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Young Families' Financial Stress: The Importance of Financial Management Behavior with Income as Control Variable

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Abstract. *Achieving financial well-being is a universal aspiration among families. However, data indicate that numerous families in Indonesia continue to experience financial stress, partially attributed to financial management behavior. This study aims to investigate the role of financial management behavior dimensions on financial stress among young families, while controlling for income levels. Employing a quantitative approach, the study involved 186 newly married participants with a marriage duration of five years or less, selected using purposive non-probability sampling. Primary data were collected through an online questionnaire utilizing the APR Financial Stress Scale and the Financial Management Behavior Scale. Instrument validation was conducted using Confirmatory Factor Analysis (CFA) with results indicated good model fit. Subsequently, model testing was performed through path analysis using Mplus version 8.3. Path analysis revealed that, after controlling for income, cash and credit management significantly predicted financial stress, whereas saving, investment, and insurance behaviors did not. These findings suggest that educational initiatives focusing on cash flow and credit management may assist newly married couples in adopting more prudent financial practices.*

Keywords: *Financial management behavior; financial stress; income; newly married*

INTRODUCTION

A stressor is a condition that leads an individual to experience intense pressure (Alvarado, 2021). One prevalent form of stress is financial stress. According to Heo et al. (2020), financial stress refers to an individual's psychological, physiological, and relational response to perceived imbalance, uncertainty, and risk in managing financial resources and making financial decisions. Financial stress can arise under several circumstances, such as insufficient cash flow, inability to repay loans, or a lack of emergency savings (Osman et al., 2018). Financial concerns are recognized as a significant source of stress and may adversely affect various aspects of life, including physical, psychological, and social well-being.

Surveys conducted in the United States, Australia, Spain, and Mexico show that 70–73% of participants report experiencing financial stress. In comparison, lower percentages were observed in countries such as Singapore and Switzerland, at 49% and 55%, respectively (Your Money International Financial Security Survey, 2024). In Indonesia, a survey conducted by OCBC NISP (2021) revealed that 86% of 1,027 participants aged 25–34 exhibited symptoms of financial

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distress. These findings confirm that financial stress is a global phenomenon, including in Indonesia.

As a developing country with high poverty rates, Indonesia is especially vulnerable to financial stress at the family level (Ambarwati et al., 2023). The challenges are particularly pronounced for newly established families, who often face the pressure of making independent financial decisions (Webley et al., 2002), negotiating financial management systems with their partners, resolving financial conflicts (Benyamin et al., 2019), and managing demands that exceed their income (Raharjo et al., 2015). These challenges highlight the critical connection between financial conditions and the ability to meet daily needs.

High levels of financial stress have been shown to affect physical health through poor eating habits, increased consumption of tobacco and substances (French & McKillop, 2017), elevated blood pressure (Wolfe et al., 2022), cardiovascular disease (Swarup et al., 2024), impaired self-care, and physical discomfort. Psychologically, financial stress can increase anxiety, reduce resilience, and impair work performance (Ozyuksel, 2022). Socially, it may reduce marital satisfaction and disrupt family functioning (Jayasekara et al., 2020). Conversely, individuals with a lower level of financial stress tend to experience a lower risk of depression (Guan et al., 2022), along with higher levels of subjective financial well-being (Fans & Henager, 2022). Therefore, maintaining financial stress at a manageable level through preventive efforts can help preserve both physical and psychological health, which, in turn, contributes to overall individual well-being.

Both external and internal factors contribute to financial stress. External factors include socioeconomic status, health conditions, and social interaction dynamics (Ambarwati et al., 2023). Internal factors include race or ethnicity, financial literacy, sociodemographic variables such as age, gender, employment status, and income (Alvarado, 2021), as well as cognitive factors such as money attitudes, self-control, and financial management skills (Ambarwati et al., 2023). Heo et al. (2020) also emphasize that poor financial management is a likely contributor to financial stress.

The need to meet household needs within financial constraints encourages individuals to engage in financial management (Pradiningtyas & Lukiastuti, 2019). Conceptually, financial management behavior is defined by Dew and Xiao (2011) as behaviors related to managing financial resources, including cash and credit management, saving, investing, and household consumption. Financial management practices typically include creating financial plans, evaluating progress, and monitoring financial issues (Prihartono & Asandimitra, 2018).

In pursuit of financial well-being, individuals engage in financial management practices that span various dimensions, including cash management, credit management, savings and investment, and insurance management (Dew & Xiao, 2011). Proper cash management is reflected in behaviors such as recording expenses, shopping according to a planned budget, and avoiding impulsive spending. Responsible credit management involves minimizing credit use and preventing debt accumulation by paying credit balances in full each month. Beyond meeting current needs, financial management also involves a long-term orientation, as reflected in behaviors such as allocating income to emergency savings, assets, and retirement funds, as well as engaging in investment and insurance activities—efforts that contribute to maintaining financial health (Dew & Xiao, 2011). A sense of control over one's finances, developed through effective management of cash, credit, savings, investment, and insurance, enhances one's sense of security in facing uncertainties and unexpected events. According to Purnama et al. (2022), financial goals are more likely to be achieved when individuals engage in effective financial management, particularly in today's context of high consumerism and economic uncertainty.

As previously mentioned, financial health and financial behavior cannot be separated from the dynamics of social and cultural interactions (Ambarwati et al., 2023). Indonesia's sociocultural

environment, characterized by a strong orientation toward collectivism, contrasts with that of Western societies such as Switzerland and Germany, where individualism predominates (Statman et al., 2008). In highly collectivist societies, individuals tend to exhibit greater financial risk-taking, including investment activities, often reinforced by perceived social and familial support. Conversely, individuals in more individualistic societies tend to exhibit lower financial risk tolerance, reflecting a greater emphasis on personal responsibility and self-reliance in financial decision-making (Statman et al., 2008). Several studies have sought to understand the relationship between financial management behavior and financial stress in Western countries. For instance, research by Dowling et al. (2009) found a significant association between financial management and financial stress among Australian workers. However, research exploring the link between financial management behavior and financial stress in Indonesia remains limited. A qualitative study by Ambarwati et al. (2023) identified financial management as one of many factors influencing financial stress among Muslim families in Metro City. However, qualitative methods may involve subjectivity, limit replicability, and restrict generalizability (Mohajan, 2018). Thus, the following research question is: How does each dimension of financial management behavior contribute to financial stress among young families, controlling for income? Accordingly, this study aims to quantitatively investigate the role of financial management behavior dimensions on financial stress among young families, with income as a control variable. The central hypothesis posits that financial management behavior negatively affects financial stress among young families, controlling for income. Additional hypotheses suggest that cash management, credit management, saving and investment behavior, and insurance behavior—each a dimension of financial management behavior—negatively influence financial stress in young families, even after controlling for income.

In this study, income is included as a control variable because of its strong association with financial stress. Previous research by Roll et al. (2016) demonstrated that individuals with lower incomes tend to experience greater financial stress than those with higher incomes. Controlling for income allows this study to more accurately isolate the effect of financial management behavior on financial stress and to minimize potential bias from extraneous factors.

METHOD

This quantitative study examined the role of financial management behavior dimensions—including cash management, credit management, saving and investment behavior, and insurance behavior—on financial stress among young families, with income as a control variable. The study received ethical approval from the Health Research Ethics Committee of Dr. Moewardi General Hospital (No. 2.380/IX/HREC/2024). Participants provided informed consent prior to participation, ensuring that they understood all research procedures and associated risks.

Participants were young families, including married individuals (both male and female) residing in Indonesia, with a marriage duration of no more than five years, including those in unregistered marriages (Pusat Data dan Informasi Kesejahteraan, 2009). The sample was selected using purposive non-probability sampling. Post hoc statistical power was calculated using Monte Carlo simulations based on factor loading of 0.80 and residual variance of 0.36, which allowed for sample estimation in accordance with model complexity (Muthén & Muthén, 2002). For instrument validation, 181 out of 182 responses were included (1 was excluded for not meeting criteria). For model testing, 186 of 194 responses were analyzed (8 were excluded because they did not meet the criteria for a young family). Data collection was conducted in two stages via Google Forms distributed via social media platforms such as X, Instagram, TikTok, and WhatsApp.

Instrument validation data were gathered between November 18 and December 15, 2024, and model testing data were collected from December 18, 2024, to February 1, 2025.

Each questionnaire consisted of three parts: (1) informed consent, detailing objectives, voluntary participation, right to withdraw, risks, benefits, ethical approval, and data protection; (2) demographic information including gender, age, monthly income range, education, employment status, marital status, marriage duration, and number of children; and (3) measurement instruments consisting of APR Financial Stress Scale (Heo et al., 2020) and Financial Management Behavior Scale (Dew & Xiao, 2011). Financial stress was assessed using the APR Financial Stress Scale (Heo et al., 2020), comprising 24 favorable items across three dimensions: affective response, relational behavior, and physiological response (8 items each). Items used a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alpha values for the subscales were 0.95 (affective), 0.91 (relational), and 0.94 (physiological).

Financial management behavior was measured using the Financial Management Behavior Scale (Dew & Xiao, 2011), comprising 15 items: 4 favorable items on cash management, three items (1 favorable, 2 unfavorable) on credit management, 5 favorable items on saving and investment, and 3 favorable items on insurance behavior. Responses were rated from 1 (never) to 5 (always), adjusted for item valence. Cronbach's alpha values were 0.63 (cash), 0.57 (credit), 0.78 (saving/investment), and 0.73 (insurance).

Both scales were adapted into Bahasa Indonesia following Beaton et al.'s (2000) cross-cultural adaptation guidelines. This scale included forward translation by two bilingual individuals, synthesis by research team, back-translation by two people with backgrounds in IELTS tutoring, expert review by two lecturers in economic psychology and psychometrics through an online form containing a brief description and the items of the APR Financial Stress Scale and the Financial Management Behavior Scale, accompanied by both quantitative and qualitative evaluation sections assessing the relevance of each item to the measured variables. Following the expert judges' feedback, revisions were applied to item 24 of the APR Financial Stress Scale and to items 3, 9, 11, 13, 14, and 15 of the Financial Management Behavior Scale to enhance both the clarity of wording and the substantive alignment of the items with their corresponding construct dimensions. Readability testing was then carried out through an online questionnaire (Google Form) with ten participants who met the inclusion criteria, namely being married for no longer than five years. The questionnaire comprised items adapted from the APR Financial Stress Scale and the Financial Management Behavior Scale. Participants rated each item on a 1–4 scale reflecting their level of understanding. Qualitative evaluation was also facilitated through a comment and suggestion column. The findings demonstrated that participants had a clear understanding of the instrument items, as no comments or suggestions were provided.

Confirmatory Factor Analysis (CFA) was then conducted to confirm construct validity using Mplus version 8.3. Model fit was evaluated using CFA with cutoff criteria for the Goodness of Fit (GOF) indices set as follows: Chi-Square > 0.05, RMSEA < 0.08, CFI > 0.90, TLI > 0.90, and SRMR < 0.08 (Wang & Wang, 2019). The Chi-Square value was not considered, consistent with Bergh (2015), who noted its sensitivity to sample size. Factor loadings were considered acceptable at values greater than 0.30 (Iskandar, 2017), and construct reliability was deemed adequate with McDonald's Omega (ω) coefficients above 0.60 (Heo et al., 2022).

Path analysis was also performed using Mplus to assess the direct effects of financial management behavior dimensions on financial stress, controlling for income. Given that residuals did not meet normality and homoscedasticity assumptions, a 10,000-iteration bootstrap resampling was conducted (Putra G et al., 2019).

RESULTS AND DISCUSSION

To examine the role of financial management behavior dimensions on financial stress among young families, with income as a control variable, this study sought to present reliable results by evaluating measurement instruments adapted into Indonesian and applied in a new population context. The adaptation outcomes for both the financial stress and financial management behavior scales were tested for construct validity through Confirmatory Factor Analysis (CFA).

CFA using Maximum Likelihood with Robust Standard Errors (MLR) for the financial stress scale yielded a non-fitting second-order model: $X^2(250) = 559.216$, $p < 0.001$; RMSEA = 0.083; CFI = 0.880; TLI = 0.867; SRMR = 0.077. The modification was carried out by removing items with low factor loadings based on the highest modification indices (MIs). The revised model with 19 items (6 affective response, 6 relational behavior, 7 physiological response) demonstrated better fit: $X^2(150) = 300.464$, $p < 0.001$, RMSEA = 0.074, CFI = 0.916, TLI = 0.904, SRMR = 0.064, with factor loadings ranging from 0.608 to 0.913 and McDonald's Omega = 0.981. After the refinement process, the final instrument included 19 items of a unidimensional financial stress scale. These findings confirm that the adapted financial stress instrument possesses acceptable item quality and internal consistency for use among young families in Indonesia.

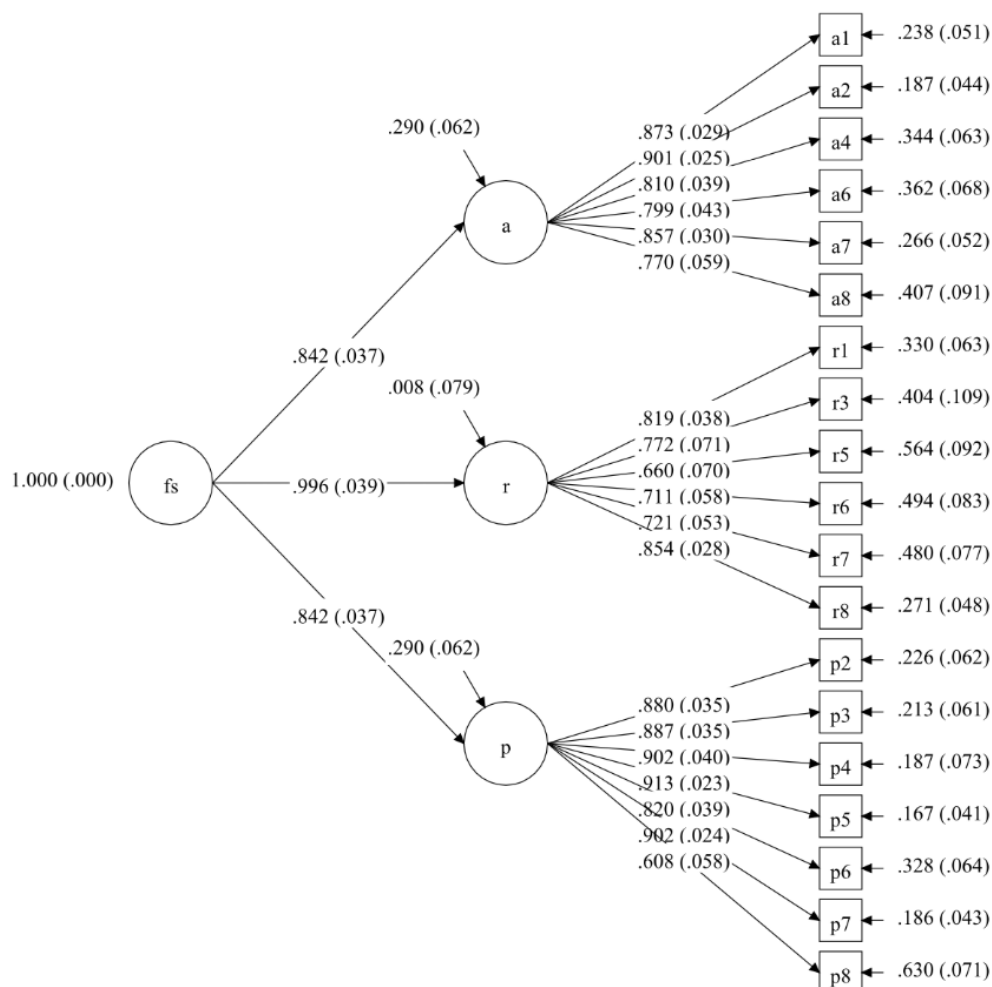


Figure 1.

Standardized coefficient diagram of the financial stress measurement model after modification

For the financial management behavior scale, CFA was conducted using the Weighted Least Squares Mean and Variance Adjusted (WLSMV) estimator. The initial first-order model showed poor fit: $\chi^2(84) = 256.470$, $p < 0.001$, RMSEA = 0.107, CFI = 0.888, TLI = 0.860, SRMR = 0.094. After removing items with high residuals and low Est./S.E. values, the revised model with 11 items (2 cash management, 2 credit management, 4 saving/investment, 3 insurance) fit the data well: $\chi^2(38) = 76.345$, $p = 0.002$, RMSEA = 0.075, CFI = 0.952, TLI = 0.930, SRMR = 0.060. Factor loadings ranged from 0.585 to 0.724, and McDonald's Omega reliability values were 0.638 (cash), 0.769 (credit), 0.818 (saving/investment), and 0.868 (insurance). Significant chi-square values were acknowledged as sensitive to large sample sizes (Bergh, 2015). After the refinement process, the final instrument included 11 items, a multidimensional financial management behavior scale, consisting of 2 items for cash management, 2 for credit management, 4 for saving and investment behavior, and 3 for insurance behavior.

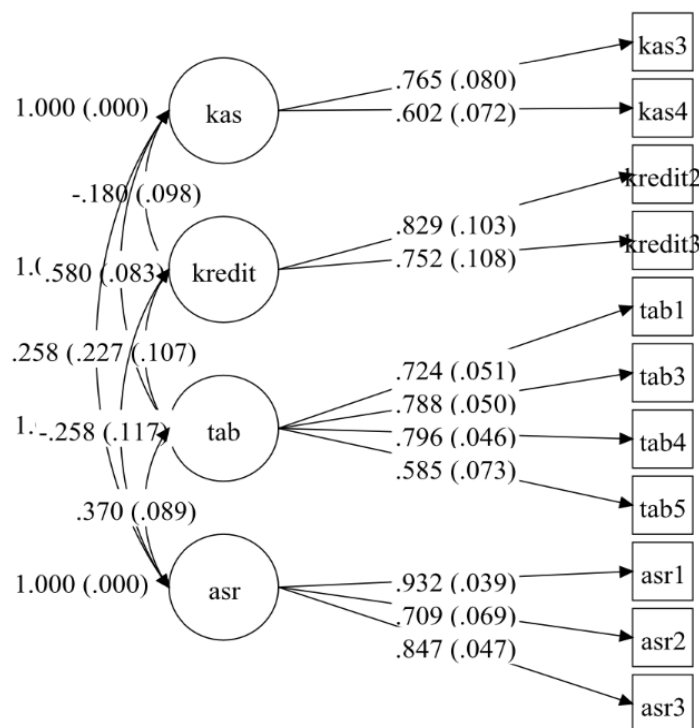


Figure 2.

Standardized coefficient diagram of the financial management behavior measurement model after modification

Path analysis results showed that, controlling for income, cash management negatively and significantly predicted financial stress ($B = -0.192$; $S.E. = 0.086$; $p = 0.026$), as did credit management ($B = -0.288$; $S.E. = 0.095$; $p = 0.002$). Saving and investment behavior ($B = -0.151$; $SE = 0.082$; $p = 0.065$) and insurance behavior ($B = 0.066$; $SE = 0.063$; $p = 0.297$) did not significantly influence financial stress. Income as a control variable also did not significantly affect financial stress ($B = -0.057$; $S.E. = 0.043$; $p = 0.187$). The final path equation was $Y = 0.036 - 0.192X_1 - 0.288X_2 - 0.151X_3 + 0.066X_4 - 0.057X_5$.

Table 1.
Participant demographics

	Basic Characteristics	<i>n</i>	%
Gender	Female	150	80.6%
	Male	36	19.4%
Age	21 - 24 y.o	42	22.6%
	25 - 28 y.o	101	54.3%
	29 - 32 y.o	35	18.8%
	33 - 38 y.o	8	4.3%
Employment Status	Work	157	84.4%
	Does not work	29	15.6%
Monthly Income Range	Rp0 - 1.500.000	26	13.9%
	Rp1.500.000 - 3.000.000	36	19.4%
	Rp3.000.000 - 7.500.000	73	39.3%
	> Rp7.500.000	51	27.4%
Last Education	Elementary/Middle/Islamic Junior High School	4	2.2%
	Senior/Vocational High School	34	18.3%
	Diploma	28	15.1%
	Bachelor's/Professional	102	54.8%
	Masters/Postgraduate	18	9.7%
Marriage Duration	< 1 year	110	59.1%
	1 year	33	17.7%
	2 years	17	9.1%
	3 years	15	8.1%
	4 years	11	5.9%
Number of Children	Do not have it yet	133	71.5%
	1	46	24.7%
	2	6	3.2%
	3	1	0.5%

Note. N = 186.

Table 2.
Path coefficient

Independent Variable	Unstandardized Coefficient		Standardized Coefficient		<i>p</i>
	B	S.E.	Beta	S.E.	
Cash Management (X1)	-0.192	0.086	-0.193	0.083	0.026
Credit Management (X2)	-0.288	0.095	-0.257	0.079	0.002
Saving and Investment Behavior (X3)	-0.151	0.082	-0.178	0.096	0.065
Insurance Behavior (X4)	0.066	0.063	0.070	0.067	0.297
Income (X5)	-0.057	0.043	-0.097	0.072	0.187

The R² value for the model indicated that 20.4% of the variance in financial stress could be explained by the dimensions of financial management behavior (cash, credit, saving/investment, insurance). In comparison, 79.6% of the variance was attributable to other factors not included in this study.

Tabe 3.
Coefficient of determination

Dependent Variable	R ²
Financial Stress	0.204

Note. a. Predictor: Cash Management, Credit Management, Saving and Investment Behavior, Insurance Behavior; b. Control: Income

One form of stress-financial stress-is closely associated with financial management behaviour. Previous studies have shown that effective financial management, (such as recording expenditures, spending in accordance with budgets, avoiding the use of maximum credit limits, paying credit balances in full each month, saving, investing, and purchasing insurance) can mitigate the risk of financial stress (Khairunnisa et al., 2020), including among young families who often face various challenges during the early stages of marriage.

After controlling for income, this study found that effective cash management had a significant adverse effect on financial stress among young families. This result suggests that young families with better cash management practices are less likely to experience financial stress, whereas poor cash management increases the likelihood of financial distress. Prior studies (such as that by Sina & Raturomon (2015)) found that imbalances between income and expenses can lead to higher financial stress, which supports this result. For young families, particularly during the early years of marriage and when planning to have children, the ability to prioritize needs and maintain a budget commitment becomes crucial. Through financial planning, budgeting, continuous evaluation, and corrective adjustments to remain aligned with financial goals, families can achieve greater financial stability (Hernandez-Perez & Rambaud, 2025). In the absence of monitoring income and expenses, individuals may engage in impulsive spending or accumulate excessive credit use, both of which can deteriorate financial conditions and increase the risk of financial distress (Hernandez-Perez & Rambaud, 2025). Impulsive spending behavior may lead to the neglect of essential needs, which is closely associated with heightened stress levels (Sun et al., 2022). Thus, wise strategies and a commitment to budgeting based on priority needs are essential during the early years of marriage, when demands on financial resources are often high.

Furthermore, the findings indicated that credit management was negatively associated with financial stress among young families, even after controlling for income. This result implies that sound credit management can help reduce financial stress, whereas poor credit management may exacerbate it. Married individuals, particularly those with children, often face increasing demands, which may prompt them to rely more heavily on credit. If such credit usage is not managed correctly, it may contribute to heightened financial stress (Chien & Devaney, 2001; Ranyard et al., 2017). In this context, debt serves as an indicator of credit use, while excessive debt and financial stress are markers of poor credit behavior (Turton et al., 2021). Compared to impulsive individuals, have poor self-assessment, possess favorable attitudes toward debt, exhibit materialistic tendencies, and engage in compulsive shopping behaviors, those with positive self-evaluation, prudent financial behavior, future orientation, and the ability to delay gratification are less likely to overuse credit and, therefore, face a lower risk of experiencing financial stress (Turton et al., 2021). The rationale is that when credit is used excessively and leads to accumulating arrears, individuals may experience feelings of despair, shame, social isolation, and frustration due to limited financial resources (Smith et al., 2015). Moreover, the accumulation of credit arrears can create financial strain, heightening stress and even leading to depressive symptoms, as individuals must allocate part of their monthly income to debt obligations while still covering essential living expenses (Sweet, 2021).

Moreover, saving and investment behavior were found to have no significant effect on financial stress among young families, even after controlling for income. It suggests that saving and investing alone may not be sufficient to reduce the financial stress experienced by this demographic. One possible explanation for this finding is previous research by Seaman et al. (2022), which found that saving and retirement planning represent forms of long-term financial planning with a future-oriented benefit, suggesting that the impact of saving behavior may not be felt immediately. This issue can be observed, among others, through Ersyafdi's (2021) findings, which reported increased saving and investment behavior during the COVID-19 pandemic. This result implies that during challenging and urgent situations—such as a pandemic, job termination, or natural disaster—savings and investments function more tangibly as financial protection in the form of emergency funds and sources of passive income, which may subsequently influence financial stress experiences.

The study also revealed that insurance behavior did not significantly affect financial stress among young families. This finding diverges from studies conducted during the COVID-19 pandemic, which showed that insurance ownership was negatively associated with financial stress (Moon et al., 2023). According to those findings, individuals protected by insurance during the pandemic reported lower financial stress than those without insurance. The contrasting results may be attributable to differences in situational context. In adverse and unpredictable conditions such as pandemics, accidents, or other harmful events, insurance serves a protective function by mitigating financial risks (Yakin & Ferdiansyah, 2021). Thus, like long-term savings and investment behavior, insurance tends to be more functional in specific conditions than consistently impactful in day-to-day financial stress scenarios.

Although income, as a control variable, did not show a significant direct effect on financial stress, its inclusion in the model alongside dimensions of financial management behavior strengthened the explanation of financial stress. Controlling for income helped minimize bias, ensuring that the effects of cash management, credit management, saving and investment behavior, and insurance behavior on financial stress were not confounded by income level.

This study presents several limitations. Data collection was conducted with only one member of each couple, thereby failing to capture the couple's financial experience as a unit. Additionally, the sample primarily comprised participants from middle- to upper-income groups due to the online data collection method, limiting the study's ability to generalize to diverse economic backgrounds. Finally, the modest explanatory power of financial management behavior suggests that other unexamined factors may play a greater role in influencing financial stress. These could include external factors such as socioeconomic conditions, health status, and mechanisms of social interaction within the community.

Future research is recommended to adopt dyadic data collection methods to capture both partners' perspectives within a marriage. It is also advisable to conduct fieldwork in person to better reach lower-income populations, gather comprehensive information on household financial systems, and examine additional external factors that may contribute to financial stress levels.

CONCLUSION

This study aimed to examine financial management behavior, including its key dimensions—cash management, credit management, saving and investment behavior, and insurance behavior—and their roles in financial stress among young families, with income as a control variable. The results revealed that, after controlling for income, cash and credit management had a significant

negative effect on financial stress, whereas saving and investment behavior and insurance behavior did not. These findings suggest that effective cash and credit management can reduce the risk of financial stress among young families, whereas the effects of saving, investment, and insurance behavior remain inconclusive.

This study contributes to the understanding of financial dynamics within the family context, particularly among couples in the early years of marriage. By exploring the financial health of young families, particularly in the Indonesian context as an Eastern society, this study advances knowledge. It identifies problem-solving strategies designed with local cultural values in mind to ensure greater contextual relevance and effectiveness. The findings underscore the importance of promoting financial education programs-especially those focusing on cash and credit management-by governmental and financial institutions. Such initiatives are expected to raise public awareness regarding the importance of sound financial management and to equip individuals with practical knowledge that can be applied in everyday life.

Furthermore, discussions about financial systems and household financial allocation should be initiated early among couples preparing for marriage. Early financial planning can help couples navigate financial challenges, especially during the first five years of marriage. Well-managed finances, supported by efforts to diversify income sources and allocate funds for long-term financial goals, may help young families develop resilience against unforeseen financial difficulties.

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REFERENCES

- Alvarado, P. A. L. (2021). *Factors Associated with Financial Stressors, Financial Stress, and Financial Behaviors*. <https://doi.org/10.26076/F31C-3B66>
- Ambarwati, D., Sunarwan, A., & Nandavita, A. Y. (2023). Pengendalian financial distress pada keluarga muslim di Kota Metro. *Adzkiya : Jurnal Hukum dan Ekonomi Syariah*, 11(1), 66. <https://doi.org/10.32332/adzkiya.v11i1.561>
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures: *Spine*, 25(24), 3186–3191. <https://doi.org/10.1097/00007632-200012150-00014>
- Benyamin, A., Larosa, A. T., Afra, S. A., & Handayani, E. (2019). A qualitative study of marital satisfaction and the newlyweds of Depok. *Proceedings of the 2nd International Conference on Intervention and Applied Psychology (ICIAP 2018), Depok, Indonesia*. <https://doi.org/10.2991/iciap-18.2019.15>

- Bergh, D. (2015). Sample size and chi-squared test of fit—a comparison between a random sample approach and a chi-square value adjustment method using Swedish adolescent data. In Q. Zhang & H. Yang (Ed.), *Pacific Rim Objective Measurement Symposium (PROMS) 2014 Conference Proceedings* (pp. 197–211). Springer. https://doi.org/10.1007/978-3-662-47490-7_15
- Dew, J. P., & Xiao, J. J. (2011). The Financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning*, 22 (1), 19–35. <http://doi.org/1877/7328>
- Dowling, N. A., Corney, T., & Hoiles, L. (2009). Financial management practices and money attitudes as determinants of financial problems and dissatisfaction in young male Australian workers. *Journal of Financial Counseling and Planning*, 20(2), 5–13. Retrieved <https://awspntest.apa.org/record/2010-01029-001>
- Ersyafdi, I. R. (2021). Dampak covid-19 terhadap tabungan dan investasi. *Jurnal Akuntansi Keuangan dan Bisnis*, 14(2), 191–200. <https://doi.org/10.35143/jakb.v14i2.4765>
- Fan, L., & Henager, R. (2022). A structural determinants framework for financial well-being. *Journal of Family and Economic Issues*, 43(2), 415–428. <https://doi.org/10.1007/s10834021-09798-w>
- French, D., & McKillop, D. (2017). The impact of debt and financial stress on health in Northern Irish households. *Journal of European Social Policy*, 27(5), 458–473. <https://doi.org/10.1177/0958928717717657>
- Guan, N., Guariglia, A., Moore, P., Xu, F., & Al-Janabi, H. (2022). Financial stress and depression in adults: A systematic review. *PLOS ONE*, 17(2), e0264041. <https://doi.org/10.1371/journal.pone.0264041>
- Gutierrez, S. (2024, April 2). CNBC | *SurveyMonkey your money international financial security survey*. SurveyMonkey. <https://www.surveymonkey.com/curiosity/cnbc-internationalfinancial-security-2024/>
- Heo, W., Cho, S. H., & Lee, P. (2020). APR financial stress scale: development and validation of a multidimensional measurement. *Journal of Financial Therapy*, 11(1). <https://doi.org/10.4148/1944-9771.1216>
- Heo, W., Rabbani, A., Grable, J. E., & Roszkowski, M. (2022). The alpha and omega of financial risk-tolerance assessment. *Financial Planning Review*, 5(1), e1138. <https://doi.org/10.1002/cfp2.1138>
- Hernandez-Perez, J., & Cruz Rambaudo, S. (2025). Uncovering the factors of financial well-being: The role of self-control, self-efficacy, and financial hardship. *Future Business Journal*, 11(1), 70. <https://doi.org/10.1186/s43093-025-00498-7>
- Iskandar, A. (2017). *Teknik analisis validitas konstruk dan reliabilitas instrument test dan non test dengan software LISREL*. INA-Rxiv. <https://doi.org/10.31227/osf.io/nbhxq>

- Jayasekara, B. E. A., Fernando, P. N. D., & Ranjani, R. P. C. (2020). A systematic literature review on financial stress of small and medium entrepreneurs. *Applied Economics & Business*, 4(1), 45–59. <https://doi.org/10.4038/aeb.v4i1.44>
- Khairunnisa, T. K., Ahmad, G. N., & Gurendawati, E. (2020). Pengaruh religiusitas, preferensi risiko, dan locus of control terhadap perilaku keuangan dan dampaknya terhadap personal financial distress pada pekerja muda di DKI Jakarta. *JRMSI - Jurnal Riset Manajemen Sains Indonesia*, 11(2), 381–403. <https://doi.org/10.21009/JRMSI.011.2.010>
- Mohajan, H. K. (2018). Qualitative research methodology in social sciences and related subjects. *Journal of Economic Development, Environment and People*, 7(1), 23. <https://doi.org/10.26458/jedep.v7i1.571>
- Moon, K., Heo, W., Lee, J. M., & Grable, J. E. (2023). Financial stress and COVID-19: A comprehensive analysis of the factors associated with the pandemic. *Risks*, 11(12), 218. <https://doi.org/10.3390/risks11120218>
- Muthén, L. K., & Muthén, B. O. (2002). How to Use a Monte Carlo Study to Decide on Sample Size and Determine Power. *Structural Equation Modeling: A Multidisciplinary Journal*, 9(4), 599–620. https://doi.org/10.1207/S15328007SEM0904_8
- OCBC NISP. (2021, August 19). *OCBC NISP paparkan riset Financial Fitness Index Indonesia: Hasilnya generasi muda perlu segera check-up dan perbaiki kesehatan finansial*. Retrieved April 27, 2025, from <https://www.ocbc.id/id/tentang-ocbc-nisp/informasi/siaranpers/2021/08/20/financial-fitness-index-indonesia>
- Osman, Z., Madzlan, E. M., & Ing, P. (2018). In pursuit of financial well-being: The effects of financial literacy, financial behaviour, and financial stress on employees in Labuan. *International Journal of Service Management and Sustainability*, 3(1), 1-40. <https://doi.org/10.24191/ijsms.v3i1.8041>
- Ozyuksel, S. (2022). Financial stress and its relationship with work-life and financial well-being. *European Scientific Journal, ESJ*, 18(6), 87. <https://doi.org/10.19044/esj.2022.v18n6p87>
- Pradiningtyas, T. E., & Lukiasuti, F. (2019). Pengaruh pengetahuan keuangan dan sikap keuangan terhadap locus of control dan perilaku pengelolaan keuangan mahasiswa ekonomi. *Jurnal Minds: Manajemen Ide dan Inspirasi*, 6(1), 96. <https://doi.org/10.24252/minds.v6i1.9274>
- Prihartono, M. R. D., & Asandimitra, N. (2018). Analysis of factors influencing financial management behaviour. *International Journal of Academic Research in Business and Social Sciences*, 8(8), 308-326. <https://doi.org/10.6007/IJARBS/v8-i8/4471>
- Pusat Data dan Informasi Kesejahteraan. (2009). *Glosarium penyelenggaraan kesejahteraan sosial*. Pusdatin Kesos, Departemen Sosial, Republik Indonesia. <https://www.slideshare.net/slideshow/buku-glosarium-kesos/4754022>
- Putra G, A., Tiro, M. A., & Aidid, M. K. (2019). Metode bootstrap dan jackknife dalam mengestimasi parameter regresi linear ganda (Kasus: data kemiskinan Kota Makassar tahun 2017). *VARIANSI: Journal of Statistics and Its Application on Teaching and Research*, 1(2), 32. <https://doi.org/10.35580/variasiunm12895>

- Raharjo, I. T., Puspitawati, H., & Krisnatuti, D. (2015). Tekanan ekonomi, manajemen keuangan, dan kesejahteraan pada keluarga muda. *Jurnal Ilmu Keluarga dan Konsumen*, 8(1), 38–48. <https://doi.org/10.24156/jikk.2015.8.1.38>
- Ranyard, R., Mchugh, S., & McNair, S. (2017). *The psychology of borrowing and over-indebtedness*. In R. Ranyard (Ed.), *Economic Psychology* (1 ed., pp. 222–238). Wiley. <https://doi.org/10.1002/9781118926352.ch14>
- Roll, S. P., Taylor, S. H., & Grinstein-Weiss, M. (2016). Financial anxiety in low-and moderateSina, P. G., & Raturomon, L. T. (2015). Analisis stres finansial pada gender. *Jurnal Ekonomi dan Pendidikan*, 9(1), 102–112. <https://doi.org/10.21831/jep.v9i1.4157>
- Seaman, K. L., Abiodun, S. J., Fenn, Z., Samanez-Larkin, G. R., & Mata, R. (2022). Temporal discounting across adulthood: A systematic review and meta-analysis. *Psychology and Aging*, 37(1), 111–124. <https://doi.org/10.1037/pag0000634>
- Sina, P. G., & Raturomon, L. T. (2015). Analisis stres finansial pada gender. *Jurnal Ekonomi dan Pendidikan*, 9(1), 102–112. <https://doi.org/10.21831/jep.v9i1.4157>
- Smith, T. E., Richards, K. V., Shelton, V. M., & Malespin, T. S. (2015). Sirens' call: Understanding poor financial decision-making and credit card misuse. *Journal of Human Behavior in the Social Environment*, 25(8), 897–906. <https://doi.org/10.1080/10911359.2015.1039156>
- Statman, M. (2008). Countries and culture in behavioral finance. *CFA Institute Conference Proceedings Quarterly*, 25(3), 38–44. <https://doi.org/10.2469/cp.v25.n3.6>
- Sun, S., Chen, Y.-C., Ansong, D., Huang, J., & Sherraden, M. S. (2022). Household financial capability and economic hardship: An empirical examination of the financial capability framework. *Journal of Family and Economic Issues*, 43(4), 716–729. <https://doi.org/10.1007/s10834-022-09816-5>
- Swarup, S. S., P., A. K., Padhi, B. K., Satapathy, P., Shabil, M., Bushi, G., Gandhi, A. P., Khatib, M. N., Gaidhane, S., Zahiruddin, Q. S., Rustagi, S., Barboza, J. J., & Sah, R. (2024). Cardiovascular consequences of financial stress: A systematic review and meta-analysis. *Current Problems in Cardiology*, 49(2), 102153. <https://doi.org/10.1016/j.cpcardiol.2023.102153>
- Sweet E. (2021). Debt-related financial hardship and health. *Health education & behavior: the official publication of the Society for Public Health Education*, 48(6), 885–891. <https://doi.org/10.1177/1090198120976352>
- Turton, J., Gill, A., Harrauld, P., & Demuth, E. (2021). A review of the psychological factors affecting the acquisition and outcomes of credit. *PsyArXiv*. <https://doi.org/10.31234/osf.io/qa73h>
- Wang, J., & Wang, X. (2019). *Structural Equation Modeling: Applications Using Mplus* (1st ed.). Wiley. <https://doi.org/10.1002/9781119422730>
- Webley, P., Burgoyne, C., Lea, S., & Young, B. (2002). *The Economic Psychology of Everyday Life* (1st ed.). Psychology Press. <https://doi.org/10.4324/9780203138038>
- Wolfe, J. D., Baker, E. H., Uddin, J., & Kirkland, S. (2022). Varieties of financial stressors and midlife health problems, 1996–2016. *The Journals of Gerontology: Series B*, 77(1), 149–159. <https://doi.org/10.1093/geronb/gbab108>