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FINANCIAL LITERACY AND PERCEIVED FINANCIAL WELLBEING: A BEHAVIOURAL MEDIATION ANALYSIS USING PLS-SEM

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ABSTRACT

This current study evaluates the interaction between financial literacy and perceived financial well-being, and the major behavioural intermediaries that facilitate the knowledge-to-outcome translation process. Based on the Theory of Planned Behavior, the Human Capital Theory, and behavioural finance, the research proposes a complex mediator model that involves the consideration of investment intention, perceived hassles, and investment in the stock markets. The analysis was performed on the cross-sectional survey data (n=560 urban and semi-urban employees in India) with the help of Partial Least Squares Structural Equation Modelling (PLS -SEM). Findings indicate that financial literacy has a positive effect on both direct and indirect aspects of perceived financial well-being; this linkage is supported by investment intention and market engagement and sabotaged by perceived hassle by introducing behavioural frictions. Financial well-being as a consequence is therefore a construct that cannot be built only by financial knowledge alone, but is also informed by motivational drivers, convenience of action and concrete financial interaction. The study highlights the key role of behaviour-based financial education and policy intervention that goes beyond literacy to create momentum, minimize resistance, and empower participation in the market.

Keywords: Financial literacy; Financial wellbeing; Investment intention; Hassle

factor; Stock market participation; Behavioural finance

Introduction

Many surveys have associated increased financial literacy (FL) with better financial behaviours and performance including budgeting, saving and investing (Lusardi, 2019). Nonetheless, the current literature has found out that the road to financial literacy to perceived financial wellbeing (FWB) does not run straight. Rather, it is influenced by psychological and behavioural intermediates including investment intention (ITI), hassle factor (HF) referring to the cognitive or procedural barriers to acting on knowledge) and Stock Market Participation (SMP) (Bhatia et al., 2021). Such middle factors are important to unravel the processes by which financial literacy is reflected in actual financial wellness. The personal financial ability has become a matter of policy due to the global economic hardships, such as inflation, income instability, and post-pandemic recovery (Sabri et al., 2023). Although the governments and financial institutions have encouraged financial education programs, the effectiveness of such initiatives has been challenged following an ambivalent outcome of financial behavior change. This gap between knowledge and action has motivated the scholars to investigate intermediate variables that fill the gap. Theory of Planned Behavior (Ajzen, 1991) is a theory that has been used more and more to explain financial decision-making. The theory states that behavioural intention, which is the motivation, and perceived control to act, are important in converting knowledge into behaviour. Here the intention to invest turns out to be a crucial mediating factor as it involves the personal determination of an individual to engage in wealth-creating opportunities (Xiao et al., 2011). The intentions play a central role in transforming financial knowledge into tangible results. Studies have shown that even economically savvy people can avoid investing because of the lack of motivation or behavioural inertia (Sivaramakrishnan et al., 2017). In their research on millennial investors, Bhatia et al., 2021 used the Theory of Planned Behavior, where financial literacy played a big role in the intentions to invest in the stock market, but no actual trading behaviour was recorded. This evidence indicates that policy makers should order programmes that foster intention formations other than awareness programs. Besides, the notion of a hassle factor, either emotional, psychological or procedural, has gained progressively important in the modern behavioural finance literature. These would be difficulty in comprehending complicated financial tools, perceived effort in paperwork or mistrust of digital tools. According to Khan and Surisetti (2023), low- to mid-income folks are likely to feel the weight of negotiating these frictions, which further discourages action among willing participants in regards to their financial expertise. Stock market participation (SMP) is an essential behavioural product of FL and intention. Financial literates would be in a position to judge risk and diversify portfolios and stand market shocks. However, trading in equity markets is not very high, in particular in emerging economies

(Sivaramakrishnan et al., 2019). Financial wellbeing is not only objective indicators such as income and savings, but also subjective feelings of security, control, and freedom (CFPB, 2015). As an example, the mediating effect of financial behavior and emotional control was emphasized by Sabri et al. (2023) when translating literacy into wellness outcomes among young adults. With the fast-growing financial ecosystem, people have been presented with the task of dealing with intricate financial choices that include credit utilization and budgeting, retirement planning and investment. Such a changing fiscal load has increased the significance of financial literacy and the betterment of financial health, which is a multidimensional construct of how an individual can manage present and future financial commitments with assurance and calmness (Bartholomae, Kiss, and Pippidis, 2021). However, even while the significance of FL in promoting this wellbeing has been acknowledged, very few mechanisms or channels of how this knowledge is translated into actual wellbeing are well studied, sporadic, or poorly theorized. More up to date models of behaviour posit that the interaction between literacy and wellbeing is not direct, but mediated by factors including intention to invest, perceived hassle and financial participation. As an example, intention to invest, which is based on One proximal predictor of behavior is the Theory of Planned Behavior. Nevertheless, the goal per se is also affected by different motivational and environmental factors. The current study proposes a conceptual framework that will investigate the indirect effects of financial literacy on financial wellness in order to close this research gap, but through:

- Investment intention
- Perceived hassle factors
- Stock market participation

This multi mediator concept will assist in de-tangling any complicated psychological and structural frictions that prevent conversion of knowledge to meaningful behavior and finally, personal satisfaction. The study will seek to address the following multidimensional gap: Elucidate the mechanisms of behaviour between literacy and wellbeing; Measure the effect of hassle perception and intention on investment participation; Differentiate perceived and objective wellbeing, and; Give evidence-based suggestions on specific financial education and policy changes.

- Financial Literacy (FL) is grounded in Human Capital Theory (Becker, 1964), which conceptualizes financial knowledge as an investment in individual capability that enhances decision-making and long-term outcomes.

- Investment Intention (ITI) is explained by the Theory of Planned Behavior (Ajzen, 1991), where financial literacy shapes attitudes, perceived behavioral control, and subjective norms, leading to intention formation.

- Hassle Factor (HF) is rooted in Behavioural Finance and Behavioural Economics,

particularly the concept of frictions and cognitive costs (De Meza et al., 2008; Bertrand & Mullainathan, 2006).

- Stock Market Participation (SMP) represents realized behavior, explained jointly by TPB (intention → behavior) and Behavioural Finance.

- Perceived Financial Well-Being (FWB) reflects an outcome construct informed by Human Capital Theory (long-term returns to skills) and Behavioural Finance (subjective perceptions of security and control).

Literature Review

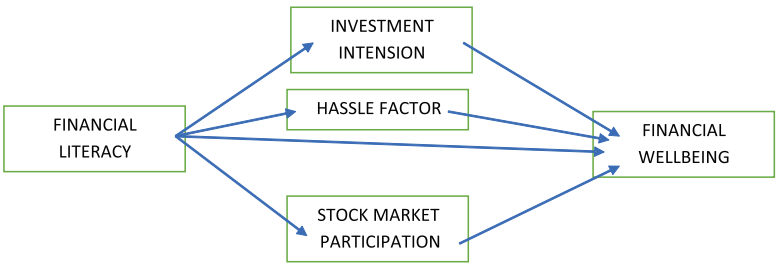
The relationship between FL and FWB has become a pillar with which the relationship between human beings and their economic conditions can be understood, particularly due to changing digital financial systems and unstable economies. Financial literacy focuses on providing the information and abilities required to make wise choices about money, and FWB refers to the ability of the person to meet all financial commitments, enjoy a sense of safety, and undertake options that contribute to a better life. This literature review is an analysis of these related constructs and their effects on behavior and quality of life. FL is usually described as the ability to understand and make practical use of financial skills which are financial skills such as budgeting, investing, saving and credit management. Theories are conceptual frameworks of scholarly investigation and resourceful confirmation. In the FL area, investment intention, and FWB, three major theoretical approaches dominate the academic literature: Theory of Planned Behavior (TPB), Human Capital Theory (HCT), and Behavioural Finance Theory (BFT). These paradigms provide systematic avenues to understanding how financial knowledge is acquired, how behavioral intentions are formed and how investment choices are implemented to combine, which is how financial well-being is formed. Human Capital Theory is the theory that holds that human beings get to be more productive and more earning as a result of investing into education, skills and knowledge (Becker, 1964). FL is fast becoming a kind of human capital that is specialized, and whose impact would not only affect the earnings but also on the informed making choices on saving, budgeting, and investing. Yang et al. (2021) present the evidence that financial literacy significantly increases the ability of individuals to grow wealth and events of economic shocks, thus confirming the position of literacy as the domain-specific human capital. Research also show that financial literacy influences the behavior by providing people with cognitive instruments needed to live in more complicated financial conditions. The modern approaches to financial education integrate the human capital thinking, introducing the variables of self-efficacy, digital literacy, and access to financial. These variables have the effect of mediating between the knowledge acquisition and financial well-being. Since the knowledge of investment is a fundamental aspect of human capital in financial behavior, improving personal awareness of

risk-return trades can promote better decision-making. Bhatia et al. (2021) also note the endogeneity of financial knowledge that indicates that those with initial financial capital would be more likely to invest more in financial learning, which in turn increases their financial benefits. According to the Theory of Planned Behavior by Ajzen (1991), the intention behind behavior is caused by attitudes, subjective norms, and perception of behavioral control. The model is particularly helpful in explaining the intentions and financial conduct of different population groups when it comes to the explanation of investment intentions. Chen et al. (2022) conceptualize the TPB within the framework of financial behavior and prove that positive attitudes towards saving, strong perceived control and positive social norms have a strong influence on investment and savings behavior probability. Their findings highlight the fact that behavioral intention facilitates the relationship between financial literacy and actual financial behavior. The intention to invest construct is based on the Theory of Planned Behavior (TPB) (Ajzen, 1991), in which the behavioral intention is a product of attitude, subjective norms, and perceptions of behavioral control. Within a financial framework, investment intention describes how one is prepared and motivated to engage in investment behavior like stock-market investment, retirement investment, or mutual fund investment. In the context of behavioural economics and finance, the hassle factor refers to small frictions, administrative costs, or perceived hassles that hinder the participation in the beneficial financial behaviour, saving, investment or taking out insurance. Such impediments may have a psychological and mental cost that affects decision-making, although they appear insignificant. With the growing complexity and digitization of financial systems, fintech developers need a subtly considered effect of hassle factors to improve financial involvement and financial wellness. The common examples of such burdens include paperwork, long forms, verification of identity procedures, hidden charges, and cognitive load. De Meza et al. (2008) argued that such micro barriers reduce significantly the level of participation in beneficial financial programmes especially among low-income groups. At the heart of behavioral finance is the investigation of the relationship between FL and investment in the stock-market. The theoretical framework that we shall discuss in this thesis is based on the interaction of the four key constructs, which are financial literacy, investment intention, stock-market participation, and perceived FWB. The theoretical pathways between these variables are strongly supported by a number of empirical studies in the global contexts. This part provides the review of the main empirical study's findings that confirm the direct and indirect relationships between these elements and shape the mediation patterns, which will be implemented in the model. It has been noted that financial literacy is often a powerful indicator of investment intention. They proved that in a structural equation model, FL had a significant effect on investment attitudes and intentions (0.67 0.01). Their regression model also found attitude and perceived control to mediate the effect of literacy on intention.

Conceptual Framework

The conceptual framework of this study is based on an integrated application of Human Capital Theory (HCT), the Theory of Planned Behavior (TPB), and Behavioural Finance Theory to explain how financial literacy translates into perceived financial well-being through multiple behavioural pathways. From the perspective of Human Capital Theory (Becker, 1964), Financial Literacy (FL) is viewed as an investment in individual capability that enhances financial decision-making and long-term economic outcomes. Accordingly, financially literate individuals are expected to experience higher Perceived Financial Well-Being (FWB) due to improved financial control, confidence, and preparedness. This theory primarily explains the direct relationship between financial literacy and financial well-being. However, the translation of knowledge into outcomes is not automatic. Drawing on the Theory of Planned Behavior (Ajzen, 1991), the framework proposes Investment Intention (ITI) as a key motivational mechanism through which financial literacy influences behavior. Financial literacy strengthens attitudes and perceived behavioral control toward investing, which increases investment intention. In turn, stronger investment intention leads to Stock Market Participation (SMP), representing the execution of financial knowledge into actual behavior. These pathways reflect the TPB-based progression from cognition to intention and then to action. In addition, the framework incorporates insights from Behavioural Finance Theory, which emphasizes that financial decisions are influenced by psychological and procedural frictions. The Hassle Factor (HF) captures perceived complexity, effort, and inconvenience associated with investing. Such behavioural frictions can weaken the effective use of financial knowledge and reduce perceived financial well-being, even among financially literate individuals.

Figure 1 *Conceptual Framework*



Source Author's Own

Grounded in Human Capital Theory, this study posits that Financial Literacy (FL) enhances individuals' economic capability and sense of financial control, thereby

positively influencing Perceived Financial Well-Being (FWB). However, drawing on the Theory of Planned Behavior, the effect of financial literacy is expected to operate not only directly but also indirectly through Investment Intention (ITI), as financial knowledge shapes attitudes and perceived behavioral control, which in turn strengthen intention and subsequent outcomes. The progression from intention to action is reflected in Stock Market Participation (SMP), representing the realization of financial knowledge into observable financial behavior, which is expected to improve perceived financial well-being through increased engagement and long-term planning. At the same time, insights from Behavioural Finance Theory suggest that financial decision-making is subject to psychological and procedural frictions. Accordingly, the Hassle Factor (HF)—capturing perceived complexity, effort, and inconvenience—may weaken the effective use of financial literacy and negatively influence financial well-being. Based on this integrated theoretical perspective, the study proposes direct relationships between financial literacy and financial well-being, as well as indirect effects through investment intention, hassle factor, and stock market participation.

Hypothesis

H1: FL positively influences FWB
H2: Intention to invest (ITI) positively influences FWB
H3: Hassle Factor (HF) negatively influences FWB
H4: Stock Market Participation (SMP) positively influences FWB
H5: The Intention to invest positively affects the association between financial literacy and FWB
H6: The Hassle Factor negatively affects the association between financial literacy and FWB
H7: The Stock Market Participation positively affects the association between financial literacy and FWB

Research Methodology

Current research has quantitative, explanatory & cross-sectional research design as it seeks to explore the behavioural mechanisms that exist between FL and perceived FWB with investment intention, hassle factor and stock-market participation as mediating variables. In this regard the research is explanatory and theory-testing in character. Explanatory research aims at finding the causality between variables and clarifying how the variables relate to each other (Hair et al., 2022). Quantitative research method is used to measure objectively, latent psychological and behavioural constructs, and to test hypothesised relationships statistically. It is generally accepted that quantitative research methods are suited to study the behavioural finance, especially in cases where the construct of such variables as intention, perceived hassle, and wellbeing are measured on validated psychometric scales (Lusardi and Mitchell, 2014; Xiao et al., 2011). The individual serves as the analytical unit. Specifically, working individuals between the ages of 25 and 55 are the research's target group, as this population group is topical because of its active work with financial decision-making, investment online applications,

and financial long-term planning. This analysis group aligns with previous empirical research on the subject of financial literacy and investment behaviour (Bhatia et al., 2021). A study of individuals allows quantifying cognitive (financial literacy), psychological (intention and perceived hassle) and behavioural (stock-market participation) and perceptual (financial wellbeing) constructs directly. This type of structure will require an analytic methodology that will be in a position to estimate a number of relationships simultaneously. Therefore, the research design follows the application of SEM, which allows estimating the complex causal pathways with the latent variables and mediation effect (Kline, 2016). SEM is also an especially appropriate tool, as it: (1) incorporates measurement error; (2) enables the estimation of multiple relationships at once; and (3) is generally recommended in behavioural finance, and financial wellbeing studies (Yang et al., 2021). The sensitive selection of a suitable population and a sampling scheme are important in the studies related to the area of behavioural finance, especially in the research with psychological constructs like financial literacy, investment intention, perceived hassle, and financial wellbeing (Hair et al., 2022). Mediation designs are becoming more popular in recent works on financial wellbeing and are thought to be the best practice in testing the theory (Bhatia et al., 2021; Sabri et al., 2023). This research will use working adults who are 25-55 years of age and live in urban and semi-urban areas of India as the study target population. The choice of Indian working adults between the age of 25 and 55 is theoretically and empirically based on several reasons. India is a fast-developing financial ecosystem where financial access, digitalisation, and financial inclusion strategies are enhanced by policies. The model suggested in the study incorporates five latent variables, including financial literacy, investment intention, hassle factor, stock-market participation, and perceived financial wellbeing, and various observed indicators of the latent variables. A sample size of 300-400 respondents is considered appropriate with the help of the 10-times rule and more sophisticated recommendations based on the power (Kline 2016). Sample sizes of 300-600 respondents have also been used in recent behavioural finance literature that uses similar models to obtain strong estimation and satisfactory indices of fit (Bhatia et al., 2021; Sabri et al., 2023). Based on this, the sample size of 560 respondents that was reached in this study was adequate to: (1) identify mediation effects; (2) stabilize the parameters; and (3) screen and treat data that had missing values. Although non-probability sampling restricts statistical generalisation to the whole population, this study is theoretically representative, which is commonly valued in theory-testing research (Hair et al., 2022). This study will not aim at estimating national prevalence rates, rather it will help to support behavioural relationships in a theoretically relevant population. Unemployed respondents will not be included in the sampling frame, neither will be full time students, retired, or those living in rural areas only. This omission is in line with previous studies, which highlight the importance of income stability and financial involvement in determining investment intention and wellbeing perceptions (Bhatia et al., 2021). The research uses non purposive sampling method

that involves purposive non-probability sampling though the research has some aspects of convenience sampling. Purposive sampling should be used in situations where respondents are required to meet particular theoretical and behavioural attributes in regards to the study aims (Hair et al., 2022). Investment intention, hassle factor and financial wellbeing are the constructs that constitute the research in this study and therefore self-report measures are the best data collection method due to the nature of these constructs (Ajzen, 1991; Xiao et al., 2011). Further, structured questionnaires allow: (1) to collect data in an efficient way with a large and geographically distributed sample size; (2) statistical testing of the hypothesised relationships with the use of SEM; (3) to make the results comparable to the results of other existing empirical studies with the use of similar scales (Botha & de New, 2021). These questions reflect self-rated competency of the respondents in the important financial areas such as investment knowledge, inflation, calculation of interest, compounding, budgeting, taxation, and emergency funds. Self-rating financial literacy scales are quite popular in behavioural finance studies, where the aim is to study perceived skill instead of objective knowledge on a test basis (Xiao et al., 2011). The perceived financial well-being was assessed using a brief five-item tool developed by Botha and de New (2021). Using more than one indicator in one construct increases the internal consistency and helps to reduce error in measurement (Hair et al., 2022). These methodological choices are in line with the common practice in the SEM study of behavioural finance (Kline, 2016). In this regard, PLS-SEM was used according to the current standards in the sphere and structuralized the psychological aspects of intention, perceived hassle, and subjective well-being as latent variables that are processed in a multivariate manner (Bhatia et al., 2021; Sabri et al., 2023).

Data Analysis and Interpretation

In line with classical PLS-SEM approaches, instruments of the evaluation were the reliability of indicators, internal consistency reliability, convergent validity, and discriminant validation (Hair et al., 2022). Developing a powerful measurement structure is a precondition of the plausible explanation of the structural relationships between constructs.

Table 1 Outer loadings Matrix

	FL	FWB	HF	ITI	SMP
FL1	.912				
FL2	.913				
FL3	.905				

Source Author's Own

FL4	.907				
FL5	.898				
FL6	.915				
FL7	.894				
FWB1		.943			
FWB2		.938			
FWB3		.940			
FWB4		.926			
FWB5		.942			
HF1			.867		
HF2			.872		
HF3			.880		
HF4			.900		
ITI1				.899	
ITI2				.912	
ITI3				.907	
SMP1					.892
SMP2					.890
SMP3					.873

The reliability of the indicators was evaluated through the outer loading of every item with regard to the specific construct. These loadings indicate the ratio of common variance between an indicator and their latent variables. According to the guidelines of PLS-SEM, 0.70 or higher loadings are considered acceptable, which is at least 50 per cent of construct variance (Hair et al., 2022). The results of SmartPLS showed that most of the indicators, FL1-FL7, ITI1-ITI3, HF1-HF4, SMP1-SMP5, and FWB1-FWB5, have an exceedance of the benchmark of .70 indicating satisfactory indicator's reliability. Those items that had slightly lower loadings were scrutinized in terms of their theoretical applicability and their contribution to the content validity. Where appropriate, indicators whose loadings were significantly

low were dropped to improve construct reliability and model parsimony, which has long been accepted empirical practice (Sarstedt et al., 2020).

Table 2 Reliability and Validity of Constructs

	Cronbach's alp ha	rho_a	rho_c	AVE
FL	.964	.964	.970	.821
FWB	.966	.966	.973	.879
HF	.903	.903	.932	.775
ITI	.891	.892	.932	.821
SMP	.928	.929	.946	.777

Source Author's Own

The assessment of internal-consistency reliability was done using Cronbach alpha and Composite Reliability (CR). Although Cronbach αlpha assumes the equivalent value of the loads of the indicators, CR introduces the true outer loadings and is therefore better in PLS-SEM scenarios (Hair et al., 2022). With reference to table 2, all constructs had a value which is more than .70 used as acceptable level of internal consistency. All the composite reliability (CR) estimates were less than 0.95, which assumes that there is no redundancy of the indicators, and this proves the constructs can be measured reliably. These results prove that indicators of every construct are always able to reflect the latent variable. The convergent validity was assessed via Average Variance Extracted (AVE), which measures the degree to which the indicators account for the construct instead of measurement error. AVE of 0.50 and above indicates that convergent validity is acceptable (Fornell and Larcker, 1981). The outcomes of SmartPLS indicate that all constructs achieved AVE values which are above the necessary threshold, which means that each construct explains more than half of the variance among its indicators. As a result, the indicators of Financial Literacy, Investment Intention, Hassle Factor, SMP and Perceived FWB demonstrate satisfactory convergence in their measurement of their respective constructs.

Table 3 Discriminant validity- HTMT Matrix

	FL	FWB	HF	ITI	SMP
FL					
FWB	0.741				
HF	0.650	0.584			
ITI	0.703	0.574	0.482		
SMP	0.666	0.570	0.446	0.404	

Source Author's Own

Discriminant validity is associated with empirical differentiation of a construct in comparison with others in a model. It was measured by the Heterotrait-monotrait

(HTMT) ratio, regarded as a rigid measure of modern SEM research (Henseler et al., 2015). The discrimination validity of the constructs was strongly maintained as all HTMT estimates were below the conservative cut off of 0.90. The measurement model therefore has acceptable indicator reliability, strong internal-consistency reliability, acceptable convergent validity as well as strong discriminant validity and this indicates that the constructs are measured precisely and distinctly. The structural (inner) model, having been tested in a way that ensured reliability and validity of the measures, was used to test the hypothesised relationships between constructs, as well as to provide measures of explanatory and predictive power. In line with the general PLS-SEM methodology, this evaluation took into account collinearity statistics, path coefficients and their importance, the coefficient of determination (R2), coefficients of effect (f2), and predictive relevance (Q2) (Hair et al., 2022). In the structural specification, the study examined the direct impacts of FL and Investment Intention (ITI) and the Hassle Factor (HF) and SMP on Perceived FWB.

Table 4 Collinearity statistics (VIF)

	VIF
FL 1	2.289
FL 2	3.147
FL 3	3.161
FL 4	3.235
FL 5	3.238
FL 6	3.588
FL 7	3.747
FWB1	3.987
FWB2	3.443
FWB3	3.537
FWB4	3.575
FWB5	3.753
HF1	2.461

Source Author's Own

Before the hypothesis testing was done, multicollinearity among predictors was

HF2	2.427
HF3	2.609
HF4	3.001
ITI1	2.508
ITI2	2.723
ITI3	2.659
SMP1	3.184
SMP2	3.097
SMP3	2.813

also evaluated using Variance Inflation Factor (VIF) statistics. High collinearity triggers standard errors and distorts path values, so a VIF of less than 5.0 is considered acceptable, and the value of less than 3.3 gives a safe margin against multicollinearity (Hair et al., 2022). This indicates the non-existence of multicollinearity and supports the fact that the constructs have different explanatory power in the model.

Table 5 presents the bootstrapping results for hypothesized paths, including β values, t-statistics, and p-values. Path Coefficients- Mean, STDEV, T values, P values

	Original sample (O)	Sample mean (M)	STDEV	T statistics (|O/STDEV|)	P values
F L -> FWB	.447	.448	.066	6.786	.000
FL -> HF	-.606	-.606	.038	15.870	.000
FL -> ITI	.652	.652	.032	20.086	.000
FL -> SMP	.630	.630	.039	16.146	.000
HF -> FWB	-.164	-.164	.048	3.401	.001
ITI -> FWB	.115	.115	.054	2.117	.034
SMP -> FWB	.149	.149	.047	3.150	.002

Source- Author's Own

The evaluation of the relationships that are hypothesised was conducted through bootstrapping using SmartPLS with a large number of resamples used to obtain

path coefficients (β), t-statistics and p values, which can be used to make inferences. Bootstrapping is recommended in PLS-SEM as it does not rely on distributional assumptions and offers robust significance testing (Hair et al., 2022). The standardized path coefficient suggests that individuals with higher levels of FL tend to report greater financial wellbeing. The associated t-value exceeds the critical threshold and the p-value is below .05, leading to support for H1. The path from investment intention to perceived financial wellbeing is positive and statistically significant, indicating that individuals who exhibit stronger intentions to invest experience higher levels of perceived financial wellbeing. Increased perceptions of hassle, whether measured by use of complexity, effort, or procedural load, have a negative effect on perceived FWB. On the other hand, active participation in the equity market improves the feeling of financial security, independence and long-term readiness.

Table 6 R-square

	R^2	R^2 adjusted
FWB	.551	.545
HF	.367	.365
ITI	.425	.424
SMP	.397	.395

Source- Author's Own

Coefficient of determination (R^2) was calculated to determine the power of explanations of the structural model. R^2 represents the percentage of variations in an endogenous construct that are explained by antecedents. In accordance with SEM-PLS standards, the values of R^2 .25, .50, and .75 denote weak, moderate, and strong explanatory power (Hair et al., 2022). The perceived financial well-being R^2 is a testimony to a considerable percentage of explained variance, shared among financial literacy, intention to invest, hassle and market participation. This result supports the strength of the proposed model of the behavioural pathway and the multidimensional nature of financial well-being.

Table 7 f-square- Matrix

	FL	FWB	HF	ITI	SMP
FL		0.151	0.581	0.741	0.658
FWB					
HF		0.038			
ITI		0.017			
SMP		0.029			

Source- Author's Own

In order to measure the relative impact of each antecedent, effect sizes (f^2) were analyzed. The effect sizes of 0.02, 0.15 and 0.35 denote the small, medium and large effect sizes respectively (Cohen, 1988). The f^2 values showed that market participation and investment intention have medium impact on perceived financial wellbeing meaning that they have noteworthy contributions. Financial literacy had a small to medium impact implying direct and indirect impact. The hassle factor had a very small yet statistically significant negative impact, with behavioural frictions having a significant role to play in FWB models. Therefore, behavioural engagement and psychological preparedness are more related to perceived financial well-being in comparison to knowledge.

Table 8 PLS-predict LV summary- PLS SEM

	Q^2predict	RMSE	MAE
HF	.364	.804	.656
ITI	.422	.766	.608
SMP	.394	.785	.634
FWB	.510	.706	.573

Source- Author's Own

In addition to the description of variance, the predictive relevance of the model was evaluated using the PLS- predict mechanism as applied in SmartPLS. In contrast to in-sample tests, including R^2, PLS-predict gives an out-of-sample test, thus providing a more rigorous assessment of model performance and protecting against over-fitting (Shmueli et al., 2019).

Q^2 predict was used to estimate predictive relevance with Root Mean Square Error (RMSE) and Mean Absolute Error (MAE) of individual dependent constructs. Q^2 predict values that are above zero signal predictive relevance, and larger values indicate high predictive relevance (Hair et al., 2022). Q^2 predict values were all

positive, indicating that all dependent constructs have significance in out-of-sample relevance. The maximum Q^2 predict (0.510) was borne by perceived financial well 2-being (FWB), implying good predictive validity. The moderately strong relevance of investment intention (Q^2 predict = 0.422) and market participation (Q^2 predict = 0.394) indicated the strength of the behavioural pathways. Although it is a smaller value, the hassle factor (Q^2 predict = 0.364) exceeded the critical value, which confirmed the predictable relationship between behavioural frictions and financial decision-making. Complementary RMSE and MAE analysis tabled low prediction errors on all constructs with perceived financial well-being reporting the lowest RMSE (0.706) and MAE (0.573). All these measures contribute to predictive adequacy of the model, especially of the key measure. Altogether, the results of PLS-predict help to demonstrate that the predictive power of the structural model in question is moderate or strong, particularly in terms of perceived financial well-being. These findings demonstrate that the model is not overfitted and is capable of generalizing beyond the sample data, thereby strengthening the empirical robustness and practical relevance of the study (Shmueli et al., 2019; Hair et al., 2022).

Mediation Analysis

The mediation analysis has been performed by partial least squares structural equation modelling (PLS-SEM) with the bias-corrected bootstrapping procedure of 10,000 resamples, which is in line with the current guidelines of testing a mediation in PLS-SEM (Hair et al., 2017). The aim was to test the hypothesis that HF, ITI and SMP are mediators of the connection between FL and FWB.

Table 9 Direct Effect Results

Path	β	t-value	p-value
FL → FWB	0.447	6.786	< .001

Source Author's Own
Note. Bootstrapping based on 10,000 resamples.

To measure the connection between FL and FWB, the first test was the direct correlation between them. The findings have shown that the direct effect of FL on FWB is positive and statistically significant (6.786, = 0.447, p <.001). According to Hair et al. (2017), a strong direct impact does not exclude mediation but indicates the possible occurrence of partial or complimentary mediation.

Table 10 Total Indirect Effect of FL on FWB

Path	β	t-value	p-value
FL → FWB (total indirect effect)	0.268	4.735	< .001

Source Author's Own
Note. Significance assessed using bias-corrected bootstrapping.

The overall indirect impact of FL on FWB by the proposed mediators was then studied. The results indicate the positive and statistically significant total indirect effect (=.268, t = 4.735, p =.001) that, in turn, proves the mediation in the model. According to the suggestions of Hair et al. (2017), changes in a direct effect are not the main criterion of mediation but the statistical significance of the indirect effect.

Table 11 Specific Indirect Effects

Indirect Path	β	t-value	p-value
FL → SMP → FWB	0.094	3.091	.002
FL → ITI → FWB	0.075	2.110	.035
FL → HF → FWB	0.100	3.335	.001

Source Author's Own
Note. All indirect effects were estimated using bootstrapping with 10,000 resamples.

The individual mediating effects of HF, ITI and SMP were then examined to determine the individual effects. Financial Literacy had a positive and significant indirect effect on Financial Well-Being through SMP (094, t = 3.091, p =.002), which implies that SMP partly mediates the relationship. Equally, ITI has been discovered to have a great mediation of the association between FL and FWB (0.075, t = 2.110, p =.035). Moreover, HF was a significant mediating factor (01.00, t = 3.335, p =. 001). The direct effect of HF on FWB is a negative one, yet the outcome is a positive one because of the negative relationship between Financial Literacy and HF that is in line with the interpretation of indirect effects in mediation analysis (Hair et al., 2017).

Table 12 Summary of Mediation Effects

Relationship	Direct Effect	Indirect Effect	VAF (%)	Mediation Type
FL → FWB	Significant	Significant	37.5	Complementary partial mediation

Source Author's Own

The character and the intensity of mediation were tested. Due to the statistical significance of the direct effect and the indirect effects and the overall direction of their operation, the mediation may be defined as complementary partial mediation (Hair et al., 2017). The final outcome was the calculation of the variance accounted for (VAF) as the total indirect effect (.268) divided by the total effect (.715) and provides VAF (37.5). This value is within the 20%-80% range which is suggested by Hair et al. (2017) and it is another evidence of partial mediation conclusion.
Table 12 Model fit

	Saturated model	Estimated model
SRMR	.028	.030
d_ULS	.228	.266
d_G	.231	.232
Chi-square	409.566	410.253
NFI	.945	.945

Source- Author's Own

These findings indicate that FL not only affects FWB directly but also indirectly using HF, ITI as well as SMP, showing that these mediating processes are significant in elucidating how financial literacy is converted to better financial well-being. Although PLS-SEM is primarily prediction-oriented and does not emphasize global goodness-of-fit indices to the same extent as covariance-based SEM, recent methodological advances recommend reporting approximate model fit measures such as the Standardized Root Mean Square Residual (SRMR), Normed Fit Index (NFI), and discrepancy measures (d_ULS and d_G) to provide complementary evidence of model adequacy (Hair et al., 2022). The Standardized Root Mean Square Residual (SRMR) value for the estimated model is 0.030, which is well below the commonly accepted threshold of 0.08, indicating a good approximate model fit. Besides the measurement and structural models, the total model fit of the hypothesized PLS-SEM model was also determined to analyze the performance of the estimated model in its capacity to reproduce the available data. A smaller SRMR indicates the existence of smaller discrepancies between the model implied and observed correlation matrices, which indicates that the suggested structural relationships are sufficient to capture the underlying data structure (Hair et al., 2022).

The Normed Fit Index (NFI) of 0.945 is also an indicator of the appropriateness of the model. In structural equation modelling (SEM) studies, NFI values close to 1 are better measurements of fitness, and values that are more than 0.90 are normally considered to be acceptable. The high NFI value indicates that the estimated model achieves a substantial improvement over a null model with no relationships among constructs (Hair et al., 2022).

The discrepancy metrics d ULS and d G are also small both in the saturated and estimated specifications, indicating that there are insignificant differences between the empirical and model implied correlation matrices. Further, the similarity of the chi-square statistics of the saturated and estimated model implies that the structural restrictions of the specification is not a significant source of distortion in the overall data structure. All these fit indices give convergent support to an

acceptable overall fit of the postulated partial least squares SEM (PLS SEM) model, which supports the strength of the outlined measurement and structural pathways. Despite the fact that global fit is not the main purpose of PLS-SEM, the given indices indicate that the estimated model is quite valid and stable and that the behavioural framework represents the data fairly well, thus, justifying the interpretation of the structural paths, mediation effects, and predictive relevance described in the previous sections.

Table 13 Hypothesis Testing Summary

Hypothesis	Path / Relationship	Result	Decision
H1	FL → FWB	Positive & Significant	Supported
H2	Investment Intention → Financial Wellbeing	Positive & Significant	Supported
H3	Hassle Factor → Financial Wellbeing	Negative & Significant	Supported
H4	Stock Market Participation → Financial Wellbeing	Positive & Significant	Supported
H5	ITI mediates FL → FWB	Significant Partial Mediation	Supported
H6	HF mediates FL → FWB	Significant Partial Mediation	Supported
H7	SMP mediates FL → FWB	Significant Partial Mediation	Supported

Source- Author's Own

All proposed hypotheses were empirically supported, confirming that financial wellbeing is shaped by a combination of cognitive, motivational, behavioural, and friction-related mechanisms. The results validate the robustness of the proposed model.

Discussions and Implications

A practical implication of the present study is on the creation and implementation of financial education initiatives in the immediate future. Traditional programs have mainly been focused on the advancement of understanding about monetary concepts including interest rates, inflation, diversification and risk. Although this kind of knowledge is indispensable, we have found that the level of literacy is not sufficient to optimise the perceived financial well-being in the absence of predisposition by intention and subsequent behaviour. On that note, teachers ought to move away the strictly informational curricula and move to the behaviourally based financial-capability programmes. The modules that should be

specifically introduced in these programmes are those that develop intention to invest, based on instilling the sense of confidence, goal clarity, and enhancement of the perceived behavioural control. The observed undesirable correlation between perceived hassle and well-being highlights why organisations and policymakers should put the emphasis on friction reduction in financial systems. Financial institutions, regulators, and fintech companies must simplify such procedures as opening a new account, Know Your Customer (KYC) verification, making transactions, and managing a portfolio. The evidence of behavioural-economic literature provides a consistent picture that the smallest simplification of the procedures may significantly boost the level of participation and satisfaction. The present work builds upon this finding by showing that the minimization of hassles has a favourable effect on one's financial health. On a managerial level, it means that user-experience (UX) design ought to be regarded as a strategic tool and not as a marginal issue. The mental load can be reduced by clarity of communication, easy-to-use interfaces, transparent fee models, and simplified workflows, which can also increase users' feeling of control. The results have important implications to banks, brokerage companies, asset-management firms and wealth advisers. The favourable correlation between stock-market involvement and perceived financial well-being implies that in order to promote the stock-market involvement, one should also promote responsible involvement in financial well-being so that the clients can feel more than just returns. Financial institutions are therefore advised to embrace a client-based wellbeing oriented advisory approach. Instead of concentrating solely on the sales of products or short-term performance, advisors are able to concentrate on long term financial involvement, diversification, and gradual and gradual participation based on risk level and confidence of the clients. In the case of fintech companies, the findings indicate that it is essential to synchronise technological innovation and behavioural information. Despite increasing the availability of financial markets to more people, digital platforms can also introduce new complexities and cognitive burdens. This negative effect of the hassle factor on well-being suggests that simplicity, transparency, and trust should be prioritised in the case of fintech innovation. Therefore, companies ought to create products that can steer the user through decision making process, as opposed to bombarding him or her with options and data. Some of the characteristics that can help alleviate the perceived hassle and strengthen the confidence of the users include guided onboarding, educational nudges, plain-language explanations, and personalised recommendations.

The relationship between Financial Literacy (FL) and Perceived Financial Well-Being (FWB) is grounded in Human Capital Theory, which views financial knowledge as an investment that improves individuals' capacity to make informed decisions and manage financial resources effectively. As a result, financially literate individuals are more likely to experience greater financial control, confidence, and security, leading to higher perceived financial well-being. However, financial knowledge alone does not automatically translate into improved outcomes.

Drawing on the Theory of Planned Behavior, this study posits that Investment Intention (ITI) serves as a key motivational mechanism linking financial literacy to financial outcomes. Financial literacy strengthens attitudes toward investing and perceived behavioral control, which increases investment intention. Stronger intention, in turn, facilitates Stock Market Participation (SMP), representing the behavioral execution of financial knowledge and motivation. Participation in the stock market enables individuals to apply their knowledge in wealth-building activities, thereby enhancing perceived financial well-being. At the same time, insights from Behavioural Finance Theory highlight that financial decision-making is constrained by psychological and procedural frictions. The Hassle Factor (HF) captures these frictions in the form of perceived complexity, effort, and inconvenience associated with financial activities. Even financially literate individuals may experience reduced financial well-being when such hassles discourage action or increase cognitive burden. Consequently, the hassle factor is expected to negatively influence perceived financial well-being and weaken the effectiveness of financial literacy in improving financial outcomes.

Limitations and Future Scope

Despite the theory that financial literacy determines the intention to invest, perceived hassle, and investing in the market, it is also reasonable that financially active people might also invest more in financial knowledge over time. Accordingly, the research is a snapshot as opposed to a change in behaviour with time. Self-reported data also creates the risk of bias, such as overconfidence, recollections, and social desirability. Specifically, perceived financial literacy might not entirely indicate knowledge. Besides, when all variables are measured in one survey, common-method bias might be created, although some attempts are made to overcome it. Some of the measurement limitations can be identified: the participation in stock-markets is subjective, not objective, and the hassle factor is subjective, not objective structural impediments. Even though they are relevant to perceived well-being, such restrictions restrict the accuracy of behaviour. SEM-PLS is relied upon, and despite the fact that it places more emphasis on predictive power, it lacks the strict theory testing. As much as it was suitable to the aims of the study, the findings should be viewed as explanatory, but not definitive causal evidence, and can be biased by the sample peculiarities. Moreover, the contextual and conceptual boundaries of the study are limited to India and are not inclusive of all the pertinent psychological or structural variables, including the financial stress, income uncertainty, or institutional trust. This study can be expanded in future studies through the employing longitudinal designs in order to help explain the dynamics of financial literacy, behaviour and financial well-being better, thus helping to determine the causal relationships more clearly. Following people across life phases and financial status would give a deeper comprehension of the formation and strength of financial capacity. Research also needs to combine self-

reported data with objective financial information savings, investments, credit reports, etc. to minimize bias and reflect perceived well-being and actual financial performance. More psychological and social variables (financial self-efficacy, stress, risk tolerance, and social norms) that are added to the model would provide a more detailed view of financial decision-making. In addition, the dimension of hassle might be operationalised into separate sub-constructs (e.g., administrative, cognitive, emotional) in order to determine which obstacles, have the most significant negative impact on financial interaction and well-being. Additional investigation is necessary to validate the model in different cultural and national settings as well as to explore the differences in demographics to increase the overall applicability and provide specific policy intervention information. Experimental and mixed-methods methodology may support the use of causal inference and better represent lived experiences. By connecting financial well-being with other outcomes in life (including mental health, life satisfaction, and occupational performance), financial well-being would be placed in a larger quality-of-life context and its policy relevance increased.

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