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The Relationship Between AI Self-Efficacy and AI Trust of College Students

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Abstract

This study examines the relationship between financial self-efficacy and the financial behavior of college students at the University of Mindanao. The study uses quantitative research and a non-experimental correlational approach. Power analysis was used as the sample size calculator, and 150 college students from the University of Mindanao were selected using proportional stratified random sampling. Data were gathered online via survey through Google Forms. The reliability and validity of the constructs were as-sessed using Cronbach's alpha, average variance extracted, and heterotrait-monotrait ratio. Financial be-havior and financial self-efficacy have a strong positive relationship, as indicated by the path coefficient of 0.742. The large effect size of f^2 = 1.222 shows that financial behavior has a significant impact on financial self-efficacy. The R-squared value of 0.550 indicates that 55% of the variance in financial self-efficacy is explained by financial behavior.

Keywords

financial behavior; financial self-efficacy; financial literacy; regression analysis

Introduction

Financial behavior, defined as the management of a person's savings, expenditures, and budget, asserts that human activities related to money management, such as cash, savings, and credit, are regarded as financial behavior (Rahman et al., 2021). Students who have higher levels of self-efficacy also tend to be more adept at managing their finances and making more informed financial decisions. It was discovered that financial behavior is highly influenced by both financial literacy and self-efficacy, with students who have higher self-efficacy displaying better personal finance management. (mediaasuransinews.co.id, 2021). Enhancing self-efficacy is important, and students who possess greater financial knowledge tend to demonstrate more confidence in handling their finances (Heckman & Grable, 2011). The findings revealed that the students have moderate levels of life satisfaction and financial well-being while they demonstrate high levels of financial behavior (Obenza & Obenza, 2024c). Correspondingly, higher self-efficacy in students is linked to improved financial management skills and more prudent financial decision-making. Financial literacy has a direct impact on self-efficacy in financial matters, while the socioeconomic status of parents does not have the same effect. These findings emphasize the need for financial education programs that enhance both financial literacy and self-efficacy to improve students' financial behavior (Arofah, 2019; Herawati et al., 2020; Kurniasari et al., 2023; Anggono et al., 2024).

Financial self-efficacy also positively correlates with financial behavior (Farrel et al., 2016; Xiao et al., 2011). The research discovered that financial literacy and self-efficacy have a substantial impact on financial behavior. Students with higher self-efficacy tend to display improved personal finance management. Litob et al. (2024) also confirmed this observation by identifying a strong correlation between self-efficacy and saving behavior in Filipino college students. Moreover, White et al. (2019) further confirmed that higher financial self-efficacy is linked to more productive financial behaviors and greater well-being. Additionally, Sari and Listiadi (2021) identified financial self-efficacy as a significant intervening variable in the relationship between financial education, pocket money, and financial management behavior. These studies collectively emphasize the significance of financial self-efficacy in influencing favorable financial actions in college students, underscoring its relevance in financial education initiatives and the formulation of policies.

Many studies have explored college students' general knowledge of certain financial principles (Obenza, 2023a), the roles of personality traits in predicting students' financial behavior (Obenza et al., 2024d) and financial well-being (Obenza et al., 2024e) and emphasized that financial knowledge is the main factor that shapes financial behavior (Arofah, 2019). The University of Mindanao lacks sufficient research on how the financial self-efficacy of college students impacts their financial behavior. This research aims to examine the financial knowledge and habits of university students to understand the connection between financial self-efficacy and the financial behavior of college students.

The findings of this research provide important perspectives on enhancing financial behaviors and well-being, benefiting both financial professionals and educators. It also helps business owners target the student market more effectively. By fostering financial awareness, students can make better spending decisions. Furthermore, the research establishes a basis for upcoming investigations, which could potentially result in the development of new theories regarding the financial behavior of college students.

Materials and Methods

This research employed a quantitative method to gather and analyze data using a non-experimental correlational approach to examine the relationship between the financial behavior of college students and their financial self-confidence. This research study was done at the University of Mindanao-Matina Campus, Davao City, and the subjects were college students enrolled in the institution. According to Creswell and Creswell (2023), the procedures of gathering, evaluating, interpreting, and summarizing research findings are all part of quantitative approaches. A sample and population must be selected, the investigational plan must be developed, data must be obtained and assessed, findings must be presented, an interpretation must be provided, and the research must be formatted suitably for the type of study—survey or experimental.

This study employed correlational analysis to investigate the connection between college students' financial behavior and financial self-efficacy. The sampling technique used was proportional stratified random sampling. There were 150 respondents in the study using power analysis as the sample size calculator. This sampling method enabled the re-searchers to easily access individuals who were readily available and eager to participate. The instrument used in this study to collect data on the financial behavior and financial self-efficacy of college students will be a survey distributed online through Google Forms.

The questionnaires are divided into three parts: the profile of the respondents to determine financial self-efficacy and the financial behavior of college students. To assess the financial self-efficacy of college students, the questionnaire is adapted from Nguyen's re-search in 2016, using a 5-point Likert scaling system, and has a quantitative description of (5) strongly agree, (4) agree, (3) neutral, (2) disagree, and (1) strongly disagree. Moreover, the precedence of this study and its results remained confidential and asked the permission of all respondents aligning to the Data Privacy Act of 2012 (R.A. 10173). Furthermore, tests for concept validity and reliability were used, including Cronbach's alpha, average variance extracted, and heterograft measurement with SmartPLS 4.0. In addition, regression analysis was used to determine the prediction power of the five personal characteristics on university students' money management behavior.

Results and Discussions

Table 1. Reliability and Validity of the Measurement Model

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Financial Behavior	0.824	0.834	0.864	0.517
Financial Self-Efficacy	0.941	0.944	0.948	0.535

Table 1 presents the validity and reliability results of the instruments used in the study. Cronbach's alpha was applied to assess the reliability of the instruments, revealing strong internal consistency with values of 0.824 for financial behavior and 0.941 for financial self-efficacy, both exceeding the recommended threshold of 0.70 (Hair et al., 2010). Since all variables exceeded the 0.7 threshold, the instruments demonstrated reliable measurement of the targeted constructs. Furthermore, none of Cronbach's alpha values were above 0.95, which is important as excessively high values might indicate item redundancy, as noted by Tavakol and Dennick (2011). Moreover, the instruments' convergent validity was assessed by calculating the average variance extracted (AVE). The AVE values for financial behavior (0.517) and financial self-efficacy (0.535) both surpass the recommended threshold of 0.50 (Fornell & Larcker, 1981).

Table 2. Heterotrait-Monotrait Ratio (HTMT)

	Financial Behavior	Financial Self-Efficacy
Financial Behavior		
Financial Self-Efficacy	0.827	

Table 2 shows the next assessment that uses the HTMT values. Discriminant validity refers to the extent to which the items differ from one another empirically (Hamid et al., 2017). The HTMT ratio between financial behavior and financial self-efficacy is 0.827. The HTMT ratio falls below the required threshold of 0.85, showing that the dimensions of financial behavior and financial self-efficacy are separate and have good discriminant validity. Additionally, Gold et al. (2001) suggested that a value of 0.90 should be proposed as the threshold.

Table 3. The current state of financial behavior and self-efficacy among college students.

	N	Mean	SD	Description
Financial Behavior	287	4.07	0.991	High
Financial Self-Efficacy	287	4.18	0.908	High

In Table 3, The mean score of 4.07 suggests that students generally report high financial behavior, indicating that they use effective financial ways. The standard deviation (0.991) reflects a moderate spread of responses, meaning there is variability in how students manage their finances. The mean score of 4.18 indicates that students have strong financial self-efficacy, which means they are confident in their abilities to manage their finances. The mean score of 4.18 indicates that students have strong financial self-efficacy, which means they are confident in their abilities to manage their finances. The standard deviation (0.908) shows a similar degree of variability to financial behavior.

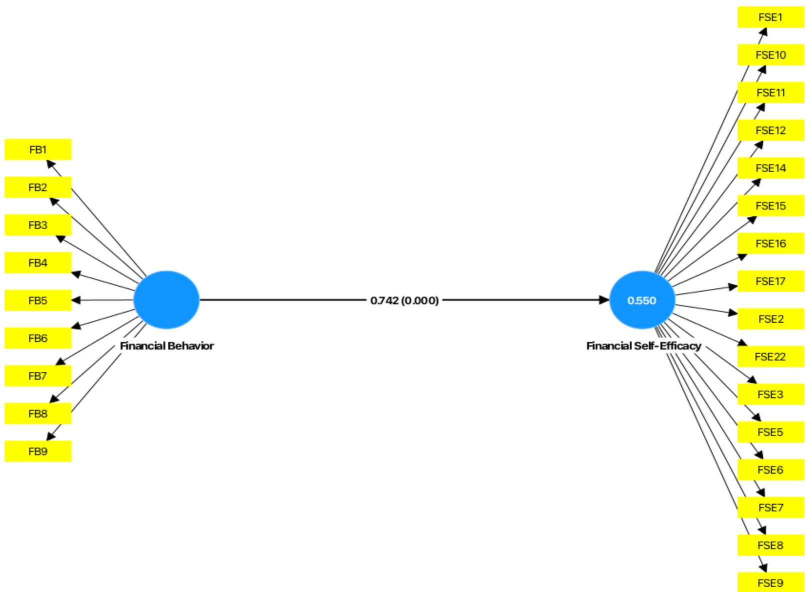

Figure 1: Structural Model Results

The path coefficient of 0.742 indicates a strong positive relationship between financial behavior and financial self-efficacy. This result is highly significant ($p < .001$), suggesting that students who engage in better financial behaviors also tend to have higher financial self-efficacy. This aligns with prior research that suggests individuals who engage in effective financial behaviors tend to exhibit higher levels of financial self-efficacy (Lown, 2011; Bandura, 1997). The high t-value (28.380) reinforces the robustness of this relationship. Financial behavior has a significant impact on financial self-efficacy, as indicated by the large effect size of $f^2 = 1.222$.

This result aligns with Rothwell et al. (2018), who demonstrated that financial self-efficacy is a key predictor of financial behaviors, particularly among low-income families. Furthermore, Noor et al. (2020) found similar patterns in the Pakistani context, showing that factors such as social status and income levels mediate the relationship be-tween financial behavior and self-efficacy. These cross-contextual findings suggest that while the relationship holds across different populations, it may be moderated by socio-economic factors, making it crucial to consider the context when interpreting the results.

Table 5. R-Square Model

	R-square	R-square adjusted
Financial Self-Efficacy	0.550	0.549

In Table 5, the R^2 value indicates that 55% of the variance in financial self-efficacy is explained by financial behavior, which is a substantial proportion for behavioral research (Chin, 1998). This suggests that financial behavior is a significant predictor of financial self-efficacy among college students.

This finding is consistent with the work of Xiao and O'Neill (2018), who argued that financial education programs focusing on behavior change are likely to improve self-efficacy. The current study adds to this body of literature by demonstrating the strength of this relationship in a college student population, suggesting that such interventions could be particularly beneficial in preparing young adults for financial independence.

Conclusion and Recommendation

This study confirmed the reliability and validity of the instruments used to measure financial behavior and self-efficacy. The findings underscore the significant positive relationship between these variables, high-lighting the importance of integrating behavior-focused strategies into financial education programs. Such insights serve as a practical guide for educational institutions and policymakers in designing initiatives that enhance financial self-efficacy among individuals. For instance, incorporating tailored workshops, providing access to financial literacy resources, and promoting regular self-assessment tools can foster improved financial behavior.

Future research should address the study's limitations by adopting longitudinal designs to establish causality and by considering a broader range of socioeconomic and contextual variables. Exploring these dimensions in diverse settings will provide a more comprehensive understanding of the factors influencing financial behavior and self-efficacy. Additionally, examining the impact of cultural and systemic barriers can shed light on the specific needs of underrepresented groups.

This study's implications extend to policy formulation and curriculum design, emphasizing actionable steps to bridge financial literacy gaps and promote sustainable financial practices.

The results of this study provide important insights for both researchers and practitioners. For practitioners, the strong relationship between financial behavior and self-efficacy underscores the need for financial education programs that focus not only on knowledge dissemination but also on behavior modification. Programs that emphasize goal-setting, budgeting, and prudent financial decision-making are likely to improve students' financial self-efficacy, as indicated by the substantial effect size found in this study. Additionally, the study's findings can guide the design of interventions that prioritize behavioral changes, as these appear to have the most significant impact on financial confidence.

For researchers, the results suggest several avenues for further investigation. Given that financial behavior explains 55% of the variance in self-efficacy, future studies should explore other potential predictors, such as financial knowledge, attitudes, and external socioeconomic factors. Additionally, cross-cultural studies could further explore the moderating role of context, as evidenced by the differing findings between studies conducted in Pakistan (Noor et al., 2020) and Canada (Rothwell et al., 2018). Expanding the scope of this research to include diverse populations will provide a more comprehensive understanding of the factors that influence financial self-efficacy across different cultural and socioeconomic settings.

Limitations

Despite the robustness of the findings, the study is not without limitations. First, the sample was limited to college students, which may not be generalizable to other populations, such as older adults or non-student populations. Additionally, the cross-sectional design limits the ability to infer causality between financial behavior and self-efficacy. Longitudinal studies would be beneficial in establishing the directionality of this relationship over time. Finally, while financial behavior explained a substantial portion of the variance in self-efficacy, other factors likely contribute to financial self-efficacy, and future research should aim to identify these additional predictors.

References

Akben-Selcuk, E. (2015). Factors influencing college students' financial behaviors in Turkey: Evidence from a national survey. *International Journal of Economics and Finance*, 7(6), 87-94.

Anggono, A., Barus, A., Nasution, S. A., Astuty, F., & Tarwiyah, T. (2024). Pengaruh Self-Efficacy terhadap perilaku keuangan mahsiswa. *Owner*, *8*(3), 2968–2980. https://doi.org/10.33395/owner.v8i3.2351

Arofah, A. A. (2019). Financial Literacy, Self-Efficacy, and Financial Behaviour of college students. *IJPTE International Journal of Pedagogy and Teacher Education*, 3(2), 129–138. https://doi.org/10.20961/ijpte.v3i2.17546

Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman and Company.

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. Modern Methods for Business Research, 295(2), 295-336.

Creswell, J. W., & Creswell, J. David. (2023). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Inpsycnet.apa.org (Sixth Edition). SAGE Publications, Inc.

Diamantopoulos, A., & Winklhofer, H. M. (2001). Index Construction with Formative Indicators: An Alternative to Scale Development. Journal of Marketing Research, 38(2), 269–277. https://shorturl.at/dyBP5

Drolet, A. L., & Morrison, D. G. (2001). Do We Need Multiple-Item Measures in Service Research? Journal of Service Research, 3(3), 196–204. https://doi.org/10.1177/109467050133001

Farrell, L., Fry, T. R., & Risse, L. (2015). The significance of financial self-efficacy in explaining women's personal finance behavior. *Journal of Economic Psychology*, *54*, 85–99. https://doi.org/10.1016/j.joep.2015.07.001

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50. doi:10.2307/3151312

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. Journal of Management Information Systems, 18(1), 185-214.

Gonzalez, O., & MacKinnon, D. P. (2021). The measurement of the mediator and its influence on statistical mediation conclusions. Psychological Methods, 26(1), 1–17. https://doi.org/10.1037/met0000263

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed.). Prentice Hall.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLSSEM. European Business Review, 31(1), 2–24. https://doi.org/10.1108/EBR1120180203

Hamid, M & Sami, Waqas & Sidek, M. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. Journal of Physics: Conference Series. 890. 012163. 10.1088/1742-6596/890/1/012163.

Hamid, M. R. A., Sami, W., & Sidek, M. H. M. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. Journal of Physics: Conference Series, 890(1), 012163.

Heckman, Stuart & Grable, John. (2011). Testing the role of parental debt attitudes, student income, dependency status, and financial knowledge have in shaping financial self-efficacy among college students. College Student Journal. 45.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Herawati, N. T., KusumaDewi, L., Wahyuni, M. A., & Savitri, N. L. A. (2020). Financial Self Efficacy: A Mediator in Advancing Financial Behavior among Accounting Students. *Journal of Academic Finance*, *11*(2), 226–241. https://doi.org/10.59051/joaf.v11i2.392

Kline, R. B. (2011). Principles and practice of structural equation modeling (3rd ed.). Guilford Press.

Kurniasari, I., Sumiati, S., & Ratnawati, K. (2023). The financial behavior of the young generation in Indonesia. Journal of Indonesian Applied Economics, 11(2), 146–155. https://doi.org/10.21776/ub.jiae.2023.011.02.3

Lim, H., Heckman, S., Montalto, C. P., & Letkiewicz, J. (2014). Financial Stress, Self-Efficacy, and Financial Help-Seeking Behavior of College Students. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2537579

Litob, N. M. E. G., Sanchez, N. J. L., & Gabule, N. D. S. (2024). SELF-EFFICACY AND SAVING BEHAVIOR AMONG STUD ENTS IN A LOCAL COLLEGE. *EPRA International Journal of Economics Business and Management Studies*, 43–47. https://doi.org/10.36713/epra16035

Lone, U. M., & Bhat, S. A. (2022). Impact of financial literacy on financial well-being: a mediational role of financial self-efficacy. Journal of Financial Services Marketing, 29(1), 122–137. https://doi.org/10.1057/s41264-022-00183-8

Lown, J. M. (2011). Development and validation of a financial self-efficacy scale. Journal of Financial Counseling and Planning, 22(2), 54-63.

Media Asuransi News. (2021, August 19). Hasil riset OCBC NISP Financial Fitness Index 85,6 generasi muda Indonesia 'Kurang sehat' finansialnya. https://mediaasuransinews.co.id/news-in-brief/hasil-riset-ocbc-nisp-financial-fitness-index-856-generasi-muda-ind onesia-kurang-sehat-finansialnya/#google_vignette

Mudzingiri, C., Muteba Mwamba, J. W., & Keyser, J. N. (2018). Financial behavior, confidence, risk preferences and financial

literacy of university students. Cogent Economics & Finance, 6(1), 1512366.
Noor, N., Batool, I., & Arshad, H. M. (2020). Financial literacy, financial self-efficacy, and financial account ownership behavior in Pakistan. Cogent Economics & Finance, 8(1), 1806479.
Noor, T., Nisar, Q. A., & Tariq, F. (2020). Exploring the role of social status in financial behavior and self-efficacy among Pakistani university students. International Journal of Education Economics and Development, 11(2), 147-160.
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. (2023a). Financial Management Behavior and Financial Well-Being of Deped Teachers as Mediated By Financial Self-Efficacy. British I, Available at SSRN: https://ssrn.com/abstract=4733772
Obenza, B. N., Cuaresma, N. B. G., Carandang, Y. G. D., Dalugdug, L. J. S., Resus, K. S. M., Jumamoy, B. C. A., Mamon, P. A. T., & Chi, K. C. Y. (2024b). The Mediating Effect of Financial Self-Efficacy on Financial Behavior and Financial Well-Being of College Students in Region XI. American Journal of Economics and Business Innovation, 3(1), 21–30. https://doi.org/10.54536/ajebi.v3i1.2313
Obenza, B., & Obenza , D. M. N. (2024c). Assessing the Mediating Role of Life Satisfaction in the Nexus Between Financial Behavior and Financial Well-being. Journal of Economics, Innovative Management and Entrepreneurship, 2(3). https://doi.org/10.59652/jeime.v2i3.274
Obenza, B., Tabac, C. E., Estorba, D. R., Baring, A., Rizardo, J. P., Badayos, C. J., Zaragoza, A. P., & Dela Cruz, P. S. (2024d). Personality Traits and Financial Well-Being of College Students in Davao City. International Journal of Applied Research and Sustainable Sciences, 2(1), 41–56. https://doi.org/10.59890/ijarss.v2i1.1160
Obenza, B., Torrefranca, J. P., Amarilla, J. D. ., Pandamon, J. ., Encarnacion, S. ., Getalado, G. ., & Azis, A. H. . (2024)e. Personality Traits and Financial Management Behavior of University Students. International Journal of Business and Applied Economics, 3(1), 1–20. https://doi.org/10.55927/ijbae.v3i1.7309
Rahman, M., Isa, C. R., Masud, M. M., Sarker, M., & Chowdhury, N. T. (2021). The role of financial behavior, financial literacy, and financial stress in explaining the financial well-being of the B40 group in Malaysia. *Future Business Journal*, *7*(1). https://doi.org/10.1186/s43093-021-00099-0
Rothwell, D. W., Khan, M. N., & Cherney, K. (2018). Building financial knowledge is not enough: Financial self-efficacy as a mediator in the financial capability of low-income families. In Financial Capability and Asset Building with Diverse Populations (pp. 12-32). Routledge.
Rothwell, D. W., Khan, M. N., & Cherney, K. (2018). Building financial knowledge is not enough: Financial self-efficacy as a mediator in the financial capability of low-income families. Journal of Family and Economic Issues, 39(4), 705-720. doi:10.1007/s10834-018-9588-3
Sari, N. R., & Listiadi, A. (2021). Pengaruh Literasi Keuangan, Pendidikan Keuangan di Keluarga, Uang Saku terhadap Perilaku Pengolaan Keuangan dengan Financial Self-Efficacy sebagai Variabel Intervening. Jurnal Pendidikan Akuntansi (JPAK), 9(1), 58–70. https://doi.org/10.26740/jpak.v9n1.p58-70
Taber, K. S. (2017). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. Research in Science Education, 48(6), 1273–1296. https://doi.org/10.1007/s11165-016- 9602-2
Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education, 2, 53-55. doi:10.5116/ijme.4dfb.8dfd
Ursachi, G., Horodnic, I. A., & Zait, A. (2015). How Reliable are Measurement Scales? External Factors. Org. https://www.apa.org/news/press/rele

ases/
White, K., Park, N., Watkins, K., McCoy, M., & Thomas, M. G. (2019). The Relationship between Financial Knowledge, Financial Management, and Financial Self-Efficacy Among African-American Students. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3468751
Xiao, J. J., & O'Neill, B. (2018). Consumer financial education and financial capability. International Journal of Consumer Studies, 42(2), 196-206.
Xiao, J. J., Shim, S., Barber, B., & Lyons, A. C. (2007). Financial Behavior and Quality of Life of College Students: Implications for College Financial Education. DigitalCommons@URI.
Xiao, J. J., Tang, C., & Shim, S. (2011). Acting for happiness: Financial behavior and life satisfaction of college students. Social Indicators Research, 104(2), 453-470.