Advance Journal of Econometrics and Finance
Vol-4, Issue-1, 2026

Advance Journal of Econometrics and Finance

Online ISSN
2959-8990
Print ISSN
2959-8982
https://ajeaf.com/index.php/Journal/About

Name of Publisher: SCHOLAR CRAFT EDUCATION & RESEARCH HUB
Review Type: Double Blind Peer Review
Journal Frequency: Quarterly Research Journal

BEYOND KNOWLEDGE: A PILOT STUDY ON THE MULTIDIMENSIONAL IMPACT OF FINANCIAL LITERACY ON INVESTMENT DECISION MAKING IN THE PAKISTAN STOCK EXCHANGE

Iqra Abbas

Institute of Business Management and Administrative Sciences
Islamia University Bahawalpur
Bahawalpur, Pakistan
Iqraabbas12@gmail.com (Corresponding Author)

Dr. Muhammad Farooq

Institute of Business Management and Administrative Sciences
Islamia University Bahawalpur
Bahawalpur, Pakistan
muhammadfarooq@iub.edu.pk

Dr. Hassan Mujtaba Nawaz Saleem

Institute of Business Management and Administrative Sciences
Islamia University Bahawalpur
Bahawalpur, Pakistan
Hassan.Saleem@iub.edu.pk

	Abstract

	The study examines the relationship between financial literacy dimensions i.e. (financial knowledge, financial behavior and financial attitude) and investment decision making in individual investors of the Pakistan Stock Exchange (PSX). Financial literacy is treated as multidimensional construct, based on the provided framework of OECD (2023). A pilot quantitative design was adopted and data collected from 30 individual investors were analysed by using Partial Least Squares Structural Equation Modelling (PLS-SEM). The measurement model determines satisfactory reliability and validity. The structural model explains 56.2% of the variance in investment decision making (R^2 =0.562) and shows predictive relevance (Q^2 = 0.309). Bootstrapping results indicate that financial knowledge demonstrations a positive but statistically non-significant relationship, while financial behavior has a positive and marginally significant effect on investment decision making (β= 0.550, p< 0.10). Whereas, financial attitude does not show a significant effect. The findings of the paper suggest that financial behavior can drive better investment choices more than financial knowledge and attitude factors alone. As this is the pilot study, so the results provide preliminary empirical evidence from an emerging market context and establish a foundation for future research with larger samples.
Keywords:	Investment Decision Making, Financial Literacy, Pilot Study

INTRODUCTION

In recent decades, increasing financial market complexity has placed greater responsibility on invidious to make better and informed investment decisions. Retail investors are now required to evaluate financial choices, assess their associated risk and return trade-offs and navigate volatile markets with limited institutional guidance. In this context, financial literacy gained significant attention as the key determinant of optimized financial decisions (Lusardi & Mitchell, 2013; OECD, 2023).

The OECD (2023) conceptualizes financial literacy as a multidimensional construct encompassing financial knowledge, behavior and attitude. Whereas, earlier research studies often treated financial literacy as a single aggregated index, present studies emphasize the importance of distinguishing between cognitive understanding and actual financial practices (Bongomin et al., 2018; Lusardi & Mitchell, 2013; Raut, 2020). Emerging evidence suggests that behavioural components, such as monitoring investments, budgeting and encompassing financial products may exert a stronger influence on financial outcomes than knowledge alone (Che Hassan et al., 2023)

Empirical research across developed and emerging economies has consistently linked financial literacy to stock market participation and investment decision making (Klapper et al., 2013; van Rooij et al., 2011). Modern studies reinforce this relationship, demonstrating that higher financial literacy improves investment confidence, risk assessment capabilities and portfolio diversification (Raut, 2020). However, literature findings are not uniform, some studies indicate that financial knowledge does not always translate into improved financial behavior, suggesting a gap between cognitive literacy and practical decision implementation (Che Hassan et al., 2023)

In the perspective of behavioural finance, decision making is influenced not only by rational knowledge but also by heuristics, psychological tendencies and habits (Barber & Odean, 2005). Investors may have adequate financial knowledge yet fail to use it effectively due to relative impact of financial knowledge, skills and attitude on investment decision making becomes particularly important.

Despite increasing global attention to financial literacy, empirical evidence form emerging markets remains limited and fragmented. Emerging economies often face structural constraints such as limited financial education, regulatory inefficiencies, and information asymmetry which may alter the association between literacy and optimized investments (Bongomin et al., 2018). Furthermore, PSX has experienced growing retail participation, understanding the drivers of individual investment decisions is gaining special attention. Although prior research studies in Pakistan have examined financial literacy and investment behavior (Ahmed & Noreen, 2021; Saeed et al,. 2021) and limited attention has been given to evaluating the diverse dimensions of financial literacy within a comprehensive structural framework.

Methodologically, most of the literature studies relied on regression-based techniques that did not explicitly validate measurement models of latent constructs. But modern methodological literature recommends the use of Partial Least Square Equation Modelling (PLS-SEM) for exploratory research and predictive modelling, particularly in small sample contexts (Hair et al., 2019). PLS-SEM enables simultaneous assessment of measurement reliability and structural relationships making it suitable for pilot investigations.

On the observation of above discussion, the objective of the present study is to investigate the impact of financial knowledge, financial behavior and financial attitude towards investment decision making among active individual investors of the Pakistan Stock Exchange. Drawing upon the OECD (2023) multidimensional toolkit, this study adopts a disaggregated approach to financial literacy and employs PLS-SEM to validate the measurement instrument and explore preliminary structural relationships.

There are three main contributions of the study. First, it distinguishes between the dimensions of financial literacy, thereby identifying which component most strongly influences the investment decision making. Second, it establishes measurement validity and predictive relevance, providing a foundation for future large scale empirical research. Third, it provides updated empirical evidence form emerging market context, addressing a gap in the literature.

The remainder of the paper proceeds as follows. Section 2 reviews the relevant literature and hypothesis development. Section 3 describes the methodology and validation of measurement scale. Section 4 presents empirical results of the study. Section 5 discusses implications, followed by limitations and directions for future research.

2. Literature Review and Hypothesis Development

2.1 Financial Literacy: A Multidimensional Perspective

Financial literacy has progressed into a central construct in understating of optimized financial decisions of individual investors. Prior conceptualizations defined financial literacy primarily as knowledge of basic financial concepts such as risk diversification, inflation and interest compounding (Klapper et al., 2013). However, modern studies argue that financial literacy extends beyond cognitive understanding to include behavioural execution as psychological orientation.

The OECD 2023 conceptualizes financial literacy as a multidimensional construct comprising financial knowledge, financial attitude and financial behavior in its modern toolkit. This framework reflects the growing acknowledgement that individuals may possess financial knowledge yet fail to translate it into effective financial practices. Che Hassan et al., (2023); Rehman & Mia, (2024) reinforce recent systematic reviews in this perspective, by emphasizing that financial behavior often plays a more significant role in shaping financial outcomes that knowledge alone.

Recent empirical research increasingly adopts this multidimensional approach. Emerging market studies demonstrate that financial literacy components revelation varying degrees of influence on financial wellbeing and investment performance (Bai, 2023; Bongomin et al., 2018). Consequently, analysing the discrete dimensions of financial literacy provides a more nuanced understanding of its role in investment decision making.

2.2 Financial Knowledge and Investment Decision Making

Financial knowledge refers to an individual's understating of financial principles, including asset valuation, diversification, inflation, risk and return trade-offs. Klapper et al., (2013) ; van Rooij et al., (2011) demonstrates that significant empirical literature supports a positive relationship between financial knowledge and stock market participation.

More recent studies confirm that financial knowledgeable individuals parade higher confidence while making their investment choices and improved portfolio diversification with the ultimate better returns (Raut, 2020). Higher financial knowledge enhances the ability to evaluate financial information, reducing uncertainty and facilitating rational economic behavior.

However, evolving literature suggests that knowledge alone may not guarantee for optimal investment outcomes. Barber & Odean, (2005) demonstrates that behavioural fiancé research highlights that cognitive understanding does not always prevent biases such as herd behavior and overconfidence. In addition, recent evidence from developing economies indicates that financial knowledge must be accompanied by disciplined financial practices to significantly influence investment choices (Che Hassan et al., 2023).

Despite these nuances, the theoretical expectation remains that financial knowledge contributes positively to investment decision quality. In accordance, the following hypothesis is proposed to achieve the study objectives:

H1: Financial knowledge positively influences investment decision making.

2.3 Financial Attitude and Investment Decision Making

Financia attitude reflects an individual's psychological orientation towards financial planning, long term wealth accumulation and risk management associated with stocks. It captures beliefs and preferences regarding saving, financial discipline and investing.

Prior studies suggest that individuals having positive financial attitude are more likely to engage in prudent financial behavior and long-term investment planning (Hilgert,M. A.;Hogarth,J. M.; Beverly, 2003). Bongomin et al., (2018) demonstrates that, in developing market contexts, positive financial attitude has been associated with improved savings behavior and financial awareness.

However, modern research studies indicates that attitude may influence financial intention rather that direct behavioural execution (Noor et al., 2020). In uncertain and volatile market environments, informational asymmetries and structural constraints may weaken the direct translation of attitude into optimized investment returns. Accordingly, while financial attitude is theoretically linked to decision making, and its direct impact remain inconclusive.

Nevertheless, grounded in psychological and behavioural theory, individuals who value financial planning and controlled risk assessment are expected to exhibit more structured investment decisions. Thus, the following hypothesis is proposed to achieve the study objectives:

H2: Financial attitude positively influences investment decision making.

2.4 Financial Behavior and Investment Decision making

Financial behavior represents the practical execution of financial knowledge and attitudes. It includes comparing financial products, monitoring expenditures, budgeting, engaging in systematic financial planning and diversified investment portfolios.

Empirical evidence classifies financial behavior as a critical determinant of financial performance and investment success. Hilgert, M. A.; Hogarth, J. M.; Beverly, (2003) established a strong association between improved financial stability and financial management practices. Recent studies reinforce that active financial practices significantly enhance investment decision quality and financial well being (Bai, 2023; Che Hassan et al., 2023).

In the context of behavior finance, consistent financial habits reduce impulsive decision making and mitigate cognitive biases (Statman, 2019). In emerging markets, where market volatility and informational inefficiencies are predominant, disciplined financial behavior becomes even more vital. Recent empirical findings increasingly reveal that behavioural components of financial literacy exert stronger predictive power than cognitive knowledge alone (Rehman & Mia, 2024b) This suggests that practical application of financial literacy plays a dominant role in optimized investment returns. Accordingly, the following hypothesis is proposed to achieve the study objective:

H3: Financial Behavior positively influences investment decision making.

2.5 Conceptual Framework

Drawing upon the OECD (2023) framework and recent empirical literature, the study has proposed that financial knowledge, financial behavior and financial attitude independently influence investment decision making of individual investors. The conceptual framework position these there dimensions as distinct predictors within a structural model estimated using PLS-SEM. Figure I illustrated the proposed research model, and Figure II illustrates the structural model in PLS.

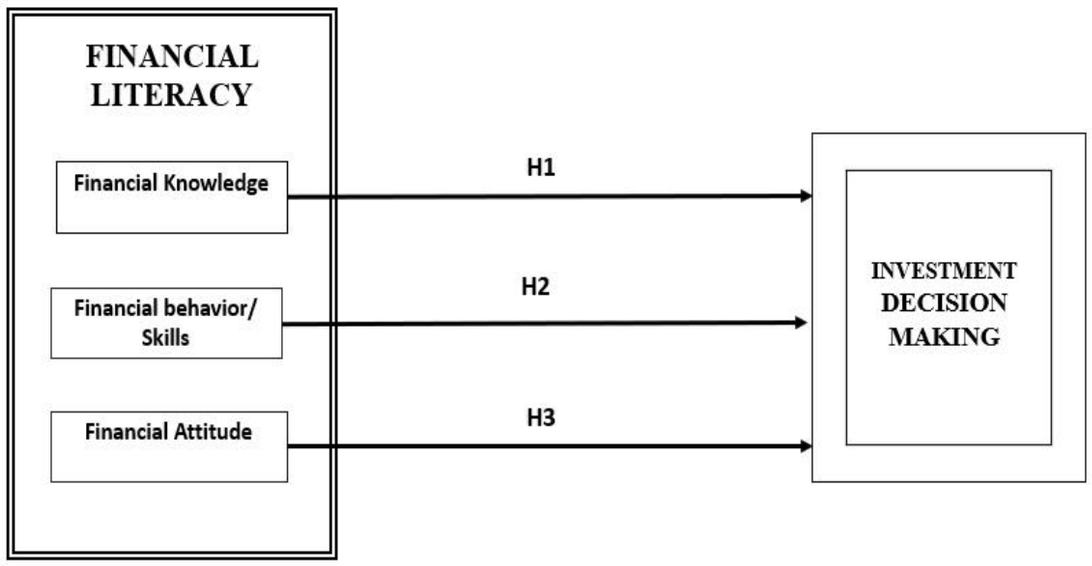

Figure 1 Conceptual Model

Advance Journal of Econometrics and Finance
Vol-4, Issue-1, 2026

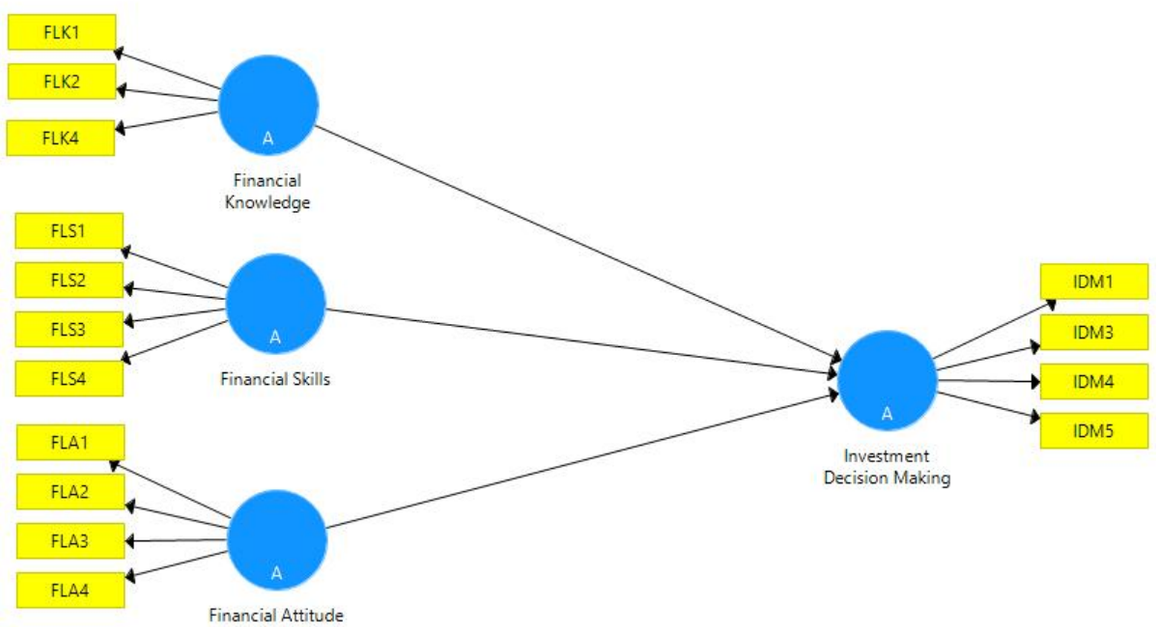

Figure 2 Source OECD (2023) dimensions and prior literature

3. Methodology

3.1 Research Design

The study adopts a cross sectional, quantitative research design to examine the association between financial literacy dimensions and investment decision making. The exploratory objective of the study to focus on validating measurement properties prior to large scale data collection, the study is positioned as a pilot investigation.

A structured questionnaire of **17 scale items** was developed based on the established financial literacy frameworks and administered to individual investors of the Pakistan Stock Exchange (PSX). Questionnaire is attached as **Annexure A**.

3.2 Population and Sample Size

The target population encompasses active individual retail investors, who actively participating in PSX. Retail investors were selected because they make their investment decision independently and are directly influences by their level of financial literacy.

At the pilot stage, a sample of 30 respondents was collected using snowball and convivence sampling techniques. The sample size is consistent with the pilot study recommendations aimed at assessing measurement reliability and instrument feasibility (Sukserm, 2024).

Although small, the sample is appropriate for exploratory modelling using PLS-SEM, which is suitable for prediction oriented research and small sample contexts (Hair et al., 2019).

3.3 Measurement Instrument

Financial literacy was measured by using the OECD/INFE (2023) multidimensional framework, including financial knowledge, financial attitude and financial behavior. The original OECD scale items were adapted to align with the context of individual investors actively participating in the Pakistan Stock Exchange (PSX).

Financial knowledge was measured using the objective items assessing understanding of basic financial concepts, inflation and risk diversification. Financial attitude items reflected long term financial planning orientation and risk perception. Financial behavior items captured practical financial management activities such as monitoring investments and comparing financial products.

Investment decision making was measured using reflective items adapted from prior validated literature on investor decision behavior (e.g. Raut, 2020; van Rooij et al., 2011). These items assessed structured evaluation of rational investment planning, information analysis and risk evaluation.

All constructs were measured by using a five-point liker scale ranging from 1 (strongly disagree) to 5 (strongly agree). Minor wording adjustments were made to ensure the contextual relevance without altering the conceptual meaning of the scale. The complete list of measurement items is presented in Appendix A.

3.4 Data Analysis Technique

The data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) via SmartPLS software. PLS-SEM was selected for several reasons. First, it performs well with small sample sizes and second, it is suitable for exploratory and predictive research designs. Third, it simultaneously assesses measurement and structural models (Chin, 1998; Hair et al., 2019). The analysis proceeded in two stages: Stage 1 Measurement Model Assessment to check the reliability and validity of the reflective constructs by using Cronbach's Alpha, Composit Reliability, Average Variance Extracted, outer loading, Fornell Larcker criterion and Hererotrait-Monotrait ration (HTMT). Discriminant validity was assessed using the HTMT criterion as recommended by Henseler et al., (2015).

Stage 2 Structural Model Assessment was evaluated by using Parth coefficients, Bootstrapping (5000 subsamples), coefficient of determination, Effect size and predictive relevance using Blindfolding. Due to exploratory and pilot nature of the study, 10% significance level was considered acceptable for hypothesis testing.

3.5 Ethical Considerations

Participation in the survey was voluntary. No personal identifying information was collected and respondents were also informed of the purpose of the study as well as assured the confidentiality and anonymity.

4. Results

4.1 Measurement Model Assessment

The measurement model was assessed following established PLS-SEM guidelines (Hair et al., 2019), including evolution of internal consistency reliability, convergent validity and discriminant validity. Indicator reliability was assessed through outer loadings, while internal consistency reliability was examined using Cronbach's alpha and composite reliability. Convergent validity was evaluated using average variance extracted (AVE).

In the initial assessment phase of the measurement model, several indicators exhibited outer loading the recommended threshold of 0.70. According to (Hair et al., 2019), indicators with loadings below 0.70 may be considered for removal if doing so improves construct reliability and convergent validity. Therefore, two indicators **(IDM 2, and FLK3)** indicators with out loadings were removed to improve the measurement quality of the construct.

4.1.1 Internal Consistency Reliability

Internal consistency reliability was examined using Cronbach's alpha and Composite Reliability (CR) of the construct. All items exceeded the recommended threshold of 0.70, indicating satisfactory reliability.

Cronbach 's alpha values ranged from 0.823 to o.833, while composite reliability values ranged between 0.869 and 0.913. These results demonstrate strong internal consistency across all constructs.

Construct Reliability and Validity			
	Cronbach's Alpha	**rho_A**	**Composite Reliability**
Financial Attitude	**0.823**	**0.830**	**0.882**
Financial Knowledge	**0.857**	**0.902**	**0.913**
Financial Behavior	**0.824**	**0.962**	**0.869**
Investment Decision Making	**0.833**	**0.869**	**0.888**

4.1.2 Convergent Validity

Convergent validity was assessed using outer loading and Average Variance Extracted (AVE). All retained indicator exhibited loading above 0.70 following refinement during pilot testing. AVE values ranged from 0.623 to 0.777, exceeding the recommended threshold of 0.50, thereby confirming that each construct explains more than 50% of the variance in its respective indicators.

Construct Reliability and Validity	
	Average Variance Extracted (AVE)
Financial Attitude	**0.652**
Financial Knowledge	**0.777**
Financial Behavior	**0.623**
Investment Decision Making	**0.666**

Outer Loadings				
	Financial Attitude	**Financial Knowledge**	**Financial Behavior**	**Investment Decision Making**
FLA1	**0.758**			
FLA2	**0.781**			
FLA3	**0.838**			
FLA4	**0.849**			
FLK1		**0.897**		
FLK2		**0.804**		
FLK4		**0.939**		
FLB1			**0.778**	
FLB2			**0.785**	
FLB3			**0.762**	
FLB4			**0.831**	
IDM1				**0.830**
IDM3				**0.824**
IDM4				**0.901**
IDM5				**0.695**

These results indicate adequate convergent validity of the construct.

4.1.3 Discriminant Validity

Discriminant validity was evaluated using both the Fornell-Lacker criterion and Heterotrait-Monotrait ration (HTMT). The square root of AVE for each construct exceeded its correlations with other scale items, satisfying the Fornell-Lacker criterion. Furthermore, HTMT values below the recommended threshold of 0.90, indicating that the constructs are empirically distinct.

Discriminant Validity				
Heterotrait - Monotrait Ratio (HTMT)				
	Financial Attitude	**Financial Knowledge**	**Financial Behavior**	**Investment Decision Making**
Financial Attitude				
Financial Knowledge	**0.718**			
Financial Behavior	**0.969**	**0.781**		
Investment Decision Making	**0.643**	**0.711**	**0.700**	
Fornell-Larcker Criterion				
	Financial Attitude	**Financial Knowledge**	**Financial Behavior**	**Investment Decision Making**
Financial Attitude	0.807			
Financial Knowledge	0.605	0.882		
Financial Behavior	0.786	0.680	0.789	
Investment Decision Making	0.573	0.642	0.720	0.816

So, overall measurement model demonstrates satisfactory reliability and validity, supporting further structural model assessment.

4.2 Structural Model Assessment

4.2.1 Coefficient of Determination (R^2)

The structural model explains 56.2% of the variance in investment decision making (R^2 = 0.562; Adjusted R^2 = 0.511). According to established benchmarks, this represents moderate explanatory power.

R Square		
	R Square	**R Square Adjusted**
Investment Decision Making	0.562	0.511

This indicates that financial knowledge, financial behavior and financial attitude collectively provide substantial explanatory strength in predicting investment decision making among PSX investors.

4.2.2 Predictive Relevance (Q^2)

Predictive relevance was assessed using the blindfolding procedure. The cross validated redundancy value for Investment Decision Making was $Q^2 = 0.309$.
Since Q^2 is substantially greater that zero and approached the threshold for large predictive relevance, the model demonstrates strong predictive capability.

Mean, STDEV, T-Values, P-Values					
	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
Financial Knowledge -> Investment Decision Making	0.289	0.278	0.221	1.308	**0.191**

4.2.3 Hypothesis Testing

Bootstrapping with 5000 subsamples was conducted to evaluate the significance of structural relationships. Given the exploratory nature of the pilot study (n=30), a 10% significance level was adopted, and the summarized results are given below.

H1: Financial knowledge positively influences investment decision making.
Financial knowledge exhibited a positive but statistically non-significant effect on investment decision making ($\beta = 0.289$, $p = 0.191$).

Mean, STDEV, T-Values, P-Values					
	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
Financial Knowledge -> Investment Decision Making	0.289	0.278	0.221	1.308	**0.191**

Construct Cross validated Redundancy			
	SSO	**SSE**	**Q^2 (=1-SSE/SSO)**
Financial Attitude	120.000	120.000	
Financial Knowledge	90.000	90.000	
Financial Behavior	120.000	120.000	
Investment Decision Making	120.000	82.936	0.309

The results indicate that among the three financial literacy dimensions, financial behavior emerges as the strongest predictor of investment decision making.
While financial knowledge demonstrates a positive direction, it lacks statistical significance, suggesting that knowledge may act as foundational element but a direct driver of decision quality. Financial attitude appears to exert minimal direct influence withing this pilot context.
More importantly, the relatively high R^2 and Q^2 values indicate that model possesses meaningful explanatory and predictive power despite the limited sample size.

5. Discussion

The present study examined the relative impact of financial knowledge, financial behavior and financial attitude on investment decision making among individual investors of the PSX. The main findings of the study provide several noteworthy insights into the multidimensional nature of financial literacy in an emerging market context.

5.1 The Dominance of Financial Behavior

The most dominance finding of this pilot study are that financial behavior emerged as the strongest predictor of investment decision making. The positive and marginally significant relationship suggest that practical actions such as monitoring investment, comparing financial products and budgeting play a more critical role in shaping investment outcomes than cognitive knowledge or attitudinal orientation alone.
These findings are aligns with contemporary literature emphasizing the behavioural dimension of financial literacy (Bai, 2023; Che Hassan et al., 2023). It also supports earlier evidence suggesting that sound financial management practices are strong associated with improved financial stability and decision quality (Hilgert, et al., 2003). In the context of behavioural finance, consistent financial habits reduce impulsivity and mitigate biases, thereby enhancing decision rationality (Statman, 2019).
The results reinforce the argument that financial capability is not merely about what individuals know, but what they actually do. In a volatile environment such as emerging markets like Pakistan, disciplined financial behavior may serve as a protective mechanism for optimal investment decisions.

5.2 Financial Knowledge: Necessary but Not Sufficient

Contrary to traditional expectations, financial knowledge did not exhibit a statistically significant effect on investment decision making in the pilot sample size. Although the relationship was positive, it lacked statistical support. This result partially contrasts with prior empirical evidence linking financial knowledge to market participation and portfolio diversification (Klapper et al., 2013; van Rooij et al., 2011). However, it is consistent with more recent findings suggesting that knowledge alone does not automatically translate into effective financial behavior (Che Hassan et al., 2023).
One possible explanation is that financial knowledge may function as a foundational capability that requires behavioural activation to influence outcomes. Investors may understand financial concepts yet fail to apply them consistently die to cognitive biases, market uncertainty and overconfidence (Barber & Odean, 2005). In recent emerging markets, informational noise and market volatility may further weaken the direct impact of knowledge on decision execution. Thus, financial knowledge appears to be a necessary but insufficient condition for optimal investment decision making.

5.3 The Limited role of financial attitude

The findings indicate that financial attitude does not significantly influence investment decision making in the present sample. These results challenge the assumption that positive financial orientation directly translates into superior investment outcomes.
Whereas, earlier research studies suggest that positive financial attitude encourage disciplined saving and planning behaviour (Hilgert,et al., 2003), more recent studies propose that attitude primarily shapes intention rather than actual execution (Chi et al., 2023). The results of pilot study support this later view.
Practically, individuals may hold positive attitudes toward financial planning yet fail to consistently implement structured investment strategies. This gap between intention and action maybe particularly pronounced in emerging market settings, where external factors such as market volatility and limited investor education influence decision processes.

5.4 Theoretical Implications

The findings contribute to the ongoing debate regarding the multidimensional structure of financial literacy. While classical theory emphasizes financial knowledge as a core determinant of decision quality (Lusardi & Mitchell, 2013), contemporary evidence increasingly highlights the importance of behavioural execution.

The study supports the growing argument that financial behavior represents the most operationally relevant component of financial literacy. The result suggest that interventions aimed at improving investment returns should prioritize behavioural training and practical financial management skills rather than focusing exclusively on the theocratical knowledge dimensions.

5.5 Practical Implications

From a policy perspective, the findings imply that financial education programs should move beyond conceptual instruction and incorporate behavioural training modules. Workshops focused on portfolio monitoring, financial planning exercises and risk evaluation may yield greater impact that purely informational seminars.

For financial institutions and regularly bodies in Pakistan, the results highlight the need to design investor education initiatives that emphasize practical engagement and disciplined investment behaviour.

5.6 Interpretation in Light of the Pilot Study Nature

It is important to interpret these findings withing the context of the pilot study design. The sample size (n=30) limits statistical power and generalizability. However, the relatively strong explanatory possesses meaningful structural coherence. However, the relatively strong explanatory possesses meaningful structural coherence.

The marginal significance of financial behavior suggests that the relationship may become stronger in a large sample, warranting further empirical investigation.

6 Conclusion

The study examined the influence of financial literacy dimensions such as financial knowledge, financial behavior and financial attitude on investment decision making among individual investors of the Pakistan Stock Exchange (PSX). Drawing upon the OECD (2023) multidimensional framework and employing PLS-SEM analysis, the study provides preliminary empirical evidence form and emerging market context.

The findings reveal that financial behavior is the most influential determinant of investment decision making exhibiting a positive and marginally significant effect. In contrast, financial knowledge demonstrates a positive but statically insignificant relationship, while financial attitude shows no meaningful impact in the pilot sample. These results suggest that practical financial conduct plays a more critical role in shaping investment decisions than cognitive understanding or attitudinal orientation alone.

The study contributes to the growing literature on financial literacy by distinguishing between its dimensions rather than treating it as a single aggregated construct. By highlighting the dominance of behavioural components, the findings support the argument that financial capability is operationally grounded in action rather than more awareness. Additionally, the study provides empirical evidence from Pakistan, where structed analyses of financial literacy dimensions remain limited.

Despite the exploratory nature and small sample size (n=30), the model demonstrates moderate explanatory power (R^2 =05.62) and strong predictive relevance (Q^2 = 0.309), indicating meaningful structural coherence. These results establish a validated measurement framework and offer a foundation for future large-scale investigations.

Future research should employ larger and more diverse sample to confirm the structural relationships identified in this pilot study. Longitudinal designs and inclusion of additional behavioural and psychological variables may further enhance understanding of investment decision processes in emerging financial markets.

To sum up, this study underscores the importance of financial behavior as a central component of financial literacy and offers preliminary insights into its role in shaping investment decision making with the context of PSX.

7. Limitations and Future Research

Despite providing valuable preliminary insights, this study is subject to several limitations that should be acknowledged.

First, the cross-sectional design restricts causal inference. While the model identifies associations between financial literacy dimensions and investment decision making, longitudinal research would provide stronger evidence regarding temporal relationships and behavioural consistency over time.

Second, the study is based on a small pilot sample (n=30), which limits statistical power and generalizability. Although PLS-SEM is appropriate for exploratory research and small samples (Hair et al., 2019), future studies should employee larger and more diverse samples of investors to confirm the robustness of the structural relationship identified.

Third, the study focuses exclusively on the Pakistan Stock Exchange context. Market specific, regulatory structure, characteristics and cultural factors may influence financial behavior differently across regions. Comparative studies across emerging and developed markets would help assess the external validity of the findings.

Fourth, the study completely relies on self reported data, which may be subject to response bias and social desirability effects. Future research may incorporate objective investment performance indicators or experimental designs to enhance measurement precision.

Finally, while present study adopts (OECD 2023) multidimensional framework, future research may expand the model by incorporating additional behavior finance variables such as overconfidence, risk tolerance and herding tendencies to provide a more comprehensive understanding of investor decision processes. While addressing these limitations in future investigations will strengthen theoretical development and provide deeper insights into the mechanisms linking financial literacy and investment decision making.

References:

Ahmed, Z., & Noreen, U. (2021). Role of behavioral determinants for investment decision making. *Asia-Pacific Social Science Review*, *21*(2), 48–62. https://doi.org/10.59588/2350-8329.1367

Bai, R. (2023). Impact of financial literacy, mental budgeting and self control on financial wellbeing: Mediating impact of investment decision making. *PLoS ONE*, *18*(11 November), 1–18. https://doi.org/10.1371/journal.pone.0294466

Barber, B. M., & Odean, T. (2005). Boys will be Boys: Gender, Overconfidence, and Common Stock Investment. *Quarterly Journal of Economics*, *116 (1)*(September), 261–292. https://doi.org/10.2139/ssrn.139415

Bongomin, G. O. C., Munene, J. C., Ntayi, J. M., & Malinga, C. A. (2018). Nexus between financial literacy and financial inclusion: Examining the moderating role of cognition from a developing country perspective. *International Journal of Bank Marketing*, *36*(7), 1190–1212. https://doi.org/10.1108/IJBM-08-2017-0175

Che Hassan, N., Abdul-Rahman, A., Mohd Amin, S. I., & Ab Hamid, S. N. (2023). Investment Intention and Decision Making: A Systematic Literature Review and Future Research Agenda. *Sustainability (Switzerland)*, *15*(5), 1–22. https://doi.org/10.3390/su15053949

Chi, N. T. K., Pham, H.-G., Stoffers, A., Anh, D. T. P., & Nam, V. H. (2023). Investigating individual intention to make money: can motivation of wealth be a socio-economic leverage? *Current Psychology*, *43*(2), 1651–1669. https://doi.org/10.1007/s12144-023-04413-7

Chin, W. W. (1998). The partial least squares approach to structural equation modelling. In Marcoulides G. A. (Ed.). *Modern Methods for Business Research*, *295*(2), 295–336.

DR. SAEED AHMAD SABIR, TASAWAR JAVED, SHAHBAZ ALI KHAN, M. Z. J. (2021). Investment Behaviour of Individual Investors of Pakistan Stock Market with Moderating Role of Financial Literacy. *Journal of Contemporary Issues in Business and Government*, *27*(02). https://doi.org/10.47750/cibg.2021.27.02.134

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

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

Hilgert,M. A.;Hogarth,J. M.; Beverly, S. G. (2003). Household Financial Management: The Connection between Knowledge and Behavior. *Federal Reserve Bulletin*, *89*(7), 309–322. https://www.federalreserve.gov/pubs/bulletin/2003/0703lead.pdf

Klapper, L., Lusardi, A., & Panos, G. A. (2013). Financial literacy and its consequences: Evidence from Russia during the financial crisis. *Journal of Banking and Finance*, *37*(10), 3904–3923. https://doi.org/10.1016/j.jbankfin.2013.07.014

Lusardi, A., & Mitchell, O. S. (2013). The economic importance of financial literacy. *Journal of Economic Literature*, *52*(1), 65.

Noor, N., Batool, I., & Arshad, H. M. (2020). Financial literacy, financial self-efficacy and financial account ownership behavior in Pakistan. *Cogent Economics & Finance*, *8*(1), 1806479. https://doi.org/10.1080/23322039.2020.1806479

OECD. (2023). OECD/INFE 2023 International Survey of Adult Financial Literacy. In *OECD publishing* (OECD Business and Finance Policy Papers, Vol. 39, Issue May). https://doi.org/10.1787/56003a32-en

Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets*, *15*(6), 1243–1263. https://doi.org/10.1108/IJOEM-07-2018-0379

Rehman, K., & Mia, M. A. (2024a). Determinants of financial literacy: a systematic review and future research directions. *Future Business Journal*, *10*(1), 1–25. https://doi.org/10.1186/s43093-024-00365-x

Rehman, K., & Mia, M. A. (2024b). Determinants of financial literacy: a systematic review and future research directions. *Future Business Journal*, *10*(1), 75. https://doi.org/10.1186/s43093-024-00365-x

Statman, M. (2019). A Second Generation Behavioral Finance. In *Behavioral Finance* (pp. 3–21). WORLD SCIENTIFIC. https://doi.org/10.1142/9789813279469_0001

Sukserm, P. (2024). Determining the Appropriate Sample Size in EFL Pilot Studies. *Journal of Research Methodology*, *37*(3), 245–264. https://doi.org/10.14456/jrm.2024.13

van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, *101*(2), 449–472. https://doi.org/10.1016/j.jfineco.2011.03.006

Annexure A:

1.	IDM1	I always trust my feelings while making investment decisions.	1	2	3	4	5
2.	IDM2	I am satisfied with the frequency and volume of my investments.	1	2	3	4	5
3.	IDM3	I always change my financial decisions according to situation.	1	2	3	4	5
4.	IDM4	I am able to pick better economic options while making investment decisions.	1	2	3	4	5
5.	IDM5	The return of my last investment meets my expectation.	1	2	3	4	5
6.	FLK1	I have enough knowledge and understand how risk and returns are associated with investment decisions.	1	2	3	4	5
7.	FLK2	I understand about the impact of inflation & interest rates on investments.	1	2	3	4	5
8.	FLK3	I understand the concept of diversification to reduce the risk of loss while making investments in different avenues.	1	2	3	4	5
9.	FLK4	I understand the difference while making investment in stocks, bonds and other investment products.	1	2	3	4	5
10.	FLS5	I can analyse financial information before making an investment decision.	1	2	3	4	5
11.	FLS6	I can compare different investment options according to their risk and return.	1	2	3	4	5
12.	FLS7	I am able to analyze financial Information to select suitable investment products.	1	2	3	4	5
13.	FLS8	I always apply my financial knowledge while setting my long term and short-term investment decisions.	1	2	3	4	5
14.	FLA9	I feel confident in making investment decision independently.	1	2	3	4	5
15.	FLA10	I am able to understand and manage the uncertainty of market before making investment decisions.	1	2	3	4	5

16.	FLA11	I am capable for adjusting my investment decisions according to the market conditions change.	1	2	3	4	5
17.	FLA12	I can make investment decisions align with my financial goals.	1	2	3	4	5