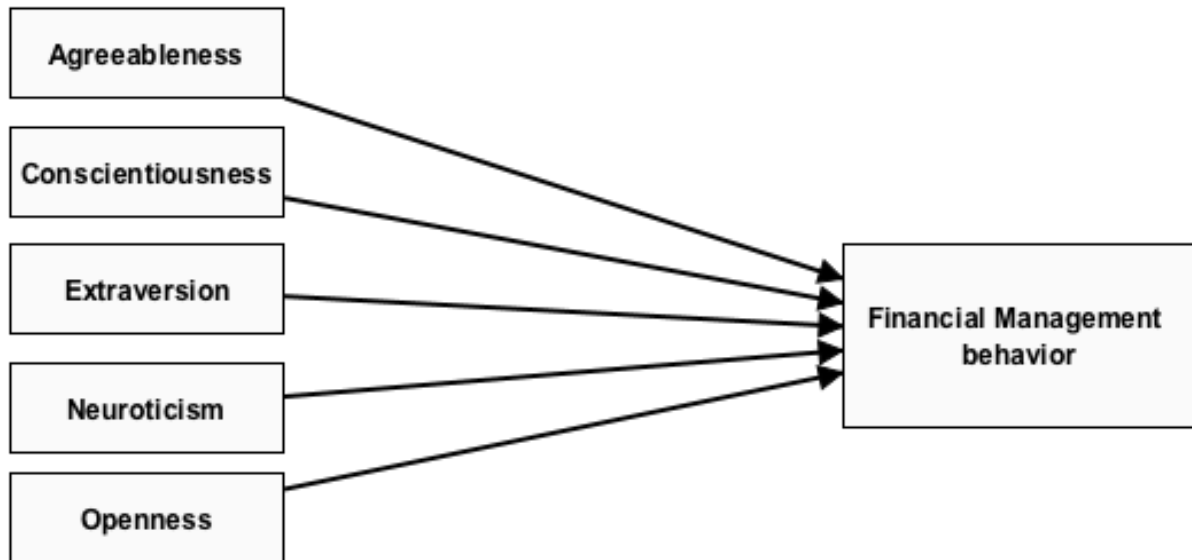


Figure 1. Conceptual Framework

METHODOLOGY

The current study employed a quantitative research methodology, precisely the non-experimental correlational approach, to investigate the relationship between variables. As Creswell & Creswell (2023) described, the quantitative research strategy involves the methodical collection, analysis, and interpretation of data and information, typically obtained through experimental investigations or surveys. The study gathered a total number of 322 university students from different universities in Davao City. The sampling technique applied in this study was stratified sampling, which specifically is a method of random sampling where researchers first divide a population into smaller subgroups, or strata, based on shared characteristics of the members and then randomly select among these groups to form the final sample (Simkus, 2023).

The scale for personality traits was adopted from Maples-Keller et al. (2017) and was used to measure the five personality factors: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. It consists of 60 total statements concerning the student's personality traits. As for the second part, the financial management behavior scale developed by Xiao, J.J., Tang, C.

& Shim, S. (2009) was used to measure financial management behavior, consisting of 9 total statements. Both questionnaires were a 5-point Likert scale and distributed through online media (such as Google Chrome, Facebook, and email) during data gathering.

Further, tests for construct validity and reliability were employed, such as Cronbach's Alpha, average variance extracted, and heterotrait-monotrait ratio using SmartPLS 4.0 software. Additionally, regression analysis was applied to assess the predictive power of the five personality traits on the financial management behavior of university students.

RESEARCH RESULT AND DISCUSSION

The validity and reliability of the constructs in this study were assessed using Cronbach's Alpha and factor analysis. Using the Jamovi 2.0 software, factor analysis was performed on the data to test the construct's validity. According to Kang (2013), factor analysis is the most frequently employed technique for establishing construct validity and is regarded as one of the most robust approaches to establishing construct validity. Bartlett's Test of Sphericity was used to assess the appropriateness of the data for factor analysis (Bartlett, 1973). The results revealed a p-value < .001, confirming that it is significant. This qualifies our data set for factor analysis.

The Kaiser-Meyer-Olkin (KMO) test was also used to determine the adequacy of sample size for factor analysis. As shown in Table 1, a 0.786 KMO value was obtained. This suggests sufficient study samples (Kaiser, 1974 & Shrestha, 2021). Further, items that did not reach acceptable indices in factor analysis were omitted from the measurement model following Field's (2013) suggestion. Finally, the remaining items showed factor loadings that range between 0.404 to 0.946. This suggests that the items of the constructs are regarded as stable or manifested construct validity (Guadagnoli & Velicer, 1988).

The coefficient alphas for Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness, and Financial Management Behavior were 0.731, 0.808, 0.701, 0.720, 0.713, and 0.818 respectively. This shows that the constructs demonstrated internal consistency.

Table 1. Construct Validity and Reliability

| Bartlett's Test of Sphericity | | |
|---|-------|------------|
| | X^2 | p -value |
| | 7981 | <.001 |
| KMO Measure of Sampling Adequacy (MSA) | | 0.786 |
| Cronbach's Alpha | | α |
| Neuroticism | | 0.731 |
| Extraversion | | 0.808 |
| Openness | | 0.701 |
| Agreeableness | | 0.720 |
| Conscientiousness | | 0.713 |
| Financial Management Behavior | | 0.818 |

The data in Table 2 represents the results of an online survey conducted among 322 university students in Region XI. The survey focused on five key personality traits: Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness, as well as their Financial Management Behavior. In terms of neuroticism, the students had a moderate level ($\bar{x}=3.08$, $SD=0.556$), indicating a moderate degree of emotional instability and vulnerability to stress. Other studies have observed similar findings (Rani et al., 2022; Mangold et al., 2007; Schneider, 2004). For Extraversion, the students displayed a moderate level ($\bar{x}=3.14$, $SD=0.624$), suggesting a balanced mix of extraversion and introversion. Busch (1982) found a relationship between extraversion and language learning skills. The students showed a slightly higher level of Openness ($\bar{x}=3.45$, $SD=0.431$), indicating a relatively higher degree of intellectual curiosity, creativity, and openness to new experiences. This aligns with previous research on university students (Kaufman, 2013; Leung & Chiu, 2008; Woo et al., 2013; Youn & Kim, 2012). Agreeableness stood out as the most prominent trait among the students, with a higher level of empathy, cooperation, and friendliness ($\bar{x}=3.64$, $SD=0.466$). Agreeableness is linked to financial attitude and predicts financial management behavior (Yap et al., 2018; Azizeh et al., 2022; Listiyani & Prapanca, 2022). Concerning conscientiousness, the students had a moderate level ($\bar{x}=3.34$, $SD=0.486$), displaying a balanced level of organization, responsibility, and self-discipline. This is consistent with findings in other studies by Muksin Makhsin (2021), Kertechian (2018), and Kitchenham (2019). The students demonstrated a moderate level of Financial Management Behavior ($\bar{x}=3.22$, $SD=0.807$), indicating a balanced approach to managing their finances. Various factors influence financial behavior, including gender, ethnicity, financial literacy, parental socialization, peer influence, and self-control (Darlynie & Sapiri, 2020; Zulfaris et al., 2020; Wan, 2021).

Table 2. Descriptive Level of Students Personality Traits and Financial Management Behavior

| Variables | N | Mean | SD | Description |
|-------------------------------|----------|-------------|-----------|----------------------|
| Neuroticism | 322 | 3.08 | 0.556 | Moderate connection |
| Extraversion | 322 | 3.14 | 0.624 | Moderate connection |
| Openness | 322 | 3.45 | 0.431 | High connection |
| Agreeableness | 322 | 3.64 | 0.466 | Very high connection |
| Conscientiousness | 322 | 3.34 | 0.486 | Moderate connection |
| Financial Management Behavior | 322 | 3.22 | 0.807 | Moderate connection |

The correlation analysis determined the relationships between the respondents' personality traits and financial management behavior. Based on Figure 1, the planned behavior theory, which posits that individuals consider their attitudes, subjective norms, and perceived behavioral control when making decisions, aligns with the observed moderate positive correlation between conscientiousness and financial management behavior, having a correlation coefficient of 0.296 and a p-value of 0.001, implying that more conscientious individuals tend to exhibit better financial management practices. This is in line with research studies that consistently suggest a positive relationship between conscientiousness and financial management practices. Iram et al. (2022) found that women entrepreneurs with higher levels of conscientiousness exhibited better financial decision-making, particularly when combined with financial literacy and mindfulness – similarly, Topa et al. (2018). Hence, H2 is accepted.

In addition, behavioral finance theory also supports the weak positive correlation between extraversion and financial management behavior with a coefficient of 0.181 and a p-value of 0.001, indicating that more extroverted individuals may also engage in better financial management. This finding agrees with the study conducted by Furnham and Cheng (2016), which highlighted the positive impact of extraversion on financial behavior. Additionally, Ameliawati & Setiyani (2018) and Nusron et al. (2018) found that financial attitude, socialization, and experience significantly influence financial management behavior. These factors may interact with extraversion, as suggested by the positive correlation between extraversion and financial management behavior (Ameliawati & Setiyani, 2018). Thus, it accepts the third null hypothesis. The Big Five model further enhances the understanding of these correlations.

Openness was negatively correlated with financial management behavior ($r = -0.110$, $p = 0.045$), suggesting that individuals less open to new experiences may struggle with financial management. This result validates the

findings of Peparah-Yeboah et al. (2018), who found a positive relationship between openness and financial literacy among undergraduate students. This suggests that those who exhibit more openness also typically possess a higher level of financial literacy. Muñoz-Murillo et al. (2020) also corroborate this, finding that people who possess higher cognitive abilities, a trait linked to Openness, typically possess greater financial literacy. As a result, H5 is accepted.

However, the findings indicated that agreeableness and financial management behavior had a weak negative correlation of -0.056, which was not statistically significant (p-value = 0.324). This suggests that agreeableness may not have a substantial impact on financial management behavior. Pinjisakikool's (2017) study consistently shows that agreeableness has a major influence on money management behavior, contradicting the current argument. This is corroborated by the contradictory results of Wong Carducci (2013) and Ghaffar et al. (2022), who assert that agreeableness does not play a significant role in predicting financial risk tolerance and that agreeableness does not have a substantial influence on financial planning. The conflicting findings indicate that the connection between agreeableness and financial behavior may possess a greater level of intricacy than previously assumed. Therefore, H1 is rejected.

Likewise, the result showed a weak negative correlation of -0.034 with neuroticism and financial management behavior and was also not statistically significant, having a p-value of 0.553. These data suggest a weak correlation between neuroticism and financial management behavior. The results present an alternative viewpoint compared to the prior study conducted by Fachrudin et al. (2022), which demonstrated that neuroticism, a personality trait characterized by anxiety, moodiness, and concern, can exert a substantial impact on financial conduct. Therefore, H4 is rejected. Finally, the intercept of the regression model, which serves as the constant term, has a statistically significant correlation with financial management behavior.

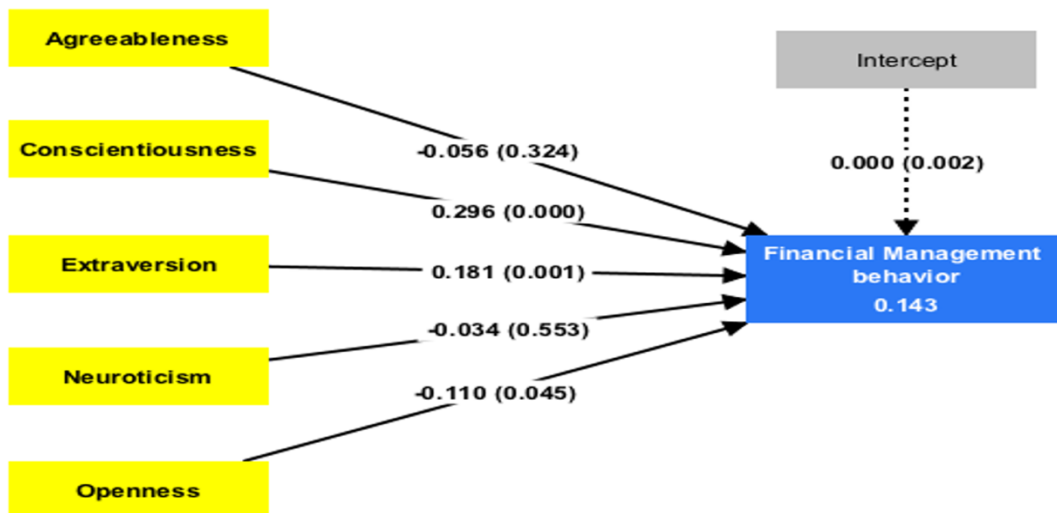


Figure 2. Regression Analysis Result from SmartPLS 4.0

The ANOVA results, with an F-value of 10.540, strongly indicate that the personality traits being studied (Conscientiousness, Agreeableness, Openness, Extraversion, and Neuroticism) have varying effects on financial management behavior (FMB) among university students. The R^2 value of 0.143 indicates that these traits can explain around 14.3% of the variation in FMB. This implies that these characteristics offer a substantial, albeit not fully comprehensive, account for the diversity in FMB. These findings indicate that qualities such as Conscientiousness, Openness, and Extraversion are statistically correlated with FMB, providing further support for the earlier studies conducted by Ghaffar et al. (2022) and Oehler et al. (2017). Nevertheless, the traits of Agreeableness and Neuroticism do not exert a substantial direct impact, a finding that aligns with and diverges from several prior research investigations. The divergence from other studies underscores the complex and varied nature of financial behaviors, indicating the influence of overlooked factors and the potential for these individual traits to interact with other variables in determining FMB. This is a need for a thorough approach to analyzing financial habits, considering other psychological, socioeconomic, and situational factors that may impact individuals' financial decisions and abilities.

Table 3. Correlation Analysis

| | Original sample | Sample mean (M) | Standard deviation (stdev) | T statistics (O / Stdev) | P Values | Remarks |
|---------------------------------|-----------------|-----------------|----------------------------|--------------------------|----------|----------------|
| Neuroticism > FMB | -0.034 | 0.083 | 0.556 | 0.594 | 0.553 | H4 is rejected |
| Extraversion > FMB | 0.181 | 0.07 | 0.624 | 3.335 | 0.001 | H3 is accepted |
| Openness > FMB | -0.110 | 0.102 | 0.431 | 2.008 | 0.045 | H5 is accepted |
| Agreeableness > FMB | -0.056 | 0.098 | 0.466 | 0.987 | 0.324 | H1 is rejected |
| Conscientiousness > FMB | 0.296 | 0.099 | 0.486 | 4.987 | 0.000 | H2 is accepted |
| F = 10.540, P-value = 0.000 | | | | | | |
| R ² = 0.143 | | | | | | |
| Adjusted R ² = 0.129 | | | | | | |

Note: FMB is denoted as Financial Management Behavior

CONCLUSIONS AND RECOMMENDATIONS

The study's constructs exhibit strong validity and reliability, as evidenced by factor analysis and Cronbach's Alpha outcomes. The establishment enhances the trustworthiness of the conclusions about personality traits and FMB among college students. Furthermore, the study confirms the impact of Conscientiousness and Extraversion on FMB, demonstrating a notable and favorable association. Conversely, Openness demonstrates a negative link, while Agreeableness and Neuroticism do not substantially influence FMB. These observations are consistent with certain aspects of previous research while presenting novel data that contradicts other studies.

Moreover, the R² value of 0.143 signifies that although the personality qualities examined in the study account for a fraction of the variation in FMB, the bulk remains unaccounted for. This suggests that an intricate combination of factors controls FMB. Hence, further investigation could include supplementary variables to enhance the model's explanatory capacity.

ADVANCED RESEARCH

Further investigation should examine the variables influencing or regulating the connections between personality traits and FMB. These elements may encompass financial literacy, socioeconomic position, and psychological variables such as stress and resilience. Furthermore, this study offers a momentary glimpse; longitudinal studies could offer valuable insights into the progression of personality traits and FMB over time, particularly during the transition from academia to employment. Ultimately, the study is carried out exclusively among university students in a specific geographical area, thereby constraining the applicability of the results to broader populations. It is

necessary to analyze a variety of demographic scenarios in order to confirm the accuracy of these conclusions.

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REFERENCES

- Ackerman, C. E., MA. (2023, October 19). Big Five personality traits: the OCEAN model explained. PositivePsychology.com.
<https://positivepsychology.com/big-five-personality-theory/>
- Ameliawati, M., & Setiyani, R. (2018). The Influence of Financial Attitude, Financial Socialization, and Financial Experience on Financial Management Behavior with Financial Literacy as the Mediation Variable. *KnE Social Sciences*, 3(10), 811. <https://doi.org/10.18502/kss.v3i10.3174>
- Aristei, D., & Gallo, M. (2021). Financial knowledge, confidence, and sustainable financial behavior. *Sustainability*, 13(19), 10926. <https://doi.org/10.3390/su131910926>
- Asaad, C. T. (2015). Financial literacy and financial behavior: assessing knowledge and confidence. *Financial Services Review*, 24(2), 101+. <https://link.gale.com/apps/doc/A418341731/AONE?u=anon~13f85c85&sid=googleScholar&xid=10928cd6>
- Astuti, R. (2021). Personal Financial Management Behavior of Surabaya College Students. *Journal of Applied Management and Business*, 1(2), 32–36. <https://doi.org/10.37802/jamb.v1i2.145>
- Azer, I., & Mohamad, S. A. (2018). Exploring Financial Management Practices and Problems among Students. *International Journal of Academic Research in Business & Social Sciences*, 8(12). <https://doi.org/10.6007/ijarbss/v8-i12/5762>
- Azizeh, N., Widyastuti, U., & Yusuf, M. (2022). Determinant of financial management behavior and impact on financial satisfaction in Generation Z. *Pedagogy: Jurnal Penelitian Pendidikan*, 5(2), 57–76. <https://doi.org/10.21009/jdmb.05.2.4>
- Bapat, D. (2019). Exploring antecedents to financial management behavior for young adults. *Journal of Financial Counseling and Planning*, 30(1), 44–55. <https://doi.org/10.1891/1052-3073.30.1.44>
- Bartlett, M. S. (1950). Tests of significance in factor analysis. *British Journal of Psychology*, pp. 3, 77–85 Retrieved from: <https://psycnet.apa.org/record/1951-00671-001>.

- Busch, D. W. (1982). INTROVERSION-EXTRAVERSION AND THE EFL PROFICIENCY OF JAPANESE STUDENTS. *Language Learning*, 32(1), 109–132. <https://doi.org/10.1111/j.1467-1770.1982.tb00521.x>
- Chavali, K., Raj, P. M., & Riyazahmed, K. (2021). Does financial behavior influence financial well-being? *Journal of Asian Finance, Economics and Business*, 8(2), 273–280. <https://doi.org/10.13106/jafeb.2021.vol8.no2.0273>
- Cherry, K. (2023). How personality impacts our daily lives. Retrieved from <https://www.verywellmind.com/what-is-personality-2795416>
- Costa Jr, P. T., & McCrae, R. R. (1987). Neuroticism, somatic complaints, and disease: Is the bark worse than the bite? *Journal of Personality*, 55(2), 299–316. Retrieved from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-6494.1987.tb00438.x>
- Creswell, J. W., & Creswell, J. David. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. In *psycnet.apa.org* (Sixth Edition). SAGE Publications, Inc.
- Darlynie, C. R., & Sapiri, H. (2020). Assessment of university students' financial management skills. *International Conference of Interdisciplinary Sciences*, p. 97. <https://doi.org/10.32503/prosidingseminar.v0i0.13>
- Deci, E.L., & Ryan, R.M. (1985). *Operant and attributional theories. Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press.
- Dimovska-Kotevska, M., & Solunchevski, M. (2015, November). The Personality as a Factor for Effective Human Resources Management In Modern Conditions. In *Proceedings From The* (p. 25). Retrieved from repository. skim.mk
- Fachrudin, K. A., Pirzada, K., & Iman, M. F. (2022). The role of financial behavior in mediating the influence of socioeconomic socioeconomic characteristics and neurotic personality traits on financial satisfaction. *Cogent Business & Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2080152>
- Ferguson, S. (2022). All About Human Personality: Definition, Disorders, and Theories. Retrieved from <https://psychcentral.com/health/what-is-personality#personality-definition>
- Field, A. (2013) *Discovering Statistics using SPSS*, 4th edn. London: SAGE.
- Fiske, D. W. (1949). Consistency of the factorial structures of personality ratings from different sources. *The Journal of Abnormal and Social Psychology*,

- 44(3), 329. Retrieved from: <https://psycnet.apa.org/record/1950-01070-001>
- Friedman, H. S., Kern, M. L., & Reynolds, C. A. (2010). Personality and health, subjective well-being, and longevity. *Journal of Personality*, 78(1), 179–216. Retrieved from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-6494.2009.00613.x>
- Furnham, A., & Cheng, H. (2016). Childhood intelligence, self-esteem, early trait neuroticism and behavior adjustment are predictors of teenagers' locus of control. *Personality and Individual Differences*, 95, 178–182. <https://doi.org/10.1016/j.paid.2016.02.054>
- Ghaffar, J. A., Khattak, M. S., Shah, T. A., & Jehangir, M. (2022). Impact of personality traits on financial planning: empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences*. <https://doi.org/10.1108/jeas-08-2021-0147>
- Goldberg, L. R. (1981). Language and individual differences: The search for universals in personality lexicons. *Review of personality and social psychology*, 2(1), 141-165. Retrieved from: https://projects.ori.org/lrg/PDFs_papers/universals.lexicon.81.pdf
- Grable, J. E., & Lytton, R. H. (1999). Financial risk tolerance revisited: The development of a risk assessment instrument. *Financial Services Review*, 8(3), 163-181. [https://doi.org/10.1016/S1057-0810\(99\)00041-4](https://doi.org/10.1016/S1057-0810(99)00041-4)
- Guadagnoli, E. and Velicer, W. F. (1988). Relation of sample size to the stability of component patterns. *Psychological Bulletin*, 103(2), pp. 265-275.
- Iram, T., Bilal, A. R., Ahmad, Z., & Latif, S. (2022). Building a Conscientious Personality is Not Sufficient to Manage Behavioral Biases: An Effective Intervention for Financial Literacy in Women Entrepreneurs. *Business Perspectives and Research*, 227853372211146. <https://doi.org/10.1177/22785337221114675>
- Kaiser, H. F. (1970). A second generation is a little jiffy. *Psychometrika*, 35(4), 401–415. <https://doi.org/10.1007/bf02291817>
- Kaiser, H. F., & Rice, J. R. (1974). Little Jiffy, Mark IV. *Educational and Psychological Measurement*, 34(1), 111–117. <https://doi.org/10.1177/001316447403400115>
- Kang, H. (2013). A guide on using factor analysis in the assessment of construct validity. *Journal of Korean Academy of Nursing*, 43(5), 587. <https://doi.org/10.4040/jkan.2013.43.5.587>

- Kaufman, S. B. (2013). Opening up Openness to Experience: a Four-Factor model and relations to creative achievement in the arts and sciences. *The Journal of Creative Behavior*, 47(4), 233-255.
<https://doi.org/10.1002/jocb.33>
- Kertechian, S. K. (2018). Conscientiousness is a key to successful academic achievement among French university students enrolled in management studies. *The International Journal of Management Education*, 16(2), 154-165. <https://doi.org/10.1016/j.ijme.2018.02.003>
- Kitchenham, L. (2019). Facets of conscientiousness in relation to academic performance across programs of study. *Studies by Undergraduate Researchers at Guelph*. <https://doi.org/10.21083/surg.v11i0.4120>
- Kramer, R. S., & Gosling, S. D. (2022). What is personality? *Frontiers for Young Minds*, 10, 719561. Retrieved from:
<https://eprints.lincoln.ac.uk/id/eprint/49066/>
- Leung, A. K., & Chiu, C. (2008). Interactive effects of multicultural experiences and openness to experience on creative potential. *Creativity Research Journal*, 20(4), 376-382. <https://doi.org/10.1080/10400410802391371>
- Lim, A. G. (2023). Big Five Personality Traits: The 5-Factor Model of Personality. *Simply Psychology*. Retrieved from:
<https://www.simplypsychology.org/big-five-personality.html>
- Listiyani, R., & Prapanca, D. (2022). The effect of financial literacy, financial attitude, and personality on financial management behavior. *Indonesian Journal of Innovation Studies*, 20.
<https://doi.org/10.21070/ijins.v20i.699>
- Liu, Z., Xu, A., Wang, Y., Schoudt, J., Mahmud, J., & Akkiraju, R. (2017, July). Does personality matter? A study of personality and situational effects on consumer behavior. In *Proceedings of the 28th ACM Conference on Hypertext and Social Media* (pp. 185-193). Retrieved from:
<https://dl.acm.org/doi/abs/10.1145/3078714.3078733>
- Louwen, C., Reidlinger, D., & Milne, N. (2023). Profiling health professionals' personality traits, behavior styles, and emotional intelligence: a systematic review. *BMC Medical Education*, 23(1), 1-56. Retrieved from:
<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04003-y>
- Luksander, A., Németh, E., & Zsoter, B. (2017). Financial personality types and attitudes that affect financial indebtedness. *International Journal of Social Sciences and Education Research*, 2(9), 4687-4704. Retrieved from:
https://www.researchgate.net/publication/320716368_FINANCIAL_PERSONALITY_TYPES_AND_ATTITUDES_THAT_AFFECT_FINANCIAL_INDEBTEDNESS

- Lytton, R. H., & Grable, J. E. (2018). Financial risk tolerance assessment instrument development: A brief history. *Journal of Financial Counseling and Planning*, 29(2), 187-200
- Mangold, D., Veraza, R., Winkler, L. A., & Kinney, N. A. (2007). Neuroticism predicts acculturative stress in Mexican-American college students. *Hispanic Journal of Behavioral Sciences*, 29(3), 366-383.
<https://doi.org/10.1177/0739986307302167>
- Maples-Keller, J. L., Williamson, R., Sleep, C., Carter, N. T., Campbell, W. K., & Miller, J. D. (2017). Using item response theory to develop a 60-item representation of the NEO PI-R using the International Personality Item Pool: Development of the IPIP-NEO-60. *Journal of Personality Assessment*, 101(1), 4-15.
<https://doi.org/10.1080/00223891.2017.1381968>
- Martins, J. M., Dantas, T., Araújo, W., Neto, M. G., & Leone, N. (2015). O comportamento financeiro dos estudantes de graduação à luz da teoria dos prospectos. *Revista Ciências Administrativas Ou Journal of Administrative Sciences*, 21(1), 95-111. <https://doi.org/10.5020/2318-0722.2015.v21n1p95>
- Matthews, G., Zeidner, M., & Roberts, R. D. (2006). Models of personality and affect for education: A review and synthesis. *Handbook of educational psychology*, pp. 2, 163-186. Retrieved from:
<https://psycnet.apa.org/record/2006-07986-008>
- Mien, N. T. N., & Thao, T. P. (2015). Factors Affecting Personal Financial Management Behaviors: Evidence from Vietnam. *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences* ISBN: 978-1-63415-833-6, 10-12.
- Muksin, S. N. B., & Makhsin, M. (2021). A level of student Self-Discipline in E-Learning during the COVID-19 Pandemic. *Procedia of Social Sciences and Humanities*, 1, 278-283. <https://doi.org/10.21070/pssh.v1i.59>
- Muñoz-Murillo, M., Álvarez-Franco, P. B., & Restrepo-Tobón, D. A. (2020). The role of cognitive abilities on financial literacy: New experimental evidence. *Journal of Behavioral and Experimental Economics*, 84, 101482.
<https://doi.org/10.1016/j.socec.2019.101482>
- Norman, W. T. (1967). *Personality Trait Descriptors--Normative Operating Characteristics For A University Population*. Retrieved from:
<https://eric.ed.gov/?id=ed014738>
- Nusron, L. A., Wahidiyah, M., & Budiarto, D. S. (2018). Antecedent Factors of Financial Management Behavior: An Empirical research based on education. *KnE Social Sciences*, 3(10), 437.
<https://doi.org/10.18502/kss.v3i10.3146>

- Obenza , B. N. ., Sandico. A. V. P., Solis, . A. J. D., Alaba, J. M. G., Majo, . N. R. C., Serios, R. N., Priego, E. M., Janopol, . C. K., & Obenza- Tanudtanud, D. M. N. (2023). Financial Management Behavior and Financial Well-Being of Deped Teachers as Mediated By Financial Self-Efficacy. *British International Journal of Applied Economics, Finance and Accounting*, 7(6), 17-35. Retrieved from <https://aspjournals.org/Journals/index.php/bijaefa/article/view/524>
- Oehler, A., Wendt, S., Wedlich, F., & Horn, M. (2017). Investors' personality influences investment decisions: Experimental evidence on extraversion and neuroticism. *Journal of Behavioral Finance*, 19(1), 30-48. <https://doi.org/10.1080/15427560.2017.1366495>
- Ozer, G. & Mutlu, U., (2019). The effects of personality traits on financial behavior. *Journal of Business, Economics and Finance (JBEF)*, V.8(3), p.155-164 Retrieved from: <https://dergipark.org.tr/en/pub/jbef/issue/49030/625472>
- Parks-Leduc, L., Feldman, G., & Bardi, A. (2015). Personality traits and personal values: A meta-analysis. *Personality and Social Psychology Review*, 19(1), 3-29. Retrieved from: <https://journals.sagepub.com/doi/abs/10.1177/1088868314538548>
- Peprah-Yeboah A., Frejus, W. E. B., & Fianko, E. (2018). Financial literacy of undergraduate students: Do personality traits and cognitive ability matter? *International Journal of Accounting and Financial Reporting*, 8(4), 533. <https://doi.org/10.5296/ijafr.v8i4.14012>
- Pinjisakikool, T. (2017). The influence of personality traits on households' financial risk tolerance and financial behavior. *Journal of Interdisciplinary Economics*, 30(1), 32-54. <https://doi.org/10.1177/0260107917731034>
- Prasad, J. M., Kapoor, S., & Sengupta, J. (2015). Theory of Behavioral Finance. In *Advances in Finance, accounting, and Economics book series* (pp. 1-24). <https://doi.org/10.4018/978-1-4666-7484-4.ch001>
- Quintelier, E. (2014). The influence of the Big Five personality traits on young people's political consumer behavior. *Young Consumers*, 15(4), 342-352. Retrieved from: <https://www.emerald.com/insight/content/doi/10.1108/YC-09-2013-00395/full/html>
- Rani, S., Saleem, S., & Zahra, S. T. (2022). Neuroticism and Psychosocial Stressors of Trauma in University students: The Mediating Role of Self-Esteem and Self-Appraisal of Trauma. *Pakistan Journal of Psychological Research*, 37(4), 679-696. <https://doi.org/10.33824/pjpr.2022.37.4.41>

- Roberts, B. W., & Yoon, H. J. (2022). Personality psychology. *Annual review of psychology*, pp. 73, 489–516. Retrieved from:
<https://www.annualreviews.org/doi/abs/10.1146/annurev-psych-020821-114927>
- Sahara, Y., Fuad, M., & Setianingsih, D. (2022). The role of financial attitude, financial experience, financial knowledge, and personality on student's personal financial management behavior. *Sorot*, 17(3), 167.
<https://doi.org/10.31258/sorot.17.3.167-176>
- Schneider, T. R. (2004). The role of neuroticism on psychological and physiological stress responses. *Journal of Experimental Social Psychology*, 40(6), 795–804. <https://doi.org/10.1016/j.jesp.2004.04.005>
- Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2009). Financial socialization of first-year college students: the roles of parents, work, and education. *Journal of Youth and Adolescence*, 39(12), 1457–1470.
<https://doi.org/10.1007/s10964-009-9432-x>
- Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), 4–11.
<https://doi.org/10.12691/ajams-9-1-2>
- Simkus, J. (2023). Stratified Random Sampling: Definition, Method & Examples. *Simply Psychology*. <https://www.simplypsychology.org/stratified-random-sampling.html>
- Soto, C. J. (2018). Big Five personality traits. In M. H. Bornstein, M. E. Arterberry, K. L. Fingerman, & J. E. Lansford (Eds.), *The SAGE encyclopedia of lifespan human development* (pp. 240–241). Thousand Oaks, CA: Sage. Retrieved from:
https://www.researchgate.net/publication/324115204_Big_Five_personality_traits
- Smith, G. M. (1967). The usefulness of peer ratings of personality in educational research. *Educational and Psychological Measurement*, 27(4), 967–984. Retrieved from:
<https://journals.sagepub.com/doi/abs/10.1177/001316446702700445>
- Terriquez V. & Gurantz O. (2015). Financial challenges in emerging adulthood and students' decisions to stop out of college. *Emerging Adulthood*, 3(3), 204–214. <https://doi.org/10.1177/2167696814550684>
- Topa, G., Hernández-Solís, M., & Zappalà, S. (2018). Financial Management behavior among young Adults: The role of need for Cognitive closure in a Three-Wave Moderated Mediation model. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02419>

- Varnali, K. (2011). Personality traits and consumer behavior in the mobile context: A critical review and research agenda. *International Journal of E-Services and Mobile Applications (IJESMA)*, 3(4), 1–20. Retrieved from: <https://www.igi-global.com/article/personality-traits-consumer-behavior-mobile/59964>
- Wan, Z. (2021). Investigation on college students' financial management behavior and research on guiding strategies. *E3S Web of Conferences*, p. 233, 01167. <https://doi.org/10.1051/e3sconf/202123301167>
- Winarta, S., & Pamungkas, A. (2020). The Role of Financial Behavior, Financial Attitude, Financial Strain, and Risk Tolerance in Explaining Financial Satisfaction. <https://www.atlantispress.com/article/125956323.pdf>
- Wong, A., & Carducci, B. (2013). Does personality affect personal financial risk tolerance behavior? <https://econpapers.repec.org/RePEc:icf:icfjaf:v:19:y:2013:i:3:p:5-18>
- Woo, S. E., Chernyshenko, O. S., Longley, A., Zhang, Z., Chiu, C., & Stark, S. (2013). Openness to experience: its lower level structure, measurement, and Cross-Cultural equivalence. *Journal of Personality Assessment*, 96(1), 29–45. <https://doi.org/10.1080/00223891.2013.806328>
- Xiao, J.J., Tang, C. & Shim, S. Acting for Happiness: Financial Behavior and Life Satisfaction of College Students. *Soc Indic Res* 92, 53–68 (2009). <https://doi.org/10.1007/s11205-008-9288-6>
- Yahaya, R., Zainol, Z., Osman, J. H., Abidin, Z., & Ismail, R. (2019). The effect of financial knowledge and financial attitudes on financial behavior among university students. *International Journal of Academic Research in Business and Social Sciences*, 9(8), 22-32. Retrieved from: https://www.researchgate.net/publication/340444697_The_Effect_of_Financial_Knowledge_and_Financial_Attitudes_on_Financial_Behavior_among_University_Students
- Yang, Y. (2019). Discussion on the Factors Affecting College Students' Campus Loan Default from the Perspective of Behavioral Finance. *Proceedings of the 1st International Symposium on Economic Development and Management Innovation (EDMI 2019)*. <https://doi.org/10.2991/edmi-19.2019.20>
- Yap, R. J. C., Komalasari, F., & Hadiansah, I. (2018). The effect of financial literacy and attitude on financial management behavior and satisfaction. *Bisnis & Birokrasi : Jurnal Ilmu Administrasi Dan Organisasi (International Journal of Administrative Sciences & Organization)*, 23(3). <https://doi.org/10.20476/jbb.v23i3.9175>

Youn, J., & Kim, K. (2012). Undergraduate student's extraversion, openness to experience, creativity and school adjustment: the mediating role of creativity. *Han-guk Jiyeok Sahoe Saenghwal Gwahak Oeji*, 23(2), 117-128. <https://doi.org/10.7856/kjcls.2012.23.2.117>

Zulfaris, M. D., Mustafa, H., Mahussin, N., Alam, M. K., & Daud, Z. M. (2020). Students and money management behavior of a Malaysian public university. *The Journal of Asian Finance, Economics and Business*, 7(3), 245-251. <https://doi.org/10.13106/jafeb.2020.vol7.no3.245>