



ANALYSIS OF FINANCIAL KNOWLEDGE, FINANCIAL ATTITUDE AND FINANCIAL BEHAVIOR

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Abstract: This study describes the relationship between financial knowledge, financial behavior and financial attitude, where financial attitude is taken as a mediator between knowledge and Behavior. Primary Data were collected using a structured questionnaire from 204 participants. For relationship between variables, Pearson correlation and multiple regression analyses were applied. The IBM SPSS software is used for multiple regression analysis which explained almost 41% of variation in Financial Behavior (showed in linear regression analysis), which generally is taken as reasonable strength. Using multiple linear regression analysis, the results show that with higher financial knowledge, there will be a positive relationship with financial behaviors also it shows that financial attitudes positively mediate the association between financial behaviors and financial knowledge.

INTRODUCTION

In recent years, there has been an increasing worldwide effort on enhancing financial literacy, which includes financial knowledge, financial behavior, and financial attitude. A growing number of nations, regardless of their development status, are emphasizing the importance of financial education to enable individuals to make financial choices. The Organization for Economic Co-operation and Development, (OECD, 2016) highlights that financial literacy has become an essential life skill and it is motivating countries to launch programs in schools, workplaces, and community settings with intentions to enhance awareness for financial knowledge and for promotion of better financial behaviors. Studies indicate that nations with high levels of financial literacy often demonstrate more strong financial behaviors, including constant saving, participation in financial markets, and responsible debt management (Atkinson & Messy, 2012; Andarsari, Rosita, Ningtyas, & Noerman, 2019; Rahayu, Ali, Aulia, & Hidayah, 2022) However, the international context also shows considerable variations and discrepancies regarding financial decisions in developing nations, where opportunities for formal financial education are rare, resulting in increased financial weakness (Klapper & Panos, 2021) The global trends highlight the necessity of enhancing financial literacy and cultivating constructive financial mindsets to guarantee sustainable financial practices among diverse groups.

Currently in Pakistan, the informal financial teaching becomes increasingly significant. Due to the absence of formal networks of financial knowledge, People especially in rural areas, often rely on family, friends or community-based information for making financial decisions. This gap has been developed by the occurrence of informal sources of financial services, most especially in rural areas (Lusardi & Mitchell, 2021; Aryana, et al., 2024). Furthermore, the cultural background influencing financial decisions is important as well. For example, Cultural and family attitudes toward debt, saving or investment can be massively different. The scientific literature indicates a clear need for Pakistan to enhance its formal education, emphasizing social systems of practice rather than concentrating solely on policy-related issues (Arif, 2015; Ghaffar & Sharif, 2016; Rasool & Ullah, 2020).

Financial Knowledge defined as the set of knowledge, skills and attitude to make sound financial decisions has received significant attention globally. Financial Knowledge is very important in the developing countries like Pakistan where economic instability and financial mismanagement of organizations could have huge impacts (Lusardi & Mitchell, 2014; Noor, Batool, & Arshad, 2020; Kadoya & Khan, 2020; Dewi, Febrian, Effendi, & Anwar, 2022) Basic personal finance skills, such as budgeting, saving and investing are not only important for the individual's financial health but also play a role in broader economic prosperity. Therefore, improving financial knowledge among individuals is essential for fostering better financial behavior—such as saving wisely, making knowledgeable investment decisions, and managing debt prudently. (Potrich, Vieira, & Kirch, 2015; Stolpe & Walter, 2017).

Financial behavior includes the various actions that individuals engage in to manage their finances, including budgeting, saving, borrowing, and investing. A wealth of studies indicates that individuals who practice responsible financial behaviors, like consistent saving and prudent debt management, often experience improved financial outcomes over the long term. (Xiao & O'Neill, 2016). It is emphasized that individuals demonstrating sound financial behaviors experience enhanced financial well-being, highlighting the significance of responsible money management. (Lusardi & Tufano, 2015). It is discovered that individuals possessing greater debt

literacy, which is a side of financial behavior, tend to be less prone to over-indebtedness. Research conducted by (Xiao, Chen, & Sun, 2014) and then further explained by (Braun & Schmitt, 2021) observed a role of knowledge and attitude on financial behavior. Financial attitudes refer to the way you view life, dangers and risks. It helps to consider your future options vs. what's in front of you today, plus how to deal with debt or borrowing (Radianto & Pramudita, 2024; Rai, Dua, & Yadav, 2024). Research undertaken by (Wang & Xiao, 2021; Rai, Dua, & Yadav, 2024) shows that while knowledge levels may be modest but any impacts of financial attitudes on behavior are likely to reflect them such as being prepared to take sensible risks and save. On the other hand, unfavorable financial attitudes—e.g., avoiding planning or being loss-averse—might hinder individuals in using their information efficiently and, thus lead to Inadequate (behavioral) outcomes (Fernandes, Lynch, & Netemeyer, 2022) The knowledge-attitude-behavior relationship is one of the central components pursued in this study, to explore these relationships within a Pakistani context. In order to close the gap between financial behavior and financial knowledge, financial attitude is essential. Consequently, recent research confirms that financial attitudes substantially impact behaviors such as investing; saving, and budgeting and financial knowledge impacts the relationship of both variables. (Sabri, Rahim, & Masud, 2020; SWACHA-LECH, 2024; Amaria & Sisca, 2024). Similarly, more researchers emphasized the significance of financial attention and economy, which enhance financial attitude practices such by providing sufficient financial knowledge.

Research Objectives

This study is designed to explore the following objectives:

1. To check the relation between financial knowledge and financial behavior
2. To check the relation between financial knowledge, financial behavior and mediating role of financial attitude

Research Questions

The research questions derived from these objectives are:

1. What is the direct relationship between financial knowledge and financial behavior?
2. Does financial attitude mediate the relationship between financial knowledge and financial behavior?

Literature Review

Financial Knowledge, or knowing and being able to use financial concepts, is the basic foundation for healthy financial relationships. Existing evidence all points to the fact that people with greater financial Knowledge are better able to navigate common problems such as savings for retirement, debt management and investment choices (Garrido & Stanga, 2021) Specific to Pakistan, access and availability of a various range financial products (as mentioned before) tied with limited exposure to formal education makes this money knowhow critically important (Chowa, Ansong, & Masa, 2012) Furthermore, a substantial amount of evidence has shown that individuals with higher levels of financial knowledge tend to manage debt more effectively, make informed investment choices, and exhibit better savings habits (Huston, 2010) (Lusardi & Tufano, 2015) highlighted the essential role of financial knowledge in mitigating over-indebtedness and fostering responsible borrowing behaviors.

1. Financial Knowledge and Financial Behavior

Previous studies

Found that those with higher levels of financial knowledge were more likely to engage in better behaviors when it comes to their money including paying bills on time, not taking out a loan they know will be impossible for them repay, or worse yet — finance things like cigarettes. People who are financially literate — in other words, knowledgeable around money matters — tend to make more well-informed financial decisions and undertake long-term planning (Sullivan, R. F., & Ekelund, B., 2020). This means that financial Knowledge is a crucial determinant of financially responsible behaviors. In addition to this connection, (Lusardi & Mitchell, 2021) suggests that a thorough grasp of financial concepts results in improved financial outcomes, including the avoidance of excessive debt and the enhancement of wealth through savings. In a similar vein, (Van Rooij, M., Lusardi, A., & Alessie, R., 2011) discovered that individuals possessing high financial knowledge levels are considerably more inclined to participate in stock markets and explore various investment avenues.

- **Hypothesis 1:** Financial knowledge has a direct, positive impact on financial behavior.

2. The Mediating Role of Financial Attitude

Financial attitude is a fancy term we all use to describe how people think or approach money in their personal financial decision-making process. Engagement with a positive or negative attitude may result in financial knowledge learned (Phung, D., 2019); (Pankow, J., 2010). Research by (Rajna, A., Smith, J., & Doe, R., 2011) showed that people with positive financial attitude are most likely to use their knowledge effectively so that better saving and spending meets can be experienced.

Moreover, (Dew, J., & Xiao, J. J., 2011) highlight that financial attitude serves as an ancestor to responsible financial behavior, indicating that individuals with an active mindset are more inclined to hold positive financial habits. (Shim, S., Barber, B. L., Card, N. A., & Hwang, J., 2015) Observed that socialization processes significantly shape the formation of financial attitudes, which subsequently affect financial decision-making and long-term financial well-being.

Also, (Atkinson & Messy, 2012) find that proactive financial attitudes are associated with greater intentions to plan for long-run goals like saving for retirement. The financial attitude serves as a vital mediator in influencing both financial knowledge and financial behavior. An enhanced understanding of financial principles motivates individuals to pursue further financial education, thereby increasing their confidence and comprehension of financial concepts. This improved understanding subsequently raises more effective financial practices, including consistent saving, careful budgeting, and strategic investing. On the other hand, a negative financial mindset can delay the desire to acquire knowledge, leading to wrong financial choices and practices. Consequently, one's financial attitude has a direct impact on financial knowledge by encouraging the quest of learning, while also indirectly shaping financial behavior by steering actions related to finances based on the knowledge gained and the attitudes formed towards money.

On the basis of these we'll explain below that financial attitude is a mediator in the relationship from financial knowledge to Financial Behavior.

Hypothesis 2: Financial attitude mediates the relationship between financial knowledge and financial behavior, amplifying the positive effects of financial knowledge on behavior.

3. Financial Behavior in Pakistan

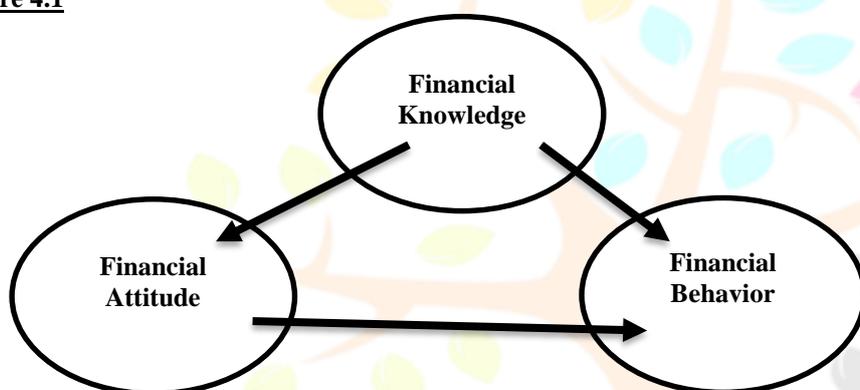
Low savings, little investments and use of informal financial networks define the prevailing pattern of these financial behaviors in Pakistan. The low level of financial Knowledge observed, and much more is missing among people regarding information about managing complicated financial markets (Britt, S., Ammerman, D., Barrett, S. F., & Jones, S., 2017). Individuals with legit financial Knowledge, tend to the side of running a responsible budget and making genuine investments for the future (Lusardi & Mitchell, 2014). (Klapper, L., Lusardi, A., & Panos, G. A., 2013) Identified a direct connection between low financial understanding in emerging economies such as Russia and harmful financial behaviors, particularly during times of economic conflict. In Pakistan, this situation is similarly evident, as the lack of development in financial literacy programs results in a significant dependence on informal financial networks. (World Bank., 2020)

4. Theoretical Framework

The theoretical framework for this study examines the relationships between financial knowledge, financial attitude, and financial behavior. Financial attitude is positioned as a mediator between knowledge and behavior. (Sohn, S. H., Lee, S. J., & Choi, M., 2012) Highlighted the significance of financial knowledge and attitudes in influencing financial knowledge, especially in young individuals, which is crucial for understanding how attitudes act as mediator in the connection between knowledge and behavior. (Tang, N., & Baker, D., 2015) Investigated the mediating role of psychological factors, which could have impact on financial actions.

4.1 Theoretical Framework Diagram:

Figure 4.1



This model illustrates that financial knowledge directly influences financial behavior, while financial attitude mediates this relationship by shaping how individuals apply their knowledge in financial decision-making.

Methodology

1. Research Design

The research design we are using is “Quantitative Research”. Quantitative research is especially appropriate for studies of this nature, as it facilitates the objective measurement of variables and enables statistical analysis of the collected data to uncover trends and correlations (Bryman, A., 2012) We analytically examine the relationships of financial knowledge, financial attitude and its association toward behavior in this study by employing a quantitative research design. This design allows for the testing of hypotheses and the analysis of relationships through the use of numerical data. This approach guarantees the reliability and validity of the findings, establishing a strong framework for analyzing financial behaviors. For getting primary data, a structured questionnaire was used to take response from 204 respondents of different demographic areas in Pakistan

2. Sample and Sampling Method

The sample was composed of males and females with a different educational and professional background, reflecting the population; base. We used a convenience sampling method to reduce financial knowledge, attitudes and behavior partiality among the participants. This method was particularly chosen for the convenience to reach out great number of responses within short period of time through online, however wide coverage is assured. Whilst convenience sampling may restrict the generalizability of the findings, still it is used frequently in qualitative research to allow efficient data collection from a wide range participant (Bornstein, M. H., Jager, J., & Steinberg, L., 2013)

The questionnaire was in online form to ensure a wider reach.

3. Respondent Characteristics

Below table 3.1 shows the respondent characteristics

Table 3.1

Characteristics	Respondent Amount	Percentage Grade
Gender		
Male	108	52.94%
Female	96	47.06%
Age		
18-24	95	46.57%
25-34	81	39.71%
35-44	20	9.80%
45-59	8	3.92%
Occupation		
Job Holder	82	40.20%
Student	54	26.47%
Student + Job Holder	42	20.59%
Self Employed	7	3.43%
Other	19	9.31%
Marital Status		
Single	133	65.20%
Married	69	33.82%
Divorced	2	0.98%

4. Questionnaire Development

The questionnaire was adopted from (Banthia, D., & Dey, S. K., 2022) which was divided into three sections, each focusing on a specific variable:

- **Financial Knowledge:** Questions related to saving, calculating interest rate, understanding the value of money, risk-reward ratio, familiarity with electronic transactions, awareness of return and knowledge about inflation.
- **Financial Attitude:** Representing how participants considered short-term/long-term future planning and went-between role of agents including item on surfaces as to spending/saving priorities which shows either knowledge about financial products, ability to manage basic financial activities or good for part conscious sacrificing.
- **Financial Behavior:** Questions assessing individuals like spending bills on time, monitoring their financial condition, decreasing loan dependence and if they plan for future expected needs among others

The questionnaire used a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree," Where "1" represents strongly disagree and "5" represents strongly agree, to measure respondents' financial knowledge, attitudes, and behaviors.

5. Definition of Variables

The table 5.1 shows the definition and reliability of variables

Table 5.1

Variable Type	Variable	Description	Cronbach's Alpha
Dependent Variable	Financial Behavior	Actions in matters of managing home. Money beliefs or mindset about financial practices	0.766
Independent Variable	Financial Knowledge	Grasping of financial terms, products and activities.	0.766
Mediator	Financial Attitude	Money management mindset or beliefs.	0.733

The results supported a high level of confidence in the ability to measure, either individually or together as higher-order constructs, financial knowledge, attitude and behavior using these items.

6. Data Analysis:

The data were analyzed using SPSS statistical software, employing descriptive statistics, correlation analysis and multiple regression analysis. Pearson's correlation was used to assess the relationships between financial knowledge, attitude, and behavior, while linear regression analysis was employed to test the mediating role of financial attitude.

6.1 Descriptive Statistics

Table 6.1.1

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Financial Knowledge (FK)	204	0	28	18.2	5.936
Financial Attitude (FA)	204	0	20	12.4	4.501
Financial Behavior (FB)	204	0	28	18.6	5.435
Valid N (list wise)	204				

SPSS descriptive analysis describes a dataset's primary properties. The "mean" reveals the group's average score. It shows the data's general trend. However, the standard deviation illustrates how much individual results differ from this average. A larger standard deviation indicates more data variability while a lower standard deviation indicates more data similarity.

- **(FK):** The table's "Mean" score for Financial Knowledge (FK) indicates that participants' level of financial knowledge is typically average. The standard deviations, however, indicate that there is a good deal of variety in people's financial knowledge. This indicates that while some individuals may find it difficult to understand concepts like risk and inflation or how to calculate interest rates, others may have a strong grip of these ideas.
- **(FA)** The Financial Attitude "Mean" score indicates that the majority of participants take a proactive approach to budgeting and money management. The standard deviations show that there is some variance in the degree of confidence that individuals have in their ability to manage their finances and keep up with market movements.
- **(FB)** According to the "Mean" score for Financial Behavior, most respondents have sound financial practices, such as tracking their transactions and making on-time bill payments. The standard deviations, however, show that there are variations, with some people having better financial discipline than others.

6.2 Correlation Analysis:

Table 6.2.1

Correlations		Financial knowledge	Financial Attitude	Financial Behavior
Financial knowledge	Pearson Correlation	1	0.508	0.473
	Sig. (2-tailed) pvalues		0	0
	N	204	204	204
Financial Attitude	Pearson Correlation	0.508	1	0.611
	Sig. (2-tailed) pvalues	0		0
	N	204	204	204
Financial Behavior	Pearson Correlation	0.473	0.611	1
	Sig. (2-tailed) pvalues	0	0	
	N	204	204	204

For this analysis, we used Pearson Correlation. Financial Knowledge and Financial Attitude are significantly correlated with each other having the value of 0.508 which indicates that correlation is moderately positive among them this could mean that apparently a person who is more financially knowledgeable will be likely to hold a better financial attitude.

Relationship between Financial Knowledge and Financial Behavior was 0.473 with a Moderate Positive Correlation. What that means is people MORE financially literate have the better financial behaviors.

The correlation between Financial Attitude and Financial Behavior is 0.611, meaning that these variables have a strong positive relationship. This implies that a more positive financial attitude is highly correlated with better financial behavior.

Hence these results showed positive correlations of relationships and the highest was for financial knowledge with financial behavior. This consistent with recent literature, where financial knowledge often has been found to be positively related to a range of improved financial behavior.

From this table, we can see that all variables have a statistically significant relationship as their pvalues are all below 0.05.

6.3 Linear Regression Analysis:

Table 6.3.1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Financial Behavior	.639 ^a	0.409	0.403	4.2
Predictors: (Constant), Financial Attitude, Financial knowledge				

The linear regression analysis showed a moderate to strong positive correlation between independent and dependent variables as evidenced by the Pearson's R value of 0.639, R Square is 0.409, which means the model explains almost a one-fourth (approximately 40–41 %) of variance in dependent variable. The Adj R Square also reflects that the model performing well after taking into account for number of predictors and avoid over fitting (means the model simplifies well to new data without being overly personalized to the specific dataset).

6.4 Analysis of Variance (ANOVA)

Table 6.4.1

ANOVA ^a						
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2451.299	2	1225.65	69.494	.000 ^b
	Residual	3544.995	201	17.637		
	Total	5996.294	203			
a. Dependent Variable: Financial Behavior						
b. Predictors: (Constant), Financial Attitude, Financial knowledge						

The ANOVA table shows the significance of model in predicting financial behavior on the basis of variables, whereby we used financial attitude and financial knowledge as independent variables for this study. The Regression Sum of Squares (2451.299) indicates that some variation in the model has been explained, while the Residual Sum of Squares (3544.995) indicates unexplained variation. The ratio of explained variance to unexplained variance is 69.494 on 2 and 201 DF, with a p-value of <0.0001. The results of the ANOVA test revealed a significant regression model with Financial Attitude and Financial Knowledge as variables for change in Financial Behavior. The F-value of 69.494 and p = .000 (p < .05) mean the model predicts Financial Behavior well and This shows that Financial Knowledge and Financial Attitude together explain a big part of the differences in how people handle their money (Financial Behavior).

6.5 Coefficients:

Table 6.5.1

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.408	1.035		7.154	0
	Financial knowledge	0.2	0.058	0.219	3.478	0.001
	Financial Attitude	0.603	0.076	0.5	7.939	0
a. Dependent Variable: Financial Behavior						

Regression Coefficients: This table shows the beta coefficients of each individual variable. Financial knowledge and attitude are significantly positively related to financial behavior, with relatively stronger effects of the former. The positive coefficients indicate that responsible financial behavior increases when knowledge and attitude toward financial matters increase, which is consistent with behavioral finance theory.

Conclusion

The present research emphasizes the importance of financial knowledge and attitude in influencing financial behavior among Pakistanis. Financial Knowledge was also related to financial behaviors, but it had a smaller effect on this type of responsible behavior (i.e., budgeting, saving and debt-management). The financial attitude, in addition to being a measure of observable behavior is acting as a mediator and it is emphasizing the effect that knowledge has on behavioral outcomes.

This highlights the need for policy makers and educators to think beyond just implementing financial Knowledge programs, but also in how they can teach better perceptions while teaching more about such problems. This will help them create an ecosystem where people can make informed financial decisions, thereby triggering economic stability and growth in Pakistan.

Limitations

This study is not without limitation despite contributing to the understanding financial Knowledge, financial attitude and financial behavior among people of Pakistan. To start with, 204 is an extremely small sample even though it covers respondents of all age groups – suggestively the behaviors more widespread and applicable across Pakistan. Also the exclusive attention in this study to financial knowledge, attitude and behavior as mediators without examining potential moderators. They did not control for factors such as socio-economic status, educational background, access to financial services or the influence of cultural norms on how people make personal financial decisions. Further, financial attitude was the mediating variable used in this model; however, others such as risk tendency or financial efficacy might also serve as mediators or moderators of knowledge (behavior) but were not included here since they focus on specific attitudinal factors.

Future recommendation

Future financial literacy programs and researchers may find value in integrating understandings from this study, which emphasizes the mediating role of financial attitude in influencing financial behavior. Through the application of the framework outlined in this research, practitioners and educators can create more focused interventions that enhance financial knowledge and promote positive financial attitudes. This dual approach can improve the effectiveness of financial education programs, especially in environments where informal financial networks are common. Policymakers and educators should incorporate these findings into their programs to foster responsible financial behaviors and enhance long-term financial outcomes.

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