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Beyond Skill: The Paradoxical Link Between Financial Self-Efficacy and Anxiety in Indonesian University Students

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ABSTRACT

Financial anxiety is common among university students and undermines academic and daily functioning. This study examined whether attitude toward money predicts financial self-efficacy (FSE) and financial anxiety, whether FSE mediates this association, and whether the structural paths differ by gender. We used a cross-sectional correlational design with 350 Indonesian university students selected via stratified random sampling. Attitudes toward money were measured using the Money Attitude Scale, FSE with an adapted scale, and financial anxiety with the Financial Anxiety Scale. Hypotheses were examined using PLS-SEM with 5,000 bootstraps and multi-group analysis. Attitude toward money positively predicted FSE ($\beta = 0.42$, $p < .001$), and FSE positively predicted financial anxiety ($\beta = 0.18$, $p < .001$). The indirect effect of attitude toward money on financial anxiety, mediated by FSE, was significant but small ($\beta = 0.08$, $p = .01$). No significant gender differences were detected. These results suggest that competence-oriented financial education should be paired with stress-management and risk-appraisal components. For higher-education policy and practice, campuses should integrate financial counseling with mental-health services, deploy early-warning systems for financial stress, and provide targeted supports such as emergency microgrants, peer money mentors, and flexible payment plans.

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1. INTRODUCTION

Money is an integral part of human life, profoundly influencing not only an individual's well-being but also their emotional and psychological states (Kahneman & Deaton, 2010; Shim et al., 2009). The way individuals perceive and manage their finances can significantly determine their level of financial anxiety. This is particularly true during the early stages of adulthood, a period highly susceptible to mental health challenges (Hunt & Eisenberg, 2010; Zivin et al., 2009). As individuals mature, they often face increasing responsibilities, including new financial obligations (Archuleta et al., 2013). Consequently, the emergence of these new responsibilities can elevate the likelihood of financial anxiety among young adults. If left unaddressed, the repercussions of financial anxiety can be severe, leading to diminished academic performance and a decline in overall daily quality of life (Joo et al., 2008; Roberts et al., 1999). Moreover, financial anxiety can paradoxically exacerbate an individual's financial situation, as this anxiety is often linked to habitual procrastination in bill payments (Gamst-Klaussen et al., 2019; Pychyl & Flett, 2012; Roberts et al., 1999).

In the current era of numerous economic challenges and a rapidly evolving financial landscape, understanding the factors contributing to financial anxiety is paramount. One such factor widely considered influential is attitude toward money. Briefly, this term refers to an individual's framework for valuing money in relation to their daily life (Tang, 1995). Attitudes towards money are shaped by a multitude of factors, including parenting styles (Poraj-Weder, 2014), culture (Henchoz et al., 2019), personal experiences (Lim & Teo, 1997), and societal influences (Medina et al., 1996).

Financial self-efficacy, a concept rooted in Bandura's social cognitive theory (Bandura, 1977), refers to an individual's belief in their capability to effectively manage finances to achieve their primary financial goals (Forbes & Kara, 2010). In this study, financial self-efficacy is hypothesized to mediate the relationship between attitude toward money and financial anxiety. It is posited that individuals with a positive attitude toward money and high financial self-efficacy may be better equipped to confront financial challenges, which, in turn, could lead to a lower propensity for experiencing financial anxiety.

However, efforts to comprehend the causes of financial anxiety cannot be limited to these factors alone. Gender also warrants analysis to understand the complexity of financial anxiety's origins fully, as previous research indicates distinct financial attitudes and behaviors between men and women (Fünfgeld & Wang, 2009; Robson & Peetz, 2020). Indeed, societal norms and gender roles can shape these differences, influencing how individuals perceive and cope with financial issues (Robson & Peetz, 2020). Nevertheless, these assumptions require empirical validation. Unfortunately, a dearth of literature currently exists that empirically investigates the relationships among these variables, particularly within the context of Indonesian university students. This research aims to contribute to the existing body of literature by identifying the root causes of financial anxiety. More specifically, this study will address the research gap concerning how financial self-efficacy moderates the influence of attitude toward money on financial anxiety. This research is particularly vital as investigations into these issues remain limited, especially within the demographic of Indonesian university students.

Financial anxiety can be characterized as a negative emotional response to adverse financial stimuli (Shapiro & Burchell, 2012). This type of anxiety is prevalent in modern societies, where individuals frequently experience unstable food and fuel prices, rising interest rates leading to increased monthly installments, and the depletion of savings to meet essential needs (McCormick, 2009). Financial anxiety among university students has garnered significant academic interest due to its commonality within this population. A notable 71% of university students in the United States have reported experiencing stress stemming from personal financial issues (Heckman et al., 2014). Furthermore, financial problems are consistently identified as one of the primary triggers for stress among university students (Association & others, 2013).

Attitude toward money is considered a crucial variable in determining healthy financial behavior (Shim et al., 2010). From the perspective of attitude toward money, money holds specific meanings beyond its mere physical form; it is associated with perceptions of good, evil, respect, and power (Li-Ping Tang et al., 2000; Snelders et al., 1992). One of the most well-established conceptualizations and measurements of money attitudes was developed by (Yamauchi & Templer, 1982). Their measurement is categorized into four dimensions: (1) Power-Prestige, which views money as a tool to influence and impress others, as well as a symbol of success; (2) Retention-Time, symbolizing the importance of planning for one's financial future and carefully monitoring financial situations; (3) Distrust, representing feelings of hesitation, suspicion, and doubt regarding situations involving money and a lack of confidence in one's ability to make efficient purchasing decisions; and (4) Anxiety, where money is perceived as both a source of anxiety and a means of protection from anxiety.

The role of psychological factors in financial decisions has increasingly gained recognition. Educators largely agree that merely providing financial literacy education may not be sufficient to enhance financial capabilities (Fan & Chatterjee, 2018; Mudzingiri et al., 2019). Similarly, behavioral economists contend that education and information alone are often inadequate to instigate behavioral change (Mudzingiri et al., 2019; Noor et al., 2020). This underscores the necessity of financial self-efficacy for individuals to make sound financial decisions across various aspects of their lives (Bandura, 1999). Furthermore, as posited by (Forbes & Kara, 2010), this terminology refers to an individual's conviction in their ability to execute a series of actions to achieve desired financial goals. Financial self-efficacy is highly beneficial in an individual's decisions regarding retirement planning (Topa et al., 2018), financial inclusion (Mindra et al., 2017), diligent saving behaviors (Magendans et al., 2017; Xiao & O'Neill, 2016), and financial satisfaction (S. Asebedo & Payne, 2019). It is this link to financial satisfaction that leads the researchers to hypothesize a mediating role of financial self-efficacy in the relationship between attitude toward money and financial anxiety.

Based on the foregoing, the research questions (RQs) for this study are:

1. Does attitude toward money directly influence the financial self-efficacy of higher education students?
2. Does attitude toward money directly influence the financial anxiety of higher education students?
3. Does financial self-efficacy mediate the relationship between attitude toward money and financial anxiety of higher education students?
4. Are there differences in the relationships among variables in the model between male and female sample groups of higher education students?

2. METHOD

This study employed a correlational research design. As per (Creswell, 2012), this design was used because the researchers aimed to utilize correlational statistical tests (though not exclusively limited to "correlation" tests) to describe and illustrate the degree of association or relationship between two or more variables. The population for this study consisted of all students enrolled at one private university in Indonesia. A stratified random sampling technique was utilized, as this method ensured that the sample was divided based on subgroups within the studied population (Creswell & Creswell, 2017; Sekaran & Bougie, 2016). The determination of the minimum sample size was calculated to achieve sufficient statistical power, following the recommendations provided by (Hair Jr et al., 2016). The calculation of the required sample size based on the desired statistical power was performed using the G*Power application (Faul et al., 2007). Based on these calculations (see Figure 1), the minimum sample size necessary for this study was 107.

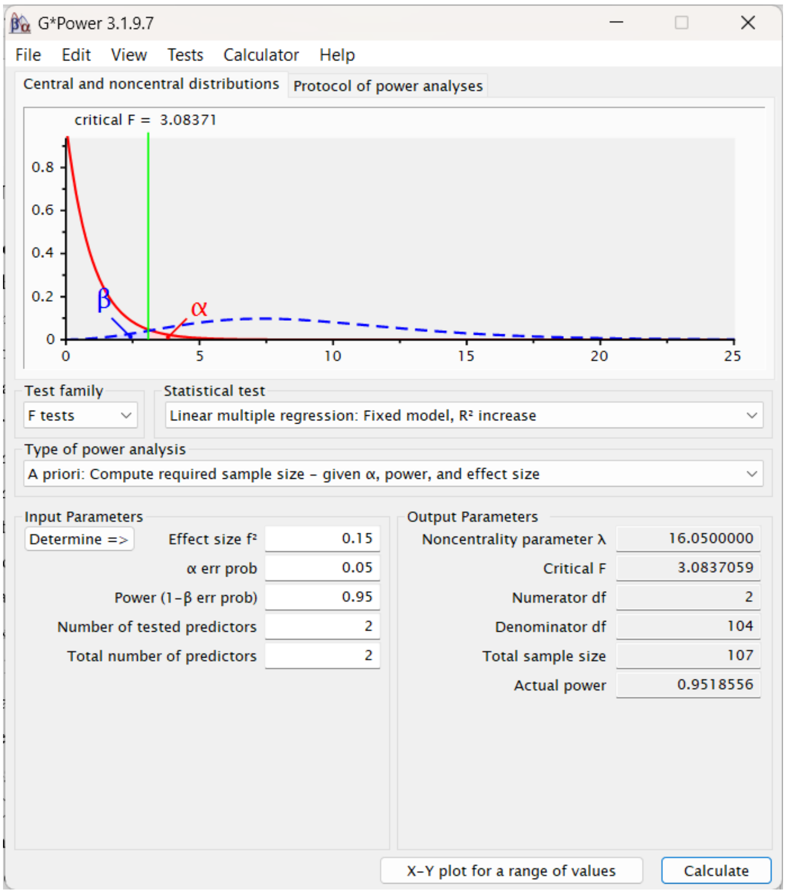

Figure 1. G*Power Calculation

Data collection was carried out using electronic questionnaires via Microsoft Forms. This method was chosen for its efficiency. According to (Sekaran & Bougie, 2016), although researchers could not directly observe respondents during data entry with this method, it was still considered a valid data collection approach, provided that participating respondents met minimum eligibility criteria for data completion (e.g., being an adult).

For data collection, the researchers did not develop new instruments but instead utilized established instruments. This was done to ensure both statistical and theoretical validity and reliability. The attitude towards money variable was measured using the Money Attitude Scale (MAS) developed by (Yamauchi & Templer, 1982). Financial self-efficacy was assessed using an instrument adapted from (Loke et al., 2015), and financial anxiety was measured using the Financial Anxiety Scale (FAS) (Archuleta et al., 2013).

Data analysis in this study was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). Historically, covariance-based Structural Equation Modeling (CB-SEM) was more commonly employed in research to analyze complex relationships between observed and latent variables. However, in recent years, the use of PLS-SEM as an analytical tool has steadily increased, even surpassing the usage of CB-SEM, as noted by (Hair Jr et al., 2016). Researchers tended to favor PLS-SEM because this method allowed for the estimation of complex models, including numerous constructs, indicators, and structural paths, without requiring normally distributed data (Hair Jr et al., 2016). Given that this study also aimed to investigate structural model differences between the two groups, PLS-SEM Multi-Group Analysis was also employed. The proposed research model is depicted in Figure 2, while the research roadmap is shown in Figure 3. All activities within this research project adhered to the ethical guidelines for research involving human subjects and human sciences established by the host institution.

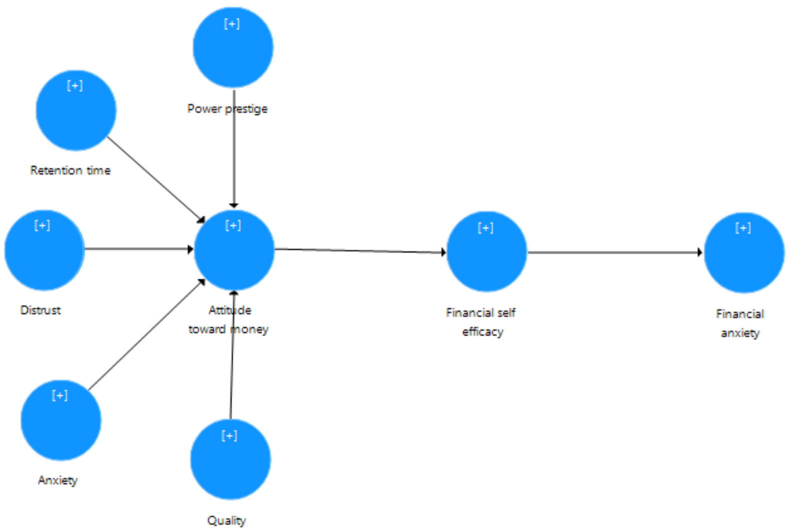

Figure 2. Research Model

3. FINDINGS AND DISCUSSION

3.1. Sample demographics

Students at the sample university are predominantly female. Consequently, the sample for this study also reflected this gender distribution, with females constituting 85.7% (300 individuals) and males making up the remaining 14.3% (50 individuals). Regarding academic standing, third-semester students represented the largest portion of the sample, accounting for 124 individuals or 35.4% of the total, followed by first-semester students. A more detailed breakdown of the sample demographics can be found in Table 1.

Table 1. Sample Demographics

		N	%
Sex	Male	50	14.3%
	Female	300	85.7%
Semester	1	116	33.1%
	3	124	35.4%
	5	57	16.3%
	7	53	15.1%

3.2. Evaluation of measurement models

In this research, the first-order constructs were modeled as reflective constructs. To evaluate this type of construct, three key aspects needed to be assessed: convergent validity, internal consistency reliability, and discriminant validity (Hair Jr et al., 2016). Convergent validity indicates the extent to which a measure or indicator correlates with other measures or indicators of the same construct. Acceptable thresholds require loading factors and Average Variance Extracted (AVE) to be at least 0.5 (Hair Jr et al., 2016). Next, internal consistency reliability determines if items measuring a particular construct yield relatively similar scores. This evaluation requires composite reliability and Cronbach's alpha values to be above 0.6 (Hair Jr et al., 2016). The final evaluation for the measurement model is discriminant validity. This study used the Heterotrait-Monotrait ratio (HTMT) for its evaluation, due to its greater accuracy compared to traditional methods like cross-loading and the Fornell-Larcker criterion (Henseler et al., 2015). As a threshold, the HTMT value should not be 1, with an acceptable value typically being below 0.85 (Henseler et al., 2015). Regarding the convergent validity, while the loading factors for all instruments were sufficient, Table 2 shows that some constructs had an AVE below the recommended value. However, even if the AVE falls below the recommended threshold, it doesn't necessarily invalidate the construct in terms of convergent validity. As (Fornell & Larcker, 1981) suggest, as long as the composite reliability remains above the recommended threshold, the measurement of the construct can still be considered acceptable. Table 2 confirms that all composite reliability values were indeed above 0.6. Furthermore, concerning discriminant validity, Table 2 also indicates that no HTMT value reached 1, thus satisfying the criterion. Once the evaluation of the measurement models for the first-order constructs was confirmed as acceptable, the next step involved evaluating the second-order constructs, which will be discussed in the subsequent section

Data analysis was performed through two iterative runs. Table 2 presents the results from the second run, which was conducted after removing indicators that did not meet the required loading factor thresholds. This ensured that all remaining indicators, as shown in Table 2, fulfilled the criteria for convergent validity, internal consistency reliability, and discriminant validity. For convergent validity, all instruments demonstrated sufficient loading factors. However, it's notable that some constructs in Table 2 had Average Variance Extracted (AVE) values below the typically recommended limit. Despite this, according to (Fornell & Larcker, 1981), a construct's convergent validity can still be accepted even if its AVE is below the recommended threshold, provided that its composite reliability remains above the specified minimum. Table 3 confirms this condition was met, with all composite reliability values exceeding 0.6. Regarding discriminant validity, Table 3 indicates that none of the Heterotrait-Monotrait ratio (HTMT) values were equal to 1, thus satisfying this criterion. With the measurement models for first-order constructs now confirmed as eligible, the next phase of the analysis involves evaluating the structural model.

3.3. Evaluation of the first-order constructs on the second-order constructs

Evaluating second-order constructs fundamentally follows a similar process or analogy to evaluating first-order constructs (Chin & others, 1998). However, because the second-order constructs in this study are formative, traditional validity evaluations typically applied to reflective models aren't applicable here (Götz et al., 2010; Hair Jr et al., 2016; Henseler et al., 2009; Petter et al., 2007). Therefore, the evaluation proceeds in two stages: first, at the indicator level (where the first-order constructs now act as indicators), and second, at the second-order construct level itself (Henseler et al., 2009).

In the initial stage, path coefficients should not be treated as loading factors but rather as weights. According to (Andreev et al., 2009), these weight values should ideally be above 0.1. Furthermore, bootstrapping must be employed to obtain significance values (Hair et al., 2011; Henseler et al., 2009). Table 4 demonstrates that all weight coefficients from the first-order constructs to the second-order constructs exceeded 0.1. Additionally, the significance values, derived from 5,000 bootstraps as presented in Table 4, also indicate statistical significance. This provides empirical support for the formation of the second-order constructs from their respective first-order constructs (Hair et al., 2011).

Table 4. Weights of the first-order constructs on the second-order constructs

Construct level		Weight	t	Mean	Standard Deviation	Sig
Second-order construct	First-order construct					
Attitude toward money	Power prestige	0.43	14.84	0.42	0.03	0.00
	Retention time	0.25	4.57	0.25	0.05	0.00
	Distrust	0.31	10.05	0.31	0.03	0.00
	Quality	0.25	8.32	0.24	0.03	0.00
	Anxiety	0.29	12.91	0.29	0.02	0.00

3.4. Evaluation of the structural model (inner model)

Once the outer model was confirmed to be reliable and valid, the next step involved evaluating the inner model to obtain hypothesis results among the constructs in the proposed model (Hair et al., 2012; Hair Jr et al., 2016). It's important to note that the evaluation of goodness-of-fit in PLS-SEM differs from that in CB-SEM. Therefore, the goodness-of-fit for the inner model in this study followed recommendations from (Chin, 1998), (Henseler et al., 2009), and (Hair Jr et al., 2016), using f^2 and Q^2 effect sizes. Similar to the evaluation of second-order constructs, hypothesis testing also employed 5,000 bootstraps to obtain path coefficients and significance levels.

To derive the Q^2 coefficient, researchers used SmartPLS's blindfolding feature with an omission distance of 8. This value aligns with recommendations from (Chin, 1998) and (Henseler et al., 2012), which suggest an omission distance between 5 and 10. For interpretation, a Q^2 value greater than 0 indicates that the model possesses predictive relevance, and vice versa (Henseler et al., 2009; Vinzi et al., 2010). Regarding f^2, a coefficient between 0.02 and 0.15 signifies a small effect size, 0.15 to 0.35 indicates a medium effect size, and values above 0.35 denote a large effect size (Henseler et al., 2012; Vinzi et al., 2010). This classification can also be applied to Q^2 (Henseler et al., 2009).

3.5. Evaluation of Multi-group analysis

Table 5 presents the coefficient values and significance levels for each path in the model. The direct effect analysis revealed that attitude toward money had a positive influence on financial self-efficacy ($\beta = 0.42$, $p < 0.001$). Interestingly, this study found that financial self-efficacy had a positive and significant influence on financial anxiety ($\beta = 0.18$, $p < 0.001$). This implies that a higher level of financial self-efficacy among the sampled individuals did not necessarily lead to lower financial anxiety. Furthermore, based on bootstrapping with 5,000 subsamples, the data analysis showed that self-esteem also played a role in mediating academic engagement's effect on state anxiety ($\beta = 0.08$, $p < 0.001$).

The f^2 effect size calculations in Table 5 indicate that the variable attitude toward money had a medium effect size in influencing financial self-efficacy, while financial self-efficacy had a small effect size in influencing financial anxiety. In addition to f^2 effect size, the Q^2 effect size was also analyzed to determine the predictive relevance of variables acting as exogenous variables. Table 5 shows that all three variables serving as exogenous variables in the research model exhibited small predictive relevance, with the exception of attitude toward money, which demonstrated a moderate category of predictive relevance. Finally, the multi-group analysis revealed no significant differences in the examined model between male and female sample groups, leading to the conclusion that the model is consistent across both sample groups.

Table 2. Convergent validity and internal consistency reliability measures

Latent Variable	Indicators	Loadings	AVE	Composite Reliability	Cronbach's Alpha	Discriminant Validity
		>0.50	>0.50	0.60-0.90	0.60-0.90	HTMT confidence interval does not include 1
Attitude toward money						
Power prestige	MAS-PP1	0.54	0.38	0.85	0.80	Yes
	MAS-PP2	0.62				
	MAS-PP3	0.62				
	MAS-PP4	0.63				
	MAS-PP5	0.51				
	MAS-PP6	0.71				
	MAS-PP7	0.58				
	MAS-PP8	0.72				
	MAS-PP9	0.61				
Retention time	MAS-RT1	0.58	0.50	0.87	0.83	Yes
	MAS-RT2	0.79				
	MAS-RT3	0.79				
	MAS-RT4	0.72				
	MAS-RT5	0.76				
	MAS-RT6	0.60				
	MAS-RT7	0.68				
Distrust	MAS-D1	0.71	0.44	0.85	0.79	Yes
	MAS-D2	0.59				
	MAS-D3	0.68				
	MAS-D4	0.62				
	MAS-D5	0.79				
	MAS-D6	0.66				
	MAS-D7	0.60				
Quality	MAS-Q1	0.56	0.53	0.85	0.78	Yes
	MAS-Q2	0.78				
	MAS-Q3	0.80				
	MAS-Q4	0.74				
	MAS-Q5	0.73				
Anxiety	MAS-A1	0.47	0.40	0.80	0.69	Yes
	MAS-A2	0.60				
	MAS-A3	0.60				
	MAS-A4	0.77				
	MAS-A5	0.75				
	MAS-A6	0.54				
Financial self-efficacy						
Financial self-efficacy	FSE1	0.46	0.36	0.73	0.55	Yes
	FSE2	0.76				

	FSE3	0.69				
	FSE4	0.49				
	FSE5	0.55				
Financial anxiety						
Financial anxiety	FA1	0.70	0.66	0.93	0.91	Yes
	FA2	0.83				
	FA3	0.82				
	FA4	0.83				
	FA5	0.83				
	FA6	0.83				
	FA7	0.84				

Table 3. HTMT values for discriminant validity

	1	2	3	4	5	6	7
1. Anxiety	0.632						
2. Distrust	0.479	0.666					
3. Financial anxiety	0.629	0.568	0.811				
4. Financial self efficacy	0.178	0.101	0.174	0.607			
5. Power prestige	0.443	0.385	0.429	0.241	0.619		
6. Quality	0.292	0.029	0.168	0.379	0.334	0.727	
7. Retention time	0.117	0.098	0.153	0.528	0.136	0.235	0.709

Table 4. Weights of the first-order constructs on the second-order constructs

Construct level		**Weight**	**t**	**Mean**	**Standard Deviation**	**Sig**
Second-order construct	First-order construct					
Attitude toward money	Power prestige	0.43	14.84	0.42	0.03	0.00
	Retention time	0.25	4.57	0.25	0.05	0.00
	Distrust	0.31	10.05	0.31	0.03	0.00
	Quality	0.25	8.32	0.24	0.03	0.00
	Anxiety	0.29	12.91	0.29	0.02	0.00

Table 5. Hypothesis tests and effect size results

	All sample					**MGA**		
Hyphotheses	Coefficient	t	Mean	Standard Deviation	Sig.	Path Coefficients-diff (men vs women)	p-Value original 1-tailed (men vs women)	Sig.
Attitude toward money -> Financial self efficacy	0.42	7.41	0.43	0.06	0.00	0.20	0.05	0.10
Financial self efficacy -> Financial anxiety	0.18	3.63	0.21	0.05	0.00	0.09	0.18	0.36
Attitude toward money -> Financial self efficacy -> Financial anxiety	0.08	2.67	0.09	0.03	0.01	0.09	0.16	0.31
Effect size (f square)								
Attitude toward money -> Financial self efficacy	0.21	2.87	0.24	0.07	0.00			

Financial self efficacy -> Financial anxiety	0.03	1.54	0.05	0.02	0.12
Effect size (Q square)					
Attitude toward money	0.17				
Financial anxiety	0.02				
Financial self-efficacy	0.07				

3.6. Reconciling Counter-Intuitive Results

Our analysis confirmed several expected relationships. Consistent with prior research (Shim et al., 2010), attitude toward money was found to have a significant positive influence on financial self-efficacy ($\beta = 0.42$, $p < 0.001$). This suggests that a more positive overall perception and framework for understanding money empowers individuals with a greater belief in their ability to manage their finances effectively. In a more foundational level, this aligns with social cognitive theory, where positive initial beliefs can foster a sense of competence and agency (Bandura, 1977).

However, one of the most intriguing and, at first glance, counter-intuitive findings of this study was the positive and significant influence of financial self-efficacy on financial anxiety ($\beta = 0.18$, $p < 0.001$). This result deviates from the common assumption in much of the existing literature, which often posits an inverse relationship where higher self-efficacy is expected to lead to lower anxiety when facing challenges (Kahneman & Deaton, 2010). This finding compels a deeper exploration of the underlying mechanisms at play, particularly in the current challenging economic climate in Indonesia, for instances, from 2010 to 2019, Indonesia's Consumer Price Index (CPI) inflation ranged from 3.5% to 8%, never falling below 3% (Srinita et al., 2022), economic slowdown (Anas et al., 2022; K. Lee, 2021), Rupiah depreciation (Hale, n.d.), and to make it worse, a difficult labor market (www.ETCIO.com, n.d.).

Several potential explanations could reconcile the observed positive link between financial self-efficacy and financial anxiety, especially when contextualized by the current Indonesian economic situation. Firstly, it is plausible that students with higher financial self-efficacy are not necessarily less anxious, but rather more acutely aware of and actively engaged with their financial realities. Their confidence in managing finances might lead them to pay closer attention to economic news, personal budgeting, and long-term financial planning. This heightened awareness, combined with the current poor economic situation in Indonesia, marked by high unemployment rates for graduates, rising cost of living, and uncertain job prospects, could simultaneously expose them to a greater understanding of the formidable economic uncertainties. This might foster a more pronounced sense of worry or anxiety about these complex issues, even as they feel capable of navigating them. In essence, they might worry *more effectively* or *more deeply* because they understand the significant stakes and potential pitfalls within a challenging economic environment.

Secondly, this finding could reflect a burden of responsibility or a pursuit of perfectionism, amplified by external pressures. Individuals who possess strong beliefs in their financial management abilities might also set exceptionally high standards for their financial performance (S. D. Asebedo et al., 2019; Hoffmann & Plotkina, 2021; Kartawinata et al., 2021). The pressure to maintain an optimal financial state, driven by this high self-efficacy, could itself become a significant source of anxiety, especially when external economic conditions make achieving such standards incredibly difficult (Kim et al., 2020; J. M. Lee et al., 2023; Qi et al., 2025). Minor deviations from their ideal financial trajectory, which a less self-efficacious individual might overlook, could trigger disproportionate worry, particularly when compounded by a tight labor market and reduced purchasing power affecting their daily lives and future prospects. This is highly relevant for university students who are often navigating financial independence for the first time amidst rising costs of living and uncertain future employment landscapes.

Finally, the specific context of financial anxiety among students in a struggling economy might also play a role. Financial self-efficacy in this student population might translate into active financial behaviors such as diligently tracking expenses or planning for post-graduation finances. While these actions demonstrate high efficacy, the very act of confronting and planning for these often-daunting financial realities (e.g., intense competition in the job market, the struggle to maintain purchasing power) could directly induce anxiety. This suggests that financial competence alone may not be sufficient to alleviate financial distress without complementary emotional regulation or stress management strategies, particularly when external economic factors are overwhelmingly negative.

The mediation analysis further revealed that while financial self-efficacy influenced financial anxiety, it did not fully mediate the relationship between attitude toward money and financial anxiety in the expected direction as hypothesized. Interestingly, our multi-group analysis did not detect significant differences in the proposed model's relationships between male and female sample groups. This suggests that, at least within this specific student population at the sample university, the mechanisms by which attitude toward money and financial self-efficacy relate to financial anxiety may operate similarly for both genders, even amidst shared economic difficulties. This contrasts with some literature suggesting gender-specific financial attitudes and behaviors (Fünfgeld & Wang, 2009; Robson & Peetz, 2020), and warrants further investigation in different cultural and economic contexts.

4. CONCLUSION

This study significantly contributes to the understanding of financial anxiety among university students, particularly highlighting the unexpected positive relationship between financial self-efficacy and financial anxiety within the context of Indonesia's challenging economic situation. The findings underscore the need for a more nuanced approach to financial education and intervention programs, suggesting that simply building financial competence may not be enough to mitigate anxiety. Instead, holistic approaches that combine financial skill-building with robust strategies for managing the psychological and emotional aspects of financial stress are likely to be more effective in promoting overall financial well-being among young adults navigating uncertain economic landscapes.

Universities should integrate financial counseling with mental-health services so students can address budgeting problems and anxiety through a single referral pathway. A stepped-care model—brief screening, low-intensity self-help where appropriate, and rapid escalation to counseling—will reduce barriers to help-seeking and align support with need. Because the study found no gender differences, institutions can launch universal programs while still monitoring subgroups that may face compounded risks (e.g., first-generation or low-income students). Given that financial self-efficacy (FSE) positively predicted financial anxiety, skill-building alone is unlikely to be sufficient; pairing competence training with stress-management and risk-appraisal components is recommended.

To shift from reactive to preventive support, campuses can deploy early-warning systems that synthesize existing administrative signals—missed tuition installments, unpaid library fines, meal-plan arrears, repeated payment extensions—into timely outreach triggers. Proactive contact (brief check-ins, problem-solving consultations, and facilitated referrals) allows staff to intervene before financial stress escalates into academic disengagement. In parallel, institutions should expand low-friction safety-net supports, including emergency micro-grants, selective fee waivers, and flexible installment plans that reduce penalty accumulation; these measures target the avoidant cycles (e.g., bill-payment procrastination) often intertwined with financial anxiety.

Capacity building at scale can be advanced by training peer money mentors and embedding short, credit-bearing micro-modules into first-year seminars or gateway courses. These modules should emphasize realistic budgeting, bill-payment follow-through, and coping with economic uncertainty—practical content aligned with behaviors most closely linked to financial stress. Partnerships with regulated financial institutions can provide low-fee student accounts and just-in-time "nudge" tools (payment reminders, goal trackers), while preserving student data privacy and avoiding conflicts of interest.

Implementation should be accompanied by simple evaluation metrics to close the loop, including pre- and post-Financial Anxiety Scale scores, on-time bill-payment rates, utilization of support services, and persistence/stop-out indicators. Routine dashboarding of these key performance indicators enables iterative improvement and efficient resource allocation. Over time, campuses can codify effective practices into policy (e.g., financial stress screening at enrollment, standardized referral protocols, and annual review of emergency aid efficacy), ensuring sustainability and equity in access to support.

Despite these valuable insights, this study is not without limitations. For example, this study only uses one university as a sample and is also limited to self-report quantitative data. Future research should consider longitudinal designs to explore causal pathways more definitively and capture the evolving impact of economic conditions. Furthermore, replicating this study in diverse student populations and exploring additional mediating or moderating variables (e.g., perceived social support, specific types of financial stressors such as debt burden, or exposure to financial news) could further elucidate the complex interplay observed. Specifically, qualitative studies could provide rich, nuanced data on why individuals with high financial self-efficacy might experience increased anxiety in the face of economic downturns, helping to uncover the precise mechanisms behind this intriguing finding.

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REFERENCES

Anas, T., Hill, H., Narjoko, D., & Putra, C. T. (2022). The Indonesian Economy in Turbulent Times. *Bulletin of Indonesian Economic Studies*, *58*(3), 241–271. Scopus. https://doi.org/10.1080/00074918.2022.2133344

Andreev, P., Heart, T., Maoz, H., & Pliskin, N. (2009). *Validating formative partial least squares (PLS) models: Methodological review and empirical illustration*.

Archuleta, K. L., Dale, A., & Spann, S. M. (2013). College Students and Financial Distress Exploring Debt. *Financial Counseling and Planning Education*, *24*(2), 50–62.

Asebedo, S. D., Seay, M. C., Archuleta, K., & Brase, G. (2019). The Psychological Predictors of Older Preretirees' Financial Self-Efficacy. *Journal of Behavioral Finance*, *20*(2), 127–138. Scopus. https://doi.org/10.1080/15427560.2018.1492580

Asebedo, S., & Payne, P. (2019). Market volatility and financial satisfaction: The role of financial self-efficacy. *Journal of Behavioral Finance*, *20*(1), 42–52.

Association, A. C. H. & others. (2013). American College Health Association—National college health assessment II: California community colleges reference group executive summary spring 2013. *Hanover, MD: Author*.

Bandura, A. (1977). Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review. 1977, Vol. 84, No. 2, 191-215*, *84*(2), 192–215.

Bandura, A. (1999). Social cognitive theory of personality. *Handbook of Personality*, *2*, 154–196.

Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. In *MIS quarterly* (pp. vii--xvi). JSTOR.

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

Creswell, J. W. (2012). *Educational reserach: Planning, conducting and evaluating*. Person.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Fan, L., & Chatterjee, S. (2018). Application of situational stimuli for examining the effectiveness of financial education: A behavioral finance perspective. *Journal of Behavioral and Experimental Finance*, *17*, 68–75.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191. https://doi.org/10.3758/BF03193146

Forbes, J., & Kara, S. M. (2010). Confidence mediates how investment knowledge influences investing self-efficacy. *Journal of Economic Psychology*, *31*(3), 435–443.

Fornell, C., & Larcker, D. F. (1981). *Structural equation models with unobservable variables and measurement error: Algebra and statistics*. Sage Publications Sage CA: Los Angeles, CA.

Fünfgeld, B., & Wang, M. (2009). Attitudes and behaviour in everyday finance: Evidence from Switzerland. *International Journal of Bank Marketing*, *27*(2), 108–128.

Gamst-Klaussen, T., Steel, P., & Svartdal, F. (2019). Procrastination and personal finances: Exploring the roles of planning and financial self-efficacy. *Frontiers in Psychology*, *10*, 775.

Götz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (PLS) approach. In *Handbook of partial least squares* (pp. 691–711). Springer.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, *40*(3), 414–433.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.

Hale, E. (n.d.). *Why Indonesia's sinking rupiah is a flashing alarm for its $1.4tn economy*. Al Jazeera. Retrieved June 30, 2025, from https://www.aljazeera.com/news/2025/4/8/why-indonesias-sinking-rupiah-is-a-flashing-alarm-for-its-1-4tn-economy

Heckman, S., Lim, H., & Montalto, C. (2014). Factors related to financial stress among college students. *Journal of Financial Therapy*, *5*(1), 3.

Henchoz, C., Coste, T., & Wernli, B. (2019). Culture, money attitudes and economic outcomes. *Swiss Journal of Economics and Statistics*, *155*(1), 1–13.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2012). Using partial least squares path modeling in advertising research: Basic concepts and recent issues. In *Handbook of research on international advertising*. Edward Elgar Publishing.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). 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

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing*. Emerald Group Publishing Limited.

Hoffmann, A. O. I., & Plotkina, D. (2021). Let your past define your future? How recalling successful financial experiences can increase beliefs of self-efficacy in financial planning. *Journal of Consumer Affairs*, *55*(3), 847–871. Scopus. https://doi.org/10.1111/joca.12378

Hunt, J., & Eisenberg, D. (2010). Mental health problems and help-seeking behavior among college students. *Journal of Adolescent Health*, *46*(1), 3–10.

Joo, S.-H., Durband, D. B., & Grable, J. (2008). The academic impact of financial stress on college students. *Journal of College Student Retention: Research, Theory \& Practice*, *10*(3), 287–305.

Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences*, *107*(38), 16489–16493.

Kartawinata, B. R., Fakhri, M., Pradana, M., Hanifan, N. F., & Akbar, A. (2021). The Role Of Financial Self-Efficacy: Mediating Effects Of Financial Literacy & Financial Inclusion Of Students In West Java, Indonesia. *Journal of Management Information and Decision Sciences*, *24*(Special Issue 2), 1–9. Scopus.

Kim, Y. K., Lim, Y., Maleku, A., Kagotho, N., & Yang, M. (2020). Financial Stress and Depression Among African Refugees in the Southern United States: A Serial Multiple Mediation Analysis of Financial Self-Efficacy and Financial Anxiety. *Journal of Immigrant and Refugee Studies*, *18*(2), 151–171. Scopus. https://doi.org/10.1080/15562948.2019.1593571

Lee, J. M., Rabbani, A., & Heo, W. (2023). Examining Financial Anxiety Focusing on Interactions between Financial Knowledge and Financial Self-efficacy. *Journal of Financial Therapy*, *14*(1). Scopus. https://doi.org/10.4148/1944-9771.1279

Lee, K. (2021). The impact of covid-19 pandemic on Indonesia's economy and alternative prospects for untact society. *Suvannabhumi: Multidisciplinary Journal of Southeast Asian Studies*, *13*(2), 7–35. Scopus. https://doi.org/10.22801/svn.2021.13.2.7

Lim, V. K. G., & Teo, T. S. H. (1997). Sex, money and financial hardship: An empirical study of attitudes towards money among undergraduates in Singapore. *Journal of Economic Psychology*, *18*(4), 369–386. https://doi.org/10.1016/S0167-4870(97)00013-5

Li-Ping Tang, T., Kim, J. K., & Shin-Hsiung Tang, D. (2000). Does attitude toward money moderate the relationship between intrinsic job satisfaction and voluntary turnover? *Human Relations*, *53*(2), 213–245.

Loke, V., Choi, L., & Libby, M. (2015). Increasing youth financial capability: An evaluation of the mypath savings initiative. *Journal of Consumer Affairs*, *49*(1), 97–126. https://doi.org/10.1111/joca.12066

Magendans, J., Gutteling, J. M., & Zebel, S. (2017). Psychological determinants of financial buffer saving: The influence of financial risk tolerance and regulatory focus. *Journal of Risk Research*, *20*(8), 1076–1093.

McCormick, M. H. (2009). The effectiveness of youth financial education: A review of the literature. *Journal of Financial Counseling and Planning*, *20*(1).

Medina, J. F., Saegert, J., & Gresham, A. (1996). Comparison of Mexican-American and Anglo-American attitudes toward money. *Journal of Consumer Affairs*, *30*(1), 124–145.

Mindra, R., Moya, M., Zuze, L. T., & Kodongo, O. (2017). Financial self-efficacy: A determinant of financial inclusion. *International Journal of Bank Marketing*, *35*(3), 338–353.

Mudzingiri, C., Mwamba, J. W. M., Keyser, J. N., & Bara, A. (2019). Indecisiveness on risk preference and time preference choices. Does financial literacy matter? *Cogent Psychology*, *6*(1), 1647817.

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.

Petter, S., Straub, D., & Rai, A. (2007). Specifying formative constructs in information systems research. *MIS Quarterly*, 623–656.

Poraj-Weder, M. (2014). Perceived parental upbringing and the materialism of young adults. *Sage Open*, *4*(2), 2158244014537499.

Pychyl, T. A., & Flett, G. L. (2012). Procrastination and self-regulatory failure: An introduction to the special issue. *Journal of Rational-Emotive \& Cognitive-Behavior Therapy*, *30*, 203–212.

Qi, J., Zhang, Y., Worthy, S., & Kim, J. (2025). From financial self-efficacy to financial behaviors: The role of financial advice seeking and stress. *International Journal of Bank Marketing*. Scopus. https://doi.org/10.1108/IJBM-10-2024-0603

Roberts, R., Golding, J., Towell, T., & Weinreb, I. (1999). The effects of economic circumstances on British students' mental and physical health. *Journal of American College Health*, *48*(3), 103–109.

Robson, J., & Peetz, J. (2020). Gender differences in financial knowledge, attitudes, and behaviors: Accounting for socioeconomic disparities and psychological traits. *Journal of Consumer Affairs*, *54*(3), 813–835.

Sekaran, U., & Bougie, R. (2016). *Research Methods For Business: A Skill Building Approach*. John Wiley & Sons.

Shapiro, G. K., & Burchell, B. J. (2012). Measuring financial anxiety. *Journal of Neuroscience, Psychology, and Economics*, *5*(2), 92.

Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence*, *39*, 1457–1470.

Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, *30*(6), 708–723.

Snelders, H., Hussein, G., Lea, S. E. G., & Webley, P. (1992). The polymorphous concept of money. *Journal of Economic Psychology*, *13*(1), 71–92.

Srinita, Goestjahjanti, F. S., & Suryanto, T. (2022). Analysis of Economic Sustainability from Government Spending on The Inflation Rate in Indonesia: Effect from Intrest Rate and Money Circulation. *Quality - Access to Success*, *23*(191), 203–210. Scopus. https://doi.org/10.47750/QAS/23.191.24

Tang, T. L. P. (1995). The development of a short Money Ethic Scale: Attitudes toward money and pay satisfaction revisited. *Personality and Individual Differences*, *19*(6), 809–816. https://doi.org/10.1016/S0191-8869(95)00133-6

Topa, G., Depolo, M., & Alcover, C.-M. (2018). Early retirement: A meta-analysis of its antecedent and subsequent correlates. *Frontiers in Psychology*, *8*, 2157.

Vinzi, V. E., Chin, W. W., Henseler, J., Wang, H., & others. (2010). *Handbook of partial least squares* (Vol. 201, Issue 0). Springer.

www.ETCIO.com. (n.d.). *Indonesia's labour force hits 153 million, yet 30% of firms struggle to find talent—ET CIO SEA*. ETCIO.Com. Retrieved June 30, 2025, from https://ciosea.economictimes.indiatimes.com/news/corporate/indonesias-labour-force-hits-153-million-yet-30-of-firms-struggle-to-find-talent/121281846

Xiao, J. J., & O'Neill, B. (2016). Consumer financial education and financial capability. *International Journal of Consumer Studies*, *40*(6), 712–721.

Yamauchi, K. T., & Templer, D. J. (1982). The Development of a Money Attitude Scale, Journal of Personality Assessment. *Journal of Personality Assessment*, *46*(5), 495–505. https://doi.org/10.1207/s15327752jpa4605

Zivin, K., Eisenberg, D., Gollust, S. E., & Golberstein, E. (2009). Persistence of mental health problems and needs in a college student population. *Journal of Affective Disorders*, *117*(3), 180–185.