








“Lecturers’ financial well-being: The role of religiosity, financial literacy, financial behavior, and financial stress with gender as a moderating variable”

AUTHORS	Radiman  Sri Fitri Wahyuni   Linzzy Pratami Putri  Adelia Damaiyanti  Densi Anugrahwati P 
ARTICLE INFO	Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri, Adelia Damaiyanti and Densi Anugrahwati P (2025). Lecturers’ financial well-being: The role of religiosity, financial literacy, financial behavior, and financial stress with gender as a moderating variable. <i>Investment Management and Financial Innovations</i> , 22(2), 14-25. doi: 10.21511/imfi.22(2).2025.02
DOI	http://dx.doi.org/10.21511/imfi.22(2).2025.02
RELEASED ON	Tuesday, 01 April 2025
RECEIVED ON	Tuesday, 29 October 2024
ACCEPTED ON	Thursday, 13 March 2025
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Investment Management and Financial Innovations"
ISSN PRINT	1810-4967
ISSN ONLINE	1812-9358
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

65



NUMBER OF FIGURES

1



NUMBER OF TABLES

6

© The author(s) 2025. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 29th of October, 2024

Accepted on: 13th of March, 2025

Published on: 1st of April, 2025

© Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri, Adelia Damaiyanti, Densi Anugrahwati P, 2025

Radiman, Dr., Senior Lecturer, Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara [Muhammadiyah University of North Sumatra], Indonesia. (Corresponding author)

Sri Fitri Wahyuni, Senior Lecturer, Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara [Muhammadiyah University of North Sumatra], Indonesia.

Linzzy Pratami Putri, Senior Lecturer, Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara [Muhammadiyah University of North Sumatra], Indonesia.

Adelia Damaiyanti, Student, Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara [Muhammadiyah University of North Sumatra], Indonesia.

Densi Anugrahwati P, Student, Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara [Muhammadiyah University of North Sumatra], Indonesia.



This is an Open Access article, distributed under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

Conflict of interest statement:

Author(s) reported no conflict of interest

Radiman (Indonesia), Sri Fitri Wahyuni (Indonesia), Linzzy Pratami Putri (Indonesia), Adelia Damaiyanti (Indonesia), Densi Anugrahwati P (Indonesia)

LECTURERS' FINANCIAL WELL-BEING: THE ROLE OF RELIGIOSITY, FINANCIAL LITERACY, FINANCIAL BEHAVIOR, AND FINANCIAL STRESS WITH GENDER AS A MODERATING VARIABLE

Abstract

Financial well-being refers to how individuals perceive their financial security and ability to meet short-term and long-term financial goals. It involves feeling financially stable, having control over one's finances, being satisfied with one's financial situation, and handling unexpected events without excessive stress. This study examines the impact of financial literacy, financial behavior, financial stress, and religiosity on financial well-being, with gender as a moderating factor. A quantitative research approach was used, with the participants in this study consisting of permanent lecturers at a prestigious private university in North Sumatra, Indonesia, who are male with more than 1 (one) year of service. Due to the lack of available data regarding the exact number of faculty members, the sample size was calculated using Lemeshow's formula, which is appropriate for use when the population is unknown. This resulted in a sample size of 385 permanent lecturers. The sampling method was accidental, and the data were analyzed using the SEM-PLS approach with SmartPLS software. The results show that religiosity, financial behavior, and financial literacy positively and statistically significantly affect financial well-being ($p < 0.05$). In contrast, financial stress, though negative, does not have a significant impact ($p > 0.05$). Additionally, gender does not moderate the relationship between religiosity, financial behavior, and financial stress on financial well-being ($p > 0.05$), but gender moderates the effect of financial literacy on financial well-being ($p < 0.05$).

Keywords

financial well-being, lecturers, SEM-PLS, Indonesia

JEL Classification

G41, G53, Z12

INTRODUCTION

A strong financial footing is crucial for a quality life, as it supports most daily needs. Financial stability refers to the capability of a person or household to maintain a comfortable living standard without financial strain. Many Indonesians, however, need help in securing this level of stability. To enhance financial security, individuals can implement strategies like setting aside savings for emergencies, ensuring timely payment of expenses, and routinely reviewing their financial status.

Well-being generally encompasses happiness, prosperity, and life satisfaction across personal, familial, and community contexts. When essential needs are met, a sense of welfare can be achieved; otherwise, true contentment remains out of reach. Balancing present and future demands is key to realizing life ambitions. Achieving financial stability within a household significantly contributes to a sense of well-being. Financial health is reflected in meeting obligations, saving extra funds,

and maintaining confidence in future finances. Practicing sound financial habits helps individuals better prepare for upcoming financial challenges, improving stability and security.

In Indonesia, being a lecturer requires both passion and a strong commitment. The basic salary often limits lecturers to a modest standard of living. They must balance between fulfilling family obligations and investing in their career growth. Many lecturers anticipate additional payments to increase their earnings, including bonuses for certification and allowances for job functions.

1. LITERATURE REVIEW AND HYPOTHESES

Financial well-being refers to one's ability to maintain current lifestyle and future financial stability while managing finances independently. This idea focuses on the psychological components of financial security, highlighting how individuals' perceptions of their economic conditions shape their well-being (Brüggen et al., 2017). As Mahdzan et al. (2020) explain, having solid financial well-being involves a sense of calm and confidence about one's financial decisions. Riitsalu et al. (2024) add that it includes meeting daily needs, setting aside savings, and confidently handling money matters to feel protected now and for the future. This concept often reflects how smoothly individuals manage expenses and make decisions without financial stress (Rahman et al., 2021). It also captures the comfort of financial stability and the personal contentment it brings (Sorgente et al., 2023). It is about more than wealth – it involves a sense of financial freedom, the absence of worry, and the ability to maintain balance while making choices. Thus, financial well-being is explored from both financial and emotional perspectives (Elgeka & Querry, 2021). As such, financial well-being is a person's ability to maintain a lifestyle and financial security in the future while managing finances independently. This includes feeling calm and confident in making financial decisions, making ends meet, saving and managing money without stress.

Religiosity refers to how people incorporate their spiritual beliefs into daily routines. According to Williams (1996), religion comprises symbols, ideas, and traditions shaped by cultural practices that seek deeper meanings. Religiosity is characterized by an individual's degree of engagement in religious practices, encompassing rituals, worship, and involvement in religious communities (Hill & Hood Jr, 1999). Husin et al. (2023) view religiosity

as expressing spiritual values in a social context. It indicates a person's level of faith and dedication to religious teachings. Stark and Glock (1970) identify five key elements: beliefs, rituals, emotions, knowledge, and personal experiences. People vary in their religious practices, which can influence their choices and actions. Studies suggest that religiosity affects behaviors, attitudes, and motivations (Minton et al., 2015; Mathras et al., 2016). It is also linked to better financial satisfaction (Kose & Cinar, 2020). Thus, religiosity is how individuals integrate their spiritual beliefs into their daily lives. It involves engaging in religious practices such as rituals and community worship. Key elements include beliefs, rituals, emotions, knowledge, and experiences. A person's religiosity can shape behavior and choices, potentially increasing financial satisfaction.

Financial literacy encompasses comprehending fundamental financial principles and managing typical financial operations (Lusardi & Mitchell, 2008). Financial literacy encompasses the understanding and skills needed to make sound financial choices, including an awareness of financial tools, potential risks, and benefits (Atkinson & Messy, 2012; Wahyuni et al., 2023). Huston (2010) defines it as using financial knowledge effectively in everyday situations. It includes skills needed for achieving financial stability. The meaning of financial literacy changes across different places (Huston, 2010). Around the world, there is still ongoing discussion about the meaning of financial literacy (Rai et al., 2019). Mihalčová et al. (2014) describe it as financial education that enhances people's money skills. Frisncho (2020) divides it into financial knowledge and learning. Rahman et al. (2021) focus on how culture and social practices shape financial habits. Warsono (2010) lists indicators like building savings and investment skills. Chen and Volpe (1998) break it into four main categories: basic knowledge, sav-

ing, insurance, and investing. Financial literacy involves understanding basic financial principles and managing financial tasks. It includes the knowledge and skills to make good financial choices, which vary by location and culture. It also includes financial education and building savings and investment skills.

Financial stress arises when individuals struggle to cover necessary living expenses or face unexpected costs that strain their budget (Rahman et al., 2021). Friedline et al. (2021) point out that financial stress can happen when limited funds prevent people from enjoying activities they love or spending quality time with family. According to Kim et al. (2006), stress increases when financial obligations are unmet. The pressure to handle money with limited resources can cause significant worry and frustration (Rahman et al., 2021; Davis & Mantler, 2004). Financial hardships, sudden emergencies, or changes in financial circumstances are common sources of stress (Kim et al., 2006; Voydanoff, 1990). When people cannot maintain their lifestyle due to unmet financial needs, it often leads to increased anxiety. Common triggers include health issues, major family events, and unexpected financial problems like legal challenges (Joo & Grable, 2004; Prawitz et al., 2006). Financial stress occurs when someone struggles to pay living expenses or faces unexpected costs. It can occur when limited funds get in the way of enjoyment and family time, increasing anxiety and frustration. Common triggers are health problems and emergencies.

Financial behavior is important for effective financial management (Gunawan et al., 2023). Owusu (2021) describes financial behavior as the strategies people use to manage their finances. Financial behavior is a decision-making process that entails examining and assessing financial information to attain financial objectives (Rapina et al., 2023). Research highlights the importance of making thoughtful choices about financial planning and budgeting (Rapina et al., 2023). These behaviors are essential for effective resource management and directly impact financial stability (Rahman et al., 2021). Positive financial habits often link financial knowledge with better financial health outcomes (Mallick & Debasish, 2021; Iramani & Lutfi, 2021). Building good financial practices, such

as regular saving and minimizing unnecessary spending, helps individuals achieve long-term stability (Xiao, 2008; Xiao, 2016). Those who plan for significant life expenses, including education and retirement, tend to have better financial security (Joo, 2008). As such, behavioral finance is critical to managing finances effectively. This involves decision-making strategies and financial planning. Positive habits such as saving and budgeting contribute to financial stability and security.

Gender is a construct that pertains to the roles, behaviors, activities, and characteristics considered suitable for men and women within a social and cultural framework (Fleming & Agnew-Brune, 2015). Gender refers to the different social roles expected of men and women, shaped by cultural values and societal norms rather than based on biological distinctions (Cislaghi & Heise, 2020). It is essential to clarify that gender and sex are distinct concepts, though they are often mistaken for one another. While some see gender as a natural or divine quality, it is formed by social influences. Historically, in English, 'gender' was used synonymously with 'sex' (Looy & Bouma, 2005). Over time, the meaning has evolved, focusing now on the cultural, emotional, and behavioral expectations placed upon men and women (Hägg et al., 2023). Thus, gender is a construct related to the roles and behaviors expected of men and women in society. The understanding of gender has evolved, emphasizing cultural and behavioral expectations.

Research into financial well-being has gained momentum as scholars seek to understand its complexities. However, there is a need for more studies that utilize solid theoretical frameworks to explore how financial difficulties impact overall well-being, suggesting a significant gap in the literature. The majority of existing research has concentrated on employee financial health (Delafrooz & Paim, 2013; Delafrooz & Paim, 2013; Mokhtar & Husniyah, 2017; Bailey, 2019; Garman et al., 1999), student finances (Montalto et al., 2019; Wahyuni et al., 2023), and the financial well-being of young adults (Rutherford & Fox, 2010; Sabri et al., 2023; Wahyuni et al., 2022; Radiman et al., 2023). In contrast, there is a noticeable gap in research focused on the financial well-being of university faculty, especially lecturers, indicating a promising direction for future investigation.

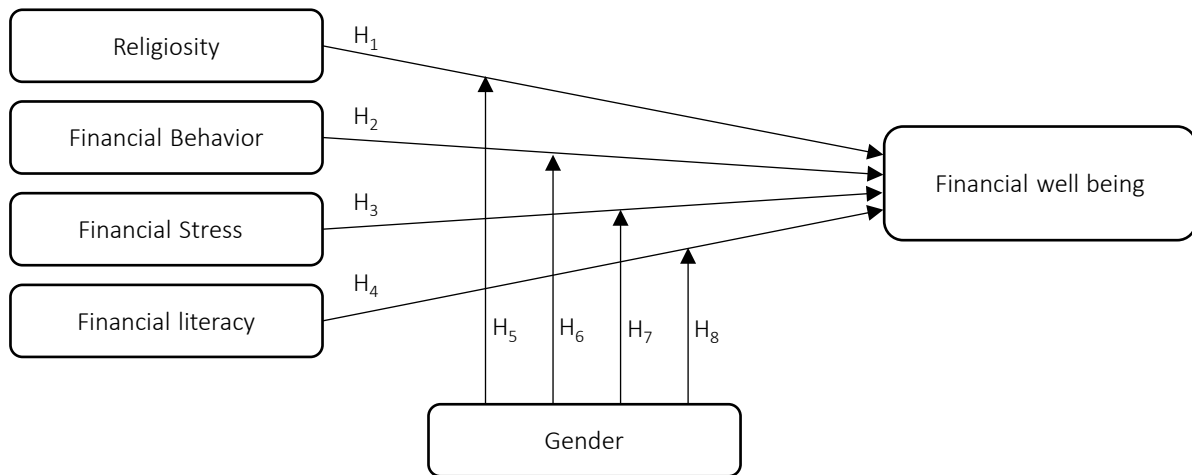


Figure 1. Conceptual framework

This study examines the impact of financial behavior, financial literacy, religiosity, and financial stress on financial well-being at private universities in North Sumatra, Indonesia, with gender acting as a moderating factor.

- H1: Religiosity affects financial well-being.*
- H2: Good financial behavior affects financial well-being.*
- H3: Financial stress affects financial well-being.*
- H4: Financial literacy affects financial well-being.*
- H5: Gender moderates the effect of religiosity on financial well-being.*
- H6: Gender moderates the effect of financial behavior on financial well-being.*
- H7: Gender moderates the effect of financial stress on financial well-being.*
- H8: Gender moderates the effect of financial literacy on financial well-being.*

Figure 1 illustrates the framework of the study.

2. METHODOLOGY

This study utilizes a quantitative method, which is applied in an organized and systematic manner. This process includes sorting and categoriz-

ing data for generalization, followed by detailed measurement, hypothesis testing, and the formulation of conclusions. This structured approach is useful for constructing theoretical models and mathematical frameworks that help explain and interpret phenomena (Apuke, 2017). This study focuses on permanent lecturers from private universities in North Sumatra, Indonesia, and have more than 1 (one) year of service. Due to limitations in determining the exact number of lecturers, the Lameshow formula is applied to estimate the sample size based on the equation developed by Lwanga and Lemeshow (Lemeshow et al., 1990). The formula used for sample proportion estimation is,

$$n = \frac{Z_{1-\alpha/2}^2 \cdot p \cdot (1-p)}{d^2} \quad (1)$$

For this study, n denotes the sample size, while Z indicates the Z -score associated with the desired confidence level of $1 - \alpha/2$. The variable p represents the estimated proportion within the population, and d represents the precision level utilized in the calculation. The calculation applied $Z = 1.96$, $p = 0.05$, and $d = 0.05$, forming the equation: $n = ((1.96)^2 \cdot 0.5) / ((0.1)^2 \cdot 0.5)$. This produced an estimated sample size of 384.16, rounded to 385, focusing specifically on permanent lecturers from private universities in North Sumatra, Indonesia with a total of 199 people of the female gender and 186 people of the male gender.

The research gathered data through a questionnaire that utilized a Likert scale from 1 (strongly disagree) to 5 (strongly agree), allowing par-

ticipants to share their opinions and views. A quantitative approach was used to analyze the data, which involved interpreting and presenting numerical information. The process starts with data collection, followed by the analysis and presentation of the findings in a descriptive format. A deductive methodology was applied in this study, where conclusions were drawn from general theories and tested through observation. The study used the PLS-SEM technique for path analysis with latent variables. This advanced analytical method, often called the second generation of multivariate analysis, allows for the simultaneous testing of the measurement and structural models (Ghozali, 2013).

3. RESULTS

This study utilized Partial Least Square (PLS) analysis techniques for hypothesis testing, with data processing conducted using the SmartPLS 4.0 software. Outer loading values, commonly called loading factors, were analyzed to check for convergent validity. An ideal loading factor value is above 0.70, showing that the indicator is valid and correctly measures the intended construct. Nevertheless, it is generally considered acceptable if the loading factor exceeds 0.50. Should the value fall below 0.50, the item may need to be removed from the model (Chin, 1998). Below is the reliability value of the item as shown in the outer loading column (see Table 1).

Table 1. Outer loading

	FBR	FSS	FLY	FWG	GEN	REL
FBR1	0.813					
FBR2	0.808					
FBR3	0.851					
FBR4	0.851					
FBR5	0.698					
FBR6	0.786					
FLY1			0.901			
FLY2			0.859			
FLY3			0.843			
FLY4			0.807			
FLY5			0.725			
FLY6			0.856			
FLY7			0.863			
FLY8			0.878			
FSS1		0.719				
FSS2		0.733				
FSS3		0.558				

	FBR	FSS	FLY	FWG	GEN	REL
FSS4		0.851				
FSS5		0.763				
FSS6		0.805				
FSS7		0.728				
FSS8		0.578				
FSS9		0.661				
FWG1				0.851		
FWG2				0.865		
FWG3				0.909		
FWG4				0.826		
FWG5				0.869		
GEN1					0.837	
GEN					0.856	
GEN3					0.820	
GEN4					0.880	
GEN5					0.878	
REL1						0.733
REL2						0.846
REL3						0.837
REL4						0.757
REL5						0.737
REL6						0.828
REL7						0.829
REL8						0.822

Analysis from Table 1 indicates that most indicators tied to the research have outer loading values higher than 0.70, though a few are just below this benchmark. Chin (1998) suggests that outer loading figures in the 0.50 to 0.60 range are adequate for ensuring convergent validity. The data show that no indicator dips under 0.50, which confirms their validity for the subsequent analysis.

Evaluating reliability involves analyzing the composite reliability values of indicator groups and Cronbach’s alpha. To confirm reliability, composite reliability should be higher than 0.70, the AVE should exceed 0.50, and Cronbach’s Alpha CA must be above 0.60.

Table 2. Composite reliability

	CA	CR	AVE
FBR	0.895	0.916	0.645
FSS	0.884	0.903	0.513
FLY	0.941	0.951	0.711
FWG	0.915	0.937	0.747
GEN	0.907	0.931	0.730
REL	0.919	0.934	0.640

The data in Table 2 present the composite reliability for each analyzed variable. Financial behavior has a reliability score of 0.916 and Financial Stress

records of 0.903. Financial literacy is highest at 0.951, followed by Financial Well-Being at 0.937. The scores for Gender and Religiosity are 0.931 and 0.934. For Cronbach’s alpha, the values are as follows: Financial Behavior 0.895, Financial Stress 0.884, Financial Literacy 0.941, and Financial Well-Being 0.915. Gender has a score of 0.907, while Religiosity is at 0.919.

The AVE metric, or Average Variance Extracted, evaluates the extent of variance captured by the underlying construct versus measurement error. When the AVE value exceeds 0.5, it indicates strong validity, suggesting that the latent factor explains a significant portion of the variance. As shown in Table 2, Financial Behavior’s AVE is recorded at 0.645, Financial Stress is 0.615, and Financial Literacy reaches 0.711. Financial Well-Being’s AVE is 0.747, while Gender and Religiosity report values of 0.730 and 0.640, respectively.

Table 3. Discriminant validity

	FBR	FSS	FLY	FWG	GEN	REL
FBR1	0.813	0.162	0.666	0.736	0.643	0.606
FBR2	0.808	0.108	0.682	0.750	0.648	0.622
FBR3	0.851	0.145	0.611	0.526	0.588	0.552
FBR4	0.851	0.150	0.614	0.523	0.589	0.550
FBR5	0.698	0.173	0.597	0.480	0.601	0.456
FBR6	0.786	0.159	0.515	0.430	0.526	0.442
FLY1	0.682	0.160	0.901	0.613	0.806	0.542
FLY2	0.657	0.128	0.859	0.675	0.775	0.563
FLY3	0.673	0.124	0.843	0.680	0.772	0.584
FLY4	0.634	0.155	0.807	0.501	0.770	0.455
FLY5	0.614	0.061	0.725	0.688	0.634	0.576
FLY6	0.647	0.111	0.856	0.668	0.770	0.552
FLY7	0.679	0.162	0.863	0.666	0.854	0.580
FLY8	0.648	0.146	0.878	0.585	0.776	0.518
FSS1	0.087	0.719	0.082	0.020	0.090	0.029
FSS2	0.093	0.733	0.095	0.038	0.099	0.034
FSS3	0.109	0.558	0.076	0.054	0.063	0.059
FSS4	0.207	0.851	0.182	0.136	0.177	0.108
FSS5	0.141	0.763	0.105	0.061	0.112	0.070
FSS6	0.145	0.805	0.112	0.096	0.108	0.119
FSS7	0.048	0.728	0.033	0.028	0.029	0.042
FSS8	0.032	0.578	0.089	0.040	0.077	0.106
FSS9	0.123	0.661	0.083	0.082	0.065	0.030
FWG1	0.795	0.165	0.673	0.851	0.641	0.605
FWG2	0.792	0.109	0.689	0.865	0.645	0.621
FWG3	0.645	0.066	0.639	0.909	0.603	0.598
FWG4	0.628	0.060	0.737	0.826	0.629	0.576
FWG5	0.634	0.069	0.633	0.869	0.610	0.597
GEN1	0.604	0.118	0.765	0.571	0.837	0.482
GEN	0.643	0.115	0.767	0.609	0.856	0.518
GEN3	0.678	0.147	0.783	0.587	0.820	0.538

	FBR	FSS	FLY	FWG	GEN	REL
GEN4	0.647	0.118	0.850	0.661	0.880	0.559
GEN5	0.665	0.122	0.837	0.665	0.878	0.586
REL1	0.513	0.075	0.457	0.518	0.445	0.733
REL2	0.560	0.100	0.538	0.598	0.501	0.846
REL3	0.552	0.056	0.549	0.556	0.527	0.837
REL4	0.600	0.053	0.573	0.606	0.541	0.757
REL5	0.504	0.123	0.428	0.456	0.431	0.737
REL6	0.537	0.108	0.517	0.556	0.484	0.828
REL7	0.548	0.062	0.534	0.517	0.539	0.829
REL8	0.584	0.105	0.576	0.607	0.544	0.822

The analysis in Table 3 shows that indicators exhibit the highest cross-loadings within their assigned constructs, supporting their discriminant validity.

The Heterotrait-Monotrait Ratio (HTMT) is an alternative metric for discriminant validity based on a multitrait-multimethod matrix. To confirm the distinctiveness between constructs, the acceptable value for HTMT must be under 0.90 (Henseler et al., 2015).

Table 4. Heterotrait-Monotrait ratio (HTMT)

	FBR	FSS	FLY	FWG	GEN
FBR					
FSS	0.174				
FLY	0.825	0.148			
FWG	0.824	0.095	0.825		
GEN	0.822	0.142	0.038	0.792	
REL	0.732	0.108	0.693	0.752	0.686

In Table 4, HTMT values for each variable are below 0.90, indicating that correlation levels are acceptable. The indicators align well with their assigned variables, supporting their correct categorization.

The R-squared statistics, which show how much of the variation in dependent variables is accounted for by independent variables, are initially analyzed to assess the PLS structural framework. A score of 0.75 signifies a robust model, 0.50 reflects a moderate model, and 0.25 indicates a weaker model (Hair et al., 2019). The R-squared results generated through smartPLS 4.0 are presented in Table 5.

Table 5. R-square test

	R Square	R Square Adjusted
FWG	0.760	0.754

Table 6. Direct and moderating effects

Hypothesis	Path	Standard Deviation	T-Statistics	P-Values	Decision
REL → FWG	0.217	0.052	4.183	0.000	Accepted
FBR → FWG	0.419	0.050	8.418	0.000	Accepted
FSS → FWG	-0.038	0.028	1.372	0.171	Rejected
FLY → FWG	0.692	0.117	5.934	0.000	Accepted
Moderating Effect 1 → FWG	0.097	0.048	2.023	0.044	Accepted
Moderating Effect 2 → FWG	0.013	0.057	0.223	0.824	Rejected
Moderating Effect 3 → FWG	-0.102	0.062	1.642	0.101	Rejected
Moderating Effect 4 → FWG	0.060	0.038	1.586	0.113	Rejected

Table 5 shows the influence of Financial Behavior, Financial Stress, Financial Literacy, and Religiosity on Financial Well-being, with an R-squared score of 0.760. These factors account for 76% of the observed variance, leaving 24% to other unexplained factors, indicating strong model reliability.

The structural model analysis uses t-tests to validate relationships. Hypotheses are tested by reviewing the graphical output and path coefficients. The next table of path coefficients summarizes the results for direct effects (see Table 6).

In the overview presented in Table 6, notable positive correlations are identified between financial well-being and the factors of religiosity, financial conduct, and financial knowledge ($p < 0.05$). On the other hand, financial strain demonstrates a negative relationship, which lacks statistical backing ($p > 0.05$). Gender does not influence the connections between religiosity, financial conduct, or financial strain with financial well-being, but it does change the effect of financial knowledge ($p < 0.05$).

4. DISCUSSION

The preliminary analysis of Hypothesis 1 (*H1*) demonstrates that religiosity exerts a pronounced and statistically significant effect on financial well-being ($t = 4.183$, $p = 0.000$). Essentially, the extent to which a lecturer adheres to religious doctrines – reflected in the depth of their faith, spiritual convictions, and ritual practices – shows a substantial and meaningful correlation with their financial health. The significant influence of religiosity on the financial well-being of lecturers encompasses more prudent fiscal decision-making, strengthening communal solidarity, alleviating economic anxieties, and enhancing financial literacy. These

factors synergistically foster financial resilience, improving the lecturer's overall life satisfaction. These findings align with previous studies (Muat & Henry, 2023; Budiyanto et al., 2024; Wijaya et al., 2024), which similarly identified a significant and positive relationship between religiosity and financial well-being.

Examining the second hypothesis (*H2*) reveals that financial behavior exerts a robust and statistically significant influence on financial well-being ($t = 8.418$, $p = 0.000$). This suggests that the financial conduct exhibited by lecturers – such as judicious budgeting and astute investment strategies – bears a tangible and consequential correlation with their fiscal prosperity. When lecturers engage in disciplined financial practices, they will likely experience an enhancement in their financial stability. As such, positive financial behavior is a pivotal factor in improving the financial well-being of lecturers, creating an environment where they can achieve their economic goals and feel more secure in their financial standing. These results align with the study conducted by (Muat & Henry, 2023) and (Rahman et al., 2021), who similarly emphasize the significant impact of financial behavior on financial well-being.

Examining the third hypothesis (*H3*) reveals that financial stress has a negative, yet statistically insignificant, effect on financial well-being ($t = 1.372$, $p = 0.171$). This indicates that although financial stress may reduce lecturers' financial well-being, the effect is not strong enough to demonstrate a significant relationship. Financial stress lowers lecturers' financial well-being, but the impact is insufficient or inconsistent. This suggests that other factors, such as sound financial management, income stability, or effective stress coping mechanisms, play

a more crucial role in preserving lecturers' financial well-being. These results align with the research undertaken by (Ryu & Fan, 2023) and (Sorgente et al., 2023), which similarly indicate that financial stress negatively influences financial well-being.

The results of testing the fourth hypothesis (*H4*) show that financial literacy has a positive and statistically significant effect on financial well-being ($t = 5.934$, $p = 0.000$). This suggests that a high degree of financial literacy is essential for enhancing the financial well-being of professors. Financial literacy empowers educators to make informed financial decisions, manage risks proficiently, and attain financial objectives, enhancing their sense of financial security, stability, and satisfaction. Financial literacy denotes an individual's capacity to comprehend and implement several financial competencies, including money management, investment, and financial planning. For educators, possessing robust financial literacy can substantially enhance their financial well-being. The findings of this study align with the studies conducted by Lone and Bhat (2024) and Sajid et al. (2024), which show that financial literacy significantly and positively influences financial well-being.

The results of testing the fifth hypothesis (*H5*) indicate that gender moderates the effect of financial literacy on financial well-being ($t = 2.023$, $p = 0.044$). This indicates that the correlation between financial literacy and financial well-being may differ according to an individual's gender (male or female). Financial literacy is shaped by individual knowledge and the social and cultural aspects of gender. Acknowledging this in financial research and practice is crucial for enhancing the inclusivity and efficacy of treatments and programs. The findings of this study are supported by research conducted by Muat and Henry (2023), which shows that gender moderates the effect of financial literacy on financial well-being.

The results of testing the sixth hypothesis (*H6*) show that gender does not moderate the effect of religiosity on financial well-being ($t = 0.223$, $p = 0.824$). This means that the relationship between religiosity and financial well-being is not

influenced by the individual's gender (male or female). In other words, the effect of religiosity on financial well-being remains consistent and does not differ significantly by gender. The study results indicate that the financial experiences of women and men often differ due to factors such as access to financial resources, control over assets, and financial decision-making ability. These factors affect financial well-being directly without necessarily interacting with variables such as religiosity (Zyphur et al., 2015).

The results of testing the seventh hypothesis (*H7*) show that gender does not moderate the effect of financial behavior on financial well-being ($t = 1.642$, $p = 0.101$). This means that differences between men and women do not alter or affect the strength or direction of the relationship between financial behavior and financial well-being. For example, some studies have found that factors such as financial literacy and behavior tend to influence financial well-being significantly without the moderating role of gender. However, gender may influence financial well-being outcomes through independent variables such as financial literacy or income. In some contexts, research suggests that gender directly determines financial preferences or money management skills, which affect financial well-being. This supports the view that gender is more relevant as a direct impact variable than a moderating influence on the relationship between financial behavior and financial well-being (Yuliani et al., 2020).

The results of testing the eighth hypothesis (*H8*) show that gender does not moderate the effect of financial stress on financial well-being ($t = 1.586$, $p = 0.113$). This means that gender differences do not affect the strength or direction of the relationship between financial stress and financial well-being. Research shows that gender does not always act as a moderator in the relationship between financial stress and financial well-being. Instead, gender is often the independent variable that directly affects financial well-being. These studies note that gender differences in financial well-being are usually related to differences in income, risk preferences, or financial literacy levels between men and women. Research by Zhang and Chatterjee (2023) notes

that, although financial stress affects financial well-being, the role of gender tends to be more significant in explaining these outcomes through structural or social factors, such as income differences or day-to-day financial management, rather than acting as a moderator of financial stress.

This study emphasizes the significance of religiosity, prudent financial behavior, and financial literacy in improving the financial well-being of professors. Additionally, alleviating financial stress and tailoring gender-based strategies may provide a more effective approach to enhancing their financial well-being.

CONCLUSION

This study examines the influence of financial behavior, financial literacy, religiosity, and financial stress on financial well-being, with gender as moderation, on permanent lecturers of private universities in North Sumatra. The results show that religiosity, financial behavior, and financial literacy positively and significantly affect financial well-being, while financial stress has a negative but insignificant effect. Gender moderates the relationship between financial literacy and financial well-being but has no significant impact on the relationship between financial stress, financial behavior, or religiosity and financial well-being.

This study's addition of religiosity as a variable offers new insights into its influence on financial well-being, filling a gap in prior research. The findings suggest practical measures, such as boosting financial knowledge and managing stress, to enhance well-being and improve work outcomes for lecturers. Since financial stress remains a common issue (Verne, 2014), initiatives like better financial education and debt counseling are advised. The study's limitations include its cross-sectional nature, which limits the ability to determine cause and effect. Future research could adopt longitudinal designs to understand changes over time better. Moreover, the current model excluded factors like financial satisfaction and subjective views, which could provide a richer perspective, as suggested by (Joo, 2008). Finally, the specific sample group of lecturers used in this study may limit how broadly the results can be applied.

AUTHOR CONTRIBUTIONS

Conceptualization: Radiman.

Data curation: Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri, Adelia Damaiyanti, Densi Anugrahwati P.

Formal analysis: Linzzy Pratami Putri.

Funding acquisition: Sri Fitri Wahyuni.

Investigation: Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri, Adelia Damaiyanti, Densi Anugrahwati P.

Methodology: Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri.

Project administration: Sri Fitri Wahyuni, Adelia Damaiyanti, Densi Anugrahwati P.

Resources: Sri Fitri Wahyuni, Linzzy Pratami Putri, Adelia Damaiyanti, Densi Anugrahwati P.

Software: Sri Fitri Wahyuni, Adelia Damaiyanti, Densi Anugrahwati P.

Supervision: Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri.

Validation: Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri, Adelia Damaiyanti, Densi Anugrahwati P.

Visualization: Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri, Adelia Damaiyanti, Densi Anugrahwati P.

Writing – original draft: Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri.

Writing – review & editing: Radiman, Sri Fitri Wahyuni, Linzzy Pratami Putri, Adelia Damaiyanti, Densi Anugrahwati P.

ACKNOWLEDGMENT

They financed this study under the Fundamental Research - Regular (PF-R) area. Thank you, Ministry of Education, Culture, Research and Technology of the Republic of Indonesia 2024. This is also possible thanks to the Institute for Research and Community Service (LPPM) and the Faculty of Economics and Business Leadership at Universitas Muhammadiyah Sumatera Utara.

REFERENCES

1. Apuke, O. D. (2017). Quantitative Research Methods: A Synopsis Approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 6(11), 40-47. <https://doi.org/10.12816/0040336>
2. Atkinson, A., & Messy, F.-A. (2012). *Measuring financial literacy: results of the OECD/International Network on Financial Education (INFE) Pilot study* (No. 15; OECD Working Papers on Finance, Insurance and Private Pensions). <https://doi.org/10.1787/5k9cfsf90fr4-en>
3. Bailey, S. M. (2019). Financial Well-Being: An Opportunity to Have Profound Impact With Solutions That Match Needs. *American Journal of Health Promotion*, 33(1), 147-151. <https://doi.org/10.1177/0890117118812822b>
4. Brüggem, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research*, 79, 228-237. <https://doi.org/10.1016/j.jbusres.2017.03.013>
5. Budiyanto, A., Mujib, A., Arif, M. N. R. Al, & Prasetyowati, R. A. (2024). Factors affecting financial well-being: the mediating role of financial behavior towards religiosity and anti-consumption lifestyle – evidence from Indonesia. *Investment Management and Financial Innovations*, 21(3), 187-198. [https://doi.org/10.21511/imfi.21\(3\).2024.16](https://doi.org/10.21511/imfi.21(3).2024.16)
6. Chen, H., & Volpe, R. P. (1998). An Analysis of Personal Financial Literacy among College Students. *Financial Services Review*, 7(2), 107-128. [https://doi.org/10.1016/S1057-0810\(99\)80006-7](https://doi.org/10.1016/S1057-0810(99)80006-7)
7. Chin, W. W. (1998). The Partial Least Squares Approach to Structural Equation Modeling. In *Advances in Hospitality and Leisure* (pp. 296-336). Retrieved from <https://psycnet.apa.org/record/1998-07269-010>
8. Cislighi, B., & Heise, L. (2020). Gender norms and social norms: differences, similarities and why they matter in prevention science. *Sociology of Health and Illness*, 42(2), 407-422. <https://doi.org/10.1111/1467-9566.13008>
9. Davis, C. G., & Mantler, J. (2004). *The consequences of financial stress for individuals, families, and society* (pp. 1-32). Centre for Research on Stress, Coping, and Well-being. Retrieved from https://www.researchgate.net/publication/229052873_The_Consequences_of_Financial_Stress_for_Individuals_Families_and_Society
10. Delafrooz, N., & Paim, L. H. (2013). Role of financial stress on relationship between financial problem and financial wellness among Malaysia workers. *African Journal of Business Management*, 7(20), 1966-1972. Retrieved from <https://academicjournals.org/journal/AJBM/article-abstract/44B0A3315401>
11. Elgeka, H. W., & Querry, G. (2021). Peran money attitudes terhadap financial well-being dengan financial stress sebagai mediator pada mahasiswa rantau di Surabaya. *Jurnal Ilmiah Psikologi Terapan*, 9(1), 75.
12. Fleming, P. J., & Agnew-Brune, C. (2015). Current trends in the study of gender norms and health behaviors. *Current Opinion in Psychology*, 5, 72-77. <https://doi.org/10.1016/j.copsyc.2015.05.001>
13. Friedline, T., Chen, Z., & Phelia, S. (2021). Families' Financial Stress & Well-Being : The Importance of the Economy and Economic Environments. *Journal of Family and Economic Issues*, 42(s1), 34-51. <https://doi.org/10.1007/s10834-020-09694-9>
14. Frisancho, V. (2020). The impact of financial education for youth. *Economics of Education Review*, 78(2020), 1-9. <https://doi.org/10.1016/j.econedurev.2019.101918>
15. Garman, E. T., Kim, J., Kratzer, C. Y., Brunson, B. H., & Joo, S. hyun. (1999). Workplace financial education improves personal financial wellness. *Journal of Financial Counseling and Planning*, 10(1), 80-91. Retrieved from <https://www.afcpe.org/news-and-publications/journal-of-financial-counseling-and-planning/volume-10-1/workplace-financial-education-improves-personal-financial-wellness/>
16. Ghozali, I. (2013). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 21 Update PLS Regresi*. Universitas Diponegoro.
17. Gunawan, A., Jufrizen, J., & Pulungan, D. R. (2023). Improving MSME performance through financial literacy, financial technology, and financial inclusion. *International Journal of Applied Economics, Finance and Accounting*, 15(1), 39-52. <https://doi.org/10.33094/ijaefa.v15i1.761>
18. Hägg, G., Politis, D., & Alsos, G. A. (2023). Does gender balance in entrepreneurship education make a difference to prospective start-up behaviour? *Education and Training*, 65(4), 630-653. <https://doi.org/10.1108/ET-06-2021-0204>
19. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to

- use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>
20. 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>
 21. Hill, P. C., & Hood Jr, R. W. (1999). *Measures of Religiosity*. Religious Education Press.
 22. Husin, G. M. I., Rusli, R., Arief, M. I., & Ainah, N. (2023). Religious Moderation in the Academic Environment: a Study of Internalisation of Religious Values and Patriotism At Universitas Lambung Mangkurat. *Psikis : Jurnal Psikologi Islami*, 9(2), 293-301. <https://doi.org/10.19109/psikis.v9i2.19979>
 23. Huston, S. J. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296-316. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1111/j.1745-6606.2010.01170.x>
 24. Iramani, R., & Lutfi, L. (2021). An integrated model of financial well-being: The role of financial behavior. *Accounting*, 7(3), 691-700. <https://doi.org/10.5267/j.ac.2020.12.007>
 25. Joo, Sohyun, & Grable, J. E. (2004). An Exploratory Framework of the Determinants of Financial Satisfaction. *Journal of Family and Economic Issues*, 25(1), 25-50. <https://doi.org/10.1023/B:JEEI.0000016722.37994.9f>
 26. Joo, Sohyun. (2008). Personal Financial Wellness BT - Handbook of Consumer Finance Research. In J. J. Xiao (Ed.), *Handbook of consumer finance research* (pp. 21-33). Springer New York. https://doi.org/10.1007/978-0-387-75734-6_2
 27. Kim, J., Sorhaindo, B., & Garman, E. T. (2006). Relationship between Financial Stress and Workplace Absenteeism of Credit Counseling Clients. *Journal of Family and Economic Issues*, 27(3), 458-478. <https://doi.org/10.1007/s10834-006-9024-9>
 28. Kose, T., & Cinar, K. (2020). A global assessment of the relationship between religiosity and financial satisfaction. *The Social Science Journal*, 61(2), 347-367. <https://doi.org/10.1080/03623319.2020.1808769>
 29. Lemeshow, S., Hosmer, D. W., Klar, J., & Lwanga, S. K. (1990). *Adequacy of Sample Size in Health Studies*. John Wiley & Sons.
 30. Lone, U. M., & Bhat, S. A. (2024). 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>
 31. Looy, H., & Bouma, H. (2005). The nature of gender: Gender identity in persons who are intersexed or transgendered. *Journal of Psychology and Theology*, 33(3), 166-178. <https://doi.org/10.1177/009164710503300302>
 32. Lusardi, A., & Mitchell, O. S. (2008). Planning and Financial Literacy: How Do Women Fare? *American Economic Review*, 98(2), 413-417. <https://doi.org/10.1257/aer.98.2.413>
 33. Mahdzan, N. S., Zainudin, R., Abd Sukor, M. E., Zainir, F., & Wan Ahmad, W. M. (2020). An exploratory study of financial well-being among Malaysian households. *Journal of Asian Business and Economic Studies*, 27(3), 285-302. <https://doi.org/10.1108/JABES-12-2019-0120>
 34. Mallick, S. K., & Debasish, S. S. (2021). A Study on the Relationship between Financial Well-Being and Self-Control. *Orissa Journal of Commerce*, 42(3), 120-133. <https://doi.org/10.54063/ojc.2021.v42i03.10>
 35. Mathras, D., Cohen, A. B., Mandel, N., & Mick, D. G. (2016). The effects of religion on consumer behavior: A conceptual framework and research agenda. *Journal of Consumer Psychology*, 26(2), 298-311. <https://doi.org/10.1016/j.jcps.2015.08.001>
 36. Mihalčová, B., Csikósová, A., & Antošová, M. (2014). Financial Literacy – The Urgent Need Today. *Procedia – Social and Behavioral Sciences*, 109, 317-321. <https://doi.org/10.1016/j.sbspro.2013.12.464>
 37. Minton, E. A., Kahle, L. R., & Kim, C.-H. (2015). Religion and motives for sustainable behaviors: A cross-cultural comparison and contrast. *Journal of Business Research*, 68(9), 1937-1944. <https://doi.org/10.1016/j.jbusres.2015.01.003>
 38. Mokhtar, N., & Husniyah, A. R. (2017). Determinants of financial well-being among public employees in Putrajaya, Malaysia. *Pertanika Journal of Social Sciences and Humanities*, 25(3), 1241-1260. Retrieved from <http://psasir.upm.edu.my/id/eprint/57807/>
 39. Montalto, C. P., Phillips, E. L., McDaniel, A., & Baker, A. R. (2019). College Student Financial Wellness: Student Loans and Beyond. *Journal of Family and Economic Issues*, 40(1), 3-21. <https://doi.org/10.1007/s10834-018-9593-4>
 40. Muat, S., & Henry, K. (2023). Lecturers' financial wellness: The role of religiosity, financial literacy, behavior, and stress with gender as the moderating variable. *Journal of Accounting and Investment*, 24(2), 427-449. <https://doi.org/10.18196/jai.v24i2.17428>
 41. Owusu, G. M. Y. (2021). Predictors of financial satisfaction and its impact on psychological well-being of individuals. *Journal of Humanities and Applied Social Sciences*, 5(1), 59-76. <https://doi.org/10.1108/jhass-05-2021-0101>
 42. Prawitz, A. D., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006). InCharge financial distress/financial well-being scale: Development, administration, and score interpretation. *Journal of Financial Counseling and Planning*, 17(1), 34-50. <https://doi.org/10.1037/t60365-000>
 43. Radiman, R., Wahyuni, S. F., & Lestari, S. (2023). The Influence of Financial Literacy and Personal Financial Attitude on Financial Behavior with Lifestyle as an Intervening Variable on Productive Generation Y in Medan City. *Journal of International Conference Proceedings*, 6(3), 245-259. <https://doi.org/10.32535/jicp.v6i3.2568>

44. Rahman, M., Isa, C. R., Masud, M. M., Sarker, M., & Chowdhury, N. T. (2021). The role of financial behaviour, financial literacy, and financial stress in explaining the financial well-being of B40 group in Malaysia. *Future Business Journal*, 7(1), 1-18. <https://doi.org/10.1186/s43093-021-00099-0>
45. Rai, K., Dua, S., & Yadav, M. (2019). Association of Financial Attitude, Financial Behaviour and Financial Knowledge Towards Financial Literacy: A Structural Equation Modeling Approach. *FIIB Business Review*, 8(1), 51-60. <https://doi.org/10.1177/2319714519826651>
46. Rapina, R., Meythi, M., Rahmatika, D. N., & Mardiana, M. (2023). The impact of financial literacy and financial behavior in entrepreneurial motivation – evidence from Indonesia. *Cogent Education*, 10(2). <https://doi.org/10.1080/2331186X.2023.2282827>
47. Riitsalu, L., Sulg, R., Lindal, H., Remmik, M., & Vain, K. (2024). From Security to Freedom – The Meaning of Financial Well-being Changes with Age. *Journal of Family and Economic Issues*, 45(1), 56-69. <https://doi.org/10.1007/s10834-023-09886-z>
48. Rutherford, L. G., & Fox, W. S. (2010). Financial Wellness of Young Adults Age 18–30. *Family and Consumer Sciences Research Journal*, 38(4), 468-484. <https://doi.org/10.1111/j.1552-3934.2010.00039.x>
49. Ryu, S., & Fan, L. (2023). The Relationship Between Financial Worries and Psychological Distress Among U.S. Adults. *Journal of Family and Economic Issues*, 44(1), 16-33. <https://doi.org/10.1007/s10834-022-09820-9>
50. Sabri, M. F., Anthony, M., Law, S. H., Rahim, H. A., Burhan, N. A. S., & Ithnin, M. (2023). Impact of financial behaviour on financial well-being: evidence among young adults in Malaysia. *Journal of Financial Services Marketing*. 0123456789. <https://doi.org/10.1057/s41264-023-00234-8>
51. Sajid, M., Mushtaq, R., Murtaza, G., Yahiaoui, D., & Pereira, V. (2024). Financial literacy, confidence and well-being: The mediating role of financial behavior. *Journal of Business Research*, 182, 114791. <https://doi.org/10.1016/j.jbusres.2024.114791>
52. Sorgente, A., Zambelli, M., & Lanz, M. (2023). Are Financial Well-Being and Financial Stress the Same Construct? Insights from an Intensive Longitudinal Study. *Social Indicators Research*, 169(1-2), 553-573. <https://doi.org/10.1007/s11205-023-03171-0>
53. Stark, R., & Glock, C. Y. (1970). *American Piety: The Nature of Religious Commitment (Patterns of Religious Commitment)* (California). University of California Press.
54. Verne, J. (2014). Financial Wellness Programs to Reduce Employee Stress. *Compensation & Benefits Review*, 46(5-6), 304-308. <https://doi.org/10.1177/0886368714566150>
55. Voydanoff, P. (1990). Economic Distress and Family Relations: A Review of the Eighties. *Journal of Marriage and Family*, 52(4), 1099-1115. <https://doi.org/10.2307/353321>
56. Wahyuni, S. F., Radiman, R., Hafiz, M. S., & Jufrizen, J. (2023). Financial literacy and financial attitude on financial management behavior: An examination of the mediating role of the behavioral intention of students at private universities in Indonesia. *Investment Management and Financial Innovations*, 20(3), 239-250. [https://doi.org/10.21511/imfi.20\(3\).2023.20](https://doi.org/10.21511/imfi.20(3).2023.20)
57. Wahyuni, S. F., Radiman, R., Jufrizen, J., Hafiz, M. S., & Gunawan, A. (2022). Model Praktik Manajemen Keuangan Pribadi Berbasis Literasi Keuangan, Orientasi Masa Depan dan Kecerdasan Spiritual pada Generasi “Y” Di Kota Medan. *Owner: Riset Dan Jurnal Akuntansi*, 6(2), 1529-1539. <https://doi.org/10.33395/owner.v6i2.780>
58. Warsono, W. (2010). *Prinsip-Prinsip Dan Praktik Keuangan Pribadi*. Rajawali Pers.
59. Wijaya, H. R., Hati, S. R. H., Ekaputra, I. A., & Kassim, S. (2024). The impact of religiosity and financial literacy on financial management behavior and well-being among Indonesian Muslims. *Humanities and Social Sciences Communications*, 11(1), 1-13. <https://doi.org/10.1057/s41599-024-03309-6>
60. Williams, R. H. (1996). Religion as Political Resource: Culture or Ideology? *Journal for the Scientific Study of Religion*, 35(4), 368-378. <https://doi.org/10.2307/1386412>
61. Xiao, J. J. (2008). Applying Behavior Theories to Financial Behavior BT - Handbook of Consumer Finance Research. In Xiao, J. J. (Ed.), *Handbook of consumer finance research* (pp. 69-81). Springer New York. https://doi.org/10.1007/978-0-387-75734-6_5
62. Xiao, J. J. (2016). *Handbook of consumer finance research* (2nd ed.). Springer.
63. Yuliani, Fuadah, L. L., & Taufik. (2020). *Moderating Influence of Gender on the Association Between Financial Attitude, Financial Behavior, Financial Knowledge, and Financial Literacy*. 142(Seabc 2019), 356-360. <https://doi.org/10.2991/aebmr.k.200520.059>
64. Zhang, Y., & Chatterjee, S. (2023). Financial Well-Being in the United States: The Roles of Financial Literacy and Financial Stress. *Sustainability (Switzerland)*, 15(5). <https://doi.org/10.3390/su15054505>
65. Zyphur, M. J., Li, W. D., Zhang, Z., Arvey, R. D., & Barsky, A. P. (2015). Income, personality, and subjective financial well-being: the role of gender in their genetic and environmental relationships. *Frontiers in Psychology*, 6(September), 1-16. <https://doi.org/10.3389/fpsyg.2015.01493>