






Study of Financial Literacy, Self-Efficacy and Financial Behavior: A Two-Stage Mediation Mechanism of Financial Socialization

Ayaz Ali Maitlo¹ , Sarfaraz Ahmed Bhutto² *, Humair Athar Brohi³ ,
Lareb Nisar Dootio³  and Muqadas Siyal³ 

1-Department of Accounting & Economics, The University of Larkano, Larkana, Pakistan

2-Fast School of Management, NUCES, Karachi, Pakistan

3-Department of Business Administration, Sindh University Campus Larkana, Larkana, Pakistan

*Corresponding Author: sarfaraz.bhutto@nu.edu.pk

ABSTRACT

Locally in Sindh, Pakistan, financial socialization influences in the relationship between behavior, self-efficacy and literacy are lacking attention, hence the saving and investment is not recorded at better level. This study has used cross-sectional quantitative research design along with the positivist research philosophy and deductive research approach. Statistically, the research has used descriptive analysis and regression models of two-stage mediation analysis. The targeted respondents are N= 141 individuals of educational institutions from Larkana participated in this survey. After the analysis the findings reflect that there is a mediation of financial socialization in relationship between financial literacy, self-efficacy and behavior. In addition, direct relationship is significant and positive in financial literacy, self-efficacy and behavior. Indirect results achieved with partial mediation of financial socialization in between financial literacy and behavior as well financial self-efficacy and behavior. Hence these results highlight how these factors are interconnected in influencing financial decision-making, which is consistent with other studies on the value of social influences, psychological characteristics, and education in enhancing financial results. The outcomes of this study are recommended for policy makers in both public and private sectors and managerial personnel of financial institutions.

Article Type: Original

OPEN ACCESS



Copyright © 2025 The Authors

Received:

31 July, 2025

Revised:

25 August, 2025

Accepted:

8 September, 2025

Published:

30 September, 2025

Keywords: *financial socialization, self-efficacy, financial literacy, behavior*

JEL Classification: J53

How to cite this article (APA): Maitlo, A. A., Bhutto, S. A., Brohi, H. A., Dootio, L. N., & Siyal, M. (2025). Study of Financial Literacy, Self-Efficacy and Financial Behavior: A Two-Stage Mediation Mechanism of Financial Socialization. *JISR management and social sciences & economics*, 23(3), 43–58. <https://doi.org/10.31384/jisrmsse/2025.23.3.3>

INTRODUCTION

Personal financial decisions and money management have been highly appreciated in the current economic climate (Sinha et al., 2021). People are forced to make difficult financial decisions because of the emergence of various and intricate financial products brought about by the global economy's volatility (Philippas & Avdoulas, 2019). Because of this, the significance of personal financial management abilities has increased, and more lately, academics and policymakers have taken notice of them (Agarwalla et al., 2015; van Rooij et al., 2011). Additionally, employees deal with a variety of financial issues, such as financial responsibility and a deluge of financial information, goods, and services (Agarwalla et al., 2015; van Rooij et al., 2011). Furthermore, people are compelled to take on more responsibility and make challenging financial decisions to secure their financial well-being due to sophisticated financial products and structural reforms in social safety and pension systems (van Rooij et al., 2011). Financial Socialization is a process to acquire and develop values, standards, norms, attitudes, knowledge and behavior that contribute to the financial stability and individual well-being (Pak et al., 2024). Early financial socialization influences financial outcomes, because its mediation cultivates a good attitude towards money and self-efficacy, even decreasing the propensity toward external locus of control and procrastination (Goyal et al., 2023; Pak et al., 2024). An individual receiving financial socialization ensures his mental and physical wellbeing, along with future financial wellbeing (Lebaron & Kelley, 2021). Financial Literacy is requisite for appropriate money management as it allows in comprehending many financial products for making informed financial decisions (Abro et al., 2024). It is the knowledge and comprehension of important financial concepts, including investing, saving, and budgeting (Lusardi & Mitchell, 2014; Xiao & Porto, 2017). Additionally, financial literacy has become a vital skill that everyone needs in daily life as more members of the working-class approach retirement and, more significantly, as personal financial responsibility shifts (van Rooij et al., 2011). The importance of financial literacy and the necessity of having a solid understanding of finance to make informed financial decisions have been highlighted by the current global financial crisis, because financial literacy fosters a financial mindset, which in turn leads to financial well-being (Philippas & Avdoulas, 2019). Self-efficacy is a strong belief in one's capacity to successfully complete a task or achieve a goal to perform positive behavior that contributes to financial well-being (Dare et al., 2023). Self-efficacy is found to partially mediate the relationship between financial literacy and financial well-being (Rai et al., 2025). Behavioris maintaining financial well-being; it requires prudent spending and saving habits, such as setting aside money each month, keeping emergency funds on hand, and keeping an eye on one's financial situation (Ahmad et al., 2010). Even those with expertise may behave poorly in their behavior if they are unable to

handle financial issues, as having a high level of financial knowledge does not always translate into sound behavior, especially when dealing with financial difficulties (Ahmad et al., 2010). Self-efficacy is essential for personal financial management, little is known about how it relates to behavior and how financial socialization plays a part in this process (Gudmunson & Danes, 2011). When combined with social influences like friends and family, financial literacy, which is frequently regarded as a crucial component in influencing behavior, may be more successful (Shim et al., 2010). Furthermore, the accuracy and applicability of current findings are limited, because of the lack of culturally relevant measurement instruments for behavior, self-efficacy, and financial literacy in the local setting.

Pakistan has always had a low savings rate, which is still far lower than that of its neighbors, Bangladesh and India. In recent years, national savings as a percentage of GDP have been falling and have failed to exceed 15% (van der Eng, 2025). Instead of financial instruments, a sizable portion of Pakistani households' savings is allocated to non-productive assets like real estate and precious metals. Therefore, financial socialization is a process by which people form their financial attitudes and behaviors. It may act as a mediator between self-efficacy, financial literacy, and general behavior (Shim et al., 2010). This idea acknowledges that people's behavior is impacted by social and psychological elements that impact how they use financial literacy throughout their life, in addition to knowledge (Xiao & Porto, 2017). Therefore, knowing how financial socialization works can help us understand how self-efficacy and financial literacy may lead to improved behavior and overall well-being. Although financial literacy, self-efficacy, and behavior have received much attention of research in Western world, but the research area leaves little attention in developing states like Pakistan. There has been little research on how financial socialization influences the relationship between behavior and literacy locally in Sindh, Pakistan.

Purpose of study

Two-stage study aims to determine the direct effect of financial literacy and self-efficacy on behavior and then introduce financial socialization to mediate the existing direct relationship determined in the first stage. Hence to provide insights about the effects on financial behavior prior to and after mediation, as the public at the local level in Larkana Sindh, can understand the importance of financial literacy, self-efficacy and financial socialization in shaping their financial behavior and be informed for making financial decisions.

LITERATURE REVIEW & HYPOTHESES

It is often acknowledged that one of the most important factors impacting financial behavior is financial literacy (Xiao & Porto, 2017). However, this study intended to highlight that financial literacy may not be the only factor to comprehend overall financial behavior there might be some factors influencing between financial literacy and financial behavior (Acharya & Hamal, 2022). In this regard, it is seen in the literature that financial socialization has been considered as a fundamental element in behavioral finance. Financial socialization is nothing but a mediator that transforms financial information into sound financial behavior by picking up financial behavior through contacts with peers, family, and society (Gudmunson & Danes, 2011). It is very crucial in societies where social influences have a big impact on financial trends and settings (Jamal et al., 2015).

Relationship between financial literacy and financial behavior

Financial literacy, information and skills required to make informed financial choices, is a necessity in behavioral change, especially among youths (Abro et al., 2024). More financially literate individuals tend to show that they have better financial habits, including budgeting, saving, and participating in needless debt (Xiao & Porto, 2017). Financial well-being depends on sound financial behavior that is dependent on financial knowledge and attitudes (Acharya & Hamal, 2022).

However, financial knowledge may not necessarily directly influence financial behavior, which contrasts with previous studies that frequently show an obvious relationship between financial literacy and financial behavior (Acharya & Hamal, 2022). People with greater financial literacy are better able to exercise self-control in financial concerns, avoid financial dangers, and make well-informed judgments. Financially literate people can comprehend the long-term effects of their financial choices, which in turn have a good behavioral impact (Xiao & Porto, 2017). Taking notice of the above literature; the following hypothesis can be drawn as

H1: There is a positive & significant relationship between financial literacy and financial behavior.

Relationship between self-efficacy and financial behavior

Self-efficacy is the individual's confidence in handling financial chores and obstacles (Jamal et al., 2015). Higher self-efficacy has been linked to reduced financial stress, which can enhance one's ability to make sound financial

decisions (Xiao & Porto, 2017). Hassani et al. (2025) found positive and significant relationship of self-efficacy has been determined with financial literacy in investors from Tehran Stock Exchange. Similarly, self-efficacy mediates the relationship between financial behavior and financial well-being of students (Obenza et al., 2024). A strong significant effect of self-efficacy exists with financial behavior when determined in association with financial knowledge and financial technology (Azzahra & Suryadi, 2025). Based on the above discussion, the following hypothesis is drawn.

H2: There is a positive and significant relationship between self-efficacy and financial behavior.

Mediation of financial socialization in relationships of financial literacy and financial behavior

Self-efficacy is also affected by cultural and familial factors, particularly in such locations as it is in Pakistan where financial practices are often dictated by the social norms and family interactions (Gudmunson & Danes, 2011). Similarly, young people need financial knowledge because it can make them make better financial choices; individuals are more likely to have financially sound behavior with a higher level of financial literacy (Lusardi & Mitchell, 2014; Xiao & Porto, 2017).

According to experts, the influence of financial literacy on behavior is strengthened by financial socialization, which serves as a crucial mediator (Gudmunson & Danes, 2011). Although financial information by itself may not directly influence behavior, people are more likely to act wisely when they are instilled with sound financial habits, but incorporating financial socialization as a mediating component may offer a more thorough comprehension of how financial behavior is ultimately influenced by financial literacy (Jamal et al., 2015). Based on the above discussion, the following hypothesis is drawn.

H3: There exists mediation of financial socialization in relationships between financial literacy and financial behavior

Mediation of financial socialization in the relationship between self-efficacy and financial behavior

One important factor that influences a person's capacity to handle money efficiently is self-efficacy or the confidence one has in handling financial concerns (Jamal et al., 2015). Financial socialization, i.e. peer, family and cultural influences, may mediate this relationship by reinforcing sound financial habits and attitudes, despite the paucity of research explicitly examining self-

efficacy (Gudmunson & Danes, 2011).

Research on college students' self-efficacy discovered that lower levels of financial stress were associated with stronger self-efficacy (Xiao & Porto, 2017). Simple, one-item assessments like "I manage my money well," which were evaluated using a Likert-type scale, were used to corroborate further this association (Acharya & Hamal, 2022). The development of measures, like the Self-efficacy Scale (FSES), has improved the assessment of self-efficacy in the financial sector and provided a more accurate means of comprehending its function. Hence, the following hypotheses are drawn based on the above discussion.

H4: There exists mediation in financial socialization in relationship of self-efficacy and financial behavior.

METHODS & PROCEDURE

The quantitative technique was applied to examine and analyze this model of cross-sectional data collected through questionnaire adopted from past studies (Bandura, 1977; Jamal et al., 2015; Lown, 2011; Xiao & Porto, 2017). Primary data was collected from 141 individuals of educational institutions in Larkana city. A Five-point Likert scale starting from 1 = "Strongly Disagree" to 5 = "Strongly Agree" was used for the survey in this study. The survey also included demographic questions of age, gender and education level to contextualize the findings. The target population comprises students from undergraduate educational institutions of Larkana, Sindh, Pakistan. Further, a non-probability convenience sampling method was employed, leveraging university networks and online platforms to recruit participants. This approach ensures feasibility while capturing a diverse sample (Hair et al., 2019).

After distributing more than 300 online and paper survey forms, only 165 were received, of which 141 were filled out by respondents in the study. This sample size exceeds the minimum requirement for structural equation modelling (SEM) as well as SPSS assumptions of a minimum 100 sample size for beginners to learn quantitative analysis techniques, which recommends at least 10 responses per variable (Williams et al., 2010).

DATA ANALYSIS & RESULTS

Descriptive statistics

Descriptive statistics was used to summarize the demographic profile of the 141 respondents, as shown in Table 1.

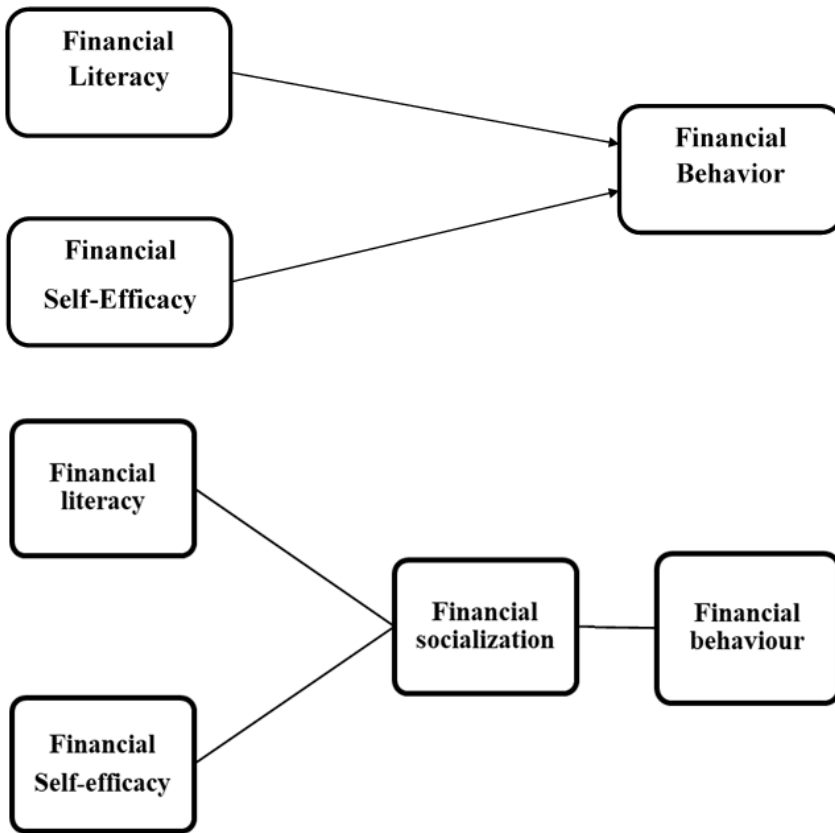


Chart 1: *Conceptual frameworks Stage 1 and Stage 2 (Bandura, 1977; Jamal et al., 2015; Lown, 2011; Lusardi & Mitchell, 2014; Xiao & Porto, 2017).*

Reliability analysis

Reliability of each individual construct is measured separately to determine Cronbach’s alpha value, as shown below in Table 2. The internal consistency of each construct is above 0.70, and it provides strength to the scale as it is reliable to get survey and run results in the local context. The scale reliability is consistent with the literature from which scale is adopted (Bandura, 1977; Xiao & Porto, 2017).

Table 1.

Age, gender and degree program distribution of respondents

Category	Frequency	Percent	Valid Percent	Cumulative Percent
Age				
Below 25	111	78.7	78.7	78.7
25-35	20	14.2	14.2	92.9
36-45	7	5.0	5.0	97.9
46-55	3	2.1	2.1	100.0
Total	141	100.0	100.0	
Gender				
Male	47	33.3	33.3	33.3
Female	94	66.7	66.7	100.0
Total	141	100.0	100.0	
Degree Program				
Computer Science	19	13.5	13.5	13.5
BBA	109	77.3	77.3	90.8
Commerce	11	7.8	7.8	98.6
Others	2	1.4	1.4	100.0
Total	141	100.0	100.0	

Table 2.

Construct reliability

Variables	Cronbach's Alpha	N of Items
FL	.897	15
FSE	.757	4
FS	.811	5
FB	.809	4

Regression analysis

This research model is a two-stage model, in which prior mediation i.e. simple regression results are determined to explain impact of financial literacy and self-efficacy on financial behavior. Later mediation is determined to explain the results after the introduction of financial socialization as a mediator in relationships of financial literacy and self-efficacy with financial behavior.

In determining the impact and relationship of financial literacy (FL) and self-efficacy (FSE) on financial behavior (FB), the following results are drawn in the shape of a model summary, ANOVA and co-efficient as shown below in table 3, 4 and 5 respectively. The strong correlation exists i.e. R-value 0.720 and nearly above 51% of co-efficient of determination exist i.e. R-square value of 0.518. According to the estimate's standard error (0.59388), the prediction accuracy is moderate. The model demonstrated significant predictive power by explaining 51.8% of the variance ($R^2 = 0.518$) in financial behavior. This result is in line with earlier research, which found that financial literacy studies had an R-square value of 0.49 (Grohmann et al., 2015).

Table 3.
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.720 ^a	.518	.511	.59388

a. Predictors: (Constant), FSE, FL

The overall significance of the regression model is assessed in the ANOVA i.e. Table 4. According to the statistically significant regression model ($F = 74.104$, $p < 0.001$), financial behavior is jointly predicted by self-efficacy and financial literacy. The model-explained variability is represented by the regression sum of squares (52.272), whereas the unexplained variability is represented by the residual sum of squares (48.672). The statistical significance of the regression model ($F = 74.104$, $p < 0.001$) confirmed that the predictors are reliable in describing financial behavior. Studies on financial literacy have reported similar F-values, such as $F = 62.3$ (Grohmann et al., 2015).

Table 4.
ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1						
	Regression	52.272	2	26.136	74.104	.000 ^b
	Residual	48.672	138	.353		
	Total	100.944	140			

a. Dependent Variable: FB

b. Predictors: (Constant), FSE, FL

H1. Financial Literacy (FL) -> Financial Behavior (FB)

Referring to the first hypothesis that there is a significant and positive relationship between financial literacy and financial behavior, results confirmed by the value i.e. $\beta = 0.777$, $t = 5.913$, $p < 0.001$ indicating that financial behavior is significantly predicted by financial literacy. Similarly, it is confirmed that financial

literacy had a significant impact on budgeting and saving behaviors (Xiao et al., 2014).

H2. Self-efficacy (FSE) -> Financial Behavior (FB)

Referring to the second hypothesis the relationship between self-efficacy (FSE) and financial behavior is significant and positive. The results achieved, as shown below in Table 4.05 are $\beta = 0.160$, $t = 1.456$, $p = 0.148$. These results do not provide support because the significance level is above the 0.05 thresholds. Hence, from the first stage prior mediation only one hypothesis from the two is supported. The result of the second hypothesis is in contradiction to the literature on the impact of self-efficacy on financial behavior because financial control behaviors were found to be significantly predicted by self-efficacy ($\beta = 0.435$, $p < 0.01$) (Perry & Morris, 2005).

Table 5.
Coefficients

Model	Unstandardize		Standardized Coefficients Beta	T	Sig.	95.0% Interval for B		
	B	Std. Error				Lower Bound	Upper Bound	
1 (Con- stant)	.242	.264		.918	.360	-.279	.763	
	FL	.777	.131	.596	5.913	.000	.517	1.036
	FSE	.160	.110	.147	1.456	.148	-.057	.376

a. Dependent Variable: FBE

Mediation Analysis

To investigate the indirect effect of financial socialization (FSO) in the connection between financial literacy (FL), Self-efficacy (FSE), and financial behavior (FB), mediation analysis was carried out. The findings are shown in Tables 6 and 7.

Direct Effect

Financial literacy had a statistically significant direct effect on financial behavior ($\beta = 0.6241$, $t = 5.0866$, $p < 0.001$). This suggests that improved financial behavior is a direct result of increased financial literacy and is consistent with retirement planning and saving habits were being significantly predicted by financial literacy (Lusardi & Mitchell, 2011).

H3. Financial Literacy -> Financial Socialization -> Financial Behavior (FB)

Indirect effects through financial socialization

Through financial socialization, financial literacy has shown an indirect effect on financial behavior ($\beta = 0.3074$, Boot SE = 0.1509, Boot LLCI = 0.0068). This result implies that the relationship between financial behavior and financial literacy is partially mediated by financial socialization. It is like results achieved in past studies where financial socialization considerably increases the influence of financial literacy on financial behaviors in young adults (Jamal et al., 2015). Similarly, socialization processes including parental influence and financial education enhance the behavioral benefits of financial literacy (Grohmann et al., 2015).

Table 6.
Direct and indirect effects of X on Y

Direct effects of X on Y					Indirect effect of X on Y			
Effect	SE	T	P	LLCI		Effect	Boot SE	Boot LLCI
0.6241	0.1227	5.0866	0.0000	0.3815	FSO	0.3074	0.1509	0.0068

Direct effect

A significant positive relationship is indicated by the direct effect of self-efficacy on financial behavior ($\beta = 0.2695$, $t = 2.4525$, $p = 0.0154$). This finding implies that improved financial behavior is a direct result of increased self-efficacy (Perry & Morris, 2005).

H4. Self-efficacy -> Financial Socialization -> Financial Behavior (FB)

Indirect effect through Financial Socialization

Financial socialization had a significant indirect effect ($\beta = 0.4148$, Boot SE = 0.1223, BootLLCI = 0.1958). This suggests that the relationship between financial behavior and self-efficacy is mediated by financial socialization. The mediating role of financial socialization was also emphasized that socialization processes greatly improve financial behaviors (Jamal et al., 2015).

The results indicate that financial socialization is a mediating variable between the financial literacy and self-efficacy, which has been proven to be crucial predictors of financial behavior. These findings show that these aspects are related to each other in their effects on financial decision-making which is in line with other authors on the importance of social influence, psychological traits, and education to financial outcomes.

Table 7.

Direct and indirect effects of X on Y

Direct effects of X on Y					Indirect effect of X on Y			
Effect	SE	T	P	LLCI	Effect	Boot SE	Boot LLCI	
0.2695	0.1099	2.4525	0.0154	0.0522	FSO	0.4148	0.1223	0.1958

CONCLUSION AND RECOMMENDATION

Financial socialization has been established as significant as the mediator in the results attained in this study. Inference made that individuals who have more financial socialization display better financial behavior even this financial behavior can be further determined by their financial literacy and confidence in managing money. It is determined that financial literacy is the best predictor of financial behavior hence its critical role in coming up with sound financial decisions. The last mediating effect of financial socialization emphasizes the importance of including social learning processes within the financial education. Individuals who are more socialized with regard to finances either by peer pressure or parental guidance would revert to wellness in their finance. Therefore, findings corroborate previous research articles that indicate the relationship between social factors, self-efficacy, and financial literacy to improve financial outcome. Recommendations from the above insights can be drawn below

- The educators and policymakers must create focused interventions which help in promoting social learning opportunities along with improving financial literacy.
- Through this the gap of financial literacy will be can be filled and confidence in financial decision-making will be increased to promote financial conversations in peer groups, families, and educational settings.
- Finally it is recommended that diverse populations can accomplish improved financial outcomes by putting into practice comprehensive strategies that address psychological traits, education, and social influences.

Suggestions and future direction

This research incorporate limited literature review and sample to drawn results hence it is suggested that in future researchers must concentrate on broadening the literature review and sample size along with geographic scope to include various cultural and economic contexts. Because increased sample size

of geographic locations and broader literature review would offer a more comprehensive viewpoint and increase the findings' generalizability.

This study is cross-sectional hence limited mediation intervention achieved but if longitudinal research approach adopted in future may lead to document the long-term effects of financial socialization on financial behaviour as well as how it changes over time. Deeper understanding of the dynamic character of financial socialization and how it influences financial decision-making will be possible with this method.

Demographically the sample must be from people of different age, ethnicity, genders, and socioeconomic backgrounds to varied contexts for achievement of results in future research may support in determining actual role of financial socialization. The research framework incorporating cultural factors has significant impact of socialization process, financial literacy, and self-efficacy.

The future research needs to have it as a priority to develop standard and validated measures of financial socialization. Standardized measures would ease comparison of cross-studies and also encourage a deeper understanding of the role of financial socialization. Policymakers and teachers have been encouraged to develop targeted strategies and programs to facilitate positive experiences in financial socialization. This is particularly important to the marginalized groups where self-efficacy and financial literacy is more in need of help. These issues can be addressed in future research to develop a better understanding of the interconnected factors that influence financial behavior.

REFERENCES

- Abro, A. M., Maitlo, A. A., Mughal, D. D. K., Sangah, S., & Mughal, I. (2024). Mediating Role of Financial Literacy in Relationship of Factors Affecting the Money Management Skills. *Journal of Asian Development Studies*, 13(1), 626–642. <https://doi.org/10.62345/jads.2024.13.1.52>
- Acharya, A., & Hamal, J. B. (2022). Relationship between financial literacy and student's stock market participation. *Nepalese Journal of Business and Management Studies*, 1(1), 1–16. <https://doi.org/10.3126/njbms.v1i1.66167>
- Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2015). Financial literacy among working young in urban India. *World Development*, 67, 101–109. <https://doi.org/10.1016/j.worlddev.2014.10.004>
- Ahmad, Z., Simun, M., & and, S. M. (2010). Determinants of Financial Behaviours among Malaysians. *Indonesian Capital Market Review*, 2(2), Article 4. <https://doi.org/10.21002/icmr.v2i2.3663>
- Azzahra, L. F., & Suryadi, E. (2025). The Influence of Financial Knowledge, Financial Technology and Self-efficacy on the Financial Behavior of Qris Users Among Students in Pontianak City. *Journal of Advanced Research in Economics and Administrative Sciences*, 6(2), Article 2. <https://doi.org/10.47631/jareas.v6i1.928>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- Dare, S. E., Van Dijk, W. W., Van Dijk, E., Van Dillen, L. F., Gallucci, M., & Simonse, O. (2023). How executive functioning and self-efficacy predict subjective financial well-being via positive financial behaviors. *Journal of Family and Economic Issues*, 44, 232–248. <https://doi.org/10.1007/s10834-022-09845-0>
- Goyal, K., Kumar, S., & Hoffmann, A. (2023). The direct and indirect effects of financial socialization and psychological characteristics on young professionals' personal financial management behavior. *International Journal of Bank Marketing*, 41(7), 1550–1584. <https://doi.org/10.1108/IJBM-09-2022-0419>
- Grohmann, A., Kouwenberg, R., & Menkhoff, L. (2015). Childhood roots of financial literacy. *Journal of Economic Psychology*, 51, 114–133. <https://doi.org/10.1016/j.joep.2015.09.002>
- Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialization: Theory and critical review. *Journal of family and economic issues*, 32, 644–667. <https://doi.org/10.1007/s10834-011-9275-y>
- Hassani, A., Mohajer, S., Darvishan, S., Shafiesabet, A., & Tashakkori, A. (2025). The Impact of Financial Literacy on Financial Behavior and Financial Resilience with the Mediating Role of Financial Self-Efficacy. *International journal of industrial engineering and operational research*, 7(2), 38–55.
- Jamal, A. A. A., Ramlan, W. K., Karim, M. A., Mohidin, R., & Osman, Z. (2015). The effects of social influence and financial literacy on savings behavior: A study on students of higher learning institutions in Kota Kinabalu. *International Journal of Business and*

- Social Science*, 6(11), 110–119.
- Lebaron, A. B., & Kelley, H. H. (2021). Financial socialization: A decade in review. *Journal of family and economic issues*, 42(Suppl 1), 195–206.
- Lown, J. M. (2011). Development and Validation of a Financial Self-Efficacy Scale. *Journal of Financial Counseling and Planning*, 22(2), 54–63. Retrieved from https://www.afcpe.org/wp-content/uploads/2018/10/vol_22_issue_2_lown.pdf
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and retirement planning in the United States. *Journal of pension economics & finance*, 10(4), 509–525. <https://doi.org/10.1017/S147474721100045X>
- Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy: Theory and Evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- Obenza, B. N., Cuaresma, N. B. G., Carandang, Y. G. D., Dalugdug, L. J. S., Resus, K. S. M., Jumamoy, B. C. A., Mamon, A. T., & Chi, K. C. Y. (2024). The mediating effect of financial Self-Efficacy on financial behavior and financial Well-Being of college students in region XI. *American Journal of Economics and Business Innovation*, 3(1), 21–30. <https://doi.org/10.54536/ajebi.v3i1.2313>
- Pak, T. Y., Fan, L., & Chatterjee, S. (2024). Financial socialization and financial well-being in early adulthood: the mediating role of financial capability. *Family Relations*, 73(3), 1664–1685. <https://doi.org/10.1111/fare.12959>
- Perry, V. G., & Morris, M. D. (2005). Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *Journal of consumer affairs*, 39, 299–313. <https://doi.org/10.1111/j.1745-6606.2005.00016.x>
- Philippas, N. D., & Avdoulas, C. (2019). Financial literacy and financial well-being among generation-Z university students: Evidence from Greece. *The European Journal of Finance*, 26(4-5), 360–381.
- Rai, K., Ahuja, B. K., & Sharma, M. (2025). Exploring linkages of financial literacy with financial well-being: the mediating aspect of financial behavior and self-efficacy. *International Journal of Law and Management*. <https://doi.org/10.1108/IJLMA-02-2025-0066>
- Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of youth and adolescence*, 39(12), 1457–1470. <https://doi.org/10.1007/s10964-009-9432-x>
- Sinha, N. K., Kumar, P., & Priyadarshi, P. (2021). Relating mindfulness to financial well-being through materialism: evidence from India. *International Journal of Bank Marketing*, 39(5), 834–855.
- van der Eng, P. (2025). Pakistan's Economy: Fallout of 2022 Economic Distress Magnified the Need for Structural Reforms. *Asian Economic Policy Review*, 20, 128–146. <https://doi.org/10.1111/aep.12486>
- van Rooij, M. C., Lusardi, A., & Alessie, R. J. (2011). Financial literacy and retirement planning in the Netherlands. *Journal of Economic Psychology*, 32(4), 593–608. <https://doi.org/10.1016/j.jep.2011.05.001>

doi.org/10.1016/j.joep.2011.02.004

- Williams, B., Onsman, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3), 1–13. <https://doi.org/10.33151/ajp.8.3.93>
- Xiao, J. J., Ahn, S. Y., Serido, J., & Shim, S. (2014). Earlier financial literacy and later financial behaviour of college students. *International Journal of Consumer Studies*, 38(6), 593–601. <https://doi.org/10.1111/ijcs.12122>
- Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing*, 35(5), 805–817. <https://doi.org/10.1108/IJBM-01-2016-0009>