

The Big Three of Financial Literacy: Analyzing its Influences on Financial Well-being

Sanjib Das

Nazira HS & MP School, Sivasagar, Assam, India

Santosh Kumar Mahapatra

Gauhati University, Guwahati, Assam, India

This study attempts to identify the key components of financial literacy and its constituent factors, and to examine influences of people's financial literacy on their financial well-being. The study is mainly based on the primary data collected from 384 randomized samples from the Indian state of Assam. Data analysis was carried out using statistical techniques such as factor analysis, regression analysis, and correlation analysis. A thorough review of the empirical literature, and findings of the present study reveal three major components—"financial knowledge, financial behavior, and financial attitude"—that constitute people's financial literacy, which are coined as "the big three of financial literacy." Financial literacy and its three major components are found to have strong and significant influences on people's financial well-being. It is concluded that an increase in people's financial literacy results in an increase in their financial well-being, and vice versa .

Keywords: the big three, financial literacy, factor analysis, influences, financial well-being.

JEL classification: C12, C38, G53, I31.

The term "financial literacy" simply means the knowledge and understanding of people on financial matters, which helps them to carry out financial transactions successfully in day-to-day life. Hastings, Madrian, and Skimmyhorn (2013) define it as "possession of the required knowledge, skills, and awareness to manage one's resources effectively over the lifetime." Financial literacy covers a broad area of the financial life of an individual, and is mainly comprised of financial knowledge, behavior, and attitudes (Ibrahim et al., 2009; Lusardi et al., 2010; Joseph, 2012; Bhushan & Medury, 2013; Hastings et al., 2013; NCFE, 2014; Mehtab et al., 2015; Hermawan et al., 2019; Sabri et al., 2022). In the words of Atkinson and Messy (2014), financial literacy is, "a combination of awareness, knowledge, skills, attitude, and behavior necessary to make sound financial decisions, and ultimately achieve individual financial well-being." It enables people to have higher financial satisfaction and well-being in life (Bilal & Zulficar, 2016). The term "financial well-being" basically means a sound financial position, where people can meet their financial commitments, secure their financial future, and be able to enjoy life. According to the CFPB (2015), "financial well-being refers to the state of being, where people can fully meet current and ongoing financial obligations, feel secure in their financial future, and be able to enjoy life."

Financial literacy evolved in the USA during the twentieth century. Initially, it was imparted in the form of financial knowledge by parents, friends, or financial experts. Later on, it began to encompass the multifarious dimensions of personal finance (Rose, 2022). Nowadays, it is not merely concerned with the knowledge and comprehension of basic financial concepts; rather,

it covers a broad area of behavioral finance. An in-depth observation of the previous empirical literature makes it clearer that financial literacy basically comprises of three major components—“financial knowledge, financial behavior, and financial attitude”. In this study, these key components are coined as “*the big three of financial literacy*”.

Financial knowledge is basically the understanding and knowledge of basic financial terminology such as money division, interest computation, price and inflation, risk-return connection, risk diversification, and so on (Chen & Volpe, 2002; Lusardi et al., 2010; Joseph, 2012; Bhushan & Medury, 2013; NCFE, 2014). Financial behavior refers to the way people deal with money and includes buying habits, saving habits, borrowing habits, bill payments, and budgeting (Joseph, 2012; Agarwalla et al., 2013; Bhushan & Medury, 2013; NCFE, 2014). Financial attitude can be defined as the psychological tendency regarding personal finance practices, and may include an inclination towards planning and the propensity to save or consume (Joseph, 2012; Taft et al., 2013; NCFE, 2014). Table 1 gives the details of the components and factors that constitute the financial literacy of a person.

Table 1

Components and Factors of Financial Literacy

Components	Factors
Financial Knowledge	Division of money, interest calculation, inflation and price, money value, and financial risk.
Financial Behavior	Preparation and management of household budget, meeting monthly expenses, collecting information for decision making, evaluation of financial products and services, keeping watch on personal finance, setting long-term financial goals, affordability and bill payment.
Financial Attitude	Attitude towards planning, attitude towards saving and attitude towards spending money.

Source: Lusardi et al., 2010; Atkinson & Messy, 2012; Joseph, 2012; Taft et al., 2013; NCFE, 2014; Hasibuan et al., 2018; Shobha & Kumar, 2020; Sangeeta et al., 2022.

Financial literacy enables people to manage their money and other economic resources efficiently (Ibrahim et al., 2009; Hastings et al., 2013). A financially literate person experiences less financial concern and stress, enjoys more financial satisfaction, and ultimately, achieves a higher financial well-being position in life (Joo & Grable, 2004). Increased financial literacy influences people's financial satisfaction, which in turn improves their financial well-being (Yakoboski et al., 2021). Hence, financial literacy is regarded as a crucial area of study for the general public, as well as for students, academics, educational institutions, bankers, policymakers, and other interested parties.

Literature Review and Problem Statement

A good number of empirical studies were reviewed before setting the objectives and designing the methodology for the study. Most of the studies (Agarwalla et al., 2013; Bhushan & Medury, 2013; NCFE, 2014; Devi, 2016; Farrar et al., 2019; Shobha & Kumar, 2020; Yakoboski et al., 2021) are mainly concerned with measuring financial literacy level. Financial literacy was viewed from a narrow perspective, where only one dimension, i.e., financial knowledge, was considered (Hastings et al., 2013; Hermawan et al., 2019; Sabri et al., 2022). Furthermore, the

previous studies paid little attention to how people's financial literacy affects their financial well-being (Bilal & Zulfikar, 2016; Yakoboski et al., 2021). A global survey on financial literacy by the Standard & Poor's (S&P) revealed that financial literacy levels are low in most of the underdeveloped and emerging countries. Worldwide, levels of financial literacy vary from 14 percent to 71 percent or more (Klapper et al., 2014), and in India, only 27 percent of the adults are financially literate (NCFE, 2019).

Various studies were conducted in the domain of financial literacy and well-being during the last decade. After reviewing the available literature, some of the important studies are presented here so as to give an insight into the theoretical background, and the problem under study.

Financial literacy simply means the capability of an individual to handle money and other economic resources and to make decisions in an informed and efficient manner. It is comprised of three major components— "financial knowledge, financial behavior, and financial attitude" (Joseph, 2012; Bhushan & Medury, 2013; NCFE, 2019; Shobha & Kumar, 2020). A number of demographic and socio-economic features, including marital status, age, gender, place of residence, education, religion, occupation, income, race, and ethnicity, affect the financial literacy level of an individual (Klapper et al., 2014; NCFE, 2014; Devi, 2016; Alderman et al., 2017; Yoshino et al., 2017; Farrar et al., 2019; Singh et al., 2020). The ultimate goal of financial literacy is to lead people toward better financial well-being (Bilal & Zulfikar, 2016). Financial well-being means being in a sound financial position, where people can meet their financial commitments, ensure their financial future, and be able to enjoy life. Financial literacy develops a positive financial attitude, modifies the financial behavior of people, and leads them toward a better financial well-being position in life (Worthington, 2006). Increased financial literacy influences people's financial satisfaction, which in turn improves their financial well-being (Yakoboski et al., 2021).

Taft et al., (2013) examined how financial concern, financial literacy, and financial well-being are associated with each other. The study is based on a survey of 300 professors from the universities in Yazd, Iran. The association was studied using statistical tools such as the t-test, correlation coefficient, and regression analysis. The analysis shows that financial concern, educational attainment, and financial literacy have a significant association with people's financial well-being. It is opined that financial literacy forms the foundation for a successful economic life through informed decisions, proper wealth management, and increased savings and investments.

Vosloo et al., (2014) analyzed the influences of remuneration satisfaction and financial efficacy on working people's financial well-being. The inferences were drawn based on the data obtained from 9057 South African working people belonging to various sectors of the economy. The analysis was done using factor analysis, correlation, and regression analysis techniques. From the analysis, it is clear that remuneration satisfaction, and financial efficacy bear significantly strong influences on financial well-being of working people. In other words, employees with higher remuneration satisfaction, and financial efficacy achieve higher financial well-being positions in life.

Falahati and Sabri (2015) identified and analyzed the determinants of the financial well-being of Malaysian university students. The moderating effect of gender on the factors of financial well-being was specifically evaluated along with the other variables under study. The inferences drawn were based on the responses gathered from 2,500 sample respondents, and an AMOS-based multigroup analysis approach was applied in the data analysis. It is clear from the analysis that

financial well-being is influenced by a variety of factors, including financial literacy, consumer experience, and socialization agents. Moreover, it has been shown by the study that gender is an essential element for moderating various aspects related to financial wellbeing.

Mehtab et al., (2015) examined the interrelationship of factors of financial literacy such as financial attitude, financial knowledge, and financial practices of conventional and religious (Islamic) bank account holders in Peshawar, Pakistan. To examine this effect, the study analyzed 400 sample data using the chi-square test, and odd-ratio analysis techniques. The examination revealed that positive financial attitudes, and higher financial knowledge contribute towards better banking and financial practices among bank customers. Proper knowledge and awareness of various banking products and services, especially which are in line with the Sharia law will promote positive financial attitudes, and sound banking practices among the bank customers in the country.

Bilal and Zulfiqar (2016) investigated the role of financial literacy in the financial stability of working women in Pakistan. The investigation is based on a survey of 300 working women in the non-finance sector of the economy. To evaluate and understand the relationship between financial literacy and financial stability, a multiple regression model was developed. The results show that financial knowledge affects financial satisfaction and, in turn, contributes to the overall financial wellbeing of working women. Financial attitude greatly impacts the financial stability and well-being of women. Moreover, financially knowledgeable individuals have better financial attitudes, which results in improved financial wellbeing.

Adam et al., (2017) investigated the influences of financial literacy, financial behavior, number of family members, support from the family (monetary nature), and planning for retirement on pensioners' financial well-being. The investigation was carried out among 1500 pensioners from a metropolitan city in Ghana. The partial least squares method was applied to study the influences of various factors on financial well-being. The investigation revealed significantly strong influences of financial literacy, support from the family, and planning for retirement on the financial wellbeing of the pensioners. Support from the family and planning for retirement were found to have comparatively stronger influences on promoting the financial well-being of the pensioners.

Hasibuan et al., (2018) studied how financial behavior and literacy impacts the financial satisfaction and well-being of entrepreneurs. The research was carried out on 60 selected entrepreneurs from Medan, Indonesia, and the impact was studied using a regression model. The analysis revealed that financial behavior and literacy have statistically significant impacts on the financial satisfaction and wellness of entrepreneurs. In other words, an entrepreneur with favorable financial behaviors, and higher financial literacy enjoys more financial well-being.

Hermawan et al., (2019) studied how financial behavior, wellness, and satisfaction are related to the financial literacy of students. The investigation was carried out among 316 randomly selected students from five universities in Indonesia, and the relationship was analyzed and interpreted using a regression model. The analysis found a significant association of financial wellness, satisfaction, and behavior with financial literacy of students. There exists low financial literacy level among the students, and therefore, the authors suggested to introduce a proper financial literacy course curriculum for them.

West and Cull (2020) analyzed the association of financial behavior and attitudes with financial satisfaction and expectations of students. The analysis was based on a survey of 416 students from different universities in Australia, and the impact was measured using a regression model. The survey results clearly show that certain negative financial behaviors, attitudes, and future expectations are associated with financial dissatisfaction among students. Moreover, most of the students have lower financial literacy, which causes them difficulty in managing their daily financial affairs.

Chavali et al., (2021) studied how financial behavior influences people's financial well-being. The study was carried out by surveying 150 resident Indians, and statistical technique like exploratory factor analysis was applied to identify various factors, and regression analysis was applied to examine their influences. The analysis shows that except for credit commitments, all other behavioral factors such as credit discipline, future security, saving and investment, and financial consciousness have significant influences on people's financial well-being.

Yakoboski et al., (2021) assessed financial well-being and financial literacy among adult people. A nation-wide survey was conducted in America across five generations of people. The assessment showed a lack of financial literacy and lower levels of financial well-being among the people, particularly among the young adults. The study found a substantial positive association between people's financial well-being and their level of financial literacy. Moreover, financial education programs were found to be effective in promoting financial literacy among people across generations.

Sabri et al., (2022) investigated how financial literacy impacts the financial well-being of adults. The investigation was carried out by surveying 482 low-income Malaysian adults, and the structural equation modeling technique was adopted for analyzing the data. The analysis revealed that the financial behavior, knowledge, and locus of control of the adults bear a significant impact on their financial well-being. Financial knowledge and educational attainment affect the financial behavior of adults, and ultimately influence their financial well-being.

Sangeeta et al., (2022) investigated a number of variables that impact young people's financial well-being. Statistical techniques such as factor analysis and the multigroup modeling approach (i.e., AMOS) were applied to study the impacts. Based on a sample survey of 117 young people from the Indian state of Haryana, the study found that a variety of factors, such as financial socialization, behavior, attitude, and knowledge have influences on people's financial well-being. Except for financial knowledge, all other factors, such as financial socialization, attitude, and behavior have statistically significant impacts on financial well-being. The authors opined that although financial knowledge is a significant factor in determining people's financial literacy, it is not so important for financial well-being.

In the present study, certain issues were identified for re-examination to see if the findings are valid in different situations and locations. It is worth mentioning here that most of the studies were specific to certain aspects of overall financial literacy, and rarely covered all three major components— "financial knowledge, financial behavior, and financial attitude". The constituent factors of these key components were not extensively investigated. Moreover, the influences of all the key components on financial well-being were examined in only a few studies.

Considering the above issues, the objectives set for the study are: (1) to identify the major components and factors that constitute people's financial literacy; and (2) to examine the influences of people's financial literacy and its components on their financial well-being. The study is mainly concerned with providing a holistic view of various aspects of financial literacy and understanding their association with financial well-being, instead of merely measuring the levels of financial literacy and well-being.

The entire work is presented in seven different sections, viz., introduction, literature review and problem statement, formulation of hypotheses, methodology, results and discussion, practical implications of the study, and conclusion.

Formulation of Hypotheses

Keeping pace with the discussions and objectives in the preceding sections, the following hypotheses were formulated to be tested.

H₁: Financial knowledge has a significant influence on the financial well-being of people.

H₂: Financial behavior has a significant influence on the financial well-being of people.

H₃: Financial attitude has a significant influence on the financial well-being of people.

H₄: Financial literacy has a significant influence on the financial well-being of people.

Method

The research methodology explains the procedure for conducting a research work, which may include details of the population, samples, sampling technique, data collection technique, the basis of analysis, and other related aspects of a study.

Population and Samples

The study area is Assam, in the north eastern region of India. So far as India is concerned, on average, 27 percent of the people are financially literate. However, it is comparatively better among the people of Assam, which is 36 percent (NCFE, 2019). Assam, the gateway to north east India, is the second largest state in the region. Assam has a total land area of 78,438 square kilometers. The population of the state is diverse, with socio-cultural and ethnic differences. According to the census of India (2011), the population of Assam is 31,205,576 people. It has 398 people per square kilometer of population density, and a literacy rate of 72.19 percent (Census, 2011). The state's human development index (HDI) value is 0.557 (HDI Report, 2014).

The study is based on a sample survey of household families belonging to the Indian state of Assam. The population of the study consists of adult (18+ years of age) residents of Assam. The minimum sample size required for the study was estimated as 384 samples by using Krejcie and Morgan (1970) model of sample size determination.

Sampling Technique

The samples were selected by applying the multi-stage random sampling technique. Two criteria, i.e., literacy rate and place of residence (rural-urban) were considered while selecting the samples for the study so that the sample would be more representative. The total of 27 districts in Assam (as per the census of India, 2011) were grouped into three categories— high, moderate, and low literacy, based on the prevailing literacy rates in the districts. In the first stage, three districts, viz., Sivasagar, Tinsukia, and Morigaon were selected from the high, moderate, and low literacy groups, respectively. In the second stage, the selected districts were divided into rural and urban areas. From the rural area, two village-panchayats, and from the urban area one municipal board were selected from every district. In the third and final stage, respondents were selected from the

household families located in the already selected areas based on the list of voters or household families available with the concerned authorities.

Data Collection Technique

This is a descriptive study based on a survey of 384 randomized samples, and data were collected using a standardized questionnaire. The questionnaire consists of two parts, viz., Part-I and Part-II. Part-I contains questions on "financial literacy", and Part-II contains questions on "financial well-being".

Part I consists of 20 questions to measure financial literacy, out of which 8 questions measure financial knowledge, 9 questions measure financial behavior, and 3 questions measure financial attitude of the respondents. Since, the responses to the questions measuring financial literacy are of multiple types, such as yes/no, true/false, or scaled responses, therefore, scoring of the responses to the questions was done individually. The details are provided in the Annexure-I. These questions were applied by the national center for financial education (NCFE) in a survey to measure financial literacy among people throughout India in the year 2013 (NCFE, 2014).

Part II contains 10 questions on financial well-being. These questions measure financial well-being based on a five-point Likert scale, where the most positive response carries 4 scores, and the most negative response carries 0 score. These questions were applied to measure the financial well-being of American consumers in the national financial well-being survey of 2017 (CFPB, 2017). The details are provided in the Annexure-II. These questions being valid, reliable, and widely accepted were applied in the present study.

Basis of Data Analysis

In data analysis, the exploratory factor analysis technique was adopted. However, before using this technique, Kaiser Meyer Olkin (KMO) and Bartlett's tests were performed to ensure sampling adequacy. The exploratory factor analysis was used to find out the component-wise factors of financial literacy. Based on the derived component-wise scores, regression and correlation analyses were performed. The influences of– "financial knowledge, financial behavior, and financial attitude" –on the "financial well-being" of people were examined using the following regression model:

$$FW = \text{Constant} + b_1 FK + b_2 FB + b_3 FA + e \quad (1)$$

Where, FW=Financial Well-being, FK= Financial Knowledge, FB=Financial Behavior, FA=Financial Attitude, b= Slope coefficient, e= Error term (residual).

The influence of financial literacy on people's financial well-being was examined using the Pearson correlation analysis technique.

Results and Discussion

The results derived from the analysis of the collected data by applying various statistical tools are presented here, in this section.

Factor Analysis

KMO and Bartlett's tests were applied to evaluate the sampling adequacy and strength of the relationship among the variables before using the factor analysis. If the KMO test value is greater than .5, the sampling is satisfactory or sufficient (Field, 2000). Moreover, a minimum KMO test value of .5 is recommended by Kaiser (1974). The results of KMO and Bartlett's tests are shown in Table 2.

Table 2

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.663
Bartlett's Test of Sphericity	(Approx. Chi-Square)	408.341
	df	21
	p-value	.000

Source: Authors' computation based on primary data.

For the present study, the KMO test gives an acceptable value of .663, and Bartlett's test is found significant at 5 percent level of significance ($p=.000<.05$), supporting the factor analysis for the collected data. Two criteria were used in the factor analysis process. First, a statement's anti-image correlation value should be greater than .6 to be selected for further factor analysis (Backhaus et al., 2006). Second, the Eigenvalue must be greater than one to determine the number of factors from the factor analysis (Kaiser, 1974). It is noteworthy that when two variables are correlated, a correlation coefficient (r) of less than .3 implies weak correlation, .3 to .7 implies moderate correlation, and higher than .7 implies strong correlation between the variables (Ratner, 2009).

Table 3

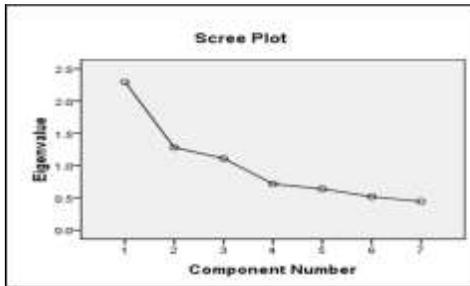
Factor Analysis for Financial Knowledge

Factors	Statements	Communality	Factor Loading	Eigen Value	Cumulative % of Variance		
F1	Knowledge of Numeracy	FK1	Division of money	.630	.786	2.296	32.795
		FK2	Interest calculation	.637	.777		
F2	Knowledge of Saving and Investment	FK3	Saving money and earning of interest	.686	.826	1.280	51.081
		FK4	Effect of inflation on cost of living	.689	.779		
		FK6	Revenue from lending and investment	.576	.574		
F3	Knowledge of Risk-Return	FK7	Risk and return on investment	.733	.827	1.111	66.952
		FK8	Risk diversification	.736	.856		

Source: Authors' computation based on primary data.

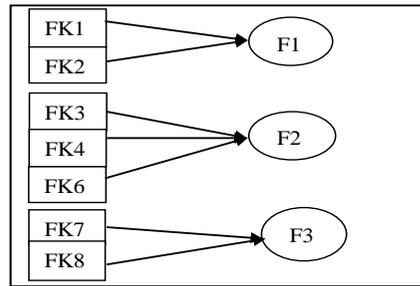
Figure 1: Scree Plot & Path Diagram for Financial Knowledge

(a) Scree Plot



Source: Output of factor analysis.

(b) Path Diagram



Source: Output of factor analysis.

Table 3 explains the communality and factor loadings of the statements, along with the Eigenvalues and cumulative percent of variances of the factors of financial knowledge. Figure 1(a) shows the factors (components) of financial knowledge and their Eigenvalues. Figure 1(b) presents factor wise groupings of the statements relating to financial knowledge.

It has already been mentioned that, to select a statement, the anti-image correlation value should be greater than .6 (Backhaus et al., 2006). In this regard, except for statement-FK5, the remaining statements in the financial knowledge data set exhibit anti-image correlation values ranging from .612 to .841. As a result, statement-FK5 was excluded from further analysis. Moreover, the statements that were retained have communality values greater than .4, which are regarded as acceptable (Costello & Osborne, 2005). Three factors, such as knowledge of numeracy (F1), knowledge of saving and investment (F2), and knowledge of risk-return (F3), have been formed from the data set of financial knowledge. Table 3 contains three extracted factors with Eigenvalues greater than one, which explain 66.952 percent of the variance in financial knowledge.

Table 3 gives results of the rotated component matrix of the statements related to financial knowledge. The three extracted factors with Eigenvalues greater than one were analyzed further. The first factor (F1), i.e., knowledge of numeracy is comprised of the statement-FK1 and statement-FK2 with factor loadings of .786 and .777. From the factor loadings, it is clear that these statements have a high correlation with the first factor. This factor, with an Eigenvalue of 2.296, contributes 32.795 percent of the variance in financial knowledge. In other words, 32.795 percent of financial knowledge is determined by knowledge of numeracy. The second factor (F2), i.e., knowledge of saving and investment is comprised of the statement-FK3, statement-FK4, and statement-FK6 with factor loadings of .826, .779 and .574. It is clear from the factor loadings that these statements have high and moderate correlation with the second factor. This factor, along with the first factor, i.e., knowledge of numeracy, contributes 51.081 percent of the variance of financial knowledge. The third factor (F3), i.e., knowledge of risk-return is made up of the statement-FK7, and statement-FK8 with factor loadings of .827 and .856. The factor loadings reveal that these statements have a high correlation with the third factor. This factor, along with the other two factors, i.e., knowledge of numeracy, and knowledge of saving and investment explains up to 66.952 percent of the variance in financial knowledge. On this basis, it is concluded that 66.952 percent of people's financial knowledge is determined by their knowledge of numeracy, saving, investment, and risk-return.

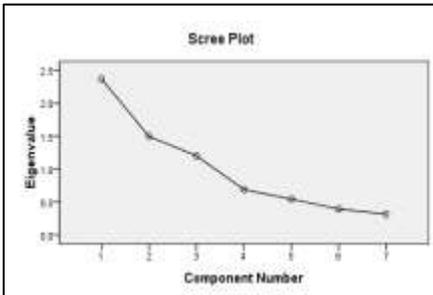
Table 4
Factor Analysis for Financial Behavior

Factors	Statements	Communality	Factor Loading	Eigen Value	Cumulative % of Variance
F1 Budgeting Behavior	FB1 Tracking monthly income and expenditure	.815	.900	2.370	33.856
	FB2 Preparation of household budget	.795	.868		
F2 Buying and Spending Behavior	FB3 Buying affordable things	.834	.904		
	FB4 Evaluation of products and services prior to purchase	.838	.908		
F3 Saving Behavior	FB5 Coverage of living cost by monthly income	.519	.699		
	FB7 Habit of saving regularly	.676	.817		
	FB9 Setting of long term financial goals	.589	.742		

Source: Authors' computation based on primary data.

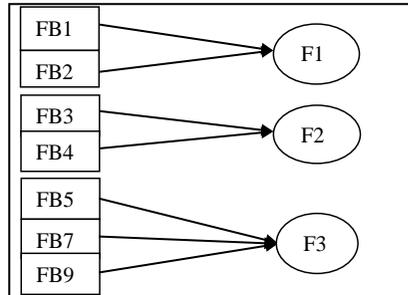
Figure 2: Scree Plot & Path Diagram for Financial Behavior

(a) Scree Plot



Source: Output of factor analysis.

(b) Path Diagram



Source: Output of factor analysis.

Table 4 explains communality and factor loadings of the statements, along with the Eigenvalues and cumulative percent of variances of the factors of financial behavior. Figure 2(a) shows the factors (components) of financial behavior and their Eigenvalues. Figure 2(b) presents factor wise groupings of the statements relating to financial behavior.

Except statement-FB6 and statement-FB8, all other statements in the financial behavior data set have anti-image correlation values ranging from .623 to .861. As a result, statement-FB6 and statement-FB8 were eliminated from further analysis. Moreover, the statements that were retained have acceptable communality values of more than .4. Three factors, such as budgeting behavior (F1), buying and spending behavior (F2), and saving behavior (F3) have been formed from the financial behavior data set. Table 4 shows three extracted factors with Eigenvalues greater than one, which explain up to 72.369 percent of the variance in financial behavior.

Table 4 gives results of the rotated component matrix of the statements related to financial behavior. The three extracted factors with Eigenvalues greater than one were analyzed further. The first factor (F1) is comprised of the statement-FB1 and statement-FB2 with factor loadings of .900

and .868. From the factor loadings, it is clear that these statements have a high correlation with the first factor, i.e., budgeting behavior. This factor with an Eigenvalue of 2.370, contributes 33.856 percent of the variance in financial behavior. The second factor (F2) is comprised of statement-FB3 and statement-FB4 with factor loadings of .904 and .908. From the factor loadings, it is revealed that these statements have a high correlation with the second factor, i.e., buying and spending behavior. This factor, along with the first factor, i.e., budgeting behavior, contributes 55.226 percent of the variance in financial behavior. The third factor (F3), i.e., saving behavior is comprised of statement-FB5, statement-FB7 and statement-FB9 with factor loadings of .669, .817 and .742. It is indicated by the factor loadings that these statements have moderate and high correlation with the third factor. This factor, along with the first factor, i.e., budgeting behavior, and the second factor, i.e., buying and spending behavior, explains up to 72.369 percent of the variance in financial behavior. On this basis, it can be concluded that 72.369 percent of the financial behavior of people is determined by their behavior with regard to budgeting, buying, spending, and saving.

The details of the factor analysis for financial attitude are given in Table 5.

Table 5

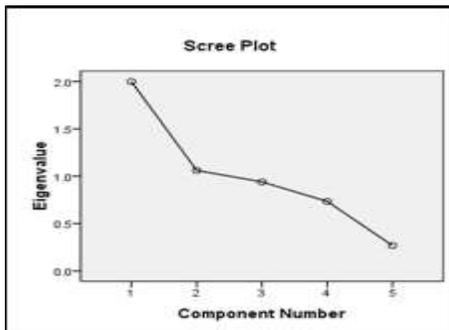
Factor Analysis for Financial Attitude

Factors	Statements	Communality	Factor Loading	Eigen Value	Cumulative % of Variance
F1 Attitude toward Saving & Spending	FA1 Inclination toward saving and investment	.583	.630	1.999	39.983
	FA2 Satisfaction in spending money	.627	.716		
	FA3 Interest in financial planning	.784	.881		
F2 Attitude toward Financial Planning	FA4 Aptitude toward future security	.674	.525	1.061	61.195
	FA5 Motive toward long term financial goal	.792	.864		

Source: Authors’ computation based on primary data.

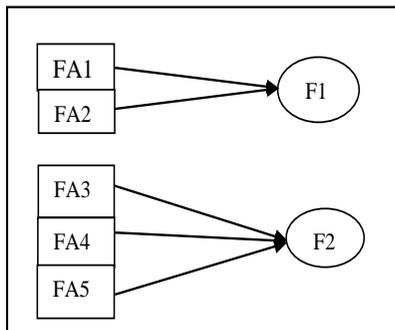
Figure 3: Scree Plot & Path Diagram for Financial Attitude

(a) Scree Plot



Source: Output of factor analysis.

(b) Path Diagram



Source: Output of factor analysis.

Table 5 explains communality and factor loadings of the statements, along with the Eigenvalues and cumulative percent of variances of the factors of financial attitude. Figure 3(a) shows the factors (components) of financial attitude and their Eigenvalues. Figure 3(b) presents

factor-wise groupings of the statements relating to financial attitude.

All the statements in the financial attitude data set have anti-image correlation values ranging from .608 to .768. Moreover, these statements have acceptable communality values of more than .4. Two factors, such as attitude toward saving and spending (F1) and attitude toward financial planning (F2), have been formulated from the data set of financial attitude. Table 5 consists of two factors that have Eigenvalues of greater than one, and these factors explain up to 61.195 percent of the variance in financial attitude.

Table 5 gives results of the rotated component matrix of the statements related to financial attitude. The two extracted factors with Eigenvalues of greater than one were analyzed further. The first factor (F1), i.e., attitude towards saving and spending is comprised of the statement-FA1 and statement-FA2 with factor loadings of .630 and .716. The factor loadings indicate that these statements have moderate and high correlation with the first factor. This factor with an Eigenvalue of 1.999, contributes to 39.983 percent of the variance in financial attitude. The second factor (F2), i.e., attitude toward financial planning is comprised of statement-FA3, statement-FA4, and statement-FA5 with factor loadings of .881, .525 and .864. From the factor loadings, it is clear that these statements have moderate and high correlation with the second factor. This factor, along with the first factor, i.e., attitude toward saving and spending, explains up to 61.195 percent of the variance in financial attitude. On this basis, it is concluded that 61.195 percent of the financial attitude of the people is determined by their attitude toward saving, spending, and financial planning.

To sum up the major findings of the factor analysis, it is concluded that financial knowledge is comprised of knowledge of numeracy, saving, investment, and risk-return. Financial behavior is composed of budgeting, buying, spending, and saving behavior. And, financial attitude includes attitude toward saving, spending, and financial planning.

Multiple Regression Analysis

This study examines influences of three major components of financial literacy—“financial knowledge, financial behavior, and financial attitude” on “financial well-being” of people. A multiple-regression model was developed and applied to serve this purpose. While using a regression model, it is important to comply with the assumptions of the regression analysis. All

of the assumptions for performing the regression analysis were met. To evaluate the measurement scale, a reliability and validity test was performed. For all of the statements (questions), the Cronbach's Alpha test yields an acceptable score of .786 (Streiner, 2003). The R^2 assesses the overall predictive fitness of a regression model. As a rule of thumb, R^2 value of greater than .5 is considered acceptable (Badshah, 2019). The derived R^2 for the model is .782, which indicates the model to be fit for the regression analysis.

The individual scores obtained by the respondents on “financial knowledge”, “financial behavior”, “financial attitude”, and “financial well-being” were regressed together to examine the influences. Table 6 gives the results of the multiple regression analysis.

Table 6
Results of Multiple Regression Analysis

	Std. Error	β_0	t	p
Constant	.782	5.513	7.049	.000
Financial Knowledge	.159	.302	6.616	.000
Financial Behavior	.158	.353	7.186	.000
Financial Attitude	.280	.211	3.623	.000
R ²	.782			
F	136.286			
α	.05			

Note: Predictors: Constant, Financial Knowledge, Financial Behavior and Financial Attitude; Independent Variable: Financial Well-being.

Source: Authors' computation based on primary data.

Table 6 shows that financial knowledge, financial behavior, and financial attitude have caused 78.2 percent of the variance in the financial well-being of the people. Moreover, the general model is acceptable, as the F-value of 136.286 is significant at the 5 percent level of significance. The regression model used to examine the influences of financial knowledge, financial behavior, and financial attitude on people's financial well-being is as follows:

$$\text{Financial Well-being} = 5.513 + .302 * \text{Financial Knowledge} + .353 * \text{Financial Behavior} + .211 * \text{Financial Attitude} \quad (2)$$

The regression analysis clearly shows that financial knowledge has a significant influence on the financial well-being of people ($p = .000 < .05$, $t = 6.616$, $\beta_0 = .302$). If the respondents' scores in financial knowledge change by one unit, it will eventually change their financial well-being scores by .302. Hence, hypothesis-H₁ is accepted, and it is concluded that financial knowledge has a significant influence on the financial well-being of people.

From the regression analysis, it is clear that financial behavior has a significant influence on the financial well-being of people ($p = .000 < .05$, $t = 7.186$, $\beta_0 = .353$). If the respondents' scores in financial behavior change by one unit, it will eventually change their financial well-being scores by .353. Hence, hypothesis-H₂ is accepted, and it is concluded that financial behavior has a significant influence on the financial well-being of people.

Moreover, the regression analysis reveals that financial attitude has a significant influence on the financial well-being of people ($p = .000 < .05$, $t = 3.623$, $\beta_0 = .211$). If the respondents' scores in financial attitude change by one unit, it will eventually change their financial well-being scores by .211. Hence, hypothesis-H₃ is accepted, and it is concluded that financial attitude has a significant influence on the financial well-being of people.

To sum up, it is concluded that three major components of financial literacy— "financial knowledge, financial behavior, and financial attitude"—individually have significant influences on the "financial well-being" of people. This conclusion is supported by the previous studies as well. Adam et al., (2017) observed that there exists a strong and significant relationship of people's financial literacy scores with their financial wellbeing positions. Hasibuan et al., (2018) opined that people with favorable financial behaviors, and higher financial literacy enjoy more financial well-

being. Bilal and Zulfiqar (2016) reported that attitudes of people towards personal finances bear strong impacts on their financial stability and well-being.

Pearson Correlation Analysis

In order to examine the influence of financial literacy on the financial well-being of people, the Pearson correlation analysis was performed on the overall financial literacy scores and financial well-being scores obtained by the respondents. The results of the Pearson correlation analysis are presented in Table 7.

Table 7
Results of Pearson Correlation Analysis

Variables	Mean	Std. Deviation	r	p-value
Financial Literacy	13.18	4.122	.720	.000
Financial Well-being	19.72	6.158		

Note: Level of significance (α)=.05.

Source: Authors' computation based on primary data.

The results of the Pearson correlation analysis reveal a strong and statistically significant association between financial literacy scores and financial well-being scores ($r=.720$, $p=.000<.05$). Therefore, hypothesis- H_4 is accepted, and it is concluded that financial literacy has a significant influence on the financial well-being of people.

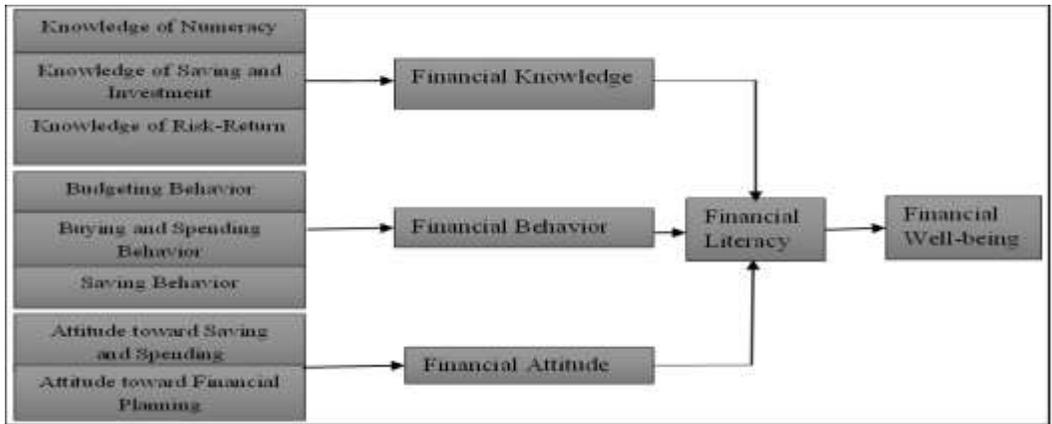
From the results of the multiple regression analysis, and Pearson correlation analysis, it can be concluded that an increase in people's financial literacy results in an increase in their financial well-being, and vice versa. This conclusion is supported by the previous studies as well. Hasibuan et al., (2018) observed that a person with a higher level of financial knowledge and favorable financial behavior enjoys a higher level of financial satisfaction and well-being. Yakoboski et al., (2021) observed a significant and positive relationship between people's financial literacy and their financial well-being.

Summary of the Findings

A thorough review of the empirical literature, and the results of the factor analysis in the present study have revealed three key components of financial literacy– “financial knowledge, financial behavior, and financial attitude”. These three components, being the essential parts of the overall financial literacy of a person, are coined as “the big three of financial literacy”. The factor analysis clearly shows that financial knowledge is comprised of knowledge of numeracy, saving, investment, and risk-return. Financial behavior is composed of budgeting, buying, spending, and saving behavior. And, financial attitude includes attitude toward saving, spending, and financial planning. The regression analysis proved that the big three of financial literacy individually have statistically significant influences on the financial well-being of people. Moreover, the results of the correlation analysis reveal strong and significant influences of people's financial literacy on their financial well-being. Therefore, it can be concluded that an increase in people's financial literacy results in an increase in their financial well-being, and vice versa.

The relationship among the extracted factors, the big three of financial literacy, and financial well-being is presented in a logical and sequential order in Figure 4.

Figure 4: Relationship of Financial Literacy with Financial Well-being



Source: Authors' self-construct based on the output of the analysis.

Figure 4 gives the results of the analysis and shows that the financial knowledge of people is comprised of their knowledge of numeracy, saving, investment, and risk-return. Financial behavior is concerned with budgeting, buying, spending, and saving. And, financial attitude includes attitude toward saving, spending, and financial planning. The three major components– "financial knowledge, financial behavior, and financial attitude" –constitute the overall financial literacy of people, which contribute to their financial well-being as well. Therefore, financial well-being is considered to be the ultimate goal of financial literacy.

Practical Implications of the Study

The conceptual framework developed in this study, by identifying and analyzing various factors and components of financial literacy, and examining its association with financial well-being, contributes to the existing stock of knowledge, and will pave the way for more detailed exploration of financial literacy and financial well-being in the future.

The results of the study suggest that financial literacy improves people's financial well-being, and contributes to the economic growth and development of a country. Therefore, the findings of the study may be useful to a variety of stakeholders, especially banks, insurance companies, government departments, and educational institutions, in formulating and implementing policies on financial literacy and financial well-being for their people.

Conclusion

Both financial literacy and financial well-being are important aspects of the financial life of an individual. The term "financial literacy" basically means the knowledge, skills, and awareness required to make informed decisions, and live a successful financial life. And the term "financial well-being" refers to a position, where people can meet their financial commitments, secure their financial future, and be able to enjoy life.

The review of empirical literature, and findings of the present study have revealed three key components– "financial knowledge, financial behavior, and financial attitude" that constitute people's financial literacy. These three components, being the essential parts of the overall financial literacy of an individual are coined as "the big three of financial literacy". The findings of the present study confirm that financial knowledge is comprised of knowledge of numeracy, saving, investment, and financial risk; financial behavior is composed of budgeting, buying, spending, and

saving behavior; and financial attitude includes attitude toward saving, spending, and financial planning. Individually, these components have shown significant influences on people's financial well-being. Moreover, overall financial literacy seemed to have a strong and significant influence on people's financial well-being.

It is concluded that an increase in people's financial literacy results in an increase in their financial well-being, and vice versa. Therefore, in order to improve people's financial well-being positions, the stakeholders should take the necessary measures to improve their financial literacy first. A step toward financial literacy is a step toward financial well-being.

References

- Adam, A.M., Frimpong, S., & Boadu, M.O. (2017). Financial literacy and financial planning: Implication for financial well-being of retirees. *Business and Economic Horizons*, 13 (2), 224-236. <http://dx.doi.org/10.15208/beh.2017.17>
- Agarwalla, S.K., Barua, S.K., Jacob, J., & Varma, J.R. (2013). *Financial literacy among working young in urban India* (IIM Ahmedabad Working Paper No. 2013-10-02). Ahmadabad: IIM Research and Publication Dept. <https://www.jrvarma.in/papers/2013-10-02-literacy-working-young.pdf>
- Alderman, J., Forsyth, J., & Walton, R. (2017). How religious beliefs influence financial decision-making: Implications for business leaders. *Graziadio Business Review*, 20 (3). <https://gbr.pepperdine.edu/2017/12/religious-beliefs-influence-financial-decision-making/>
- Atkinson, A., & Messy, F.A. (2012). *Measuring financial literacy: results of the OECD International Network on Financial Education (INFE) pilot study* (OECD Working Papers on Finance, Insurance and Private Pensions, No.15). Paris: OECD Publishing. <https://doi.org/10.1787/20797117>
- Backhaus, K., Erichson, B., Plinke, W., & Weiber, R. (2006). Multivariate analysis: an application-oriented introduction. *Springer Verlag, Berlin*, 11(1), 543-601. <https://www.springerprofessional.de/en/multivariate-analysis/19755894>
- Badshah, T. (2019). What is the acceptable r-squared value? *Researchgate*. https://www.researchgate.net/post/what_is_the_acceptable_r-squared_value
- Bhushan, P., & Medury, Y. (2013). Financial literacy and its determinants. *International Journals of Engineering Business and Enterprise Application (IJEBA)*, 4 (2), 155-160. <https://www.semanticscholar.org/paper/financial-literacy-and-its-determinants-bhushan-medury/45e0009ee15347752371cc3fc7581331dfd91084>
- Bilal, M., & Zulfiqar, M. (2016). Financial Well-being is the Goal of Financial Literacy. *Research Journal of Finance and Accounting*, 7(11), 94-103. <https://www.iiste.org/journals/index.php/rjfa/article/view/31504>
- Census. (2011). *Assam Population*. Census of India-2011. <https://www.census2011.co.in/census/state/assam.html>
- CFPB. (2015). *Measuring financial well-being: A guide to using the CFPB Financial Well-being Scale*. Washington DC: Consumer Financial Protection Bureau. <https://www.consumerfinance.gov/data-research/research-reports/financial-wellbeing-scale/>
- CFPB. (2017). *Financial well-being in America*. Washington DC: Consumer Financial Protection Bureau. https://files.consumerfinance.gov/f/documents/201709_cfpb_financial-wellbeing-in-america.pdf
- Chavali, K., Raj, P.M., & Ahmed, R. (2021). Does Financial Behavior Influence Financial Well-being? *Journal of Asian Finance, Economics and Business*, 8(2), 273-280. <https://doi.org/10.13106/jafeb.2021.vol8.no2.0273>

- Chen, H., & Volpe, P. (2002). Analysis of personal finance literacy among college students. *Financial Services Review*, 7 (2), 107-128. <https://doi.org/10.1016/S1057-0810%2899%2980006-7>
- Costello, A.B., & Osborne, J. (2005). Best practices in exploratory factor analysis: four recommendations for getting the most from your analysis. *Research, and Evaluation Practical Assessment, Research, and Evaluation*, 10(7), 01-09. <https://doi.org/10.7275/jyj1-4868>
- Devi, A. (2016). Financial Literacy Among Women: A Sample Study in the Kamrup District of Assam. *EPRA International Journal of Economic and Business Review*, 4(2), 144-147. <https://eprajournals.com/ijes/article/8746>
- Falahati, L., & Sabri, M. (2015). An Exploratory Study of Personal Financial Well-being Determinants: Examining the Moderating Effect of Gender. *Asian Social Science*, 11(4), 33-42. <https://doi.org/10.5539/ass.v11n4p33>
- Farrar, S., Moizer, J., Lean, J., & Hyde, M. (2019). Gender, financial literacy, and preretirement planning in the UK. *Journal of Women and Aging*, 31(4), 319-339. <https://doi.org/10.1080/08952841.2018.1510246>
- Field, A. (2000). *Discovering Statistics using SPSS for Windows*. New Delhi: Sage Publication.
- Hasibuan, B.K., Lubis, Y.M., & Walad, A.H.R. (2018). *Financial Literacy and Financial Behavior as a Measure of Financial Satisfaction*. Proceedings of the 1st Economics and Business International Conference. Amsterdam: Atlantic Press. <https://doi.org/10.2991/ebic-17.2018.79>
- Hastings, J.S., Madrian, B.C., & Skimmyhorn, W.L. (2013). Financial literacy, financial education, and economic outcomes. *Annual Review of Economics*, 5, 347-373. <https://doi.org/10.1146/annurev-economics-082312-125807>
- HDI Report. (2014). Assam Human Development Index Report-2014. Govt. of Assam Transformation and Development. <https://transdev.assam.gov.in/portlets/assam-human-development-report>
- Hermawan, A., Gunardi, A., & Agustine, W.M.I. (2019). Understanding the Determinants of Financial Literacy: A Quantitative Study on Students. *Advances in Economics, Business, and Management Research*, 65, 399-401. <https://www.atlantis-press.com/article/125908102.pdf>
- Ibrahim, D., Harun, R., & Zuraidah, M.I. (2009). A Study on Financial Literacy of Malaysian Degree Students. *Canadian Academy of Oriental and Occidental Culture*, 5(4), 51-59. <https://doi.org/10.3968/j.ccc.1923670020090504.006>
- Joo, S.H., & Grable, J.E. (2004). An Exploratory Framework of the Determinants of Financial Satisfaction. *Journal of Family and Economic Issues*, 25(1), 25-50. <https://doi.org/10.1023/b:jeei.0000016722.37994.9f>
- Joseph, J. (2012). *Financial Literacy of Economically Marginalized People of Kerala* [PhD Thesis, Mahatma Gandhi University]. Shodhganga. <https://shodhganga.inflibnet.ac.in/>
- Kaiser, H.F. (1974). An Index of Factorial Simplicity. *Psychometrika*, 39(1), 31-36. <https://doi.org/10.1007/bf02291575>
- Klapper, L., Lusardi, A., & Oudheusden, P.V. (2014). *Financial Literacy around the World: Insight from S & P Global financial Survey*. Washington DC: Global Financial Literacy Excellence Center. https://gflec.org/wpcontent/uploads/2015/11/finlit_paper_16_f2
- Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610. https://home.kku.ac.th/sompong/guest_speaker/KrejcieandMorgan_article.pdf
- Lusardi, A., Mitchell, O.S., & Curto, V. (2010). Financial Literacy among the Young. *Journal of Consumer Affairs*, 44(2), 358-380. <https://doi.org/10.1111/j.1745-6606.2010.01173.x>

- Mehtab, H., Zaheer, Z., & Ali, H. (2015). Knowledge, Attitudes and Practices (KAP) Survey: A Case Study on Islamic Banking at Peshawar, Pakistan. *FWU Journal of Social Sciences*, 9 (2), 1-13. [http://www.sbbwu.edu.pk/journal/Jan%202016/1.%20Knowledge%20Attitudes%20and%20Practices%20\(KAP\)%20Survey%20A%20Case%20Study.pdf](http://www.sbbwu.edu.pk/journal/Jan%202016/1.%20Knowledge%20Attitudes%20and%20Practices%20(KAP)%20Survey%20A%20Case%20Study.pdf)
- NCFE. (2014). *Financial Literacy and Inclusion Survey in India-2014*. Mumbai: National Center for Financial Literacy. <https://www.ncfe.org.in/reports/nflis>
- NCFE. (2019) *Executive Summary of the NCFE Financial Literacy and Inclusion Survey-2019*. Mumbai: National Center for Financial Literacy. <https://ncfe.org.in/reports/nflis>
- Ratner, B. (2009). The correlation coefficient: Its values range between 1/1, or do they. *Journal of Targeting, Measurement and Analysis for Marketing*, 17(2), 139-142. <https://doi.org/10.1057/jt.2009.5/tables/2>
- Rose, S. (2022). The History of Financial Literacy. *OppU*. <https://www.opploans.com/oppu/articles/history-of-financial-literacy/>
- Sabri, M.F., Wahab, R., Mahdzan, N.S., Magli, A.S., & Rahim, H.A. (2022). Mediating Effect of Financial Behavior on the Relationship Between Perceived Financial Well-being and Its Factors Among Low-Income Young Adults in Malaysia, *Frontiers in Psychology*, 13, 01- 16. <https://doi:10.3389/fpsyg.2022.858630>
- Sangeeta, Panwar, A.K.S., & Aggarwal, P.K. (2022). Determinants of Financial Literacy and its Effect on Financial Wellbeing-A Study on Young Population. *Global Journal of Management and Business Research: C Administration and Management*, 22 (5), 50-61. <https://journalofbusiness.org/index.php/GJMBR/article/view/102744/27990>
- Shobha, T.S., & Kumar, K.M.S. (2020). Financial Behaviors of Generation X and Generation Y. *SCMS Journal of Indian Management*, xvii(1), 123-136. <https://www.scms.edu.in/uploads/journal/october-december-2020.pdf>
- Singh, K., Rani, P., & Kiran, C. (2020). Relationship Between Various Determinants and Dimensions of Financial Literacy Among Working Class. *International Journal of Financial Research*, 11(5), 319-333. <https://doi.org/10.5430/ijfr.v11n5p319>
- Streiner, D. L. (2003). Starting at the beginning: an introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment*, 80(1), 99-103. https://doi.org/10.1207/s15327752jpa8001_18
- Taft, M.K., Hosein, Z.Z., & Mehrizi, S.M.T. (2013). The Relation between Financial Literacy, Financial Well-being and Financial Concerns. *International Journal of Business and Management*, 8(11), 63-75. <https://doi.org/10.5539/ijbm.v8n11p63>
- Vosloo, W., Fouché, J., & Barnard, J. (2014). The Relationship Between Financial Efficacy, Satisfaction with Remuneration and Personal Financial Well-Being. *International Business & Economics Research Journal*, 13 (6), 1455-1470. <https://clutejournals.com/index.php/IBER/article/download/8934/8893/35082>
- West, T., & Cull, M. (2020). Future Expectations and Financial Satisfaction. *Economic Papers: A Journal of Applied Economics and Policy*, 39 (4). 01-18. doi:10.1111/1759-3441.12292
- Worthington, A. (2006). Predicting Financial Literacy in Australia. *Financial Services Review*, 15 (1), 59-79. <https://ro.uow.edu.au/cgi/viewcontent.cgi?article=1124&context=commpapers>
- Yakoboski, P.J., Lusardi, A., & Hasler, A. (2021). *Financial literacy and well-being in a five generation America*. The 2021 TIAA Institute-GFLEC Personal Finance Index. <https://gflec.org/initiatives/financial-literacy-and-wellbeing-in-a-five-generation-america/>
- Yoshino, N., Morgan, P.J., & Trinh, L.Q. (2017). Financial Literacy in Japan: Determinants and Impacts. *The ADBI Working Paper No. 796*. Tokyo: Asian Development Bank Institute. <https://www.adb.org/sites/default/files/publication/389066/adbi-wp796.pdf>

Annexure-I: Financial Literacy Measurement Scale

Sl.No.	Financial Knowledge Statements (Questions)	Options	Scoring Norms	Min. Score	Max.Score
1	Imagine a father leaves behind Rs.1, 00, 000 for his two children. If the two children have to share the money equally how much does each child get?	a.Rs.30,000 b.Rs.50,000 c.Rs.70,000	1 point for correct answer. 0 for all other cases.	0	1
2	In continuation to above question, now imagine that the children have to wait for one year to get their own share of money and inflation stays at 5 percent. After one year will they be able to buy same amountof goods/services that they can buy today?	a. Yes b. No c. Don't Know	1 point for correct answer. 0 for all other cases.	0	1
3	You lend Rs. 50,000 to your brother one evening and he gives you Rs. 50,000 back in the next day. Did he pay any interest on this loan?	a. Yes b. No c. Don't Know	1 point for correct answer. 0 for all other cases.	0	1
4	Suppose, you put Rs. 1,000 into a deposit account with a guaranteed simple interest rate of 10% per year. How much would there be in the account at theend of the first year, including interest?	a. Rs. 1,000 b. Rs. 1,100 c. R s.1,200	1 point for correct answer. 0 for all other cases.	0	1
5	Suppose, you put Rs.1000 into a deposit account with a guaranteed compound interest rate of 10% per year. How much would there be in the account at the end of the fifth year, including interest? (approx.)	a. Rs. 1,500 b. Rs.1, 600 c. Rs.1,700	1 point for correct answer. 0 for all other cases.	0	1
6	An investment with a high return is likely to be of high risk.	a. True b. False c.Don't Know	1 point for correct answer. 0 for all other cases.	0	1
7	It is better to invest your money in more than one financial product for safety.	a. True b. False c. Don't Know	1 point for correct answer. 0 for all other cases.	0	1
8	High inflation means that the cost of living increases.	a. True b. False c. Don't Know	1 point for correct answer. 0 for all other cases.	0	1
Financial Knowledge Score				0	8

Sl.No.	Financial Behavior Statements (Questions)	Options	Scoring Norms	Min. Score	Max.Score
1	Does your household have budget?	a. Yes b. No	1 point is awarded if respondent is personally or jointly responsible for financial and money management activities and have a budget. 0 for other cases.	0	1
	If yes, in the previous question, who is responsible for financial and money management activities in your household?	a. Self b. Self & Spouse c. Self & Others d. Another family member e. Others			
2	In the last 12 months have you encountered situation wherein your income does not cover for your living costs?	Yes No Not Applicable	0 is awarded if uses credit to make fulfillment of needs. 1 point for all other cases. (Refusal of encountering such situation also results in 1 point).	0	1
	If yes, in the previous question, What did you do to meet your living cost?	Borrowed from Family members/Relatives b. Borrowed from Employer c. Drew from Saving/Investment d. Availed Loan/Finance/Mortgage e. Missed Payments f. Earned Extra money g. Sold Items h. Others			
3	Which of the following statements best describes how did you last chose or evaluated any of the financial Products/ Services?	Considered/ Evaluated several Products/Services from different companies Considered/Evaluated several Products/ Services from the same company Did not Consider/Evaluate any other Products/ Services There were no other Products	0 if respondent have refused to answer, not chosen a product or not made any attempt to make an informed decision. 1 point for respondent who had tried to shop	0	2

		/Services to Consider/ Evaluate Not Applicable	around or gather any information. 2 points for those who had shopped around and availed products/services by taking informed decision.		
4	Which source of information most influenced your decision in selecting financial Products/ Services? (Rank top three of your choice)	Information from Company Website/Staff/Branch Advertisements Friend/Relatives/Employer Past Personal Experience. Financial Advisor/ Expert's Recommendation Financial Literacy Camps Information on Internet Not Applicable			
5	In the past 12 months have you been personally saving money in any of the following ways?	Saving cash at Home Putting money into Bank A/c Buying Financial Products/Services Investing in Gold/Silver Investing in Property Giving money to Family/ Friends No Savings Others	1 point for putting money in any of the saving activity which provides return. 0 for other cases.	0	1
6	I set long term financial goals and strive to achieve them.	a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree	1 point for 'Strongly Agree' and 'Agree'. 0 for all other cases.	0	1
7	I keep a close personal watch on my financial affairs.	a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree	1 point for 'Strongly Agree' and 'Agree'. 0 for all other cases.	0	1
8	I only buy things which I can afford.	a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree	1 point for 'Strongly Agree' and 'Agree'. 0 for all other cases.	0	1
9	I pay bill on time	a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree	1 point for 'Strongly Agree' and 'Agree'. 0 for all other cases.	0	1
Financial Behavior Score				0	9

Sl. No.	Financial Attitude Statements (Questions)	Options	Scoring Norms	Min. Score	Max. Score
1	Live for today and let tomorrow takes care of itself.	a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree	1 point for 'Strongly Agree' 2 points for 'Agree' 3 points for 'Neutral' 4 points for 'Disagree' and 5 points for 'Strongly Disagree'	1	5
2	I find it more satisfying to spend money than to save it for the long term.	a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree		1	5
3	Money is there to be spent only.	a. Strongly Agree b. Agree c. Neutral d. Disagree e. Strongly Disagree		1	5
Financial Attitude Score [(Score of Sl. No.1+ Score of Sl. No. 2+ Score of Sl. No.3) ÷3]				1	5

Source: NCFE, 2014.

Annexure-II: Financial Well-being Measurement Scale

Sl. No.	Financial Well-being Statements (Questions)	Options	Scoring Norm	Min. Score	Max. Score
1	I could handle major unexpected expenses.	a. Completely b. Very well c. Somewhat d. Very little e. Not at all	4 points for 'Completely' 3 points for 'Very well' 2 points for 'Somewhat' 1 point for 'Very little' and 0 for 'Not at all'	0	4
2	I am securing my financial future.	a. Completely b. Very well c. Somewhat d. Very little e. Not at all	4 points for 'Completely' 3 points for 'Very well' 2 points for 'Somewhat' 1 point for 'Very little' and 0 for 'Not at all'	0	4
3	I can enjoy life because of the way I am managing the money.	a. Completely b. Very well c. Somewhat d. Very little e. Not at all	4 points for 'Completely' 3 points for 'Very well' 2 points for 'Somewhat' 1 point for 'Very little' and 0 for 'Not at all'	0	4
4	I have money left over for the end of the month.	a. Always b. Often c. Sometimes d. Rarely e. Never	4 points for 'Always' 3 points for 'Often' 2 points for 'Sometimes' 1 point for 'Rarely' 0 for 'Never'	0	4
5	Because of my money situation, I feel like I will never have the things I want in life.	a. Completely b. Very well c. Somewhat d. Very little e. Not at all	0 for 'Completely' 1 point for 'Very well' 2 points for 'Somewhat' 3 points for 'Very little' and 4 points for 'Not at all'	0	4
6	I am just getting by financially. (Just surviving a financial life.)	a. Completely b. Very well c. Somewhat d. Very little e. Not at all	0 for 'Completely' 1 point for 'Very well' 2 points for 'Somewhat' 3 points for 'Very little' and 4 points for 'Not at all'	0	4

7	I am concerned that the money I have or will save won't last.	a. Completely b. Very well c. Somewhat d. Very little e. Not at all	0 for 'Completely' 1 point for 'Very well' 2 points for 'Somewhat' 3 points for 'Very little' and 4 points for 'Not at all'	0	4
8	Giving a gift for a wedding, birth day or other occasions would put a strain on my finances for the month.	a. Always b. Often c. Sometimes d. Rarely e. Never	0 for 'Always' 1 point for 'Often' 2 points for 'Sometimes' 3 points for 'Rarely' 4 points for 'Never'	0	4
9	I am behind with my finances. (Not current with one's finances, e.g. delay in bill payment.)	a. Always b. Often c. Sometimes d. Rarely e. Never	0 for 'Always' 1 point for 'Often' 2 points for 'Sometimes' 3 points for 'Rarely' 4 points for 'Never'	0	4
10	My finances control my life.	a. Always b. Often c. Sometimes d. Rarely e. Never	0 for 'Always' 1 point for 'Often' 2 points for 'Sometimes' 3 points for 'Rarely' 4 points for 'Never'	0	4
Financial Well-being Score				0	40

Source: CFPB, 2017.