



Correlate of Savings Attitude and Generational Poverty as Mediated by Financial Literacy: Evidence from Ghana

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Received: 10 August 2024

Accepted: 19 December 2024

DOI: <https://doi.org/10.32479/ijefi.17291>

ABSTRACT

This study examines the mediating role of financial literacy between savings attitudes and generational poverty in Ghana. Generational poverty is a significant issue in Ghana, with a multidimensional poverty rate of 45.6% and a consumer expenditure poverty rate of 23.4%. The problem persists due to low financial literacy and poor savings attitudes, which hinder economic growth and development. The research employed a quantitative methodology, utilizing a series of regression analyses to test the mediation effects of financial literacy. A correlational design was adopted to assess the relationships between the variables. The study's population included 400 individuals from the five regions in the northern part of Ghana, particularly focusing on rural areas with high poverty rates. A stratified random sampling technique was used to select participants, ensuring diverse representation. Results indicated that a positive savings attitude significantly reduces generational poverty, with financial literacy playing a substantial mediating role. The findings revealed that financial literacy accounted for 21.1% of the total effect, highlighting its importance in fostering effective saving behaviors. The study concludes that enhancing financial literacy is crucial for improving savings attitudes and reducing generational poverty. Practice recommendations include implementing comprehensive financial education programs, conducting community-based financial literacy workshops, and integrating financial literacy into school curricula. Policy recommendations advocate for a national financial literacy strategy, creating incentives for saving and supporting financial education initiatives. Theoretically, future research should incorporate financial literacy into economic models, conduct longitudinal studies to assess long-term impacts and explore cultural influences on saving behaviors.

Keywords: Financial Literacy, Savings Attitude, Generational Poverty, Mediation Study, Ghana

JEL Classifications: D14, I32, G53, O15

1. INTRODUCTION

The issue of generational poverty has become a fundamental topic for discussion worldwide. The United Nations Sustainable Development Summit officially accepted the 2030 Agenda for Sustainable Development, which includes “eradicating poverty in all its forms” as the first of several goals (Tollefson and Weiss, 2015; Krista Nadakavukaren, 2023). Poverty has long been a major societal concern globally, but the problem is extremely complicated. Scholars have steadily shifted from an emphasis on absolute poverty to relative poverty. Absolute material deprivation

occurs when a household's income is insufficient to support the necessities of life, whereas relative poverty describes individuals who earn less than most other groups in society, thus making it a complex and evolving issue (Wan et al., 2021).

The absolute poverty level established by nations and regions is closely tied to relative poverty, as international agencies seek paths to financial sustainability, as presented in the Sustainable Development Goals of the United Nations (Salvia et al., 2019). Generational poverty refers to families and individuals living below a country's minimum wage for at least two generations

(Upadhyaya et al., 2021). Increasing income through economic activities supported by loans, advances, or credit could alleviate many causes of generational poverty (Ayoo, 2022).

The comparison between Ghana's multidimensional poverty rate of 45.6% and the consumer expenditure poverty rate of 23.4% showed a gap of 22.2% points (Ghana Statistical Service, 2020; Wagner, 2019). Upon closer examination of both estimations, it was found that 19.3% of the population are experiencing both multidimensional poverty and poverty in terms of consumer expenditure. Additionally, 4.1% are only experiencing poverty in terms of consumption expenditure, while 26.3% are only experiencing multidimensional poverty. The data indicates that about 82.3% of those who are financially impoverished are also impoverished according to the Multidimensional Poverty Index (MPI). Conversely, the opposite is not accurate. 26.3% of the MPI poor are not considered poor in terms of monetary measures. The number of poor people in Ghana increased by around 400,000 between 2017/18 and 2019/20, highlighting that the reduction in generational poverty was slower than the population growth rate (Adjaye et al., 2021; Ghana Statistical Service, 2021).

Poverty is more pronounced in rural regions, where the proportion of impoverished individuals rose from 82.4% to 83.2% between 1991 and 2020. The average age of households in poverty is also higher, with poor households typically headed by males (72%) compared to non-poor households (66%) (World Bank Report, 2020). Regional disparities in poverty levels are evident. Between 2016 and 2021, the wealthier regions of Greater Accra, Ashanti, Central, and Eastern saw a decrease in generational poverty. The Eastern region experienced a reduction of almost 9%, followed by a 5% decrease in the Central region, and a 3% decrease in both Greater Accra and Ashanti regions. Conversely, the poorer regions, including Upper West, Upper East, Northern, and Volta, saw increases in generational poverty. The Northern and Upper East regions experienced increases of 11% and 10%, respectively, while the Volta region saw a 3.4% increase. The Upper West region remained particularly affected, with over 70% of its population living in generational poverty (World Bank, 2020; Ghana living standards Survey [GSS7], 2019).

The Northern Region alone accounts for more than a third of severe generational poverty in Ghana, significantly more than any other region. Together, the Northern, Upper East, and Upper West regions represented 67.2% of Ghana's population living in extreme generational poverty in 2019/20. These disparities underscore the need for targeted interventions to address the varying levels of poverty across different regions in Ghana (World Bank Report, 2020).

Understanding and improving savings attitudes are crucial for mitigating generational poverty in Ghana (Pienaaah and Luginaah, 2024). Encouraging financial literacy and fostering a culture of savings can help households build financial resilience, reducing their vulnerability to economic shocks and breaking the cycle of poverty. Addressing these issues at both regional and national levels is essential for achieving sustainable development and economic growth.

Despite extensive research on poverty and financial literacy, a significant gap exists in understanding the relationship between financial literacy, savings attitudes, and generational poverty, particularly in the Ghanaian context. Previous studies have highlighted the importance of financial literacy in breaking the cycle of poverty and the role of education in alleviating poverty (Arini, et al., 2020; Twumasi et al., 2022; and Twumasi et al., 2022). However, the specific interplay between financial literacy as a mediator, savings attitudes, and generational poverty has not been thoroughly examined. Additionally, while some research has been conducted on poverty in Ghana, there is a lack of comprehensive studies that integrate these variables and utilize a descriptive-quantitative correlational design. Addressing these gaps is crucial for developing effective strategies to reduce generational poverty in Ghana.

Savings are crucial for economic development and minimizing generational poverty (Boadu, 2022; Beaman et al., 2014). The savings attitudes of households, enterprises, and governments are intricately intertwined, playing vital roles at different levels. Households that do not save enough risk financial trouble, and the lack of emergency funds can increase anxiety and negatively impact health. From the literature, it can be deduced that the knowledge gap on generational poverty results from a lack of financial literacy (Pienaaah and Luginaah, 2024). Education is seen as a key approach to breaking the cycle of multigenerational poverty, as financial literacy and the right savings culture are essential for addressing generational poverty (Blunt, 2019). However, the combined effect of financial literacy, savings attitudes, and generational poverty has not been thoroughly examined, especially in Ghana.

There is also a geographical gap in the research, as the research is conducted in Ghana rural northern regions to examine the relationship between savings attitudes and generational poverty with financial literacy as a mediating factor. Additionally, there is a methodological gap, as few studies have employed mediation design to investigate these relationships. Addressing these gaps is essential for developing comprehensive strategies to reduce generational poverty in Ghana. The primary purpose of this study is to establish the mediating role of financial literacy on savings attitudes and generational poverty in Ghana. By investigating these relationships, the study aims to provide valuable insights and practical recommendations for policymakers and stakeholders in Ghana and similar contexts.

2. REVIEW OF RELATED LITERATURES

Savings attitudes significantly influence the effectiveness of savings initiatives. When formal saving opportunities are lacking, people often resort to suboptimal methods such as storing cash at home or investing in non-liquid assets like grain or livestock (Kolade et al., 2020). These methods come with risks such as theft, loss, and social pressures for financial assistance, reducing the incentive to save. Various initiatives have been implemented to address these challenges, providing free or low-cost access to formal bank accounts or using mobile banking technologies to overcome geographical limitations (Coffie et al., 2020). Programs may also offer simple saving tools like lockboxes or organize

savings groups to help poor households save more securely (Madin et al., 2023).

Educational and motivational factors are also crucial for alleviating demand restrictions that prevent individuals from saving. Financial literacy initiatives can help people overcome distrust of financial institutions and better understand how to create and manage bank accounts (Nicolini, 2019). Visual representations of savings goals, detailed saving plans, and reminders delivered through various media can increase the uptake of savings products and foster positive saving attitudes (Ansong, 2024).

A growing body of research examines how attitudes toward saving can help overcome behavioral limitations (Carpena, et al., 2019). Strategies like automated withdrawal rules, informal banking, or self-imposed regulatory frameworks like savings clubs can enforce compliance and promote saving by making infractions costly through feelings of guilt and social reputation (Brounen et al., 2016). The main objective of these strategies is to enhance self-control and limit immediate access to funds, reducing the temptation to make present-biased decisions and fostering a long-term savings attitude.

A person's attitude towards saving is influenced by various factors, including income level, education, financial institutions, work prospects, government policies, and the overall state of the economy. According to Ayoo (2022) promoting a positive attitude towards saving is essential for reducing generational poverty, as it encourages individuals to manage their resources effectively, invest in their future, and break the cycle of poverty.

According to Warmath and Zimmerman (2019) financial literacy is a multifaceted concept that encompasses a broad range of elements, from understanding fundamental financial ideas to possessing the ability and confidence to manage one's resources effectively, ultimately developing sound financial behaviors. Ouachani et al. (2020) highlight that financial literacy includes financial awareness, education, or knowledge, encompassing financial products, institutions, and concepts; financial skills, such as the ability to calculate interest payments; and financial capabilities, such as money management and financial planning. These components often overlap and are used simultaneously, making the definition of financial literacy complex.

Lusardi (2019) describes financial literacy as having a basic understanding of finance and the ability to perform simple computations. Shefrin (2021) build on this by defining financial literacy as the capacity to assess novel and complex financial products and make decisions that are in one's long-term interest. They emphasize that financial literacy involves the ability to apply knowledge of interest compounding to real-world scenarios and make straightforward debt decisions (Klapper and Lusardi, 2019). Therefore, financial literacy description includes the skills, motivation, and confidence to apply financial knowledge and understanding to make effective decisions, thereby improving individuals' financial well-being and participation in economic life.

The impact of financial literacy on saving behavior has been extensively studied. Narges and Laily (2011) conducted research in Malaysia with 2,246 employees from the public and private sectors. They found that financial literacy significantly impacts saving behavior, with individuals possessing lower financial literacy being less likely to save and more likely to face financial problems. Trinh and Nguyen (2023), and Kim et al. (2018) found a similar relationship between financial knowledge and saving behavior in American households. Their study indicated that households with better financial literacy scores exhibited higher savings index scores, suggesting that greater financial knowledge leads to better saving habits.

Further supporting this, Sabri and MacDonald (2010) demonstrated that financial knowledge positively affects college students' saving habits. Their study of 3,850 students across 11 Malaysian universities showed that those with a better understanding of personal finances were more likely to save money effectively. This suggests that financial literacy plays a critical role in shaping saving behaviors and improving financial stability.

Despite these findings, there are challenges in researching financial literacy due to the lack of a universally accepted definition. Klapper and Lusardi (2019) noted the variability in defining financial literacy, which can include terms like financial knowledge. Nonetheless, financial literacy is recognized as a vital factor influencing saving behavior and financial decision-making.

The historical context of financial literacy also plays a role in understanding its importance. Financial literacy as a concept has evolved significantly since its first use by John Adams in 1787 (Ghayad and Shayya, 2022). Over time, various studies, companies, and governments have utilized financial literacy to address different issues and scenarios (Goyal and Kumar, 2020). However, the lack of a standardized definition complicates efforts to measure and improve financial literacy consistently.

Several studies have explored the impact of financial literacy on saving behavior. Bigg (2023) noted Sweden's efforts to enhance investment and saving through financial education, adopting Keynesian economic principles. Murari (2019) emphasized the influence of financial ignorance on household decision-making, particularly in saving. They urged financial institutions to bridge the savings gap between financially literate and illiterate individuals.

The relationship between financial literacy and saving behavior is also influenced by demographic factors such as gender and education. Fadil El-Turkey (2021) observed that women often struggle to find well-paying jobs due to lower educational attainment, impacting their financial literacy and saving behavior. Morgan and Long (2020) found that individuals with higher levels of education were more likely to save money, highlighting the importance of financial education in developing a saving culture.

In developing countries, financial literacy remains a critical issue. Curtis et al. (2011) noted that China's rise in saving and investing is partly due to widespread financial education. Mitchell and Lusardi

(2023) pointed out that innovative financial products and services require individuals to take greater responsibility for managing their finances. However, many of these products are complex, making it difficult for consumers with low financial literacy to make informed decisions. Thus, financial literacy training aims to equip consumers with the knowledge needed to navigate these complexities.

Financial literacy's impact on financial behavior has been extensively studied in industrialized nations, but its effects in developing countries are less understood. Md Jamil et al. (2023) highlighted the limited research on financial literacy's influence on household saving practices in developing nations. The creation of Global Financial Inclusion databases and Financial Access Surveys has begun to address this gap, enabling a better understanding of financial decision-making in poorer countries.

According to Sangeeta et al. (2023), and Skagerlund et al. (2018) when measuring financial literacy, it is important to consider both inputs (knowledge, skills, and expertise) and outputs (developed attitudes and behaviors). Lusardi (2019) reviewed various measures of financial literacy and found that content often included saving accounts, investments, debt management, risk management techniques, and basic financial concepts. Understanding how financial education influences behavior is crucial for developing effective financial literacy programs.

Poverty, one of the most pervasive socioeconomic problems globally, affects both developed and developing countries (Buheji et al., 2020). In contrast, sub-Saharan Africa experiences a more severe situation, with the World Bank reporting an increasing number of poor individuals (Addison et al., 2019). Generational poverty, a pattern where poverty persists in families for at least two generations, impacts millions of families worldwide (MacDonald et al., 2019 and Duncan et al., 2017). This form of poverty is structural and long-lasting, differing from situational poverty, which is temporary and often crisis induced.

Barr and Gibbs (2022) assert that education is crucial in breaking the cycle of generational poverty. Hendricks (2023) described education as "the great equalizer," emphasizing its role in providing individuals with the necessary skills for a successful career. However, without access to quality educational resources, individuals cannot acquire the skills and knowledge needed for well-paying jobs. This is particularly evident in sub-Saharan Africa, home to 27 of the world's poorest nations where at least 30% of the population lives in poverty (Asongu and Le Roux, 2018).

Numerous theories attempt to explain the root causes of poverty. These include economic theories, sociological theories, psychological theories, anthropological theories, and political theories (Brady, 2019). Factors such as economic underdevelopment, lack of human capital, capitalism, dysfunctional markets, and individual behavioral characteristics all contribute to poverty. Sociological theories explore the role of social stratification, housing segregation, and social capital (Runciman, 2018). Psychological theories focus on individual traits and the impact of mental health issues on poverty (Palacios-Barrios and Hanson, 2019).

3. METHODOLOGY

This methodology outlines a robust approach to investigating the mediating role of financial literacy between savings attitude and generational poverty in Northern Regions of Ghana. The use of a stratified random sampling technique, structured questionnaire, and rigorous data analysis procedures ensures that the findings are reliable and can inform targeted interventions to alleviate generational poverty in the region.

3.1. Research Design

This study employs a quantitative research design, utilizing a survey method to gather data. The primary aim is to investigate the mediating role of financial literacy between savings attitude and generational poverty among residents of the Northern Regions of Ghana consisting of Northern, North-East, Savannah, Upper-East, and Upper-West regions. The research adopts a mediation analysis approach to explore the direct and indirect effects of savings attitude on generational poverty, with financial literacy as the mediator. The quantitative design is appropriate for testing the hypothesized relationships and for the statistical analysis required to measure the mediation effect.

The research question (1) and null hypothesis (2) are:

1. Is there significant mediation of financial literacy on the relationship of savings attitude and generational poverty?
2. There is no significant mediation of financial literacy on the relationship of savings attitude and generational poverty.

3.2. Population

The target population for this study comprises adults aged 18 years and above residing in the Northern Regions of Ghana. This demographic was chosen because the region is notably affected by poverty, and understanding the dynamics of savings attitudes and financial literacy in this context is critical for formulating effective poverty alleviation strategies. The population includes both males and females across various age groups, ensuring a comprehensive representation of the community's socioeconomic status as shown in Tables 1-3.

3.3. Sampling and Sampling Techniques

A stratified random sampling technique was used to select participants for the survey. This approach ensures that different subgroups within the population of age groups to gender (Rahman et al., 2022) as shown in Table 3 are adequately represented. The population was divided into strata based on age and gender, and

Table 1: Population and retrieved distribution of questionnaire

The northern regions in Ghana	Population	Sampled retrieved distributed questionnaire
Northern Region	2,310,943	159
North-East Region	658,903	45
Savannah Region	654,081	45
Upper-East Region	1,301,817	89
Upper-West Region	901,711	62
Total	5,827,455	400

Population data extract from Ghana Statistical Service Report, 2022

participants were randomly selected from each stratum to form a sample that is representative of the entire population. Participants were categorized into the following age groups: 18-25 years, 26-35 years, 36-45 years, 46-49 years, and 50-70 years. Gender was the other stratification criterion, ensuring that both male and female respondents are included in the sample.

The study aimed to collect data from 400 participants to achieve a balance between statistical power and practical feasibility. Miočević et al. (2017) promoted the use of large size samples from 400 and above to provide accurate results for mediation study to overcome the limitations of utilizing Sobel test (Sobel, 1982; Baron and Kenny, 1986). The sample of 400 is also large sample size that based on Central Limit Theorem allows for the use of parametric test statistical analysis to method enhances the reliability and generalizability of the findings (Fischer, 2010).

3.4. Data Collection

Data was collected using a structured questionnaire that was administered face-to-face by trained field researchers. The questionnaire included sections on demographic information, savings attitudes, financial literacy, and indicators of generational poverty. The items measuring savings attitudes, financial literacy, and generational poverty were self-constructed from the review related literature on a 7-point Likert-scale agreement and validated reliability and validity as shown in Table 4.

3.5. Data Analysis

Data analysis was performed using Jamovi software for statistical and mediation analysis, respectively. The following steps were involved in the analysis process:

Table 2: Frequencies of gender

Gender	Counts	Total of %	Cumulative %
Female	101	25.3	25.3
Male	299	74.8	100.0

Table 3: Frequencies of age

Age	Gender	Counts	Total of %	Cumulative %
18-25 years	Female	30	7.5	7.5
	Male	31	7.8	15.3
26-35 years	Female	9	2.3	17.5
	Male	56	14.0	31.5
36-45 years	Female	9	2.3	33.8
	Male	85	21.3	55.0
46-49 years	Female	39	9.8	64.8
	Male	75	18.8	83.5
50-70 years	Female	14	3.5	87.0
	Male	52	13.0	100.0

Table 4: Instrument validation with cronbach alpha

Variables	Number of items	Cronbach's α	Verbal interpretations
Savings attitude	10	0.715	Acceptable
Financial literacy	10	0.766	Acceptable
Generational poverty	10	0.824	Good

Verbal interpretation is based on George and Mallery (1999) rule of thumb for reliability tests

Descriptive statistics of the frequency distributions were computed to summarize the demographic characteristics of the sample and the main variables interest savings attitude, financial literacy, and generational poverty as shown in Tables 1-3. The reliability of the scales used in the questionnaire was assessed using Cronbach's alpha as shown Table 4.

A series of regressions were conducted to evaluate the mediation effects in line with the research question and hypothesis. These analyses focused on the indirect effects, the significance of the mediation (Sobel, 1982), and the mediation proportion, which estimates the extent to which the exposure effect on the outcome is explained by the mediating variable (Rijnhart et al., 2019). The mediation analysis followed Baron and Kenny's (1986) approach and involved the following steps as shown in Figure 1, where GP = Generational Poverty, FL = Financial Literacy, and SA = Saving Attitude:

- Step 1: Regress the direct effect of savings attitude on generational poverty. $GP = \beta + \beta_2 SA + \epsilon_1$, where β_2 is significant. Independent variable \rightarrow Dependent variable \rightarrow .
- Step 2: Regress the effect of savings attitude on financial literacy. $FL = \beta + \beta_3 SA + \epsilon_2$, where β_3 is significant. Independent variable \rightarrow Mediator variable
- Step 3: Regress the generational poverty on both financial literacy and savings attitude.

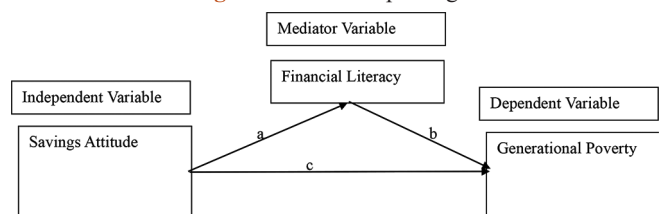
$GP = \beta + \beta_4 SA + \beta_5 FL + \epsilon_3$, where β_5 is significant, and β_4 should be smaller in absolute value than the original mediation effect (β_2 above in step 1).

The results were interpreted in terms of the direct, indirect, and total effects of savings attitude on generational poverty, with financial literacy as the mediator. The proportion of the total effect mediated by financial literacy was calculated to understand the extent of mediation. Understanding whether a mediator fully or partially explains the relationship between the independent variable and the dependent variable is crucial for interpreting the underlying mechanisms of the relationship. Full mediation indicates that the mediator is the sole pathway through which the independent variable affects the dependent variable, while partial mediation suggests that there are additional pathways.

3.6. Ethical Considerations

The study adhered to ethical guidelines for research involving human subjects as approved by Postgraduate studies Research Board at Pentecost University. Informed consent was obtained from all participants, ensuring that they were aware of the study's purpose, procedures, and their right to withdraw at any time. The confidentiality and anonymity of the participants were maintained throughout the research process.

Figure 1: Research paradigm



4. RESULTS AND DISCUSSION

The mediation analysis investigated the effect of financial literacy as a mediator between savings attitude and generational poverty. Following the steps the results are shown in Table 5 as follows:

The direct effect of savings attitude on generational poverty remains significant ($c = -0.2676, P < 0.001$), explaining 78.9% of the effect. The total effect ($c + a \times b$) is also significant ($Z = -3.72, P < 0.001$), indicating that both direct and indirect pathways contribute to the overall impact of savings attitude on generational poverty. The direct effect represents the impact of savings attitude on generational poverty, not mediated by financial literacy. In this analysis, the direct effect is estimated to be -0.2676 . This negative estimate indicates that a more positive savings attitude directly reduces generational poverty. The Z-value is -5.63 , and the $P < 0.001$, indicating that the direct effect is highly significant. This means that the observed effect is unlikely to be due to chance. The estimate of -0.2676 shows the magnitude of the direct effect. A one-unit increase in the positive savings attitude scale results in a 0.2676 unit decrease in generational poverty, holding financial literacy constant. The 95% confidence interval ranges from -0.3607 to -0.1745 . This interval does not include zero, further confirming the statistical significance of the direct effect. It indicates that we can be 95% confident that the true direct effect lies within this range. The direct effect accounts for 78.9% of the total effect of savings attitude on generational poverty. This means that most of the relationship between savings attitude and generational poverty is not mediated by financial literacy but is instead a direct link.

The direct effect suggests that savings attitudes significantly influence generational poverty independently of financial literacy. Even when accounting for the mediation by financial literacy, a substantial portion of the effect of savings attitude on generational poverty remains. This finding highlights that interventions aimed at changing savings attitudes could directly impact generational poverty reduction. While improving financial literacy is crucial, changing savings attitudes alone can have a significant effect. For example, programs that foster a more positive outlook and empower individuals with a sense of control and optimism might directly reduce generational poverty levels, regardless of financial literacy improvements. In summary, the direct effect results underscore the powerful role of savings attitude in combating generational poverty and suggests that both attitudinal and

educational interventions are necessary for a comprehensive approach to poverty reduction.

The path estimates show that savings attitude significantly predicts financial literacy ($a = 0.118, P = 0.003$), and financial literacy significantly predicts generational poverty ($b = 0.605, P < 0.001$). These results support the hypothesis that improving financial literacy can partially mediate the negative impact of savings attitude on generational poverty.

The mediation analysis reveals that financial literacy partially mediates the relationship between savings attitude and generational poverty. The indirect effect ($a \times b$) is significant ($Z = 2.88, P = 0.004$), accounting for 21.1% of the total effect. This suggests that a positive savings attitude influences financial literacy, which in turn reduces generational poverty. Therefore, the study rejects the null hypothesis that stated that there is no significant mediation of financial literacy on the relationship of savings attitude and generational poverty.

The indirect effect represents the portion of the relationship between savings attitude and generational poverty that is mediated through financial literacy. In this analysis, the indirect effect is estimated to be 0.0716 . The Z-value is 2.88 , and the $P = 0.004$, indicating that the indirect effect is statistically significant. This means that the effect of savings attitude on generational poverty through financial literacy is unlikely to be due to chance. The effect size estimate of 0.0716 indicates the magnitude of the indirect effect. A one-unit increase in positive savings attitude results in a 0.0716 unit decrease in generational poverty via improved financial literacy. The 95% confidence interval ranges from 0.0229 to 0.1203 . This interval does not include zero, further confirming the statistical significance of the indirect effect. It indicates that we can be 95% confident that the true indirect effect lies within this range. The indirect effect accounts for 21.1% of the total effect of savings attitude on generational poverty. This means that just over one-fifth of the relationship between savings attitude and generational poverty is mediated by financial literacy.

The path estimates provide additional insights into how savings attitude influences generational poverty through financial literacy: Path a (Savings attitude \rightarrow Financial Literacy) Estimate: 0.118 , SE: 0.0394 , 95% CI: $[0.0411, 0.196]$, Z-value: 3.00 , $P = 0.003$. This path estimate shows that a more positive savings attitude significantly increases financial literacy. Specifically, a one-unit

Table 5. Mediation and Path Estimates

Effect	Label	Estimate	SE	95% CI Lower	95% CI Upper	Z	p	% Mediation
Indirect	a×b	0.0716	0.0249	0.0229	0.1203	2.88	0.004	21.1
Direct	c	-0.2676	0.0475	-0.3607	-0.1745	-5.63	<.001	78.9
Total	c+a × b	-0.1959	0.0527	-0.2992	-0.0927	-3.72	<.001	100
Path Estimates:								
Path	Label	Estimate	SE	95% CI Lower	95% CI Upper	Z	p	
Savings attitude→Financial Literacy	a	0.118	0.0394	0.0411	0.196	3	0.003	
Financial Literacy→Generational Poverty	b	0.605	0.0596	0.4882	0.722	10.15	<.001	
Savings attitude→Generational Poverty	c	-0.268	0.0475	-0.3607	-0.174	-5.63	<.001	

increase in positive savings attitude leads to a 0.118 unit increase in financial literacy. The relationship is statistically significant, as indicated by the Z-value of 3.00 and a $P = 0.003$. The Path b (Financial Literacy \rightarrow Generational Poverty) Estimate: 0.605, SE: 0.0596, 95% CI: [0.4882, 0.722], Z-value: 10.15, $P < 0.001$. This path estimate shows that increased financial literacy significantly reduces generational poverty. Specifically, a one-unit increase in financial literacy results in a 0.605 unit decrease in generational poverty. The relationship is highly significant, with a Z-value of 10.15 and a $P < 0.001$.

The interpretation of indirect effect indicates that financial literacy acts as a significant mediator in the relationship between savings attitude and generational poverty. The positive savings attitude improves financial literacy, which in turn helps reduce generational poverty. This mediation explains 21.1% of the total effect, suggesting that financial literacy is an important pathway through which savings attitudes can influence generational poverty. This finding highlights the importance of enhancing financial literacy as a strategy for reducing generational poverty. Interventions aimed at improving savings attitudes can have a dual benefit: directly reducing generational poverty and indirectly reducing it by increasing financial literacy. For instance, educational programs that foster positive savings attitudes and simultaneously provide financial literacy training can be particularly effective. In summary, the indirect effect results underscore the role of financial literacy as a mediator and suggest that comprehensive approaches to poverty reduction should include both attitudinal and educational components. By addressing both direct and mediated pathways, such interventions can more effectively break the cycle of generational poverty.

The study's findings on the mediating role of financial literacy between savings attitude and generational poverty are robustly supported by the existing literature, underscoring the critical importance of financial education in fostering economic stability and breaking the cycle of poverty. As highlighted by Mitchell and Lusardi (2023), financial literacy is a pivotal element that enables individuals to make informed decisions about their finances, thereby enhancing their overall financial well-being. This directly correlates with the study's assertion that improved financial literacy leads to better savings behaviors, which in turn reduces generational poverty.

Furthermore, Warmath and Zimmerman (2019) provide a comprehensive understanding of financial literacy, emphasizing that it includes not only knowledge of financial products and concepts but also the development of effective financial behaviors. This holistic approach to financial literacy supports the study's findings that financial education programs need to address multiple facets of financial management to be effective. In the context of developing countries, the work of Sabri and MacDonald (2010) and Trinh and Nguyen (2023) is particularly relevant. These studies found that financial literacy has a significant positive impact on saving behaviors, which is crucial for financial stability in regions with limited access to formal financial services. The findings from these studies reinforce the study's conclusion that enhancing financial literacy can lead to a significant reduction in generational poverty.

Moreover, Nicolini (2019) emphasizes the effectiveness of community-based financial education programs in improving financial literacy. This supports the study's recommendation for implementing practical and accessible financial education initiatives tailored to the needs of the local population. By providing tools and resources that address the specific financial challenges faced by individuals, such programs can significantly enhance financial literacy and promote a culture of savings.

The study's results are also consistent with the broader theoretical framework of financial literacy and economic behavior. The Organization for Economic Co-operation and Development defines financial literacy as a combination of awareness, knowledge, skills, attitudes, and behaviors necessary to make sound financial decisions and achieve individual financial well-being (Haupt, 2021). This comprehensive definition aligns with the study's findings that financial literacy is a multifaceted concept that plays a crucial role in mediating the relationship between savings attitudes and generational poverty.

Additionally, the findings align with the insights provided by Fernandes et al. (2014), who argue that financial literacy leads to better financial decision-making and increased savings. This is particularly relevant in the context of generational poverty, where improved financial decision-making can break the cycle of poverty and promote long-term economic stability.

5. CONCLUSION AND RECOMMENDATIONS

The study's findings underscore the critical role of financial literacy in mediating the relationship between savings attitudes and generational poverty. It is evident that financial literacy enhances individuals' ability to save effectively, which in turn helps mitigate generational poverty. The significant direct effect of a positive savings attitude on reducing generational poverty highlights the importance of fostering a culture of savings. Additionally, the indirect effect through financial literacy, which accounts for a substantial portion of the total effect, emphasizes the necessity of financial education in empowering individuals to make informed financial decisions. The literature supports these findings, demonstrating that improved financial literacy leads to better financial behaviors and outcomes, ultimately reducing poverty.

To address the findings and improve savings attitudes to reduce generational poverty, several practical, policy, and theoretical recommendations are necessary. Practically, comprehensive financial education programs should be implemented, focusing on fundamental financial concepts and skills such as budgeting, saving, and investing. Community-based financial literacy workshops can provide practical skills and tools to enhance financial management, and integrating financial literacy into school curricula can build a strong foundation for informed financial decision-making from an early age. From a policy perspective, developing a national financial literacy strategy aligned with economic development goals is crucial. This strategy should involve collaboration between government agencies, financial institutions, and educational

bodies. Additionally, policies that provide incentives for saving, such as tax breaks or matching contributions for savings accounts, can encourage more individuals to save. Support for financial education initiatives, especially in underserved communities, is also essential to bridge the knowledge gap and reduce poverty. Theoretically, future economic models should incorporate financial literacy as a variable influencing financial behaviors and outcomes, providing a more comprehensive understanding of savings and poverty dynamics. Longitudinal studies can examine the long-term impact of financial literacy on savings behavior and poverty reduction, offering deeper insights into the effectiveness of financial education interventions. Furthermore, exploring cultural influences on financial literacy and savings behavior can help tailor interventions to be more effective in different contexts. Engaging key stakeholders, developing targeted financial education programs, and establishing a robust monitoring and evaluation framework are critical steps to ensure the successful implementation of these recommendations. By enhancing financial literacy through these comprehensive measures, significant strides can be made in promoting positive savings attitudes and reducing generational poverty.

REFERENCES

- Addison, T., Pikkarainen, V., Rönkkö, R., Tarp, F. (2019), Development and poverty in sub-Saharan Africa. *Development and Poverty Reduction*. United Kingdom: Routledge. p55-106.
- Adjaye, J.A., Asante, F.A., Laar, A., Akademiya, I.F. (2021), FS-TIP Brief: Ghana. Available from: https://chrome-extension://efaidnbmnnpicajpegclclefindmkaj/https://akademiya2063.org/uploads/fs-tip_ghana_policy%20brief.pdf
- Ansong, G. (2024), Enhancing savings culture in Ghana: The financial Institutions and #8217; Perspective. *American Journal of Industrial and Business Management*, 14(06), 825-851.
- Arini, F.D., Widaningrum, A., Hadna, A.H. (2020), Poverty reduction and financial literacy for women in Indonesia. In: *Proceedings of the Annual Conference of Indonesian Association for Public Administration (IAPA 2019)*.
- Asongu, S.A., Le Roux, S. (2018), Understanding sub-Saharan Africa's extreme poverty tragedy. *International Journal of Public Administration*, 42(6), 457-467.
- Ayoo, C. (2022), *Poverty Reduction Strategies in Developing Countries. Rural Development-Education, Sustainability, Multifunctionality*. Pairs: OECD Publishing.
- Baron, R.M., Kenny, D.A. (1986), The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Barr, A., Gibbs, C.R. (2022), Breaking the cycle? Intergenerational effects of an Antipoverty program in early childhood. *Journal of Political Economy*, 130(12), 3253-3285.
- Beaman, L., Karlan, D., Thuysbaert, B. (2014), *Saving for a (not so) Rainy Day: A Randomized Evaluation of Savings Groups in Mali*. United States: National Bureau of Economic Research, Inc.
- Bigg, R.J. (2023), *Savings and Investment Analysis*. In: Alvin Hansen. London: Palgrave Macmillan. p219-251.
- Blunt, G.D. (2019), *Global Poverty, Injustice, and Resistance*. Cambridge: Cambridge University Press.
- Boadu, M.A. (2022), *Building Generational Wealth: For Your Children's Children*. United States: AuthorHouse.
- Brady, D. (2019), Theories of the causes of poverty. *Annual Review of Sociology*, 45(1), 155-175.
- Brounen, D., Koedijk, K.G., Pownall, R.A. (2016), Household financial planning and savings behavior. *Journal of International Money and Finance*, 69, 95-107.
- Buheji, M., Da Costa Cunha, K., Beka, G., Mavrić, B., Leandro do Carmo de Souza, Y., Souza da Costa Silva, S., Hanafi, M., Chetia Yein, T. (2020), The extent of COVID-19 pandemic socio-economic impact on global poverty. A global integrative multidisciplinary review. *American Journal of Economics*, 10(4), 213-224.
- Carpene, F., Cole, S., Shapiro, J., Zia, B. (2019), The ABCs of financial education: Experimental evidence on attitudes, behavior, and cognitive biases. *Management Science*, 65(1), 346-369.
- Coffie, C.P., Zhao, H., Adjei Mensah, I. (2020), Panel econometric analysis on mobile payment transactions and traditional banks effort toward financial accessibility in Sub-Saharan Africa. *Sustainability*, 12(3), 895.
- Curtis, C., Lugauer, S., Mark, N. (2011), Demographic Patterns and Household Saving in China. *American Economic Journal: Macroeconomics*, 7(2), 58-94.
- Duncan, G.J., Magnuson, K., Votruba-Drzal, E. (2017), Moving beyond correlations in assessing the consequences of poverty. *Annual Review of Psychology*, 68(1), 413-434.
- Fadil El-Turkey, E. (2021), Social and economic empowerment of women with breadwinners. *International Journal of Modern Agriculture and Environment*, 1(1), 79-116.
- Fernandes, D., Lynch, J.G., Netemeyer, R.G. (2014), Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), 1861-1883.
- Fischer, H. (2010), *A History of the Central Limit Theorem: From Classical to Modern Probability Theory*. Germany: Springer Science and Business Media.
- George, D., Mallery, P. (1999), *SPSS for windows step by step: A simple guide and reference*. *Contemporary Psychology*, 44, 100-100.
- Ghana Living Standards Survey (GSS7). (2019), Ghana Statistical Service. Available from: www.statsghana.gov.gh
- Ghana Statistical Service. (2020), *Multidimensional Poverty Ghana Report*. Available from: chromeextension://efaidnbmnnpicajpegclclefindmkaj/https://statsghana.gov.gh/gssmain/fileupload/pressrelease/multidimensional%20poverty%20ghana_report.pdf
- Ghana Statistical Service. (2021), *Ghana 2021 Population and Housing Census*. Available from: <https://census2021.statsghana.gov.gh>
- Ghayad, R., Shayya, S.H. (2022), Financial literacy among lebanese youth. *International Journal of Research and Studies Publishing*, 3(28), 291-308.
- Goyal, K., Kumar, S. (2020), Financial literacy: A systematic review and bibliometric analysis. *International Journal of Consumer Studies*, 45(1), 80-105.
- Haupt, M. (2021), *Measuring Financial Literacy*. The Routledge Handbook of Financial Literacy. England, UK: Routledge. p79-95.
- Hendricks, A. (2023), Mann, H, editor. *The Palgrave Handbook of Educational Thinkers*. Germany: Springer Nature. p1-17.
- Kim, K.T., Anderson, S.G., Seay, M.C. (2018), Financial knowledge and short-term and long-term financial behaviors of millennials in the United States. *Journal of Family and Economic Issues*, 40(2), 194-208.
- Klapper, L., Lusardi, A. (2019), Financial literacy and financial resilience: Evidence from around the world. *Financial Management*, 49(3), 589-614.
- Kolade, O., Mafimisebi, O., Aluko, O. (2020), Beyond the farm gate: Can social capital help smallholders to overcome constraints in the agricultural value chain in Africa? *The Palgrave Handbook of Agricultural and Rural Development in Africa*. Germany: Springer Nature. p109-129.

- Krista Nadakavukaren, S. (2023), End Poverty in All Its Forms Everywhere. United Nations: The UN Sustainable Development Goals.
- Lusardi, A. (2019), Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics*, 155(1), 1
- MacDonald, R., Shildrick, T., Furlong, A. (2019), 'Cycles of disadvantage' revisited: Young people, families and poverty across generations. *Journal of Youth Studies*, 23(1), 12-27.
- Madin, M.B., Peprah, C., Abudu, A., Inkoom, D.K. (2023), Fostering resilience and sustainable livelihood outcomes among peasant women: The case of the RING project in east Gonja municipality of Ghana. *SN Social Sciences*, 3(2), 29.
- Md Jamil, A.R., Law, S.H., Fazli Sabri, M., Afham, M.K. (2023), Does financial literacy improve financial inclusion in developing countries? A nonlinearity and quantile regression analysis. *Malaysian Journal of Economic Studies*, 60(2), 189-214.
- Miočević, M., O'Rourke, H.P., MacKinnon, D.P., Brown, H.C. (2017), Statistical properties of four effect-size measures for mediation models. *Behavior Research Methods*, 50(1), 285-301.
- Mitchell, O.S., Lusardi, A. (2023), Financial literacy and financial behavior at older ages. In: *The Routledge Handbook of the Economics of Ageing*. United Kingdom: Routledge. p553-565.
- Morgan, P.J., Long, T.Q. (2020), Financial literacy, financial inclusion, and savings behavior in Laos. *Journal of Asian Economics*, 68, 101197.
- Murari, K. (2019), Managing household finance: An assessment of financial knowledge and behaviour of rural households. *Journal of Rural Development*, 38(4), 705.
- Narges, D., Laily, H.P. (2011), Determinants of financial wellness among Malaysia workers. *African Journal of Business Management*, 5(24), 10092-10100.
- Nicolini, G. (2019), Financial literacy and financial behavior. In: *Financial Literacy in Europe*. London: Routledge. p85-140.
- Ouachani, S., Belhassine, O., Kammoun, A. (2020), Measuring financial literacy: A literature review. *Managerial Finance*, 47(2), 266-281.
- Palacios-Barrios, E.E., Hanson, J.L. (2019), Poverty and self-regulation: Connecting psychosocial processes, neurobiology, and the risk for psychopathology. *Comprehensive Psychiatry*, 90, 52-64.
- Pienaah, C.K., Luginaah, I. (2024), The impact of village savings and loan associations as a financial and climate resilience strategy for mitigating food insecurity in northern Ghana. *Risks*, 12(4), 58.
- Rahman, M.M., Tabash, M.I., Salamazadeh, A., Abduli, S., Rahaman, M.S. (2022), Sampling techniques (Probability) for quantitative social science researchers: A conceptual guidelines with examples. *SEEU Review*, 17(1), 42-51.
- Rijnhart, J.J., Twisk, J.W., Eekhout, I., Heymans, M.W. (2019), Comparison of logistic-regression based methods for simple mediation analysis with a dichotomous outcome variable. *BMC Medical Research Methodology*, 19(1), 19.
- Runciman, W.G. (2018), Towards a theory of social stratification. *The Social Analysis of Class Structure*. London: Tavistock Publications. p55-102.
- Sabri, M.F., MacDonald, M., Hira, T.K., Masud, J. (2010), Childhood consumer experience and the financial literacy of college students in Malaysia. *Family and Consumer Sciences Research Journal*, 38(4), 455-467.
- Salvia, A.L., Leal Filho, W., Brandli, L.L., Griebeler, J.S. (2019), Assessing research trends related to sustainable development goals: Local and global issues. *Journal of Cleaner Production*, 208, 841-849.
- Sangeeta, Panwar, A.K., Aggarwal, P.K. (2023), Association between financial knowledge, financial attitude and financial behaviour among young population in India. *Review of Business and Economics Studies*, 10(4), 45-54.
- Shefrin, H. (2021), Financial literacy and financial education: Recommendations, evidence and policy implications. *Financial Education and Risk Literacy*, 2021, 4.
- 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.
- Sobel, M.E. (1982), Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13, 290.
- Tollefson, J., Weiss, K.R. (2015), Nations approve historic global climate accord. *Nature*, 528(7582), 315-316.
- Trinh, L., Nguyen, T. (2023), Financial knowledge and short- and long-term financial behaviors-evidence from Japan. *Journal of Family and Economic Issues*, 40, 194.
- Twumasi, M.A., Jiang, Y., Ding, Z., Wang, P., Abgenyo, W. (2022), The mediating role of access to financial services in the effect of financial literacy on household income: The case of rural Ghana. *SAGE Open*, 12(1). Doi: <https://doi.org/10.1177/21582440221079921>
- Twumasi, M.A., Jiang, Y., Wang, P., Ding, Z., Frempong, L.N., Acheampong, M.O. (2022), Does financial literacy inevitably lead to access to finance services? Evidence from rural Ghana. *Ciência Rural*, 52(3), 10112.
- Upadhyaya, S., Blocker, C.P., Houston, H.R., Sims, M.R. (2021), Evolving two-generation services to disrupt the intergenerational effects of poverty and promote family well-being. *Journal of Business Research*, 125, 324-335.
- Wagner, J. (2019), *Effect of International Activity on Firm Performance*. Germany: IZA World of Labor.
- Wan, G., Hu, X., Liu, W. (2021), China's poverty reduction miracle and relative poverty: Focusing on the roles of growth and inequality. *China Economic Review*, 68, 101643.
- Warmath, D., Zimmerman, D. (2019), Financial literacy as more than knowledge: The development of a formative scale through the lens of bloom's domains of knowledge. *Journal of Consumer Affairs*, 53(4), 1602-1629.
- World Bank. (2020), *Ghana Poverty Assessment*. Washington, DC: World Bank Publications.