International Journal of Accounting & Business Finance
Vol.9, No.2, December 2023 Issue. pp. 45-73

FINANCIAL LITERACY AND ITS DETERMINANTS: A CASE OF PROFESSIONALS IN COLOMBO DISTRICT SRI LANKA

Madhushani, P.W.G.[1] and Rajapakse, R.P.C.R.[2]

[1]*Department of Finance, University of Kelaniya, Sri Lanka.*
[2]*Department of Finance, University of Sri Jayewardenepura, Sri Lanka.*

Received: March 24, 2023 Revised: November 06, 2023 Accepted: November 28, 2023

Abstract

This observation intends to examine the financial literacy level of professionals working in the professions of Medicine (Doctors), Engineering (Engineers), Management (Managers), Law (Lawyers) inclusive Aviation and Navigation (Captains and Pilots), and its determinants. The methodology was a quantitative survey approach involving a sample of 300 respondents from the Colombo district. The analysis revealed that Basic and Advanced financial literacy among professionals is at a medium level. However, the level of financial literacy was not at a satisfactory level among non-management professionals, particularly doctors and lawyers. The results of the Regression analysis revealed that Economic and financial education, self-analytical skills, the field of employment, and monthly income level as influential determinants of financial literacy. The professions with less exposure to economic and financial education have low financial literacy. Findings demonstrate the growing importance of implementing a national strategy to improve financial and economic educational programmes, particularly for individuals who are not working in the professions related to management.

Keywords: Basic financial literacy, Financial, economic education, Self-analytical skills

JEL classification: F36, I22

1. Introduction

Financial literacy is defined by the Organization for Economic Corporation and Development (OECD) as "A combination of awareness, knowledge, skills, attitudes, and behavior necessary to make sound financial decisions and ultimately achieve individual financial well-being" (Atkinson & Messy, 2011). Given the complexity of today's Economy, this concept has become a substantial need. The changes in life expectancies and the gradual transformation of employer-sponsored benefit schemes into privately defined contribution plans shift the responsibility of

Corresponding email: gangam@kln.ac.lk, champa@sjp.ac.lk

personal finance towards individuals (Lusardi, 2019). Simultaneously financial markets are rapidly changing with the rapid expansion of Financial Technology (Fintech). Hence financial products have become complicated and not easily accessible, especially for financially unsophisticated investors. Therefore, "Financial Literacy" creates a road map for individuals to be competent in financial decision-making, especially in their savings, retirement planning, and short-term, and long-term investments (Lusardi & Mitchell, 2005; Lusardi, 2019). Not only from a personal financial decision-making perspective but also from a macroeconomic perspective, for a country to move away from a crisis towards prosperity, having a satisfactory level of financial literacy is important. With the global financial crisis in 2008, consumer over-indebtedness and household bankruptcy provided evidence to support that requirement. Hence increasing individuals' financial literacy should be a public policy objective to stimulate Economic growth and well-being (Huston, 2010; Ghoshray et al., 2020; Pasa et al., 2022). Hence financial literacy and economic development go hand in hand.

Relevance to Sri Lanka, the country is renowned for having excellent adult literacy rates, and data from the Central Bank of Sri Lanka in 2021 show that financial literacy has also dramatically increased, rising from 35% in 2014 to 57.9 % (Financial Literacy Survey Sri Lanka, 2021). Recent research, however, indicates that financial literacy among different population groups is not at an adequate level such as individual investors (Weerasena & Morage, 2019; Tennekoon & Liyanage, 2021), entrepreneurs (Kumari et al., 2021), rural communities (Weerasinghe & Jayasinghe; 2022), and University students (Priyadarshani & Kumari, 2021; Edirisinghe et al., 2017). Among the academics, the financial sophistication is at a medium level. However, their financial behaviour is not at a satisfactory level (Arthasad & Rajapakse, 2018). Hence financial literacy in Sri Lanka appears to be in short supply among these groups.

Examining yet another crucial group, Professionals are usually trained manpower who are well-educated. They contribute to the Economy in different fields such as Education, Management, Engineering, Medical field, IT, Logistics, Aviation, Navigation, etc. They make possible solutions to a problem aiming to maximize the resources available with the goal of effectiveness and efficiency at the forefront. Hence their financial sophistication drives shaping not only their lives as individuals but the overall economy. It might be the general norm that professionals are financially literate. However, Anderson et al. (2017) state that it is surprising to see less than

two-thirds of professionals in the United States (including chief financial officers, chief executive officers, and chief operating officers) respond negatively to the given financial literacy questions. Acharya and Mittal (2019) state that women professionals' financial literacy is not at a satisfactory level in Jaipur, India. Hence it is a disruption to Economic empowerment. Gačić et al. (2023) state that financial competency among the managers in Serbian healthcare institutions is relatively at a modest level. However, they engage in financial activities at large. Hence the gap between their knowledge and how they function may harm the wellbeing and the sustainable growth of the organizations. Therefore, professionals' financial competency is a strength to the growth of institutions and the Economy as a whole. Yet as a leading group in Sri Lanka, there is no single study undertaken to capture the financial soundness of professionals. The Advocacy chair of the CFA Society Sri Lanka, Mr. Ravi Abeysuriya states that financial literacy is not confined to the poor but may be common among professionals as well (Jayasuriya, 2019). However, there is no published evidence to support this argument. Hence the interest of this study lies in capturing that dearth and closing the gap.

Hence the study aims to:

1. Measure the level of financial literacy among professionals (Is it fairly good or not?)
2. Examine the determinants of financial literacy among professionals.

2. Literature review

2.1. Theoretical view

There are numerous theories identifying the households' behaviour that influences financial decisions such as saving, borrowing, and investing. Expected Utility Theory (Neumann & Morgenstern, 1953), Portfolio theory (Markovitz, 1952; Markovitz, 1959), Life cycle hypothesis (Modigliani & Brumberge, 1954), Permanent Income Hypothesis (Friedman, 1957), and the Efficient Market Hypothesis (Fama, 1991) on the basis which follows rational finances under the assumption that humans are rational, and their main goal is profit maximization. Friedman (1966) has indicated that the rational behavior of investors is that decisions are made based on the evidence of mathematical calculations and interpretations.

Eventually, the behavioural finance theory developed later by Kahneman and Tversky (1979), Thaler (1985), Ritter (2003), and Baker (2010) recognized investment decisions of individuals are not completely rational but considered Socio-Economic phenomena. Financially literate individuals make decisions not purely on numeracy but on general mental capability (Cognitive ability), habits, ethics, and their sentiment toward financial markets. Hence "financial literacy" consistently falls under the theory of behavioral finance.

2.2. Empirical evidence on financial literacy and its importance

There are shreds of evidence suggesting that financial literacy is one of the key determinants of financial well-being (Panos & Wilson, 2020). It appears to be crucial to have a sufficient degree of financial competency with the rapid transformation of financial markets with intricate financial products (Lusardi, 2019). If not, financial illiteracy has the potential of making poor financial decisions and adversely influences on physical, psychological, and family well-being of individuals as well (Lone & Bhat, 2022; Ryu & Fan, 2022).

Examining the professionals' financial literacy around the globe, particularly in emerging markets and developed countries, few studies look at that facet. Shaik et al. (2022) stated that In India, the IT sector plays a vital role, hence enhancing the financial education of IT professionals will result in more investments in supporting Economic development. However, Yadav and Seth (2022) indicated that Indian professionals are investing more than businesspeople and are financially sound. Acharya and Mittal (2019) stated that women professionals' financial literacy is not at a satisfactory level in Jaipur, India. Hence it is a disruption to Economic empowerment. In South Africa, professional athletes need to gain a high level of financial literacy to accumulate their wealth in the form of investments (Moolman, 2020). A systematic literature review undertaken by Compen et al. (2019) stated that considering the significance of financial literacy on well-being, more attention must be paid to teacher professional development in terms of financial education to transfer the knowledge to educators in the world. Though it might be the general norm that professionals are financially literate, Anderson et al. (2017) observed that it is surprising to see professionals in the United States including chief financial officers, chief executive officers, and chief operating officers perform poorly to the given financial literacy question. Gačić et al. (2023) stated that financial competency among the managers in Serbian healthcare institutions is relatively at a modest level. However, they engage in more financial

activities. Hence their lack of knowledge may harm organizational performance. Thus, the financial literacy of professionals is closely linked to not only their personal growth but also institutional performance, investments, and Economic empowerment.

In terms of the Sri Lankan context, surveys have been conducted among different population groups as mentioned in the Introduction part of the study such as investors (Tennekoon & Liyanage, 2021), entrepreneurs (Kumari et al., 2021), rural communities (Karunathilaka, 2016; Weerasinghe & Jayasinghe, 2022), University students (Priyadarshani & Kumari, 2021; Edirisinghe et al., 2017) and among the academics (Arthasad & Rajapakse, 2018). However, there is no single study that captures the financial literacy of professionals, though they are key strategic decision-makers in the country. Thus, the first hypothesis is developed as:

H1 - The level of financial literacy of professionals is at a satisfactory level.

2.3. Empirical evidence on financial literacy and its measurements

Existing literature indicates that financial literacy is often an entry model for financial education. Measuring financial literacy is critical to identify the implications for education and disruptions related to sound financial decision-making (Huston, 2010). Financial literacy questions consist of two parts. Basic financial literacy and advanced financial literacy (Rooji et al., 2011; OECD, 2011). Basic financial literacy covers topics such as Nominal and real values, compounding and the discounting process, interest rates, and Inflation. The areas such as the difference between stocks and bonds, functions of stock markets, risk diversification, and the relationship between bond prices and interest rates are covered by Advanced financial literacy (Rooji et al., 2011; Lusardi & Mitchell, 2005; Hung et al., 2009).

2.4. Empirical evidence on the determinants of financial literacy

Arthasad and Rajapakse (2018) stated that the financial literacy of males is higher than females. Lusardi (2007) highlighted in her study on "Household savings behaviour" that gender is significantly influencing financial literacy. Hung et al. (2009) explored that men in the United States are more financially literate than women. Sarpong (2021), also mentioned that young and old women in Ghana perform worst on financial literacy measures. Based on the empirical findings, the second hypothesis is developed as:

H2: The gender of professionals significantly influences financial literacy.

Financial literacy differs substantially with age. It is low among the young and old and high among the middle age (Rooji et al., 2011). Agarwal et al. (2009) indicated that middle-aged adults make fewer financial mistakes than either young or old adults. The results were in line with Hogarth (2002) who has explored that less financially knowledgeable are either young or old (Not middle age). Hence the financial decisions of individuals may differ over their life cycle. Hence the third hypothesis can be developed as:

H3: The age of professionals significantly influences financial literacy.

Mouna and Anis (2016) found that employment status influences the assessment of the financial literacy of Tunisian citizens and is significantly different among self-employed, public-sector, and private-sector workers. The unemployed are highly financially illiterate. The outcomes align with Lusardi (2007), Calvet et al. (2009), and Bhushan and Medury (2013). Based on the findings, the hypothesis is developed as:

H4 – The employment field of professionals significantly influences financial literacy.

Karunathilaka (2016) and Janor et al. (2016) found that financial literacy is positively connected with the income of individuals. Those who are financially literate have a higher income and they can withstand sudden financial pressures (Sarpong, 2021; Ansari et al., 2023). Hence the fifth hypothesis can be developed as:

H5: The income of the professionals positively and significantly influences financial literacy.

Financial competence changes with professional experience. Lack of experience influences over-indebtedness (Lusardi & Peter, 2009). Beal and Delpachithra (2003) explored that financial literacy scores are more likely to come from men with more work experience. Based on the empirical results, the sixth hypothesis is developed as:

H6 – The work experience of the professionals positively and significantly influences financial literacy.

Financial literacy is influenced by Economic and financial education and how often that knowledge is applied (Lusardi & Mitchell, 2005). Altman (2012) also demonstrated how

financial education aids people in making better decisions when they focus on "specialized knowledge of financial issues, markets, and products". Sucuahi (2013) indicated that the micro-entrepreneurs in Davao City are not financially literate due to a lack of financial education. Mouna and Anis (2016) explored a close connection between economic education and financial literacy. Therefore, economic and financial education is considered in this study as one of the principal independent variables. Hence the seventh hypothesis is developed as:

H7 - Economic and financial education positively and significantly influences financial literacy.

Bhargava and Mittal (2017) stated that there is a strong impact of **analytical skills** on financial literacy. The numeracy and research skills of a person affect their financial decisions remarkably. Those who lack self-efficacy will not be able to withstand financial market downsizing and take advantage of an upswing (Hung et al., 2009; De Bassa Scheresberg, 2013; Skagerlund et al., 2018). Based on the literature, the eighth hypothesis is developed.

H8 - Self-analytical skills positively and significantly influence financial literacy.

Bhargava and Mittal (2017) investigated that, having **financial goals** such as future self and family protection concepts like insurance, tax planning, EMIs (Equivalent Monthly Installments) on vehicle and housing loans, etc. leads to more financial sophistication. Lusardi and Mitchell (2008) indicated that individuals who have future financial plans such as a retirement plan or a savings plan are more financially knowledgeable than others. Hence the following hypothesis is developed.

H9 - Future financial goals positively and significantly influence financial literacy.

3. Methodology

According to Saunders et al. (2019), research methodology involves a theoretical framework and the study of various techniques used to find the answers to the research problem. Based on an extensive literature review conducted by the researcher, concerning the most accepted models identified, the following conceptual framework was developed.

3.1. Conceptual Framework

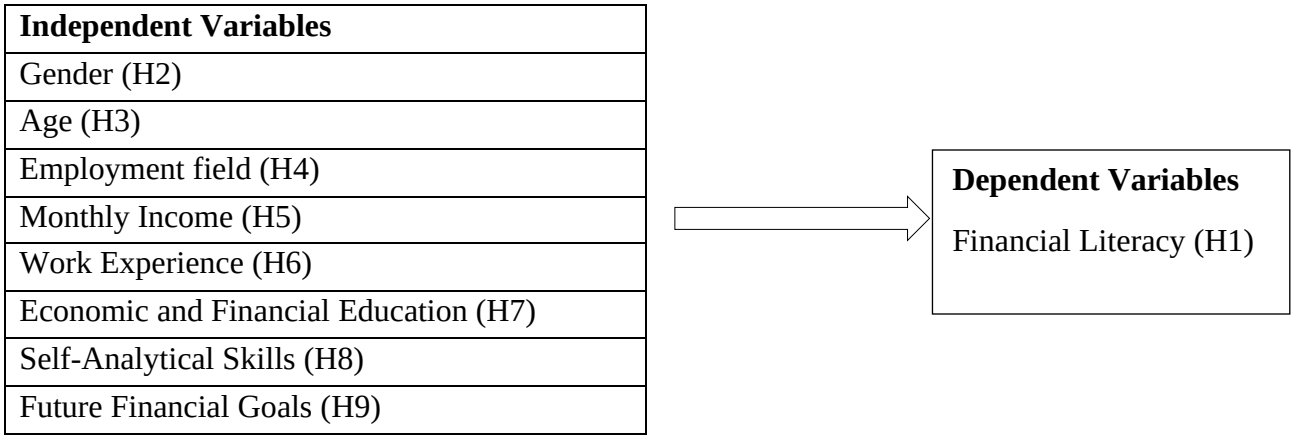

Figure 1. Conceptual Framework

Source: Author constructed

3.2. Measurement and the operationalization of variables

A quantitative approach was implemented in this study. Data was collected through a structured questionnaire as the objective data can be communicated through statistics and numbers.

Table 1: Measurement and the operationalization of variables

Variable		Measurement	Relevant literature
Dependent variable	Financial literacy	10 multiple choice questions were raised on basic financial literacy (inflation, interest rates, knowledge of time value of money, nominal, and real values) and advanced financial literacy (knowledge of stocks, bonds, stock market, mutual funds, and portfolio diversification). The correct and wrong answers were marked and given out of 100.	Based on the developed questionnaire by the Organisation for Economic Cooperation and Development (OECD, 2011)
Independent	Gender	Categorical variable. This was taken	Arthasad and

variables (Demographic)		as a Dummy variable in the regression analysis	Rajapakse (2018);
	Age	Categorical variable. This was taken as a Dummy variable in the regression analysis	Hogarth (2002)
	Employment field	Categorical variable. This was taken as a Dummy variable in the regression analysis	Karunathilaka (2016)
	Monthly income	Categorical variable. This was taken as a Dummy variable in the regression analysis	Beal and Delpachithra (2003)
	Work experience	Categorical variable. This was expected to be taken as a dummy variable. But removed due to a multicollinearity issue.	Bhushan and Medury (2013)
Independent variables (non-Demographic)	Economic and financial education	A Principal component analysis was run based on the raised 5-point Likert scale questions and factor indexes were taken for the regression analysis	Rooji et al. (2011); Gujarati and Porter (2003)
	Future financial goals		
	Self-analytical skills	Numerical questions were raised and marked out of 100.	Bhargava and Mittal (2017)

3.3. Target population

The target population of the study was identified as professionals in the corporate sector from the professions of biology/medicine (doctors), engineering (engineers), law (lawyers), management (managers), and aviation and navigation (captains and pilots) in Colombo District, Sri Lanka.

3.4. Sampling design

A cross-sectional research design was employed. The sample in this study was a subset of professionals in the Colombo district as it has the highest employability in the service sector (Annual labour force survey, 2020). However, the number of professionals in the Colombo district was not specified and given as a figure. Nationwide, it was 7% of the Employed population by occupation. Therefore, in this study, 7% was multiplied four times to Colombo district as 28%, and the sample size was calculated as 300 based on Cochran's sample size formulae.

$$\boldsymbol{n} = \frac{\boldsymbol{t^2 * P(1-p)}}{\boldsymbol{m^2}} \quad (1)$$

Where,

n = required sample size

t = confidence level at 95% (standard value of 1.96)

p = estimated prevalence of the variable of interest (e.g., 28% or 0.28 of the population are professionals)

m = margin of error at 5% (standard value of 0.05)

$$\boldsymbol{n} = \frac{\boldsymbol{1.96^2 * 0.28(1-0.28)}}{\boldsymbol{0.05^2}} = 300 \quad (2)$$

Using the convenience sampling technique, targeting more than 50 professionals from each industry, data were collected from 315 respondents via a structured questionnaire in collaboration with two major hospitals, The National Hospital of Sri Lanka and Kalubowila Teaching Hospital, Two major courts, Aluthkade and Kaduwela court complexes, Institution of engineers, Colombo International Nautical and Engineering College, Bandaranayake International airport and the Institute of chartered professional managers, located in major divisional secretariats in Colombo. Although probability sampling techniques are generally used when the population is known, yet data can be collected from each stratum by giving an equal weightage, which is very effective in reducing the standard errors of accuracy (Tyrer & Heyman, 2016). Fifteen responses were removed due to missing data.

3.5. Econometric tests and models

The reliability of the primary data was checked using Cronbach's alpha for independent and dependent variables.

Table 2: Reliability test results

Condition	Result
$\alpha \geq 0.9$	Excellent
$\alpha \geq 0.8$	Good
$\alpha \geq 0.7$	Acceptable
$\alpha \geq 0.6$	Accept but questionable
$\alpha \geq 0.5$	Poor but can accept
$\alpha < 0.5$	Unacceptable

Source: Albeerdy, and Gharleghi (2015)

ONE–WAY ANOVA was used to test the Overall, Basic, and Advanced financial literacy of professionals to measure the first objective of the survey. Based on the test results, if the mean mark is below 60%, financial literacy is at a low level. If the mean marks range between 60% and 79% financial literacy level can be considered as medium. If it ranges between 80% and 100% financial literacy level is high (Bhushan & Medury, 2013; Arthasad & Rajapakse, 2018).

Principal component analysis was used to measure the independent variables, Economic and financial education, and future financial goals. The third independent variable, self-analytical skills was measured using numerical questions scored from 0 to 100 points.

Karl Pearson Correlation analysis was used to analyze the relationship between the independent variables and the dependent variable.

To analyze the determinants of financial literacy, the second objective, **linear regression analysis** was performed. The dependent variable (financial literacy) was continuous. All categorical independent variables were included in the model as dummy variables (gender, age, field of employment, and monthly income). Work experience had to be removed from the regression because it appeared to be a multicollinearity issue. Economic and financial education

and future financial goals were incorporated into the model based on the indexes received through principal component analysis. self-analytical skills were also a continuous variable.

3.6. Model Development

$$FL = \beta o + \beta 1\ GEN + \beta 2\ EMPT + \beta 3\ AGE + \beta 4\ INC + \beta 5 WE + \beta 6\ EFE + \beta 7\ FFG + \beta 8\ SAS + \varepsilon_i$$

Where,

FL	**=**	Financial Literacy
β	=	Coefficient of each independent variable
GEN	=	Gender is a dummy variable. 1 if a respondent is a male and 0 otherwise.
EMPT	=	The field of employment is included as a dummy variable. EMPT1; 1 if a respondent is a manager and 0 otherwise. (This variable was considered as the Base Group). EMPT2; 1 if a respondent is a doctor and 0 otherwise, EMPT3; 1 if a respondent is an engineer and 0 otherwise, EMPT4; 1 if a respondent is a lawyer and 0 otherwise, EMPT5; 1 if a respondent is engaged in the field of aviation and navigation (Pilots and Captains) and 0 otherwise.
AGE	=	Age is included as a dummy variable. AGE1; 1 if the respondent is in the age group of 18 - 27 and 0 otherwise (This was considered as the base group), AGE2; 1 if the respondent is in the age group of 28 - 36 and 0 otherwise, AGE3; 1 if the respondent is in the age group of 37 - 46 and 0 otherwise, AGE4; 1 if the respondent is in the age group of above 46 years and 0 otherwise
INC	=	The monthly income is included as a dummy variable. INC1; 1 if the respondent earns a monthly income less than LKR 50,000 and 0 otherwise (This variable was considered as the base group). INC2; 1 if the respondent earns a monthly income between LKR 50,000 - 100,000 and 0 otherwise, INC3; 1 if the respondent earns a monthly income between LKR 101,000 - 200,000 and 0 otherwise, INC4; 1 if the respondent earns a monthly income above 200,000 and 0 otherwise.
WE	=	Work Experience
EFE	=	Economic and Financial Education
SAS	=	Self-Analytical skills
FFG	=	Future Financial Goals
ε_i	=	Error term

4. Results

The reliability of the primary data collected was checked using Cronbach's alpha. The statistics in Table 3 report that the internal consistency of the entire data set and each variable was at an acceptable level.

Table 3. Reliability Statistics

Variable	**Reliability statistics**
Overall data set	0.694
Financial Literacy	0.671
Economic and Financial Education	0.591
Self-Analytical Skills	0.592
Future Financial Goals	0.568

Source: Primary Data

4.1. Descriptive statistics

Demographic variables

Descriptive statistics were presented for 300 observations covering the professions of management, engineering, law, biology, and the fields of aviation and navigation. All respondents were educationally qualified. 64% were male, and 36% were female. 25% of all respondents were in the age group of 18 to 27 years, and 41% of all respondents fell into the age category of 28-36 years. 14% were in the age group of 37 to 46 Years, while 20% were in the age category above 46 Years. Most of the respondents had monthly salaries between Rs. 100,000 to 200,000. Only 11% earned less than Rs. 50,000. And 16% of the respondents earned a monthly salary of over Rs. 200,000.

Non-demographic variables

Table 4: Research sample descriptive statistics

	FL	**BFL**	**AFL**	**EFE**	**FFG**	**SAS**
Mean	65.43	70.17	62.25	3.91	3.69	86.33
Median	70.00	75.00	67.00	4.00	4.00	100.00
SD	23.88	27.84	28.15	0.75	0.89	25.14
Skewness	-0.52	-0.74	-0.49	-0.59	-0.88	-1.64
Kurtosis	-0.58	-0.25	-0.68	0.34	0.67	1.82
Min	0	0	0	1	1	0
Max	100	100	100	5	5	100

Note: FL; Financial Literacy, BFL; Basic Financial Literacy, AFL; Advanced Financial Literacy, EFE; Economic and Financial Education, FFG; Future Financial goals, SAS; Self-Analytical Skills

Source: Primary Data

The primary goal of the study was to gauge financial literacy. The test results in Table 4 show the mean **overall** financial literacy score of doctors, lawyers, and those who work in the navigation and aviation sectors is less than 60%, indicating a low level of financial literacy. The mean score for engineers and managers ranges from 60% to 79%, indicating that their financial literacy is at a medium level. Though the **basic** financial literacy of professionals in all professions is at a medium to a high level, **advanced** financial literacy among doctors, lawyers, and those who work in aviation and navigation fields is at a low level.

Table 5: One Way ANOVA test results of financial literacy

	Profession	**Mean Marks**	**F value**	**Significance**
Financial Literacy	Medical	50.59	15.410	0.000**
	Engineering	71.94		
	Law	57.22		
	Management	75.73		
	Aviation and Navigation	58.44		
	Overall	**65.43**		
Basic Financial Literacy	Medical	61.76	4.165	0.003**
	Engineering	80.22		
	Law	67.59		
	Management	71.35		
	Aviation and Navigation	**63.28**		
	Overall	70.17		
Advanced Financial Literacy	Medical	43.16	22.130	0.000**
	Engineering	66.40		
	Law	50.31		
	Management	78.58		
	Aviation and Navigation	55.12		
	Overall	**62.25**		

Note: **Mean marks are significant at 0.01 levels,

Source: Primary Data

4.2. Hypothesis Testing on Objective 01.

H0: Financial literacy among professionals is not at a satisfactory level.

H1: Financial literacy among professionals is at a satisfactory level.

One Way ANOVA test results in Table 5 depict that the financial literacy of professionals is at a medium level (The mean score for financial literacy questions is 65%). Therefore, H1 can be accepted.

Table 6: Correlation between Financial literacy and independent variables

		Financial Literacy
Gender	Pearson Correlation	-.129*
	Sig. (2-tailed)	0.026
Age	Pearson Correlation	-.090
	Sig. (2-tailed)	0.121
Filed of Employment	Pearson Correlation	.176**
	Sig. (2-tailed)	0.002
Monthly Income Level	Pearson Correlation	.146*
	Sig. (2-tailed)	0.011
Work Experience	Pearson Correlation	-.059
	Sig. (2-tailed)	0.307
Economic and Financial Education	Pearson Correlation	.219**
	Sig. (2-tailed)	0.000
Future Financial Goals	Pearson Correlation	.068
	Sig. (2-tailed)	0.239
Self-Analytical Skills	Pearson Correlation	.269**
	Sig. (2-tailed)	0.000

Note: **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation coefficient results reported in Table 6 indicate that gender, the field of employment, and monthly income level are correlated with financial literacy. Economic and financial education and self-analytical skills also positively correlated with a probability association of less than 0.01. The other variables such as age, work experience, and future financial goals do not have a significant relationship with financial literacy.

4.3. Diagnostic test results

To accept the results of the linear regression model, Diagnostic tests were performed. The data set was free from the heteroscedasticity problem. The normality of the data was tested by Kolmogorov-Smirnov and Shapiro-Wilk tests indicating that the data set was normally distributed with significance values of 0.064 and 0.096 respectively. According to the VIF test statistics, work experience showed a multicollinearity issue and was therefore removed from linear regression analysis.

Table 7. Linear Regression Analysis on Financial Literacy

OLS	**Dependent Variable**		
Independent Variables	Financial Literacy	Basic Financial Literacy	Advanced Financial Literacy
	Coefficient & Sig. level	Coefficient & Sig. level	Coefficient & Sig. level
Male (GEN)	2.363	2.696	2.143
	(0.379)	(0.424)	(0.498)
Field of Employment (Base group: Management)			
Medicine (EMPT2)	-26.501***	-13.960***	-34.763***
	(0.000)	(0.006)	(0.000)
Engineering (EMPT3)	-9.626***	-0.652	-15.542***
	(0.009)	(0.887)	(0.000)
Law (EMPT4)	-20.086***	-7.797	-28.184***
	(0.000)	(0.103)	(0.000)
Aviation and Navigation (EMPT5)	-17.074***	-11.323**	-20.957***
	(0.000)	(0.048)	(0.000)
Age dummies (Base Group: age ≤ 27)			
28 - 36 Years (AGE2)	-5.745*	-4.816***	-6.345
	(0.080)	(0.006)	(0.100)
37 - 46 Years (AGE3)	-11.180**	-15.491	-8.435
	(0.017)	(0.887)	(0.124)
Above 46 Years (AGE4)	-10.665**	-8.133	-12.374**
	(0.016)	(0.103)	(0.018)

Monthly Income Dummies (Base group: Income below Rs. 50,000)			
50,000 – 100,000 (INC2)	16.215***	13.746**	17.799***
	(0.000)	(0.010)	(0.000)
101,000 – 200,000 (INC3)	25.369***	25.059***	25.492***
	(0.000)	(0.000)	(0.000)
Above 200,000 (INC4)	26.823***	30.973***	24.004***
	(0.000)	(0.000)	(0.000)
Self-Analytical skills index (SAS)	0.201***	0.274***	0.152***
	(0.000)	(0.000)	(0.009)
Economic and Financial Education Index (EFE)	1.748**	0.116	2.811**
	(0.040)	(0.945)	(0.024)
Future Financial Goals Index (FFG)	0.459	-0.489	1.077
	(0.704)	(0.747)	(0.450)
Constant	45.142***	36.438***	51.031***
	(0.000)	(0.000)	(0.000)
Observations	300	300	300
R-Value	0.571	0.467	0.571
R squared	0.326	0.218	0.326
F Test statistic	9.831***	5.675***	9.867***
	(0.000)	(0.000)	(0.000)

Note: The level of significance is reported in parentheses; coefficients are ***P<0.01, **P<0.05, P*<0.1. F Test statistic value is *** P<0.01

Source: Primary data

Table 7 reports OLS estimates of the effects of several independent variables on financial literacy. The OLS model for overall, basic, and advanced financial literacy is valid as the F test statistic is significant. Independent variables cover overall financial literacy by 32.6%, basic financial literacy by 21.8%, and advanced financial literacy by 32.6%. Accordingly, the age of the respondent, the field of employment, monthly income, economic and financial education, and self-analytical skills are important predictors of financial literacy.

4.4. Hypothesis test on objective 02

H2 –The gender of professionals significantly influences financial literacy.

Table 07 reports a coefficient of 2.363 for overall financial literacy, which is not significant. The results depict that gender does not influence professionals' financial literacy. Therefore, the alternative hypothesis is rejected. The results do not support the existing literature indicating that male financial literacy is higher than females (Arthasad & Rajapakse, 2018; Sarpong, 2021).

H3 – The age of professionals significantly influences financial literacy.

The Overall Financial Literacy column of Table 07 reports negative coefficients for all age categories. -5.745 for the age category of 28-36 years, -11.180 for the age category 37-46 years, and -10.665 for the age category above 46 years and significant ($P<0.1$). Hence, the alternative hypothesis is accepted. However, the results do not support the existing literature indicating that financial literacy level is high in middle age (Hogarth, 2002; Agarwal et al., 2009).

H4 – The employment field of professionals significantly influences financial literacy.

Being a professional in medicine, engineering, law, aviation, and navigation leads reducing the level of overall financial literacy by 26.5, 9.62, 20.09, and 17.07 points respectively. The highest negative coefficients can be seen in the fields of medicine and law. Advanced financial literacy reduction is even bigger. All the coefficients are significant. It depicts that those who are employed in non-management fields show a financial literacy not at a satisfactory level, especially among doctors and lawyers.

H5 - The income of the professionals positively and significantly influences financial literacy.

Table 07 depicts that monthly income is significantly influenced by financial literacy. Hence the alternative hypothesis is accepted, and the results support the existing literature (Karunathilaka, 2016; Janor et.al., 2016; Sarpong, 2021; Ansari et al., 2023)

H6 – The work experience of the professionals positively and significantly influences financial literacy.

Work experience showed a multicollinearity issue. Hence, the variable was not taken into the OLS model.

H7 - Economic and financial education positively and significantly influences financial literacy.

The coefficients of 1.748 for overall financial literacy and 2.811 for advanced financial literacy, Economic, and financial education show a positive significant impact on financial literacy. Hence the alternative hypothesis is accepted. The results support the existing literature (Lusardi, 2019; Acharya & Mittal, 2019; Compen et al., 2019).

H8 - Self-analytical skills positively and significantly influence financial literacy.

With a coefficient of 0.201 in Table 07 which is significant, Self-analytical skills show a positive influence on financial literacy. Hence the alternative hypothesis is accepted, and the results support the existing literature (Bhargava & Mittal, 2017; Banks & Old Field, 2007; De Bassa Scheresberg, 2013).

H9 - Future financial goals positively and significantly influence financial literacy.

Table 07 reports that future financial goals do not have a significant impact on professionals' financial literacy. Hence, the alternative hypothesis is rejected. The results do not support the existing literature depicting that financial literacy is increased with more financial goals (Bhargava & Mittal, 2017; Banks & Old Field, 2007).

5. Discussion

Research Findings and the Discussion of Objective One: Is financial literacy among professionals at a satisfactory level?

It is the common notion that educated people in a country are financially literate. The study also revealed that the financial literacy level of professionals is at a medium level (65 %), except for professionals in non-management fields (reached less than 60 %). Financial competence is at a low level, especially in the fields of medicine and law. This results from a deficiency in economic and financial education. The studies conducted worldwide still state that many

individuals including professionals still lack financial knowledge (Lusardi, 2019; Acharya & Mittal, 2019; Compen et al., 2019), lack awareness of new financial products (Yadav & Seth, 2022), and are reluctant to accept financial advice (Anderson et al., 2017), leading them to make misleading decisions on investment.

Research Findings and the discussion on Objective two: Determinants of financial literacy

The results generated in the linear regression model emphasize that the field of employment, monthly income, and the age of the respondents as demographic variables have a significant influence on financial literacy. Generally, male financial literacy is higher than females (Arthasad & Rajapakse, 2018; Rooji et al., 2011). However, in the study, gender didn't show a significant influence. Being a person with a high income and in middle age leads to more financial sophistication (Hogarth, 2002; Agarwal et al., 2009; Karunathilaka, 2016; Janor et al., 2016; Sarpong, 2021; Ansari et al., 2023). Apart from demographic variables, economic and financial education, and self-analytical skills were found to be significant determinants of financial literacy, supporting the existing literature. There is a sizable and growing literature that establishes a correlation between economic and financial education with financial literacy (Altman, 2012; Sucuahi, 2013; Rooji et al., 2011; Mouna & Anis, 2016;). Further individuals with greater ability in numerical analytical calculations also tend to have a higher level of financial literacy (Bhargava & Mittal, 2017; Banks & Old Field, 2007; De Bassa Scheresberg, 2013).

6. Conclusion and Recommendation

The analysis concludes that the financial literacy of professionals is at a moderate phase. However, when further categorized by profession, doctors, and lawyers demonstrated a low level of financial literacy. In addition to demographic variables, Economic and financial education as well as self-analytical skills do have a significant impact. In Sri Lanka, the school curriculum prioritizes numerical education for students from primary schooling onwards. Somehow economic and financial education is touched by the limited number of students studying commerce subjects and by management undergraduates. Therefore, low financial literacy in non-management fields is possible. It is therefore recommended to improve school curricula including economic and financial education with a view of personal financial management. A

significant number of credits for economic and financial education can be allocated to medical and law undergraduates because the highest coefficient of reducing financial literacy is shown in these two fields. Currently, the Organization for Economic Corporation and Development (OECD) and even our neighbouring country India have implemented national strategies to improve financial education as financially educated citizens can create positive effects on the overall economy (OECD, 2015). Hence the Central Bank of Sri Lanka (CBSL), Securities and Exchange Commission (SEC), professional accountancy bodies, and even public/private financial institutions of Sri Lanka have a great responsibility for implementing a strategy to promote financial literacy and enhance financial sophistication.

References

Acharya, A., & Mittal, R. K. (2019). A Case Study about Financial Literacy among Women Professionals in Jaipur District. *Think India Journal*, *22*(10), 6045-6050

Agarwal, S., Driscoll, J.C., Gabaix, X., & Laibson, D.I. (2009) The Age of Reason: Financial Decisions over the Lifecycle with Implications for Regulation: http://dx.doi.org/10.2139/ssrn.973790

Albeerdy, M., & Gharleghi, B. (2015). Determinants of the Financial Literacy among College Students in Malaysia. *International Journal of Business Administration*, *6*(3). https://doi.org/10.5430/ijba.v6n3p15.

Alessie, R., Van Rooij, M. & Lusardi, A. (2011). Financial literacy and retirement preparation in the Netherlands. *Journal of Pension Economics and Finance, 10*(04), 527-545. https://doi.org/10.1017/S1474747211000461

Altman, M. (2012). Implications of behavioural economics for financial literacy and public policy, *The Journal of Socio-Economics*, 41, 670-690. https://doi.org/10.1016/j.socec.2012.06.002

Anderson, A., Baker, F., & Robinson, D. T. (2017). Precautionary savings, retirement planning and misperceptions of Financial Literacy. *Journal of Financial Economics*, *126*(2), 383–398. https://doi.org/10.1016/j.jfineco.2017.07.008

Ansari, Y., Mansour, S.A., Noorjahan. S., & Arfia, A. (2023). Examining the relationship between financial literacy and demographic factors and the overconfidence of Saudi investors. *Finance Research Letters*, 52. https://doi.org/10.1016/j.frl.2022.103582

Arthasad, L., & Rajapakse, R. (2018). Measuring Financial Literacy of University Academics. *Journal for Studies in Management and Planning*, *04*(06), 251-272.

Atkinson, a., & Messy, F. (2011). Assessing financial literacy in 12 countries: an OECD/INFE international pilot exercise. *Journal Of Pension Economics and Finance*, *10*(4), 657-665. https://doi.org/10.1017/S1474747211000539

Baker, K. H. (2010). Behavioural Finance: Investors, Corporations, and Markets. New Jersey: John Wiley & Sons. http://dx.doi.org/10.1002/9781118258415

Banks, J., & Oldfield, Z. (2007). Understanding Pensions: Cognitive Function, Numerical Ability and Retirement Saving. *Fiscal Studies*, *28*(2), 143-170. https://doi.org/10.1111/j.14755890.2007.00052.x

Beal, D., & Delpachitra, S. (2003). Financial Literacy among Australian University Students. Economic Papers 22 (January): 65-78.

Bhargava, R., & Mittal, S. (2017). A Study of Determinants Influencing Financial Literacy of Individual Investor in India. *International Journal Of Research And Innovation In Social Science (IJRISS)*, *I*(III), 22-27.

Bhushan, P., & Medury, Y. (2013). Financial Literacy and its Determinants. *International Journal of Engineering, Business and Enterprise Applications (IJEBEA)*, 4(2), 155-160. https://www.researchgate.net/publication/264355562_Financial_literacy_and_its_determinants.

Calvet, L., Campbell, J. & Sodini, P. (2009). Measuring the Financial Sophistication of Households. *American Economic Review*, 99(2), 393-398. https://doi.org/10.1257/aer.99.2.393

Compen, B., De Witte, K., & Schelfhout, W. (2019). The role of Teacher Professional Development in Financial Literacy Education: A systematic literature review. *Educational Research Review*, *26*, 16–31. https://doi.org/10.1016/j.edurev.2018.12.001

De Bassa Scheresberg, C. (2013). *Financial Literacy and Financial Behavior among Young Adults: Evidence and Implications*. 6(2), 1-21. http://dx.doi.org/10.5038/1936-4660.6.2.5

Edirisinghe, C., Keerthipala, Y.M.S. & Amarasinghe, A.R. (2017). Financial literacy and financial behavior of management undergraduates of Sri Lanka. *International Journal Of Management And Applied Science*, 3(7). https://www.researchgate.net/publication/320224862

Fama, E. (1991). Efficient Capital Markets: II. *The Journal Of Finance*, *46*(5), 1575-1617. https://doi.org/10.1111/j.1540-6261.1991.tb04636.x

Friedman, M. (1957). The permanent income hypothesis. In *A theory of the consumption function* (pp. 20-37). Princeton University Press.

Friedman, M. (1966). *Essays in positive economics* (pp. 3-43). Chicago, Ill: The University of Chicago Press.

Gačić, J., Milojević, S., Knežević, S., & Adamović, M. (2023). Financial literacy of managers in Serbian health care organizations as a path to sustainability. *Sustainability*, *15*(7), 6113. https://doi.org/10.3390/su15076113

Ghoshray, A., Monfort, M., & Ordóñez, J. (2020). Re-examining inequality persistence. *Economics*, *14*(1). https://doi.org/10.5018/economics-ejournal.ja.2020-1

Gujarati, D., & Porter, D. (2013). *Basic Econometrics* (5th ed.). (New Delhi, India): Tata McGraw-Hill Education Pvt. Ltd, 2013.

Hogarth, J. M. (2002). Financial literacy and family and consumer sciences. Journal of Family and Consumer Sciences. 94, 15-28.

Hung, A., Parker, A., & Yoong, J. (2009). Defining and Measuring Financial Literacy. *SSRN Electronic Journal*. http://dx.doi.org/10.2139/ssrn.1498674

Huston, S. (2010). Measuring Financial Literacy. *THE JOURNAL OF CONSUMER AFFAIRS*. 44(2), 296-316. http://dx.doi.org/10.2139/ssrn.1945216

Janor, H., Yakob, R., Hashim, N., Zanariah, & Wel, C. (2016). Financial literacy and investment decisions in Malaysia and United Kingdom: A comparative analysis. *Malaysian Journal Of Society And Space, 12*(02), 106 -118. ISSN 2180-2491.

Jayasuriya, S. (2019, February 16). *Financial illiteracy is common among professionals, says expert*. Sunday Observer. https://archives1.sundayobserver.lk/2019/02/17/business/financial-illiteracy-common-among-professionals-says-expert

Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *JSTOR, 47*(2), 263-290. http://www.jstor.org/stable/1914185

Karunathilaka, K.T.S. (2016). A Study on Financial Literacy of Rural Community in Sri Lanka: With Special Reference to Kurunegala District. In *17th Conference on Postgraduate Research, International Postgraduate Research Conference 2016, Faculty of Graduate Studies, University of Kelaniya, Sri Lanka.*

Kumari, R. S., Dissanayake, D. H., & Deshika, N. P. (2021). The impact of Financial Literacy on business performance in small and Medium Enterprises: Evidence from Kegalle District in Sri Lanka. *International Journal of Accounting and Business Finance*, *7*(2), 67. https://doi.org/10.4038/ijabf.v7i2.95

Lone, U. M., & Bhat, S. A. (2022). Impact of financial literacy on financial well-being: A mediational role of financial self-efficacy. *Journal of Financial Services Marketing*. https://doi.org/10.1057/s41264-022-00183-8

Lusardi, A. & Mitchell, O. (2005). Financial Literacy and planning: Implications for Retirement wellbeing, *Pension Research Council Working Paper* 1, The Wharton School.

Lusardi, A. (2007). Household Saving Behavior: The Role of Financial Literacy, Information, and Financial Education Programs. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1094102

Lusardi, A. (2019). Financial Literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics*, *155*(1). https://doi.org/10.1186/s41937-019-0027-5

Lusardi, A. A., & Peter T. (2009). Debt Literacy, Financial Experiences, and Over-indebtedness. NBER Working Paper, No. 14808.

Lusardi, A., & Mitchell, O. (2008). Planning and Financial Literacy: How Do Women Fare? *American Economic Review*, *98*(2), 413-417. https://doi.org/10.1257/aer.98.2.413

Markovitz, H. M. (1952). Portfolio Selection, *The Journal of Finance*, 1(7): 77-99.

Markovitz, H. M. (1959). Portfolio Selection, Efficient Diversification of Investment, John Wiley & Sons, New York.

Modigliani, F., & Brumberg, R. (1954). Utility analysis and the consumption function: An interpretation of cross-section data. *Franco Modigliani*, *1*(1), 388-436.

Moolman, J. (2020). Proposing a network of advisors that could guide a professional athlete's financial decisions in pursuit of sustainable financial well-being. *Managing Sport and Leisure*, *27*(6), 577–592. https://doi.org/10.1080/23750472.2020.1842791

Mouna, A., & Anis, J. (2016). Financial literacy in Tunisia: Its determinants and its implications on investment behavior. https://doi.org/10.1016/j.ribaf.2016.09.018

OECD INFE Publishing (2011). Measuring Financial Literacy: Questionnaire and Guidance Notes for conducting an internationally comparable survey on Financial Literacy. Paris.

OECD INFE Publishing (2015). National Strategies for Financial Education.

Panos, G. A., & Wilson, J. O. (2020). Financial Literacy and Responsible Finance in the Fintech era: Capabilities and challenges. *The European Journal of Finance*, *26*(4–5), 297–301. https://doi.org/10.1080/1351847x.2020.1717569

Pașa, A. T., Picatoste, X., & Gherghina, E. M. (2022). Financial Literacy and economic growth: How Eastern Europe is doing? *Economics*, *16*(1), 27–42. https://doi.org/10.1515/econ-2022-0019

Priyadarshani, S., & Kumari, J. (2021). Determinants of Personal Financial Literacy in Sri Lanka: With Special Reference to University Students. *Asian Journal Of Economics, Business And Accounting*, 21(II), 1-12. https://doi.org/10.9734/ajeba/2021/v21i1130437

Release of "financial literacy survey Sri lanka – 2021" publication: Central Bank of Sri Lanka. Release of "Financial Literacy Survey Sri Lanka – 2021" Publication | Central Bank of Sri Lanka. https://www.cbsl.gov.lk/en/news/release-of-financial-literacy-survey-sri-lanka-2021-publication

Ritter, J.R. (2003). Behavioral Finance. *Pacific-Basin Finance Journal*, *11*(4), 429-437.

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

Ryu, S., & Fan, L. (2022). The relationship between financial worries and psychological distress among U.S. adults. *Journal of Family and Economic Issues*, *44*(1), 16–33. https://doi.org/10.1007/s10834-022-09820-9

Sarpong-Kumankoma, E. (2021), "Financial literacy and retirement planning in Ghana", *Review of Behavioral Finance*, Vol. 15 No. 1, pp. 103-118. https://doi.org/10.1108/RBF-05-2020-0110

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students*. Pearson.

Shaik, M. B., Kethan, M., T. Jaggaiah, & Mohammed Khizerulla. (2022). Financial Literacy and Investment Behaviour of IT Professional in India. *East Asian Journal of Multidisciplinary Research*, *1*(5), 777–788. https://doi.org/10.55927/eajmr.v1i5.514

Skagerlund, K., Lind, T., Strömbäck, C., Tinghög, G., & Västfjäll, D. (2018). Financial literacy and the role of numeracy–How individuals' attitude and affinity with numbers influence financial literacy. *Journal Of Behavioral and Experimental Economics*, *74*, 18-25. https://doi.org/10.1016/j.socec.2018.03.004

Sri Lanka Labour Force Survey, Annual Bulletin, 2020. http://www.statistics.gov.lk/LabourForce/StaticalInformation/AnnualReports/2020

Sucuahi, W. (2013). Determinants of financial literacy of micro entrepreneurs in Davao city. *International Journal of Accounting Research*, 01(I), 44-51. https://doi.org/10.12816/0001127

Tennekoon, S. T., & Liyanage, C. (2021). Impact of financial literacy levels among Sri Lankan investors on investment choices. *South Asian Journal of Finance*, *1*(2), 123–147. https://doi.org/10.4038/sajf.v1i2.35

Thaler, R. (1985). Mental Accounting and Consumer Choice. *Marketing Science*, *4*(3), 199-214. https://doi.org/10.1287/mksc.4.3.199

Tyrer, S., & Heyman, B. (2016). Sampling in epidemiological research: issues, hazards and pitfalls. *Bjpsych Bulletin*, *40*(2), 57-60. https://doi.org/10.1192/pb.bp.114.050203

Von Neumann, J. and Morgenstern, O. (1953). Theory of Games and Economic Behavior. 3rd Edition, Princeton University Press, Princeton.

Weerasena, S.R.S.D.K., & Morage, N.S. (2019). The Degree of Financial Literacy as a Deterministic Factor in Investment Decisions: Evidence from Colombo Stock Exchange

(CSE) of Sri Lanka. *Sri Lanka Journal of Economic Research*, 7(1), 15–44. http://doi.org/10.4038/sljer.v7i1.39

Weerasinghe, G., & Jayasinghe, N. M. A. (2022). Study on the Impact of Financial Literacy of the Rural Population on Microfinance: In Association with the Middeniya East Grama Niladhari Division, Sri Lanka. *The International Journal of Humanities & Social Studies*, *10*(7). https://doi.org/10.24940/theijhss/2022/v10/i7/HS2207-009

Yadav, P., & Seth. A. (2022). Financial literacy among different Economic classes in India. *Amity Management Analyst,* IX (I), 25-30.