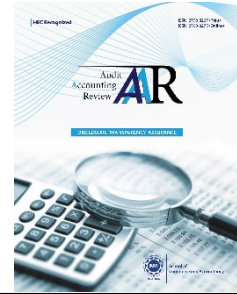
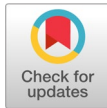


# Audit and Accounting Review (AAR)

Volume 6 Issue 1, Spring 2026

ISSN(P): 2790-8267 ISSN(E): 2790-8275

Homepage: <https://journals.umt.edu.pk/index.php/aar>



**Title:** Impact of Financial Literacy on Food Security: A Mediating Role of Financial Management

**Author (s):** Mayuri P. Madhusanka, Shirantha Heenkenda, and Damayanthi Bamunisinghe


**Affiliation (s):** University of Sri Jayewardenepura, Colombo, Sri Lanka

**DOI:** <https://doi.org/10.32350/aar.61.03>

**History:** Received: January 18, 2026, Revised: March 19, 2026, Accepted: April 14, 2026, Published: June 24, 2026

**Citation:** Madhusanka, M. P., Heenkenda, S., & Bamunisinghe, D. (2026). Impact of financial literacy on food security: A mediating role of financial management. *Audit and Accounting Review*, 6(1), 60–85.  
<https://doi.org/10.32350/aar.61.03>

**Copyright:** © The Authors

**Licensing:**  This article is open access and is distributed under the terms of [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

**Conflict of Interest:** Author(s) declared no conflict of interest



A publication of  
The School of Commerce and Accountancy  
University of Management and Technology, Lahore, Pakistan

# Impact of Financial Literacy on Food Security: A Mediating Role of Financial Management

Mayuri P. Madhusanka<sup>ID</sup>, Shirantha Heenkenda<sup>ID</sup>, and Damayanthi Bamunisinghe\*<sup>ID</sup>

University of Sri Jayewardenepura, Sri Lanka

## Abstract

Food Security (FS) remains a critical challenge for many households in the developing economies, especially households facing increasing economic pressures and volatilities in price levels of goods and services. Financial Literacy (FL) has been recognized as a key determinant of household welfare which can influence the FS. This study aimed to examine the influence of FL on FS through the direct effect. The mediation analysis was used to identify whether Financial Management (FM) acts as a mechanism that coordinates the relationship between FL and FS. Using multi-stage cluster sampling method, primary data was collected from households through a structured survey in the Western Province of Sri Lanka. The data was analysed through Structural Equation Modelling (SEM). The findings revealed that FL has a significant positive influence on FM. This describes that individuals with higher Financial Knowledge (FK), Financial Attitude (FA), and financial behaviour are more capable of making sound financial decisions and managing their financial resources effectively. FM, in turn, maintains a significantly positive relationship with FS. Moreover, FL exerts a statistically significant direct effect on the FS. Mediation analysis confirmed that FM partially mediates the relationship between FL and FS. This represents that FL enhances the FS directly and conversely, relationship between FL and FS improved via FM practices. The findings emphasized the importance of integrating FL education with practical exposure towards FM skills, behaviours, and interventions to strengthen the household FS.

**Keywords:** financial literacy, financial management, food security, household welfare

**JEL Codes:** G5, G500, G530, G59

---

\*Corresponding Author: [mayuri.pradeepika@gmail.com](mailto:mayuri.pradeepika@gmail.com)

## Introduction

Financial Literacy (FL) has evolved as a critical determinant of individual and household economic well-being in the present financial system. Since financial markets have become more complex, individuals are required to make sound financial decisions related to saving, borrowing, investment, and risk management (RM). Despite the expansion of financial services and increased access to financial instruments, a substantial proportion of individuals still lack the necessary knowledge and skills to utilize these services effectively. This gap has intense implications for financial decision-making pertaining to household stability and long-term welfare outcomes.

Empirical evidences highlight the importance of FL in shaping Financial Behavior (FB) and economic outcomes. Research by Lusardi and Mitchell ([2011](#)), and Hastings and Mitchell ([2011](#)), demonstrated that individuals with higher levels of Financial Knowledge (FK) in fields, such as numeracy, inflation, and risk diversification are more likely to plan their retirement and wealth accumulation. More recent studies, that is, Lusardi et al. ([2020](#)) and Organization for Economic Co-operation and Development (OECD, [2022](#)) further confirmed that, FL enhances financial resilience. Conversely, inadequate FK leads towards poor financial decisions and makes individuals vulnerable to financial shocks (Kaiser & Menkhoff, [2020](#)).

According to Klapper et al. ([2015](#)), 35% of Sri Lankans are financially literate. This shows a considerable gap in financial capability. World Bank ([2022](#)) and OECD ([2023](#)) evidences show that such deficiencies are common in developing countries.

FL is defined as the ability to understand and apply FK, skills, attitudes, and behaviors which are essential in making good financial decisions (OECD, [2020](#)). Most importantly, FL goes beyond the theoretical knowledge, and it includes the use of financial resources effectively. Individuals must continuously adapt to their financial strategies in order to maintain the economic stability in situations where economic fluctuations arise.

One of the important determinants which is linked with the financial capability is household Food Security (FS). FS refers to the consistent access to sufficient, safe, and nutritious food necessary to maintain a healthy life style. Gundersen et al. ([2011](#)) conducted an extensive literature review,

clarifying the associations between food insecurity and several health conditions. This included congenital defects, mental health illnesses, and cognitive deficits.

FL plays an important role in household FS through its influence on FB and resource allocation. Households with limited FK may struggle with the allocation of their earned income across time, leaving to irregular consumption patterns subject to food shortages. Even households with stable incomes may experience food insecurity due to poor financial management. Recent studies conducted by Collins and Urban (2020) emphasised that FL improves the ability of households regarding smooth consumption. Moreover, it also helps in the management of risks thereby, improving the overall welfare.

A closely connected concept of FL is Financial Management (FM). This refers to the application of knowledge into daily life financial decisions. FM encompasses the activities, such as saving, budgeting, borrowing, investment, retirement, and insurance management. Therefore, FM can be identified as a crucial mechanism which links FL to FS.

With the growing body of literature, a significant gap can be seen in realizing the integrated connection between FL, FM, and FS. Furthermore, the existing studies have indicated these variables and attempted to learn about the direct relationship between them. Additionally, sufficient studies have not been conducted regarding the mediating role of the FM. This gap is particularly evident in the Sri Lankan context, where household FS is influenced by the financial skills. Therefore, addressing this gap is important. From policy perspective, understanding the paths through FL to FS may lead towards designing the suitable interventions aimed at enhancing the FS.

The current study aimed to investigate the relationship between FL, FM, and FS and has important practical implications. Understanding FL in shaping FS may assist policy makers, educators, and financial institutions in designing financial educational programs. Promoting sound FM practices can ensure better access to essential needs, such as food. In this way, the study contributed to the improvement of economic resilience in Sri Lanka.

## Literature Review

### Financial Literacy

According to OECD (2011), FL can be defined as awareness, knowledge, skills, attitudes, and behaviors necessary to make well-informed choices regarding monetary matters. This is aimed at enhancing individuals' own and country's financial stability. According to Huston (2010), as with health and general literacy, FL also has two underlying dimensions. These include understanding personal finance-related information as well as its practical application. It tests how well someone is capable to understand and use information about their money. Five common modern definitions of FL include: (a) understanding monetary matters, (b) a skill that describes how monetary matters are handled along with effective communication, (c) the ability to manage personal finance-related matters in an efficient manner through budgeting or planning, (d) decision-making regarding what is suitable based on one's own long-term goals and perspective rather than being told by others for various reasons, and (e) the pursuit of continuing to check over their skills regardless.

Sherraden's Financial Capability Theory specifically offers an overarching framework to understand the attainment of financial well-being through a combination of individual and structural influences. According to the theory, FL alone does not automatically lead to sound FM or improved welfare. Individuals must also need appropriate opportunities, access and institutional support. People with good skills and opportunities are most likely to save money, make a budget, and use financial services more effectively. Furthermore, this also makes them better at handling their finances. Better knowledge of finances enables an individual to cope during a recession and maintain household welfare (Sherraden et al., 2018). The concept explains how valuable it is to educate people about finances and seek assistance from financial organizations at the same time.

### Financial Management (FM)

Wibawa (2003) noted that managing money well has several advantages. These include teaching individuals self-control as well as helping them formulate plans to ensure they and their family members have a solid financial future. It is important for people to manage their monetary matters effectively. This is because by doing so, they may be able to protect themselves and others from financial hazards, lower their own and others'

debts, as well as make sure that wealth is passed down to future generations.

According to some experts' definitions of FM behavior, an individual with sound FM practices is likely to make financial plans, stick to them, evaluate how well they worked based on the current situation, as well as take steps to fix any financial problems that may arise. Moreover, these individuals are recognized for their ongoing oversight of the advancements achieved in addressing financial issues (Asandimitra et al., [2019](#)). There are four main areas that can be used to group an individual's FM practices. These include consumption, cash-flow management, saving and investment, and credit management (Dew & Xiao, [2011](#)).

### **Food Security (FS)**

The conceptual framework of Alaimo ([2005](#)), for food insecurity, identified the fundamental causes or risk factors, the associated experiences of food insecurity, and the adaptive strategies along with potential results. The model highlighted poverty, financial hardships, unemployment, and insufficient culinary skills as major variables that increase the risk of food insecurity. Self-sufficient techniques, such as learning new skills and making the most of food resources, might make FS better. Institutional assistance, such as taking part in food aid programs, might also be helpful. FS means that there is always enough food available to keep people healthy and active. Food insecurity in households may emerge if their capacity to grab sufficient nutrition is hindered by a lack of financial and other essential resources at any time throughout the year (Coleman-Jensen et al., [2012](#)).

The inter-temporal consumption model posits that, in presence of adverse income shocks, the likelihood of increased food insecurity is dependent on the household's budget constraints. In other words, if the household doesn't have enough cash or has trouble getting loans, the risk of not having enough food is likely to go up.

## **Empirical Literature**

### **Financial Literacy (FL) and Food Security (FS)**

Many scholars have highlighted that FL is an economically-meaningful form of human capital. Lusardi and Mitchell ([2023](#)) argued that FL shapes lifetime financial choices. Furthermore, it is consistently connected with financial decision-making in many settings. Including Sri Lanka, FL is mostly conceptualized through three dimensions. These include FK,

Financial Attitude (FA) and FB, which collectively determine the financial decision-making capacities of individuals (Central Bank of Sri Lanka, [2021](#)).

Using cross-sectional data collected from 384 mothers, in Indonesia, Bangun et al. ([2025](#)) examined the effect of maternal FL on household FS. The results proved that mothers with good FL were significantly more likely to achieve FS. Furthermore, findings suggested that effective budgeting, expenditure planning, and FM skills enhance the household capacity to access good food.

Carman and Zamarro ([2016](#)) defined the relationship between FS and FL. Accordingly, the improvement in farmers' FL helped them secure food. Sangley et al. ([2021](#)) highlighted the importance of financial education, as it maximized the economic benefits, stabilizing FS. Inversley, low FL increased the economic risks.

Tiverra et al. ([2025](#)) revealed that low levels of FL indicate a weak FM capacity. As a result, the deficiencies in FM contribute to unstable income generations and food insecurity.

Empirical findings from developing economies indicated that, financially-literate individuals are significantly, more likely to achieve FS through their capacities to optimize consumption and savings (Bangun et al., [2025](#)).

Lusardi and Tufano ([2015](#)) identified that poor financial behaviours and practices lead towards financial crisis. This worsens the food insecurity and household consumption patterns. Additionally, improved FK and access to financial services enabled households to smooth consumption and manage risks while achieving FS (Baborska et al., [2018](#); Koomsoon et al., [2021](#)).

### **Financial Management (FM) and Food Security (FS)**

FS is basically defined as a condition in which all individuals have physical, social, and economic access to sufficient, safe, and nutritious food necessary for a healthy life (Food and Agriculture Organization of the United Nations, [2021](#)). Within this framework, FM has become a key determinant of household FS.

The studies of Tuholske et al. ([2020](#)) and Annim and Frempong ([2018](#)) found that FS can be defined as a state in which all people have physical, social, and economic access to sufficient, safe, and nutritious food.

According to research, factors that contribute to food insecurity, especially in developing nations, were found to be poor FM and well-being of households (FAO, [2021](#); Gaines et al., [2014](#); Twumasi et al., [2023](#)).

In agricultural and informal sectors, where income is irregular, the absence of good financial practices may bring constraints in households to maintain constant access to food (Tiverra et al., [2025](#)). This proves that FM acts as a mechanism through which households convert financial resources into welfare outcomes, including FS.

Gundersen and Garasky ([2012](#)) revealed in their research that there is a statistically significant connection between certain FM techniques and FS. Moreover, a statistically significant association was also found between the level of assurance the respondents has in their capacities to manage money and their FS.

### **Financial Literacy (FL) and Financial Management (FM)**

The relationship between FL and FM is well-established in the literature. FL serves as a foundation for financial behaviour and decision-making. Individuals with higher FL are more likely to engage in good financial practices, such as budgeting, saving, and retirement planning (Mahdzan & Tabiani, [2013](#)).

Empirical evidences further suggest that, different dimensions in FL, collectively influence the FM. FK enhances individuals' understanding about numeracy, inflation, and interest rates. Moreover, FAs shape their willingness to engage in responsible financial behaviours. Together, they contribute for sound financial practices (Adiputra & Patricia, [2020](#)).

Additionally, social and institutional factors play a crucial role in strengthening the connection between FL and FM. Individuals who are exposed to financial education programs tend to demonstrate more disciplined financial behaviours and improved decision-making outcomes (Susanti & Kemala, [2023](#)). This indicates that FL not only directly affects FM but also interacts with external factors to improve the individuals' financial capabilities.

### **Research Hypothesis**

H<sub>1</sub>: Financial Literacy has a significant positive impact on Financial Management.

H<sub>1a</sub>: Financial Knowledge has a significant positive impact on Financial Management.

H<sub>1b</sub>: Financial Attitude has a significant positive impact on Financial Management.

H<sub>1c</sub>: Financial Behaviour has a significant positive impact on Financial Management.

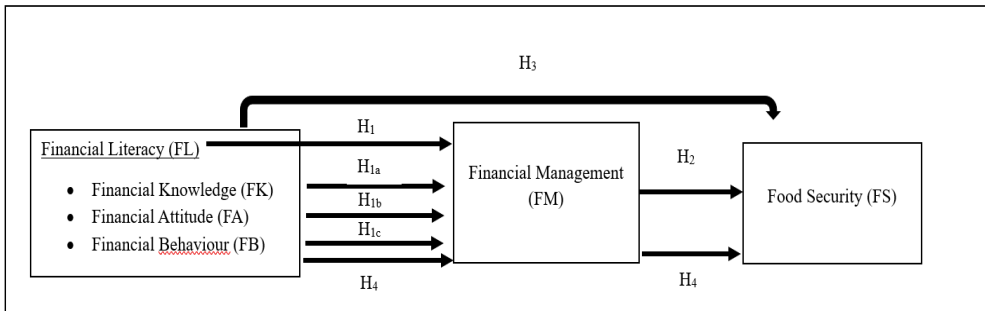
H<sub>2</sub>: Financial Management has a significant positive impact on Food Security.

H<sub>3</sub>: Financial Literacy has a significant positive impact on Food Security.

H<sub>4</sub>: Financial Management mediates the impact of Financial Literacy on Food Security.

**Figure 1**

*Conceptual Framework*



**Methodology**

The methods utilized to assess different constructs were derived from prior scholarly studies in the domains of FL, FM, and FS. FL consists of three parts: FK, FA, and FB. The field of FM comprises many parts, such as cash management (CM), credit management (CRM), investment management (IM), and risk management (RM) and tax management (TM) and retirement management/planning (RTM) (Kumar & Rani, 2025). FS is a single-dimensional idea, and its parts come from earlier research studies. The data regarding the respondents’ answers was collected using a five-point Likert scale, where 1 meant “completely disagree” and 5 meant “strongly agree”. Some of the scale items were changed a little bit to fit the requirements of

this study. The study's target population consisted of households located within the geographical confines of Sri Lanka. A multi-stage sampling methodology, linked to the cluster sampling framework, was employed in the data collection process due to the absence of disaggregated provincial or district level FL of Sri Lanka. Consequently, sample selection was guided by the population distribution and the urban concentration to ensure the representativeness and in relevance of the study objectives. In the first stage, Western Province was chosen as the primary site for data collection based on empirical data derived from population statistics. Data from 2012 showed that the Western Province had the most people living in cities, making up 38.8% of the total population. In the second stage, out of the three districts located within the Western Province, Colombo was selected for data collection due to its predicted status as having the highest population density and economic activity (Department of Census and Statistics, [2012](#)). In the third stage, Kaduwela Kesbewa divisional secretariats were selected as these determined the highest urbanizing areas with diversified household characteristics. At the last stage, samples of 400 households were randomly selected from divisional secretariat to ensure adequate representation and statistical reliability. Approximately, a sample of 385 respondents of primary data from the structured survey was suitable to conduct the data analysis. SEM – AMOS was used to analyze the collected information to understand the direct and indirect influences along with identifying the nature of the sample observed.

## Results and Discussion

**Table 1**

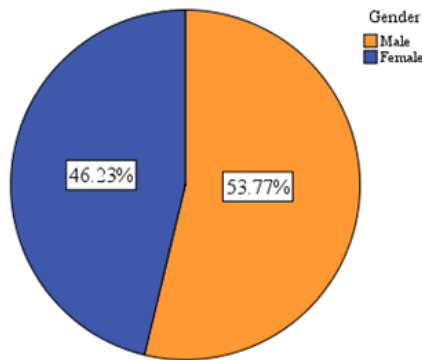
*Sample Characteristics*

	Mean	Median	Mode	Minimum	Maximum
Age	43	44	60	25	60
Monthly Income	112,650	111,958	199,160	30,404	199,160
Household Size	5	5	5	2	7

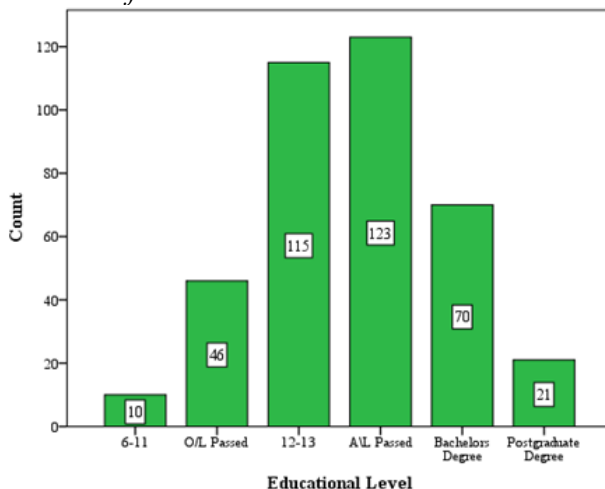
The average age of the respondents who answered was around 43 years, and the median age was 44 years. The mode of 60 years indicated that this age was the most common in the selected sample. The mean and median were near to each other, which suggested that the age distribution was rather

even. However, the high mode value showed that there were a lot of elderly respondents in the sample. The average monthly income of the families was Rs. 112,650, which is similar to the median income of Rs. 111,958. This means that the income distribution was rather even and not too skewed. However, the mode of Rs. 199,160, which was the highest income seen, showed that a lot of people may fall into this high-income group. This may mean that there were many higher-income people in the sample. Respondents stated that the average size of a home was around 5 people, with both the median and mode being 5. This means that households with five people were the most prevalent.

**Figure 1**  
*Gender Distribution*



**Figure 2**  
*Education Level of the Household Head*



The gender distribution in the household head revealed a small male majority, with a percentage of 53.77% male and 46.23% female responses. This means that the sample was well-balanced, although there were slightly more males leading the family.

The education distribution revealed that the majority of the household heads who answered had either finished A/L (123) or studied up to grades 12–13 (115). There were 70 people with bachelor's degrees but only 46 with O/L diplomas, 21 with postgraduate degrees, and 10 with grades 6–11. This means that most of the people in the sample were well-educated in the city.

**Table 3**

*Mean Comparison – Independent Samples t Test for Food Security*

	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>p</i>	Mean Difference
Equal variances assumed	2.548	.111	-2.173	383	.030	
Equal variances not assumed			-2.1563	59.687	.032	-.22771

An independent samples t-test was conducted to examine whether FS differed significantly between male and female household heads. Levene's test for equality of variance was considered to determine whether the assumption of equal variances between the two groups was satisfied before interpreting the results. The hypothesis is developed as follows:

$$H_0 = \sigma_1^2 - \sigma_2^2 = 0 \text{ (the population variances of groups 1 and 2 are equal)}$$

$$H_1 = \sigma_1^2 - \sigma_2^2 \neq 0 \text{ (the population variances of groups 1 and 2 are not equal)}$$

The result of the test depicts that  $F = 2.548, p < 0.111$ , the assumption of equal variance is satisfied.

Therefore, the row equal variances assumed were used to interpret the independent samples t-test. The following hypothesis was developed for independent samples t-test results;

$$H_0 : \mu \text{ females} - \mu \text{ males} = 0 \text{ ("the difference of the means is equal to zero")}$$

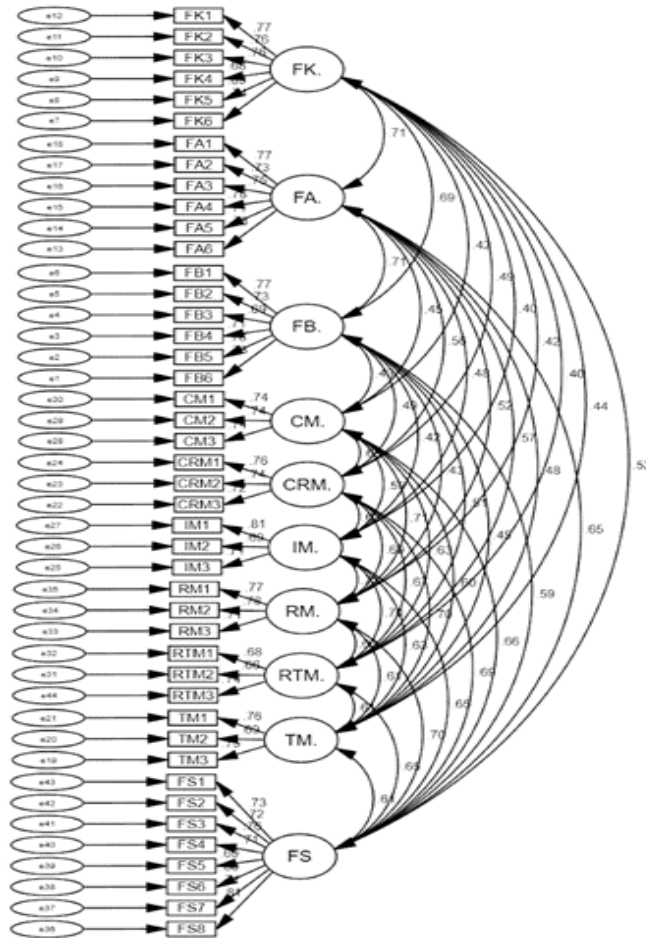
$$H_1 : \mu \text{ females} - \mu \text{ males} \neq 0 \text{ ("the difference of the means is not equal to zero")}$$

The research showed that the difference in average FS between male and female respondents was statistically significant ( $t = -2.173, df = 383, p < 0.030$ ). This shows that the average level of household FS differed

significantly between the two gender groups in the present sample.

**Figure 3**

*Measurement Model for Food Security (FS)*



The measurement model has ten latent constructs: FK, FA, FB, CM, CRM, IM, RM, RTM, TM, and FS. Each one is shown by more than one observed indicators. All items load significantly and strongly onto their respective latent variables, validating that the indicators accurately represent the underlying constructs.

**Table 3***Reliability and Validity Measures*

Latent Variable	Number of Items	Factor Loading (Min - Max)	$\alpha$	AVE	CR
FB	6	0.691 - 0.781	0.875	0.540	0.779
FK	6	0.683 - 0.769	0.875	0.648	0.778
FA	6	0.706 - 0.781	0.881	0.553	0.788
TM	3	0.686 - 0.759	0.775	0.536	0.608
CRM	3	0.718 - 0.759	0.783	0.548	0.645
IM	3	0.694 - 0.813	0.779	0.547	0.643
CM	3	0.738 - 0.745	0.784	0.549	0.634
RTM	3	0.664 - 0.742	0.738	0.534	0.608
RM	3	0.714 - 0.778	0.799	0.570	0.665
FS	8	0.695 - 0.813	0.908	0.577	0.832

**Note.** FB = Financial Behaviour, FK = Financial Knowledge, FA = Financial Attitude, TM = Tax Management, CRM = Credit Management, IM = Investment Management, CM = Cash Management, RTM = Retirement Management, RM = Risk Management, FS = Food Security.

The measurement model indicates that all 10 latent variables possess strong quantitative properties. The factor loadings are between 0.664 and 0.813, that is, higher than the minimum suggested level of 0.60. This indicates that all of the indicators are good representations of their constructs. The constructions with six elements (FB, FK, FA) have loading ranges that are larger than average. The constructs with three items (TM, CRM, IM, CM, RTM, RM) also have loading strengths that are adequate.

The Cronbach's alpha values for all constructions range from 0.738 to 0.908, which is higher than the standard cutoff value of 0.70. This means that the items in each construct are very consistent with each other and accurately represent the idea behind them. The maximum dependability is shown for FS ( $\alpha = 0.908$ ), which means that the results are quite consistent with each other.

The Average Variance Extracted (AVE) values, which vary from 0.534 to 0.648, are all over the 0.50 criterion, which shows that convergent validity is excellent. This means that the indicators elaborate more than half of the variation of each concept. Some constructs, such as FK (AVE = 0.648) and RM (AVE = 0.570), exhibit highly significant convergence.

The Composite Reliability (CR) scores range from 0.608 to 0.832. This is either equal to or greater than the acceptable level of 0.60. This shows that each construct is stable and rely on its own, in addition to Cronbach's alpha. The greatest CR (0.832) is shown for FS, which again shows that it is a good way to measure things.

**Table 4**

*Discriminant Validity*

	FB	FK	FA	TM	CRM	IM	CM	RTM	RM	FS
FB	0.74									
FK	0.47	0.81								
FA	0.51	0.50	0.74							
TM	0.21	0.20	0.23	0.73						
CRM	0.24	0.24	0.31	0.49	0.74					
IM	0.17	0.16	0.23	0.39	0.39	0.74				
CM	0.18	0.18	0.20	0.36	0.42	0.35	0.74			
RTM	0.26	0.16	0.33	0.37	0.45	0.49	0.40	0.73		
RM	0.19	0.18	0.27	0.38	0.48	0.50	0.51	0.44	0.76	
FS	0.35	0.27	0.43	0.38	0.48	0.43	0.44	0.42	0.49	0.76

Table 3 shows the Fornell–Larcker discriminant validity test for all of the model's latent constructs. The diagonal portions show the square roots of the AVE, while the off-diagonal elements show the squared correlations between constructs. To show that there is discriminant validity, the square root of the AVE for each latent variable must be bigger than the shared variance with all the other constructs.

The results show that the square root of the AVE for each construct—FB (0.735), FK (0.805), FA (0.744), TM (0.732), CRM (0.740), IM (0.739), CM (0.740), RTM (0.731), RM (0.755), and FS (0.759)—is higher than the inter-construct correlation values in their own rows and columns. This shows that each construct accounts for more variation in its own things than it does in items from other constructs, which meets the Fornell–Larcker standard.

The smaller shared variances across constructs, such as FB–TM (0.205), FK–IM (0.160), FA–RTM (0.327), and CM–TM (0.364) further show that discriminant validity is good. There are higher correlations between FS and a few FM-related categories (e.g., FS–RM = 0.487; FS–CRM = 0.480). However, they are still acceptable and do not go above the corresponding AVE square roots. This proves that conceptual relatedness does not violate

discriminant validity.

Overall, the results provide strong empirical evidence that the latent variables in the measurement model are statistically different from one another. This confirms that the model has good discriminant validity, and that the variables are appropriate for structural modeling.

**Table 5**  
*Model Fit of the Structural Model*

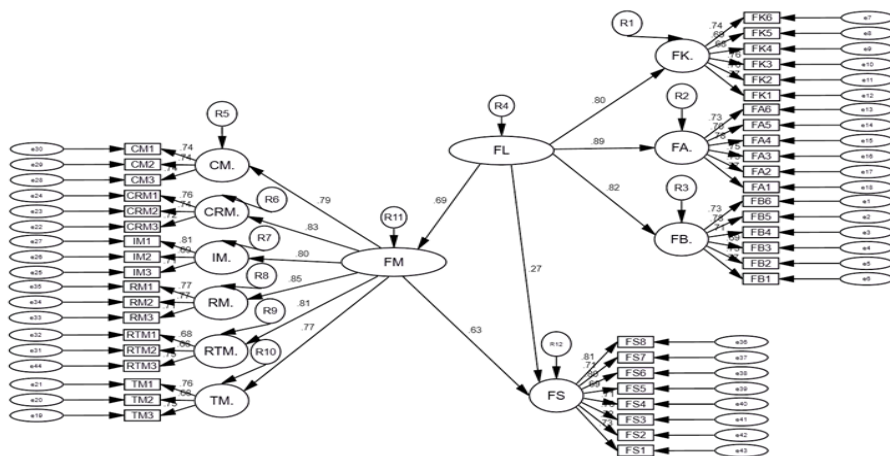
Indicator	Criteria	Result	Status
CMIN/DF	$\leq 3.00$	1.151	Good - Fit
RMSEA	$0.05 \leq X \leq 0.08$	0.020	Good - Fit
TLI	$0 \leq X \leq 1.00$	0.983	Good - Fit
NFI	$0 \leq X \leq 1.00$	0.895	Good - Fit
CFI	$0 \leq X \leq 1.00$	0.985	Good - Fit
IFI	$0 \leq X \leq 1.00$	0.985	Good - Fit

**Structural Equation Model (SEM)**

The recommended study method was tested by making a structural model in AMOS graphics, which was then used on the final dataset of 385. Two structural models were constructed to fulfill the study objectives that assessed the various hypotheses.

**Figure 4**

*Structural Model I*



**Table 6**  
*Results of SEM*

Hypothesis	Path	$\beta$	$p$	Decision
H <sub>1</sub>	FM<---FL	0.69	0.000	Supported
H <sub>2</sub>	FS<---FM	0.63	0.000	Supported
H <sub>3</sub>	FS<---FL	0.27	0.000	Supported

The structural model evaluated three hypotheses connecting FL, FM, and FS. All proposed routes were statistically significant at the 5% level, hence validating robust links among the constructs.

FL showed a significant and positive influence on FM ( $\beta = 0.69, P < 0.001$ ). If someone's FL goes up by one standard deviation, their FM habits (such as how they handle cash, credit, investments, retirement planning, and taxes) would improve by 0.69 standard deviations. This means that families who know more about money, have better attitudes about it, and behave in ways that are financially responsible along with managing their money. Prior studies consistently reported that people with higher FL maintain FM responsibly while managing, budgeting, saving, credits effectively (Department of Census and Statistics, [2021](#); Lusardi & Mitchell, [2023](#); Mahdzan & Tabiani, [2023](#); Susanti & Kemala, [2023](#)). The results further validate that FL is not just a cognitive construct but a functional capability that shapes the financial practices in real life.

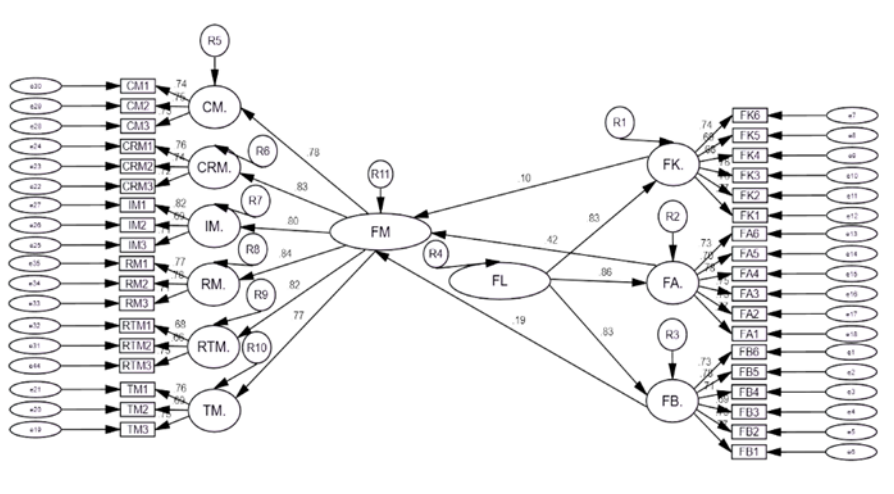
FM has a very significant positive impact on FS ( $\beta = 0.63, p < 0.001$ ). If FM practices go better by one standard deviation, FS goes up by 0.63 standard deviations. The results support that food insecurity is not solely a function of income constraints but it also reflects the inefficiencies in financial planning. Gundersen and Garasky ([2012](#)) also demonstrated same significant relationship representing that, households which maintain strong FM behaviours, are significantly more food secure. Likewise, FAO ([2021](#)) and Gaines et.al. ([2014](#)) identified that poor FM leads to higher food insecurity. Twumasi et al. ([2023](#)) emphasized that FM significantly improves the food and nutritional security by enhancing households to allocate resources efficiently and effectively. Therefore, present findings argue that families that are good at managing their money, bills, credit, risks, and long-term finances are far more likely to always have access to enough healthy food. Managing money in an effective way is an important way to retain the well-being of the home.

FL has a modest but important direct impact towards FS ( $\beta = 0.27, P < 0.001$ ). Although smaller in magnitude, it maintains a significant positive impact. An increase of one standard deviation in FL increases FS by 0.27 standard deviations. This implies that families may make better choices about budgeting, saving, and spending on food just by becoming literate. This finding matches with the evidence of Bangun et al. (2025) and Twumasi et al. (2023), who explained that higher FL results in achieving household FS.

Even though financially literate households know more about budgeting, saving, and spending wisely, the high cost of living in cities, especially for housing, transportation, education, and utilities, means that less of their income is available for food. This makes FL less important for FS. In addition, long working hours, little time to cook, and a high dependence on processed or takeout meals characterize urban lives. This frequently makes people choose convenience over cost-effectiveness and nutritional content. Urban families do not have as many chances to grow their own food or get food from other places as rural families do. Because of this, they rely heavily on the cost of commodities and the supply of items. In the end, learning about money helps individuals make better decisions. However, it does not help them acquire adequate food as much, since living in a city has its own challenges.

**Figure 5**

*Structural Equation Model (SEM) II*



**Table 7***Results of SEM*

Hypothesis	Path	Std Regression Estimates	p Value	Decision
H <sub>1a</sub>	FK--->FM	0.10	0.219	Not Supported
H <sub>1b</sub>	FA--->FM	0.42	0.000	Supported
H <sub>1c</sub>	FB--->FM	0.19	0.023	Supported

This approach examines how FM is based on three components of FL; FK, FA, and FB. The statistics reveal that there are several outcomes, some of which are backed up and others are not.

The relationship between FM and FK is statistically insignificant. The low coefficient ( $\beta = 0.10$ ,  $p > 0.05$ ) and the insignificant  $p$ -value indicate that performing FM duties does not inherently enhance people's comprehension of financial ideas, tools, or regulations. As highlighted by Lusardi and Mitchell (2023), FL requires both understanding and application. Therefore, present findings indicate that doing things repeatedly may not be sufficient to deepen the conceptual knowledge. This may be particularly suitable for developing countries, where households rely on informal practices, experiences, and external support systems.

In contrast, FM and FA maintain a statistically significant positive relationship ( $\beta = 0.42$ ,  $p < 0.05$ ). This implies that families that are actively involved in managing their money by making budgets, deciding how much to save, keeping an eye on their spending, and becoming ready for emergencies—are more likely to have favorable outcomes about monetary matters. Some of these attitudes include looking to the future, trusting your choices, spending wisely, and thinking about the long-term plans. People who manage their money effectively generally have a better view of money and are more motivated to do so. These findings support the results of Adiputra and Patricia (2020), which showed that favourable FA is associated with prudent FM practices.

Similarly, FB has a significant positive relationship with the FM. The study regression estimates ( $\beta = 0.19$ ,  $p < 0.05$ ) suggest that daily behaviors, such as planning, paying bills on time, saving money regularly, and managing credit wisely, result in better financial management. This suggests that FM may be affected by elements outside FB. Family income,

financial difficulties, impulsive buying habits, cultural factors, and economic limitations may all have an effect. These findings are consistent with the prior literature, which indicates that the FB is shaped by both internal and external factors (Susanti & Kemala, [2023](#)).

**Table 8**

*Mediation Analysis*

	Direct Path	Indirect Path	Partial Mediation
	FL--->FS	FL--->FM--->FS	
Std Beta	0.274	0.189	
<i>p</i> Value	0.001	0.001	
Decision	Significant/Supported	Significant/Supported	

The mediation study shows that FL has both direct and indirect effects on FS via FM, suggesting partial mediation and supporting the H<sub>4</sub>. There is also a significant direct relationship between FL and FS ( $\beta = 0.274$ ,  $p < 0.001$ ), which indicates that FL enhances FS for families independently. The significant indirect effect through FM ( $\beta = 0.189$ ,  $p < 0.001$ ) indicates that FL contributes to practices of FM, and therefore to FS provision. FM only partly accounts for the relationship because both channels are significant. This demonstrates that FL affects FS through several channels and not only through FM. This result connects with the conceptual argument of the Lusardi and Tufano ([2015](#)) and Baborska et al. ([2018](#)) who argued that the FL affects welfare outcomes through multiple pathways, and is not limited to FM and financial inclusion.

## Conclusion

The study examined the impact of FL on FS with FM acting as a mediator. The results demonstrated that FL significantly leads to better FM, and FM has a very strong effect on FS. This makes FM the most important factor that connects literacy to better FS. FL has a direct favorable influence on FS, although mediation research showed that FL only partly mediates FS. This means that FL makes FS better in two ways: firstly, by acquiring enough food directly from people, and secondly, by making it simpler to handling money wisely. However, certain connections, such as FK  $\rightarrow$  FM, were not shown to be important. This means that it is hard to turn financial operations into conceptual ideas.

## Future Recommendations

The above findings imply that certain programs should be introduced to teach individuals about the importance of money in a more structured way. Policymakers should educate people in their communities about money, support families that live in cities with high costs of living, and provide them with simple and straightforward financial tools that help them save money.

The urban households mentioned in the study context may limit the generalizability of the results for the agricultural population, where income distribution, coping mechanisms, and access to food differ substantially. Even though model was aimed at indicating the key factors, other related factors, such as financial inclusion and macroeconomic conditions were not explicitly included in the study. Future studies can employ longitudinal data or panel data to capture dynamic relationships between FL, FM, and FS over time. Additionally, future research may benefit from adopting mixed method approaches joining both quantitative and qualitative aspects to discover how households perceive and apply FL for decision-making related to food consumption in real life.

### Author Contribution

**Mayuri P. Madhusanka:** conceptualization, methodology, investigation, data curation, formal analysis, isualization, writing – original draft. **Shirantha Heenkenda:** supervision, validation, and writing – review & editing. **Damayanthi Bamunisinghe:** supervision, validation, and writing – review & editing.

### Conflict of Interest

The authors have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

### Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

### Funding Details

No funding was received for this research.

### Generative AI Disclosure Statement

The authors did not use any type of generative artificial intelligence software for this research.

## References

Adiputra, I. G., & Patricia, E. (2020). The effect of financial attitude, financial knowledge, and income on financial management behavior. In *Tarumanagara International Conference on the Applications of Social*

*Sciences and Humanities (TICASH 2019)* (pp. 107–112). Atlantis Press.  
<https://doi.org/10.2991/assehr.k.200515.019>

Alaimo, K. (2005). Food insecurity in the United States: An overview. *Topics in Clinical Nutrition*, 20(4), 281–298.

Annim, S. K., & Frempong, R. B. (2018). Effects of access to credit and income on dietary diversity in Ghana. *Food Security*, 10(6), 1649–1663.  
<https://doi.org/10.1007/s12571-018-0862-8>

Asandimitra, N., & Kautsar, A. (2019). The influence of financial information, financial self-efficacy, and emotional intelligence on financial management behavior of female lecturers. *Humanities & Social Sciences Reviews*, 7(6), 1112–1124.  
<https://doi.org/10.18510/hssr.2019.76160>

Baborska, R., Hernandez-Hernandez, E., Magrini, E., & Morales Opazo, C. (2018). The impact of financial inclusion on rural food security experience: A perspective from low- and middle-income countries. *Review of Development Finance*, 10(2), 1–18.

Bangun, S. M., Lipoeto, N. I., Masrul, M., Nazir, N., Rasyid, R., Hardisman, H., Firdawati, F., & Yonariza, Y. (2025). Maternal financial literacy as a determinant of household food security. *African Journal of Reproductive Health*, 29(10), 125–132.

Carman, K. G., & Zamarro, G. (2016). Does financial literacy contribute to food security? *International Journal of Food and Agricultural Economics*, 4(1), 1–29.

Central Bank of Sri Lanka. (2021). *Financial literacy survey Sri Lanka 2021*.  
<https://www.cbsl.gov.lk/en/publications/other-publications/financial-literacy-survey-sri-lanka-2021>

Coleman-Jensen, A., Nord, M., Andrews, M., & Carlson, S. (2012). *Household food security in the United States*. Economic Research Report No. 141. <https://www.ers.usda.gov/publications/pub-details?pubid=45021>

Collins, J. M., & Urban, C. (2020). Measuring financial capability: A review of the literature. *Journal of Economic Surveys*, 34(3), 644–671.  
<https://doi.org/10.1111/joes.12319>

Department of Census and Statistics. (2012). *Census of population and*

*housing 2012*. Ministry of Finance and Planning, Sri Lanka. [https://www.statistics.gov.lk/Resource/en/Population/CPH\\_2011/CPH\\_2012\\_5Per\\_Rpt.pdf](https://www.statistics.gov.lk/Resource/en/Population/CPH_2011/CPH_2012_5Per_Rpt.pdf)

Dew, J. P., & Xiao, J. J. (2011). The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning*, 22(1), 43–59. <https://doi.org/10.1891/1052-3073.22.1.43>

Food and Agriculture Organization of the United Nations. (2021). *The state of food security and nutrition in the world 2021*. <https://doi.org/10.4060/cb4474en>

Food and Agriculture Organization of the United Nations. (2022). *The state of food security and nutrition in the world 2022*. <https://doi.org/10.4060/cc0639en>

Frijns, B., Gilbert, A., & Tourani-Rad, A. (2014). Learning by doing: The role of financial experience in financial literacy. *Journal of Public Policy*, 34(1), 123–154. <https://doi.org/10.1017/S0143814X13000275>

Gaines, A., Robb, C. A., Knol, L. L., & Sickler, S. (2014). Examining the role of financial factors, resources and skills in predicting food security status among college students. *International Journal of Consumer Studies*, 38(4), 374–384. <https://doi.org/10.1111/ijcs.12110>

Gundersen, C. G., & Garasky, S. B. (2012). Financial management skills are associated with food insecurity in a sample of households with children in the United States. *The Journal of Nutrition*, 142(10), 1865–1870. <https://doi.org/10.3945/jn.112.162214>

Gundersen, C., Kreider, B., & Pepper, J. (2011). The economics of food insecurity in the United States. *Applied Economic Perspectives and Policy*, 33(3), 281–303. <https://doi.org/10.1093/aep/pper022>

Hastings, J., Mitchell, O. S., & Chyn, E. (2011). Fees, framing, and financial literacy in the choice of pension manager. In O. S. Mitchell & A. Lusardi (Ed.), *Financial literacy: Implications for retirement security and the financial marketplace* (p. 101–115). Oxford University Press.

Huston, S. J. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296–316. <https://doi.org/10.1111/j.1745-6606.2010.01170.x>

Kaiser, T., & Menkhoff, L. (2020). Financial education in schools: A meta-

- analysis of experimental studies. *Economics of Education Review*, 78, Article e101930. <https://doi.org/10.1016/j.econedurev.2019.101930>
- Klapper, L. F., Lusardi, A., & Van Oudheusden, P. (2015). *Financial literacy around the world: Insights from the Standard & Poor's ratings services global financial literacy survey*.
- Koomson, I., Villano, R. A., & Hadley, D. (2021). Accelerating the impact of financial literacy training programmes on household consumption by empowering women. *Applied Economics*, 53(29), 3359–3376. <https://doi.org/10.1080/00036846.2021.1963143>
- Kumar, J., & Rani, G. (2025). From past to future of financial management behaviour: A systematic literature review and future research issues. *FIIB Business Review*. Advance online publication. <https://doi.org/10.1177/23197145251315540>
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: An overview. *Journal of Pension Economics & Finance*, 10(4), 497–508. <http://doi.org/10.3386/w17107>
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- Lusardi, A., & Mitchell, O. S. (2020). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
- Lusardi, A., & Mitchell, O. S. (2023). The importance of financial literacy: Opening a new field. *Journal of Economic Perspectives*, 37(4), 137–154. <https://doi.org/10.1257/jep.37.4.137>
- Lusardi, A., Samek, A., Kapteyn, A., Glinert, L., Hung, A., & Heinberg, A. (2021). Visual tools and narratives: New ways to improve financial literacy. *Journal of Pension Economics & Finance*, 20(4), 497–514. <https://doi.org/10.1017/S1474747220000243>
- Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics & Finance*, 14(4), 332–368. <https://doi.org/10.1017/S1474747215000232>
- Mahdzan, N. S., & Tabiani, S. (2013). The impact of financial literacy on individual saving: An exploratory study in the Malaysian context.

*Transformations in Business and Economics*, 12(1), 41–55.

Millimet, D. L., McDonough, I. K., & Fomby, T. B. (2015). *Financial literacy and food security in extremely vulnerable households* (No. 9103). IZA Discussion Papers.

<https://www.econstor.eu/handle/10419/113978>

Monticone, C. (2010). How much does wealth matter in the acquisition of financial literacy? *Journal of Consumer Affairs*, 44(2), 403–422.

<https://doi.org/10.1111/j.1745-6606.2010.01175.x>

Organisation for Economic Co-operation and Development. (2011). *Financial literacy definition and INFE framework*.

<https://www.oecd.org/en/networks/infe.html>

Organisation for Economic Co-operation and Development. (2020). *OECD/INFE 2020 international survey of adult financial literacy*.

<https://www.oecd.org>

Organisation for Economic Co-operation and Development. (2022). *OECD/INFE toolkit for measuring financial literacy and financial inclusion*.

<https://www.oecd.org>

Organisation for Economic Co-operation and Development. (2023). *Financial literacy and financial inclusion: Results from OECD/INFE 2023 survey*.

<https://www.oecd.org>

Rodhiyah, R. (2012). Family financial management to achieve a prosperous family. In *Forum*, 40(1), 28–33.

Sanglay, P. M. D., Apat, E. J. C., Sumague, J. A., & Tec, E. T. (2021). Financial literacy and income distribution of rice farmers. *International Journal of Accounting, Finance and Entrepreneurship*, 1(1), 1–21.

<https://doi.org/10.53378/348732>

Seru, A., Shumway, T., & Stoffman, N. (2010). Learning by trading. *Review of Financial Studies*, 23(2), 705–739.

<https://doi.org/10.1093/rfs/hhp060>

Sherraden, M., Birkenmaier, J., & Collins, J. M. (2018). *Financial capability and asset building in vulnerable households: Theory and practice*. Oxford University Press

Susanti, I., & Kemala, R. (2023). The role of financial literacy in developing

financial management skills in early children. *Kompartemen: Kumpulan Orientasi Pasar Konsumen*, 1(2), 85–89. <https://doi.org/10.56457/kompartemen.v1i2.484>

- Tiverra, M. I. B., Cortezano, L. A. C., Martinez, J. Z., Ortiz, R. P., Trilles, K. S., & Onsay, E. A. (2025). Financial literacy, financial inclusion, and food security: A comparative analysis of green and blue economy in the poorest region of Luzon, Philippines. *Sustainability and Social Development*, 3(1), Article e3237. <https://doi.org/10.54517/ssd3237>
- Tuholske, C., Andam, K., Blekking, J., Evans, T., & Caylor, K. (2020). Comparing measures of urban food security in Accra, Ghana. *Food Security*, 12(2), 417–431. <https://doi.org/10.1007/s12571-020-01011-4>
- Twumasi, M. A., Essilfie, G., Ntiamoah, E. B., Xu, H., & Jiang, Y. (2023). Assessing financial literacy and food and nutritional security relationship in an African country. *Heliyon*, 9(9), Article e19573. <https://doi.org/10.1016/j.heliyon.2023.e19573>
- Vitt, L. A., Anderson, C., Kent, J., Lyter, D. M., Siegenthaler, J. K., & Ward, J. (2000). *Personal finance and the rush to competence: Financial literacy education in the US: A national field study commissioned and supported by the Fannie Mae Foundation*. Institute for Socio-Financial Studies.
- Wibawa, H. K. (2003). *Family financial planning*. Salemba Empat.
- World Bank. (2022). *Global Findex database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. World Bank Publications. <https://doi.org/10.1596/978-1-4648-1897-4>