



IMPACT OF FINANCIAL LITERACY ON THE FINANCIAL WELL-BEING OF THE SLUM DWELLERS IN BANGALORE CITY – PLS SEM APPROACH

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Article History: Received: 12.05.2023

Revised: 25.05.2023

Accepted: 05.06.2023

Abstract

Recent years have seen a rise in the number of studies conducted on financial literacy by economics educators and researchers. Personal, family, and national financial literacy are all obvious areas where improvement could be made. To a large extent, the financial decisions made by decision-makers affect the economic well-being of all social classes. Particularly in the context of emerging nations, the correlation between better financial decision-making and fostering economic progress is a topic of substantial interest. Given the importance and current relevance of financial literacy, this study aims to investigate the current level of financial literacy among people living in slum regions and how it may affect their financial wellbeing. The research sampled 300 people from slums in the areas of Jayanagara, Dayananda Lalbagh, Siddapura, Yelahanka, and Kanteeravanagara using a convenience sampling technique. The major instrument for gauging participants' levels of financial literacy and financial well-being was an interview schedule with 36 items specifically developed to do so. Cronbach's alpha and the Composite Reliability tests were used to determine the constructions' internal consistency. As a prelude to using Structural Equation Modeling (SEM) methods, the current research uses Confirmatory Factor Analysis (CFA) to quantify the well-established concepts of financial literacy and financial well-being. Financial literacy among slum dwellers was found to have a significant impact on their economic well-being by 45 percent, with a statistically significant association established at the 5% level of significance.

Keywords: *Financial literacy, financial well-being, financial attitude, financial behaviour and financial knowledge*

Introduction

Researchers in the field of economics and education have recently focused their attention on questions of financial literacy. The importance of financial literacy to individuals, families, and nations is

undeniable. The financial well-being (FWB) of societies at all levels depends on the choices made by its leaders. Especially for emerging nations, understanding the link between better financial decision-making and economic growth is a matter of paramount importance. To rephrase,

those who are financially literate are the ones who can make the sound decisions with their money that are crucial to building a secure financial future. Attaining financial security requires having the knowledge and skills necessary for managing money wisely, as stated by [1]

Previous research backs up [2] claim that low financial literacy (FL) is associated with poor financial outcomes. In the current scenario, people who are financially prepared will be better able to handle financial challenges such as personal insolvencies, health concerns, premature retirement, unemployment, financial strain due to debt repayment, and the inability to achieve savings goals. Kamakia et al. (2017) [3] found that people who take steps to improve their financial situation were more prosperous than those who did not.

The value of financial education in fostering economic security is generally recognized. However, as Bruggen et al. (2017) [4] point out, there is a dearth of relevant material. The current study aims to fill a knowledge gap by investigating the effects of FL on economic security, before moving on to conceptualization. The chapter before the results and comments focuses on the research methodologies that were used.

Review of Literature

There is a substantial body of research that links economic literacy to material security. [5] and [6] established the relationship between FWB and knowledge of personal finance, financial stability, and financial behavior. Furthermore, fostering FL is associated with the growth of a prosperous financial mindset, which in turn leads to financial success. According to the aforementioned studies, one's FWB is profoundly affected by one's level of financial literacy. Prior study has been confirmed by the work of [7], who found

that increased FL results in financial contentment and, eventually, financial prosperity. Higher levels of financial satisfaction have been linked to improved FL [8]. According to Ali et al. (2015) [9], one of the most important factors in determining financial happiness is an individual's level of FL because it allows them to make informed decisions about their spending and saving habits. Better investment results are cited as proof that households where members are financially literate are in a better financial position overall [10]. Retirement planning and the subsequent increase in retirement assets is a main channel via which the connection between FL and FWB can be seen to take shape. People all across the world are tasked with calculating their retirement savings and making plans to ensure they have enough money to live comfortably in their dotage. To be successful in this endeavor, you must have a solid grasp of the basics of mathematical finance. To determine how much an individual's level of FL affects their retirement planning and, by extension, their total financial welfare, Lusardi and Mitchell's (2007) [11] research has applied fundamental mathematical finance principles. The writers have convincingly shown that FL has a positive impact on one's financial well-being. In line with prior research, Agnew et al.'s (2012) [12] study found that people with low FL were more likely to cash out their pensions.

Similar lines of research have found a connection between financial knowledge and other facets of monetary health. Multiple research, including those by [13] [14], and [10], have found a favorable correlation between FL and economic success. More specifically, these research have demonstrated that better levels of FL are related to greater wealth accumulation. Inadequate FL has been linked to higher debt levels, credit problems, insolvency, and excessive indebtedness, all of which can have a negative impact on an individual's financial well-being, as shown

by studies by Lusardi and Tufano (2009) [11], and [15]. In addition, research by Lusardi et al. (2011) [11] shows that higher levels of FL are connected with higher levels of emergency savings and greater resilience in the face of economic downturns.

Bruggen et al. (2017) [4] describe FWB as the state of being free from material want or need and confident in one's ability to continue one's current standard of living while saving for future goals. In its definition of financial well-being, the Consumer Financial Protection Bureau (CFPB) includes the ability to satisfy current and future financial commitments, a sense of financial security, and the freedom to pursue life goals. Therefore, a financially insecure person is more inclined to live a precarious lifestyle, which can hinder their economic advancement. As a result, even a moderate financial difficulty can quickly become a severe one [16]. FWB is a multifaceted concept, and Bruggen et al. (2017) [4] propose a comprehensive framework that takes all of these factors into account. This study emphasizes the necessity for further investigation from many perspectives.

Hung et al. (2009)[17] define FL as the ability to understand and apply basic economic and financial principles to the management of one's own financial resources for the purpose of achieving long-term financial security. Confidence in one's ability to maintain one's current and expected ideal standard of living, as well as one's financial independence, is central to financial well-being, as defined by Bruggen et al. (2017) [4]. According to

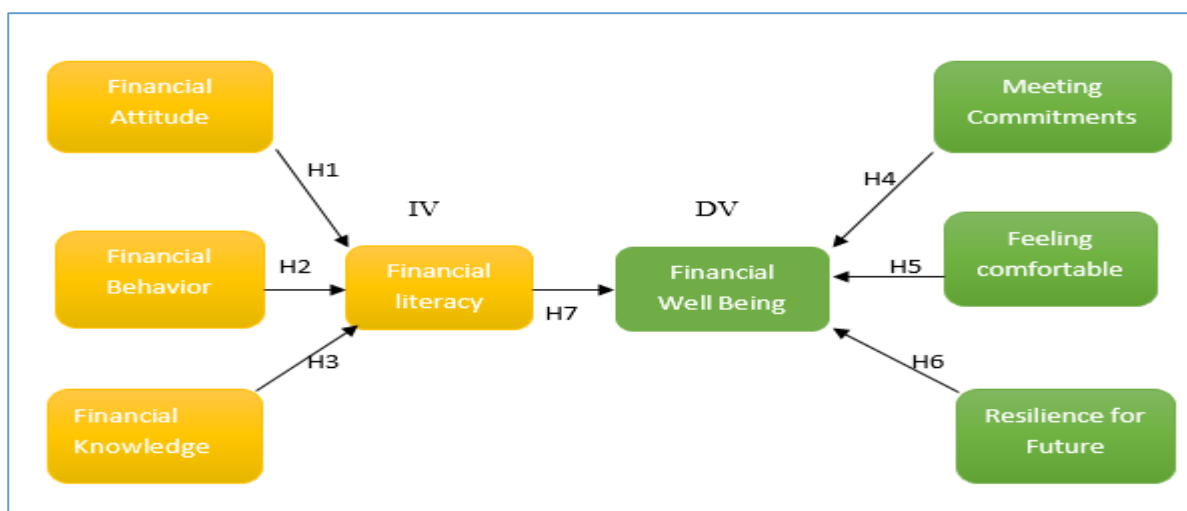
Nejad and Javid (2018) [18], an individual's level of FL is a major determinant of that person's financial well-being. Advocates of financial education claim that its recipients are more likely to make sound financial decisions, save wisely, invest wisely, and amass money over time. Therefore, those who are financially literate can make educated decisions that can lead to improved financial outcomes. Financial literacy, as defined by Lusardi and Mitchell (2007) [11] and Lusardi and Tufano (2008) [19], has been linked to improvements in saving, investing, and day-to-day financial decision-making.

When it comes to one's financial well-being, the value of financial awareness as a component of FL cannot be understated. Priyadharshini (2015) [20] point out how it affects people's financial literacy, which in turn guides their choices. Nga et al. (2010) [20] state that demographic characteristics are antecedents of financial awareness, which they define as both general and product awareness. Scholarly studies by van Rooij et al. (2012) [14] and Priyadharshini (2015) [21] find that people who are financially literate are more likely to make educated judgments about their money. These people feel more secure about their financial futures as a result.

Aim and framework

Given this context, the purpose of this study is to gain insight into how slum residents' current level of FL affects their economic security. The following structure was established in order to accomplish the aims of the study.

Fig-1 Conceptual framework for the study



Finding the interconnections between the study's important variables forms the theoretical framework. The study's dependent and independent variables were determined after an exhaustive analysis of the available literature. The dependent variable is the object of the study, whereas the independent variable is something that has an effect on the dependent variable, either positively or negatively.

Research Methods

The literature review shows that there is a dearth of studies that solely focus on economically excluded groups like marginal farmers, landless laborers, small vendors, individuals engaged in unorganized sectors, the unemployed, the self-employed, residents of urban slums, women, children, the elderly, and people with physical disabilities. Participants were selected from urban slums because they represented the identified gap in the literature. For most research projects, a sample size of between 200 and 500 respondents is considered sufficient [22]. There are a total of 2,000 slum homes in the Jayanagara region, 1,200 in the Yelahanka area, and 300 in the Kanteeravanagara slum. Data were obtained from 300 slum residents using a convenience sample technique.

There are a total of 36 questions on the study's scale, which is essentially an

interview schedule, that aim to gauge various aspects of FL and financial well-being. Attitude toward money, financial actions, and financial knowledge are the three components used to assess financial literacy. Meeting commitments, experiencing comfort, and being financially resilient are the three components of financial well-being. A brief segment on demographic profiling was also included in the study's interview schedule.

The FL scale is adapted from the scale that [23] used to measure FL in Brazil. The authors of the paper on financial wellbeing: A conceptual model and preliminary analysis by [24] provide a scale that is used to quantify this concept. To gauge the extent to which respondents agreed with various statements regarding FL and well-being, we utilized a five-point Likert scale ranging from 5-Strongly agree to 1-Strongly disagree.

The researcher used Cronbach's alpha and the Composite Reliability test to evaluate the constructs' internal consistency. The Cronbach alpha reliability coefficients varied between 0.64 and 0.75. Composite Reliability ratings were above the minimum acceptable value of 0.70, ranging from 0.76 to 0.84. So, no issues with coherence within the text were found to be problematic. Average variance extracted (AVE) values for the constructs

were greater than 0.5, as suggested by [25]. The values varied from 0.50 to 0.62. As a result, it was concluded that there are no problems with the convergent validity of the constructs. Two criteria were presented by Hair et al. (2014) [25] to evaluate discriminant validity.

Anderson and Gerbing (1988) [26] state that EFA is the preferred method when no theoretical foundation is available, while CFA should be used when available. Given this line of reasoning, the study use a CFA to measure FL and FWB before moving on to a structural equation modeling (SEM) approach.

Discussion and results

Demographic Profile of the respondents

Table 1- Demographic profile of the respondents

Variables understudy	Categories	Frequency	Percentage
Gender	Female	136	45.30%
	Male	164	54.70%
	Total	300	100.00%
Age group (in years)	Less than 35	67	22.30%
	36–45	180	60.00%
	46–55	35	11.70%
	Greater than 56	18	6.00%
	Total	300	100.00%
Educational level	No Formal Education	54	18.00%
	High school or below	212	70.70%
	PUC or Above	34	11.30%
	Total	300	100.00%
Employment	Permanent full time employment	166	55.30%
	Permanent part time employment	75	25.00%
	Self-employed	35	11.70%
	Unemployed	24	8.00%
	Total	300	100.00%
Occupation	Business	16	5.30%
	Job	266	88.70%
	Others	18	6.00%
	Total	300	100.00%
Marital Status	Married	238	79.30%
	Single	47	15.70%
	Others (Divorced & widowed)	15	5.00%
	Total	300	100.00%

According to the aforementioned table, 54.7% of slum dwellers in the study were men, while 45.3% of them were women. 60% fell into the "36-45 years" age bracket, followed by the "less than 35 years" group with 22.3%, "46-55 years" with 11.7%, and "greater than 56 years" with 6% of the respondents. Regarding education, 18.% of Slum dwellers had "No formal Education," 70.6% of respondents had completed high school or less, and 11.4% had completed a four-year college degree or above. Regarding employment, 55.3% of respondents reported having "PFTE," 25% reported having "PSTE," 11.7% reported being "Self-employed," and 8% reported being "Unemployed." In

Item analysis for factors influencing FL

Table 2- Item analysis using descriptive statistics for financial literacy

Constructs	Number of Respondents	Mean	Standard deviation	Skewness	Kurtosis
Financial Attitude	300	3.09	0.86	-0.98	-1.12
Financial Behavior	300	3.58	0.59	-0.91	-0.89
Financial knowledge	300	2.58	0.95	-1.10	-1.23

Analysis of slum residents' financial attitudes revealed that the majority buy simply necessities and do not consider consumption to be the highest use of income. A high sense of financial responsibility manifests itself in individuals who limit their spending to necessities rather than frivolities, demonstrating a deep appreciation for the value of a dollar. Many respondents said they have trouble saving because they regularly run a budget deficit since their expenses are higher than their income. The person admitted that they did not have enough money to meet their everyday responsibilities, which prevented them from saving up for their long-term goals. Slum residents' spending habits were positively skewed, whereas their savings habits and long-term budgeting were skewed negatively. (M=3.09, SD=0.86). Most people in the slums pay their electric

terms of occupation, 88.7% of slum dwellers had "jobs," 6% had "other" occupations, and only 5.3% owned their own "businesses." In terms of marital status, 79.3% of respondents identified as "Married," 15.7% as "Single," and 5% as "Others" (divorced or widowed). The monthly income of 59.3% of the respondents was between "5,000 and 10,000," the income of 35% of the respondents was between "10,000 and 20,000," and the monthly income of 5.7% of the respondents was "less than 5,000." In terms of family size, 84% of them fall into the "Up to 5 family size" category, while 16% fall into the "More than 5 family size" category.

and water bills on time, out of their own pocket rather than borrowing money, according to the study's results on financial behavior. People in this group are financially savvy; they shop about and discuss prices with relatives before making major purchases. The person has said that they will make an effort to save regularly and will consider using credit only when absolutely necessary. These are the reasons why people in low-income communities often have good financial habits. (M=3.58.SD=0.59). The results of the FL test show that many people in low-income neighborhoods are familiar with banking concepts including savings accounts, Aadhaar number seeding, and automated teller machine withdrawals. When asked about financial topics like overdraft facilities, cross cheques, interest computation, and different types of bank accounts, only a small percentage of

participants correctly identified passbooks and PAN cards. Slum dwellers in Bangalore's urban centre have a mean

score of 2.58 and a standard deviation of 0.95 on a test of financial literacy.

Item analysis for factors influencing financial well being

Table 3- Item analysis using descriptive statistics for financial well being

Constructs	Number of Respondents	Mean	Standard deviation	Skewness	Kurtosis
Meeting Commitment	300	3.71	0.66	-0.76	-1.56
Feeling Comfortable	300	3.03	0.75	-1.13	-1.45
Resilience for future	300	2.97	0.75	-0.99	-0.66

Despite living in a challenging economic environment, most slum dwellers surveyed said they are able to afford food and other necessities on a daily basis. They also reported being able to keep up with their water and power payments on schedule. The people living in Bangalore's shantytowns are able to meet their basic financial needs. (M=3.70, SD=0.66) In this analysis, we focus on questions that probe how at ease the respondents report feeling. Based on the findings, it appears that people living in slums are unhappy with their current financial condition due to a lack of control over their income, expenses, and savings. They couldn't agree on how secure their future finances would

be. The residents of Bangalore's slums, with a mean score of 3.03 and a standard deviation of 0.75, are clearly not living in a financially secure environment. The people living in the shantytowns didn't seem very optimistic about their capacity to weather future financial storms. Furthermore, they showed no clear preference with regards to their future credit needs or savings practices. Due to the unpredictability of their finances, the participants agreed that they needed to make preparations to deal with unexpected expenditures. With a mean of 2.97 and a standard deviation of 0.75, future resilience was found to be low.

Hypothesis

Relationship between FL and Financial Well-being

Table 4- Hypothesis drawn for the study

H1	Financial Attitude (FA) impacts financial literacy
H2	Financial Behavior (FB) impacts financial literacy
H3	Financial Knowledge (FK) impacts financial literacy
H4	Meeting Commitment (MC) impacts financial well being
H5	Feeling Comfortable (FEC) impacts financial well being
H6	Resilience for future (RSE) impacts financial well being
H7	FL impacts financial well being

In the model, the FL is the only exogenous variable whose values are measured outside the model and all other variables such as financial attitude, financial behavior financial knowledge, financial wellbeing, meeting commitment, feeling comfortable and resilience for future are endogenous and their values can be measured within the model.

Step-1 Exploratory factor analysis

The KMO Bartlett's statistics was measured at 0.871 which was above the expected criteria and statistically significant at $p < 0.05$. The communalities for 31 items was above 0.30 and good measure for the model. The total variance explained was at 69.96% which is also a significant measure for the 6 constructs

chosen after running the exploratory factor analysis. The cross loading of the model for the 6 constructs in the study is explained in the table below. Some of the items were deleted due to low factor loadings. 10 items were deleted and the model with 21 items was finalized for PLS SEM to understand the relationship between the aforementioned variables

Table 5 – Rotated component matrix

Name	Block	Fin Att	Fin Beh	Fin Know	MC	FEC	RES
FA3	Fin Att	0.73					
FA5	Fin Att	0.76					
FA7	Fin Att	0.70					
FB1	Fin Beh		0.76				
FB3	Fin Beh		0.75				
FB4	Fin Beh		0.63				
FB9	Fin Beh		0.50				
FK1	Fin Know			0.76			
FK2	Fin Know			0.70			
FK3	Fin Know			0.68			
FK7	Fin Know			0.52			
MC1	MC				0.71		
MC2	MC				0.82		
MC3	MC				0.78		
FEC1	FC					0.71	
FEC2	FC					0.82	
FEC3	FC					0.78	
FEC4	FC					0.71	
RES1	RES						0.87
RES2	RES						0.72
RES4	RES						0.77

PLS SEM Results

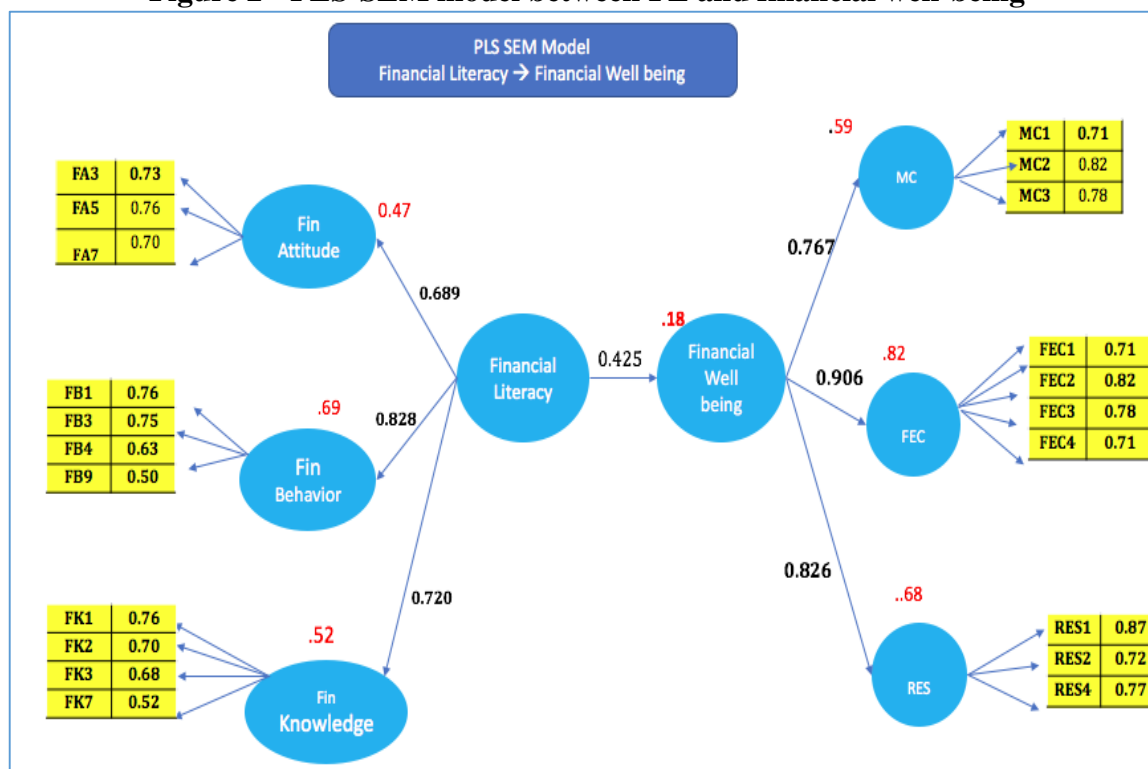
Table 6 - Bootstrapped path model (2000 times bootstrapped)

		R square	Co-efficient	Mean. Boot	Sig p value	Lower limit	Upper limit
H1	FL -> Financial Attitude	0.47	0.689	0.691	0.000	0.618	0.754
H2	FL -> Financial Behaviour	0.69	0.828	0.829	0.000	0.789	0.861
H3	FL -> Financial Knowledge	0.52	0.72	0.721	0.000	0.658	0.779
H4	Financial Well Being -> Meeting Commitment	0.59	0.767	0.765	0.000	0.702	0.819
H5	FWB -> Feeling comfortable	0.82	0.906	0.906	0.000	0.884	0.924
H6	FWB -> Resilience for future	0.68	0.826	0.826	0.000	0.794	0.856
H7	FL -> Financial Well-Being	0.18	0.425	0.428	0.000	0.333	0.519

The lower and upper limits required for accepting or rejecting a specific structural path can be determined by employing bootstrapping, which involves the production of sub-samples from an original sample of 2000. To meet the criteria for 5% statistical significance, the lower and upper bounds have to be of the same sign. There was a statistically significant link found between every possible branch. Research into the

connection between FL and economic security is ongoing. Confidence in one's FWB has been proven to be substantially correlated with responsible financial behavior, an important component of financial literacy. In terms of material prosperity, this connection is crucial. According to the coefficient of determination (R square), FL significantly affects one's FWB by 18%.

Figure 2 - PLS-SEM model between FL and financial well-being



According to existing literature, FL is composed of three distinct dimensions: Financial Attitude, Financial Behavior, and Financial Knowledge. The present research has demonstrated that the three aforementioned dimensions hold statistical significance as integral components of the FL construct. The sub-construct of Financial Behaviour was found to be of utmost importance among the three, as it exhibited a strong correlation of 82% with Financial Literacy, and had an impact score of 69%. Following this, Financial Knowledge displayed a correlation of 72% with Financial Literacy, and had an impact score of 52%. Although Financial Attitude contributed less in comparison to the other two dimensions, its correlation with FL was also found to be statistically significant.

FWB was identified as a significant construct in the study, comprising three distinct dimensions: Meeting Commitment (MC), Feeling comfortable (FEC), and Resilience for future (RES). Of the three factors considered, FWB exhibited a correlation of 90% with the state of feeling comfortable, and its contribution was comparatively greater. The impact score of the first factor was 82%, followed by Resilience for the future, which made a contribution of 83% with an impact score of 68%. The factor with the least contribution was Meeting Commitment, which had a score of 59%.

The primary discovery of the research indicates that FL has an 18% influence on an individual's financial well-being. The Structural Equation Modeling (SEM) framework has demonstrated a statistically significant association between FL and financial well-being. From a literary perspective, it is evident that achieving FWB is heavily reliant on possessing a strong foundation of financial literacy.

Conclusion

This research adds significantly to the existing literature on the factors that affect monetary security. Previous studies have mostly focused on university students, women, and professionals, paying little attention to those who live in urban slums. This research tries to fill that void in the literature by concentrating solely on this group of people. In this study, we look at how people's FWB is affected by their level of financial education in low-income metropolitan settings. All constructs in this study are measured subjectively as opposed to using objective metrics. The choice was based on the idea that subjective metrics could help loosen up the restrictions placed on researchers by more traditional objective metrics. This research sheds light on how slum dwellers understand the relationship between FL and their own wealth.

Some limitations of the current work should be taken into account, and these may provide new directions for researchers. The study's survey population is limited to people living in slums within the city limits of Bangalore. Future researchers must therefore proceed with caution if they wish to generalize the findings of this study. In addition, people who live in slums face persistent threats to their personal safety as a result of the area's political and security unpredictability. Expanding the sample size beyond slum dwellers to include other adult cohorts might increase the study's applicability to a wider population. Financial efficacy has been proposed as a potential mediator between FL and financial well-being, and demographics have been suggested as a potential moderator of this relationship.

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