



## Financial Literacy, Investment and Savings Behaviour of Small and Medium Enterprise Operators in Ghana

Victor Kwadwo Bosea, Patrick Kwame Basuah, Emmanuel Asare, Richard Twum Barimah

To Link this Article: <http://dx.doi.org/10.6007/IJARAFMS/v13-i1/16303> DOI:10.6007/IJARAFMS /v13-i1/16303

**Received:** 11 November 2022, **Revised:** 14 December 2022, **Accepted:** 30 December 2022

**Published Online:** 19 January 2023

**In-Text Citation:** (Bosea et al., 2023)

**To Cite this Article:** Bosea, V. K., Basuah, P. K., Asare, E., & Barimah, R. T. (2023). Financial Literacy, Investment and Savings Behaviour of Small and Medium Enterprise Operators in Ghana. *International Journal of Academic Research in Accounting Finance and Management Sciences*, 13(1), 188–197.

**Copyright:** © 2023 The Author(s)

Published by Human Resource Management Academic Research Society ([www.hrmars.com](http://www.hrmars.com))

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: <http://creativecommons.org/licenses/by/4.0/legalcode>

Vol. 13, No. 1, 2023, Pg. 188 - 197

<http://hrmars.com/index.php/pages/detail/IJARAFMS>

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at  
<http://hrmars.com/index.php/pages/detail/publication-ethics>



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ACCOUNTING, FINANCE AND MANAGEMENT SCIENCES



## Financial Literacy, Investment and Savings Behaviour of Small and Medium Enterprise Operators in Ghana

Victor Kwadwo Bosea, Patrick Kwame Basuah, Emmanuel Asare, Richard Twum Barimah

Finance Directorate, University of Energy and Natural Resources, Sunyani, Ghana

Corresponding Author: victor.bosea@uenr.edu.gh, patrick.basuah@uenr.edu.gh,

emmanuel.asare1@uenr.edu.gh, richard.barimah@uenr.edu.gh

### Abstract

This research aims to investigate financial literacy, investment, and savings behavior among SMEs in Ghana. The population of 300 participants were sampled for the study, quota and purposive sampling methods were used in the selection of participants. Non-probability sampling was used, as it was difficult to precisely determine the probability of selection. The study revealed that most of the participants are less financially literate and this affects their savings behavior. This shows that financial literacy has an enviable influence on an individual's savings behaviour. The study shows that sex/gender, age, and marital status have statistically enormous effect on savings behaviour. Due to the low level of education which reflects a high level of financial literacy, most of the participants use informal ways to save. To create awareness about finances and their related significance, financial institutions can organize more financial literacy programs to help these SMEs organize their finances and develop interest in savings. The government must put in place measures in building a resilient economy and a positive working environment to help people generate more money or revenue since more will be saved by individuals if more is received or earned.

**Keywords:** Financial Literacy, SME, Entrepreneurship, Savings, Savings Behaviour

### Introduction

Small firms have long been recognized successful management of finances mostly as a crucial element in guaranteeing the growth and competition of these enterprises. Business requires individuals to have sound financial literacy to develop a habit of managing the company's finances that will make it grow. According to Organization for Economic Co-operation and Growth (OECD/INFE, 2016), financial literacy is a blend of consciousness, knowledge, ability, attitude, and behaviour needed to make financial decisions and eventually achieve individual financial well-being (Dunska & Kravinskis, 2016). Enhancement in financial literacy has been recognized to have a deep impact on people and their ability to provide for their future (Estelami, 2016). Traders may be constrained by inadequate financial literacy among smaller companies. Accessing a sufficient amount of finance is a problem for many small business

owners owing to a lack of financial literacy, it is therefore critical for small businesses to have adequate financial knowledge if they want to expand. The majority of companies, due to lack of funds notably in Sub-Sahara Africa, flop during the first year of establishment and the inability of owners to effectively manage their finance and business professionally (KR Rao, 2019). Recent trends make it more essential for people to understand elementary finances because they are asked to bear more of the burden on investment and savings behaviour as they are responsible for converting more complex financial products and options. People will not be well prepared to make decisions on savings and investments without an understanding of the basic financial principles. Considering an environment where financial products and services continue to increase in scope and complexity, to be a competent decision maker and use the right direction to meet financial targets and needs, small traders must foster a clear understanding of the financial world (Tate & Bals, 2018).

Knowledge and understanding of investment and financial literacy seem to be very important strategies for every person to make a rational financial decision. Moreover, decision-making in finance has been generally accepted as one of the major factors affecting ability and fortune, therefore, important it is to recognize variables that are positively associated with financial decision-making and are essential to individual and national attainment (Rao & Tilt, 2016). Agyei et al (2016) stated that in Ghana research in the area of small scale or SMEs has not been given much attention, the concept has been neglected and given low concentration and advocated for more research in this field, however financial literacy level in Ghana as a whole is low. Research on financial literacy showed a 38% economic literacy rate in the North, 44% within the middle Belts, and 51% in the Sothern part of Ghana, (Baada et al., 2019). A study by the National Financial Literacy Strategy also stipulated that only 39% of Ghanaians are financially literate (Adomako et al., 2016). Education in financial literacy is crucial because illiteracy in finance denied financial services to most people, from the study, the public should be informed on financial matters and possibilities for individuals to invest in a company. Some clients of micro-finance institutions and fund clubs in Ghana, including God is Love Fun Club, DKM diamond microfinance, perfect edge, care for humanity, virtually all their investment in these organizations has been lost, SMEs were the most affected victims. These customers could have been prevented from being victims of such financial scams if they had acquired proper financial knowledge about investment-related problems. Financial illiteracy in the informal sector among traders and others have been described as a major contributory factor to the country's high level of poverty (Pilz et al., 2015). Promoting financial literacy would empower small businesses to manage risk, deal effectively with the complexity of the market, and take advantage of increased financial sector competition to achieve strong economic growth. The study seeks to examine the level of financial literacy and the relationship between financial literacy and investment and saving behaviour, and to determine the factors affecting investment or savings among SMEs in Ghana.

## **Theoretical Review**

### **The Theory of Planned Behaviour Theory (TPB)**

The theory of planned behaviour was propounded by Ajzen (1985) with the clear objective of expanding the theory of reasoned action (TRA). Ajzen added a fresh construct, which he called perceived behavioural control (PBC). This framework reflects the understanding of how easy or difficult it is to execute the behaviour in question. Ajzen propounded the theory of planned behaviour with the explicit aim of extending the explanatory scope of the theory of reasoned action (TRA). The theory of planned behaviour (TPB) originated as the Reasoned

Action Theory to predict the individual intentions to participate in behaviour at a given time and place, it was intended to describe all the behaviour for which individuals can exercise self-control. The primary aspect of this model is behavioural intention; behavioural intentions are affected by the mindset about the probability that the behaviour will have the desired effect and the subjective assessment of the cost and benefits of those effects. Social norms explain how the opinion of important people influences one's intention to perform a particular behavior. The perceived behavioural control captures the ease and/or difficulty to perform a certain behavior. TPB posits that intention to execute a given behavior is decided by opinion towards behavior; subjective norms; and perceived behavioral control. Personal attitude reflects the perceived desirability of behavioural results, while perceived behavioural regulation reflects the belief that behaviour can be managed personally.

Considering individuals with a business idea who are prepared to take chances and meeting other deciding circumstances, this study assumes that traders with a greater degree of financial literacy seem to be more likely to take action towards proper investment and survive in their activities than individuals with limited financial literacy. The reasoning for this assumption is that individuals with a stronger understanding of financial products and financial concepts have better opportunities to realize business ideas and finance their business. The explanation behind this theory is the belief that people with a stronger understanding of financial products and financial principles have better prospects for the realization and funding of business ideas (Frydman & Camerer, 2016). (TPB) demonstrated attitudes as a significant determinant of the intention of individuals to change financial behaviour. Attitude reflects the particular actions of individuals, whether to like or dislike certain findings. Whether what they think is good or bad for them, a person may respond positively or negatively to some things. The study, therefore, considers that SMEs should be provided with elementary financial literacy to have a positive attitude to savings and investment (Jonsson et al., 2017). The theory of planned Behaviour demonstrates attitude-behavior relations by examining the importance of studying or clarifying behaviours and behavioural relationships and how attitudes interact with other variables affecting saving and investment. In (TPB), normative and behavioural values may express financial messages to enable individuals to take correct financial decisions (Sarkis Jr, 2017). The social norms are social pressure that affects the intention of individuals to alter their financial conduct.

The theory accepts the motives that are the primary determinants of actions, but PBC accurately represents the amount of real influence over output, the PBC may also explicitly predict behaviour or mediate the effect between intent and behaviour (Hassan et al., 2016). (TPB) have several limitations and some of which are, it presumes the person has obtained the necessary chances and resources to be useful in carrying out the desired action, irrespective of the purpose, other variables that affect behavioural purpose and development such as, anxiety, risk, mood or experience are not taken into account. The action tends to be the result of a sequential decision-making approach and does not take into account that it can be a shift over time. The theory does not discuss the time frame between the purpose and behavioural action.

### **The Prospect Theory**

The theory of prospect is the earliest behavioural economics and behavioural finance theory developed by, Daniel Kahneman (Loerwald & Stemmann, 2016). The theory suggests that losses and benefits are valued differently, and thus instead of perceived losses, individuals make choices based on perceived benefits. The prospect theory is usually referred to as a loss-

aversion theory, the general principles are that if two options are put before an individual and presented equally with potential gains and possible losses, the best option will be chosen. Prospect Theory emphasizes the role of incremental gains and losses rather than wealth maximization when making investment decisions (Ayres, 2016), in other words, investors drive direct utility not only from utilization but also fluctuations in the value of their wealth. The general concepts also referred to as the theory of loss-aversion, stipulates that if two options are given to equal individuals with one potential gain and the other on possible losses, the first option will be selected (Mathis & Steffen, 2015). Previous losses appear to make them hesitate to invest out of fear of more losses, while profit is seen as a buffer that encourages them to add on risk. Bonello (2019) stated that miscalculations by savers are the product of restricted rationality and self-control, these miscalculations result from a lack of information and knowledge on financial literacy. The fear of these miscalculations dampens the spirit of most people who decide not to venture into any act of entrepreneurial activity. The results of which are also a challenge for the collapse of most SMEs which discourages people from venturing into investment activities.

This is with the assertion by the theory that prior losses tend to lead people to be reluctant to invest (Kumar & Goyal, 2016). Hence SMEs in Ghana are required to be equipped with financial literacy in this system of high unemployment rates in the country so that they can save and invest appropriately to improve their businesses and the living standard of their dependents. Conducting studies in this area to investigate the level of financial literacy investment and savings behaviour of these SMEs or small businesses is in the right direction so that authorities could develop strategies to best improve these trader's knowledge on savings and investments. Prospect theory relates to behavioural economics subgroup, which describes how individuals make informed choices between probabilistic alternatives where risk is concerned, and the probability of different results is unknown. Under prospect theory, the underlying rationale for the action of an individual is that options are autonomous and singular, so the likelihood of a profit or loss is logically believed to be fifty/ fifty, with the awareness of the credit management of financial institutions, small businesses or SMEs can be thought basic finances to enable them value investment and take on activities that could minimize risk because individual's reaction to loss is much serious than their reaction to benefits, financial institutions need to prioritize financial literacy to allow traders to make informed financial decisions and investment forecasting activities.

### **Overview of Financial Literature**

Financial literacy is an individual's ability to grasp financial principles and values and effectively apply such knowledge efficiently (Lusardi, 2019). It also means that people have the necessary skills to exploit financial resources effectively to improve their economic life. For individuals to be able to understand and prepare cashbooks, there is the need to understand the principles of bookkeeping, personal income, and income. Such abilities are vital; however, many people lack this essential understanding and as a result are unable to fulfill their daily expenses (Peters & Panayi, 2016). Financial literacy is the ability to understand and efficiently apply various financial skills including, personal financial management, budgeting, and savings. Financial literacy helps individuals to become financially conscious, this helps to achieve financial security.

Developing budget making skills, the ability to track spending, practicing debt-payment techniques, and effective retirement planning are the main steps to achieving financial literacy. The lack of financial literacy would result in significant amounts of liabilities and poor

financial choices being made (Lusardi, 2019). Merits and demerits of variable and fixed variable rates are principles that are easier to understand and make educated choices about financial issues whether you have financial literacy skills or do not. If financial literate individuals are more productive in the financial market, it is fair to conclude that they have acquired some elementary education in finances for personal growth and survival of their business, they will be more mindful of the various funding options or sponsorships and may have a better understanding of the terms and conditions of such options. If educated individuals are more conscious of threats about finance and opportunities, they may not only have much understanding of a company's profitability, they will be more willing to take the step towards investment and savings than those who are not financially literate. Many pieces of research had illustrated facets of financial literacy as financial behaviour, financial knowledge, and financial education (Sherraden & Ansong, 2016).

### ***Financial Education***

Financial education is considered as a process in which individuals, investors improve their understanding of financial products, concepts, and risk-based on knowledge acquisition, objective advice, build skills and confidence in strengthening their finances through continuous learning (Ng & Tang, 2016). There are four key components of financial education; advice, information, instructions, and understanding (Stolper & Walter, 2017). The information covers facts and specific knowledge by persons who are aware of the financial benefits, alternatives, and implications of the choices. The instructions ensure preparation and leadership where people learn skills and abilities to grasp financial concepts. Some guidance enables people to consider general financial issues and goods and allows for the best of the knowledge and directions received.

The most popular topic of financial education programs is the fundamentals of how to deal with money, operating bank accounts, depositing, investing, retirement planning, insurance, and dealing with risk (Sarnovics et al., 2016). It is important to draw from his life experience when developing the idea of financial education. In other to change expenditures and revenue, track personal finances, financial planning, choose financial items, there is a high qualification required. Financial education material must also be intended for unemployed, economically vulnerable, and financially excluded citizens. Financial education should cover such subject areas as insurance, taxation, banks, pension systems, deposits and investments, global economic operations, financial risks, savings, financial planning, and personal (family) finances.

### ***Financial Knowledge***

Financial knowledge involves having an in-depth understanding of finance and using this understanding of financial items and procedures to solve financial problems. Financial knowledge also involves the ability to manage money, including tracking the markets' daily financial issues and making the right choices for the needs of 'financial literate' people (World Bank's Global Financial Index, 2018). Problem-solving, analytical thinking, understanding of key financial facts and concepts, financial expertise, and decision-making skills help individuals make sound decisions. Good financial knowledge and decision-making skills help people weigh options and make informed decisions about their financial circumstances such as choosing how and when to invest or spend, comparing costs before a major purchase, better retirement preparation, and long-term savings. Many papers have shown that a lack of financial literacy is due to a lack of financial awareness (Calcagno & Monticone, 2015).

Financial knowledge is indicated by essential knowledge such as the value for money principles, cost of capital interest rate, inflation, risk classification, the risk and return principle (Vieira et al., 2019). Savings and money management skills are also financial knowledge that can determine how well an individual is in financial literacy. Measuring and making investments based on product risk, trying to equate the risk and return on securities and efficiency could lead to efficient financial management, people with less financial knowledge has a greater degree of negative financial opinion and make more wrong financial decisions.

### ***Financial Behaviour***

At the individual level, financial behaviour may be linked to the concept of financial management, that is, planning, management, and controlling (Farrell et al., 2016a). The role of a financial manager in a business may be linked to individual financial behaviour. Some of the roles of finance managers are to prepare, search, and use funds to optimize the company's value or, decide on the choice of resources and prudent allocation of financial resources. In general, these are some of the responsibilities of managers of finances, (1) to forecast and schedule funds, (2) to monitor decisions on capitalization, expenditure, and growth (Cheah et al., 2015). The manager of finance needs to be able to plan what will be performed in the future while planning funds. The finance manager is expected to track the financial activity of the company in order to operate it in compliance with the projected financial budget. The manager is expected to track the financial activity of the company to operate it in compliance with the projected financial budget. Financial behaviour is the willingness to consider the overall effect of financial decisions on one's circumstances (that is, individual, family, society, country and to make the right cash management decisions, precautions, and budget planning opportunities (Maman & Rosenhek, 2019). Individuals with little financial experience have more negative financial views and make more inaccurate financial choices. Cash, credit, and savings actions are typical financial behaviour. A financial activity can also be seen as an individual's involvement in the purchasing of a financial commodity and the number of percentages of participation of the market such as shares and other securities (Hsiao & Tsai, 2018).

Increasing interest in financial literacy issues has increased the number of conferences and seminars in both low and middle-income countries. Such conferences and seminars contribute to an improvement in people's financial attitudes, leading to increased financial literacy. People with good financial literacy can influence their financial actions in a positive direction, such as timely payment of bills, practice proper savings and investment, and the ability to handle credit cards wisely (Lucey, 2016). Financial literacy influences the economic behaviour of people as people with lower literacy in finance appear to choose an incorrect financial decision than those with greater financial literacy. Moreover, good financial behaviour has an important subjective, and objective effect on higher levels of financial literacy. Whether or not the financial management of an individual is wise is closely linked to the capacity and awareness of concepts in financial matters of the individual (Eniola & Entebang, 2016). Therefore, almost every aspect of planning and spending is influenced by financial literacy, including his or her financial behaviour. In this analysis, financial activity is the behaviour of traders in the planning, management, and control of financial resources. In this situation, it is believed that small traders/SMEs are not yet familiar with the practices of successful financial management in general. Four important aspects of good financial management will be related to the aspect of financial actions, including: (1) the conduct of financial planning/budgeting, (2) the conduct of investment or savings, (3) the conduct of

evaluation, in this case, is related to the communication of financial problems and the evaluation of the use of the budget.

### ***Financial Attitude***

Attitude is described as the individual's state of mind, decision, and opinions and how an individual responds to an emergency at a certain point in time (Junghans, Cheung, & De Ridder, 2015). A three-way relationship exists based on the theory of social learning that blocks the actions, environment, and inner events of each other that influence perceptions and actions (Nielbo & Sørensen, 2016). It is an individual feature that takes the form of an inclination towards financial practice or action, it demonstrates a person's propensity or probability to perform a behaviour. Attitude refers to the psychological propensity to evaluate what is better and best when taking a specific investment decision after weighing the good and the poor, which in other words endorses certain actions (Waisbord, 2020). Awareness, behaviour, and attitude are considered to be elements of financial literacy (Farrell et al., 2016b). Financial behaviour can be altered with better financial knowledge and mentality, and besides, improved financial behaviour results in improved practices in financial management (Wahid, 2019). The perceptions and opinions people have about money come from their surroundings which could influence their willingness to invest (Hoffmann et al., 2015). Financial attitudes have a positive effect on the behaviour of financial management. Financial attitudes towards longer-term financial planning include factors such as the desire for proper time management and the ability of individuals to make planned savings. These preferences are likely to facilitate activities that can contribute to lower financial sustainability and fortunes. Early financial decisions made in life generate a habit of difficulty to break that affects the ability of students to become financially secure adults (Hoffmann et al., 2015).

### **Factors that Affect Financial Literacy**

Research on financial literacy shows that financial literacy is affected by age, gender, level of education, personal income, job or employment, and marital status. These are discussed as follows;

#### ***Age***

According to Yong and Tan (2017), the least financially literate are individuals between the ages of 51 and 56 years. They are ignorant of the principles of inflation and risk diversification and cannot carry out basic interest-rate calculations. A similar case was recorded by (Owusu, 2016) who conducted a study at Sekyere East District, his findings revealed that most Ghanaians of the ages of 20 – 30 and those above 60 years are mostly financially illiterate. Grohmann, Kouwenberg, and Menkhoff (2015) in their research revealed that ages between 35 and 50 show the highest levels of financial literacy and low performance. Age is a crucial determinant in research findings since individuals learn from past errors and gradually become more matured over time, however (Van Damme et al., 2019). The experience could carry the initial rise in financial literacy, while the resulting decline may be due to a decrease in cognitive ability. Age has been described as a determining factor of financial literacy in several studies. The relationship between economic literacy and age explained using a curve the curve showed higher financial literacy within the age group of (35-50 years) and (65 years) as its lowest (Nelson et al., 2015). Studies in India and Indonesia suggested that illiteracy levels



are highest among the younger age groups (Sebayang et al., 2019). Based on the above literature on age, one can presume that age influences financial literacy

### ***Gender***

Research has shown that males perform better in illiteracy test than females. Sweet et al (2016) in their evaluation test, females ranked poorly than males because females are not interested in investment and personal finances issues. Ali et al (2015) added that for insurance and personal loans, men are well-informed as opposed to women who are not familiar with financial areas such as taxation, personal financial planning, investment, and savings. Mishra and Metilda (2015) also make it clear that men are more experienced than women in terms of markets and investments. Women are therefore less conscious of the stock market and Investment Avenue. Other studies make it clear that men are more knowledgeable in terms of markets and investments than women, therefore women are less aware of stocks, however, these gender differences are difficult to understand (Pak & Mahmood, 2015). The social learning mechanism could explain the lower financial literacy. Different studies have shown that males and females have had different levels of financial literacy depending on financial markets since time memorial (Almenberg & Dreber, 2015). These studies in general indicate that women have lower levels of financial literacy than men because they have little understanding of shares, finance, and the economy. At the college level in the U.S., men performed better than women in standardized financial literacy exams and finance course, the difference in financial literacy rates among men and women was noted (Stolper & Walter, 2017). Brown et al (2018) revealed the degree of discrepancy in financial literacy among men and women, their study shows that women have little interest in financial matters taking place in the financial markets, they are also overwhelmed by the uncertainty of investing in the market, and they have little knowledge of the situation (they have no financial data on the markets at any time).

Lusardi (2019) claimed that because females are known to live scientifically longer and a small percentage of them have acquired skilled work, low levels of financial literacy are of great concern because they will be financially vulnerable. However, this study suggested, it is easy to understand the insignificant level of financial literacy among women by looking at the relative levels of financial education between women and men which is a crucial factor in understanding why men have high levels of financial literacy. The study noted that, if more women especially in third world countries were able to pursue their education without hindrance, then there would be no gender-based disparities in financial levels over time.

### ***Educational Level***

The level of knowledge of financial literacy of newly admitted business students was conducted, it was revealed that there is widespread illiteracy (Kiliyanni & Sivaraman, 2016). Some studies also revealed that people who have finished University are likely to be financially well-informed than people with a low level of education in finance (Nitani et al., 2020). Stolper and Walter (2017) revealed that the level of educational status of participants and their partners has a direct effect on financial literacy. Empirical research shows that individuals, learn from the environment especially from their parents (Mesoudi et al., 2016). Individuals could learn from the knowledge and experience of educated parents and spouses. A study by (Kramer, 2016) revealed that couples (married people) have a higher rate of financial literacy than single people.

### **Employment**

Theories of social learning and customer socialization indicate that job status has a substantial effect on the development of knowledge (Uen et al., 2018). People who are working have more chances to learn from the workplace and helps them acquire some basic skills and knowledge about financial problems (Lindsa et al., 2015). Lusardi (2019) noted that working individuals worldwide had greater financial literacy. Financial literacy may also have a huge effect on occupations. A career requiring knowledge of economic and financial knowledge provides more scope for individuals to gain knowledge in finance. Our study uses finance and insurance as a profession that could have a positive impact on economic literacy in finance. Worthington (2016) reported that the highest degree of financial literacy rate among Australian professionals, especially those working in white collar professions, while, the study also revealed the level of financial literacy in another study with two groups, the white-collar workgroup, and self-employed group. Wardani and Firmansyah (2019) revealed that the high rate of the illiterate group comprises individuals in blue collar jobs, and people working, in the health and tourism sectors. The study explained that the rate of illiteracy in finance is at times depending on the type of white-collar job or self-employment in which an individual was involved. For example, individuals working as accountants or working in the financial sector have a high rate of financial literacy compared to computer technicians or doctors (Pincus et al., 2017). This is because, when they keep doing their job, accountants get to understand some economic aspects. Therefore, as a result of the essence of the work, they are engaged in, physicians and computer technicians have no high levels of financial literacy.

### **Investment Behaviour**

According to (Kannadhasan, 2015) investment behaviour is dependent on potential uncertainty and risk. Investment is a long-term strategy for broader financial objectives such as child education preparation or your stable retirement life. Investment is usually made for broader financial targets which now might seem unlikely, but if they are wisely designed today, it will be possible in the future. Smart investment is the secret to achieving long-term objectives. It is difficult for individual investors to behave rationally, but conventional financial comprehension is believed to have continuous rationality. The extent to which people subjectively view risk is known to affects investment decisions (Awais et al., 2016).

Uncertainties and the consequences of investment decision-making affect the risk-taking levels of an individual. An investor or stockholder is the fundamental unit in the process of investment, it is the customer buying the services that dedicate a portion of his or her income to invest at the expense of saving. According to (Edelen et al., 2016) investor can be interpreted as a person who ; (a) has bought securities many years and currently not active,(b) has been trading securities regularly, and (c) has recently bought securities. As per the review by (Kumar & Goyal, 2015), studying the behavior of individual investors is significant, as private investors are more vulnerable to psychological biases when making financial decisions. Eastburn and Sharland (2017) revealed that investors must do risk analysis for significant assets in a way to minimize risk tolerance so that by undervaluing the risk tolerance, investors may not face opportunity losses for not investing. It is, therefore, necessary to penetrate investment opportunities in semi-urban and rural areas or to increase knowledge of financial products to the maximum population (George & Thomachan, 2018). Friede, Busch, and Bassen (2015) in their research noted that investor's behavior can be studied differently. Another important factor influencing people's investment behaviour is lifestyle. It is, therefore, necessary now for investment/stockbrokers and capital market

operators to understand the investor's lifestyle in order to design successful instruments and to enable them to expand their penetration into various financial avenues. An investor's lifestyle can be calculated by observing their habits, investor's desires, and opinions. The lifestyle primarily depends on the individual's income, it gives a good picture of their excess savings. The occupation also affects the likelihood of their investment behaviour. Chuliá et al (2017), in their study it is recognized that risk is inherent in all forms of financial investment due to the uncertainty in anticipated and actual returns.

Therefore, it is very important to determine the amount of risk an individual can bear. Risk perception also enables investors to make the best investment decisions. Investors may often not properly evaluate their risk-taking capabilities. The risk perception of investors is influenced by different factors, such as the unpredictability of returns, knowledge about the financial assets, chances for incurring loss, diversification, and reliance on professional advice. The perception of risk or the tolerance of risk can ultimately help investors determine which investment options they will take and the amount of risk they can handle with their capital. Bakar and Yi (2016) strongly support the role of behavioural factors in investor investment decisions. And it can be found that behavioural finance can explain answers to several financial investment questions that can be adequately answered by conventional finance theory. It was also proposed that investment behaviour differs across gender and their occupation (Kumar & Goyal, 2016). Investment and investment decision making are becoming more relevant in nations such as Ghana. Industry and academics are looking forward to learning how people want an investment vehicle to park their savings.

In order to select a specific mode of investment, researchers look for significant factors. Gompers et al (2020) suggested that investors are now becoming more informed and informative, so they find it fascinating to see various investment avenues. Investing in different assets is a fascinating practice that draws investors from various areas of life regardless of their jobs, economic status, education, and family history. Hoegen et al (2018) in their study suggested that there is no substantial connection between retail investor profile, qualification, age, occupation, and the decision of Investment Avenue. The investor's investment decision is affected by numerous variables such as friendly recommendations, advertisement, business financial statements, dividend policies, investment conduct of institutional investors, foreign market crisis.

### **Financial Literacy and Investment Behaviour**

It has been argued that people make better choices that save money and strengthen their investment behaviour as they gain more knowledge and a firm attitude towards capital (Pillai et al., 2017). Agarwal et al (2020) established that the absence of financial literacy is correlated with common financial errors, such as under-diversification, the inertia of the portfolio, and the propensity to sell winning stocks and retain losing stocks. Stolper and Walter (2017) suggested that households with higher rates of financial literacy are more likely to prepare for their retirement, invest wisely in the stock market and practice proper asset planning than those households who are not financially illiterate. Erner, Goedde-Menke, and Oberste (2016) demonstrate that all individuals that are exposed to high school or workplace financial education save more than those who are not exposed to that kind of education. Lusardi (2019) further demonstrated that individuals with low financial literacy are less likely to prepare for retirement and thus accumulate significantly fewer resources. Oseifuah et al (2018) also examine the level of financial literacy among business and non-business students and suggested that financial literacy affects an individual's financial decisions, especially in

the areas of savings, borrowing, retirement planning, or investment. Bank deposits have been suggested to be proper savings option followed by insurance (Prina, 2015). Low levels of financial literacy are also linked to poor financial choices (Calcagno & Monticone, 2015). Financial planning and financial literacy have a strong impact on investment behaviour and individual wealth accumulations (French & McKillop, 2016). Investment funds are subdivided into two categories according to their passive or active asset management approaches (Haberly et al., 2019). Stolper and Walter (2017) examined reports from some other countries and suggested that financial literacy is a factor that determines the level of national investment. Analyzing individuals' behaviour in developed countries reveals that financial literacy has critical implications for retirement arrangements and investment decisions (Loerwald & Stemmann, 2016). Lusardi (2019) in their study paper, demonstrated that investment and financial literacy are correlated. Individuals with high levels of literacy think more about funds spending and are more likely to select low-cost funds. A strong correlation between savings and financial literacy and investment behaviour has been identified in growing literature. Most of the reviewed literature suggested that there is a link between financial literacy and investment behaviour, therefore it can suggest that financial literacy affects the investment decision of an individual.

### **Saving Behaviour**

Savings can be defined as an amount of money set aside after the current expenditure has been deducted from the residual income within a given period (Van Raaij, 2016). psychologically, saving applies to the practice of not wasting cash for the present time to be used in the future (Chen et al., 2017). On the other hand, people may define saving as putting money in a bank account, mortgage payments, developing efficient or wise spending (French & McKillop, 2016). Saving behaviour can be defined as an attitude of how people save in a county which also helps to understand the economic condition of that country (French & McKillop, 2016). The gross domestic product of a nation has an indirect effect on individual savings behaviour, a nation with high gross domestics product, directly or indirectly has a high rate of employment which could affect the saving habits of its citizenry (Mahmoud et al., 2022).

### **Financial Literacy and Savings Behaviour**

It has been argued that when people acquire more information and a definite approach to money, they make good decisions that save resources and enhance their savings behaviour (Johnson et al., 2020). lack of financial literacy is connected to common financial management weaknesses, such as under diversification, portfolio volatility, and a propensity to sell winning stocks and keep losing stocks (Calcagno & Monticone, 2015). Clark, Lusardi, and Mitchell (2017) in their study suggested that households with a high literacy rate are more likely to plan for retirement, invest in securities, and retire with considerably more assets than those with lower levels of financial literacy. Amagir, van den Brink, Groot, and Wilschut (2022) demonstrated that people who are exposed to high school or workplace financial education save more than those who are not exposed to this kind of education. People with poor financial literacy are less likely to plan for retirement, resulting in much less wealth accumulation (Awais et al., 2016). Financial literacy affects the financial decisions of a person especially, investments/savings and borrowing, retirement planning, or portfolio decision-making (Awais et al., 2016). In an investment, bank deposits for example fixed deposits have been suggested to be the most popular saving and investment options, followed by insurance

(Demirgüç-Kunt et al., 2015). People with high levels of financial literacy are more conscious of funds spending and are more likely to select cheap funds (Calcagno & Monticone, 2015). Investors should be able to interpret financial statements, taking into account the final purpose of having the potential to invest correctly.

### Conceptual Framework

The study investigates financial literacy, investment, and savings behaviour among SMEs in Ghana. Specifically, it determines the level and the factors affecting financial literacy among traders in Ghana. The effect of financial literacy and investment behavior, as well as savings behavior among traders, were also examined. Financial literacy is evaluated in four dimensions; financial education, knowledge in finance, financial attitude, and financial behaviour. Factors affecting financial literacy will involve, age, sex/gender, marital status, working experience, and educational level. Savings behavior is measured with knowledge in a financial product, product involvement, risk, and uncertainty. Similarly, investment behaviour is determined using (TPB) (personal attitude, subjective norm, and perceived behavioral control). The conceptual framework position is that as the awareness of financial matters improves, people will be motivated by a positive change in their approach to investment and savings. This will eventually produce behaviors where it is expected that people will know better and isolate themselves from investing in Ponzi schemes.

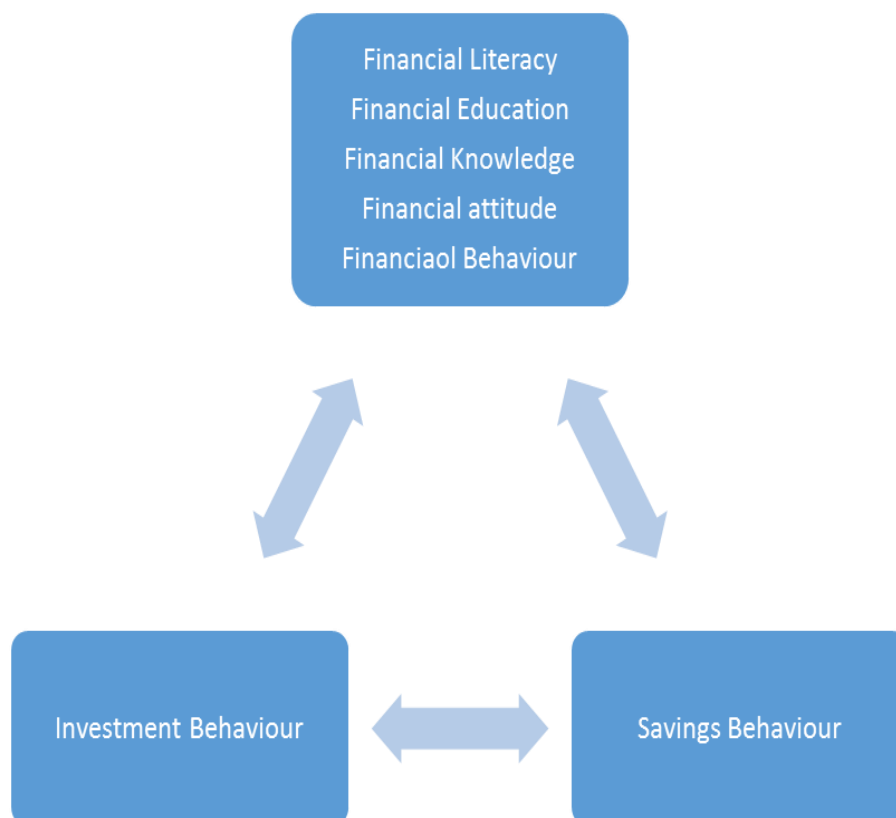


Figure 1: Conceptual Framework

Source: Author's Own Construct (2021)

**Methods**

**Population**

The target population was SMEs that operate in Ghana, 1370 SMEs were recorded. The researcher categorized the SMEs into services, trading, manufacturing, and agro-processing. The population distribution is listed in the table below.

Table 1

*Population for the Study*

Category	Number of SMEs
Services	370
Trading	580
Manufacturing	265
Agro-Processing	155
Total	1370

Source: Field Survey (2021)

**Sample and Sampling Procedure**

For the analysis, a sample size of 300 people is used, quota and purposive sampling methods are used in the selection of respondents under the non-probability sampling methods. Non-probability sampling is used, as it is difficult to precisely determine the probability of selection. The study used the Quota sampling technique which helps to determine how many of the respondents are required to be sampling. In this study, the purposive sampling technique is employed to access the desired sample size, purposive sampling is ideal because it could help the researcher solicit the precise information needed for the study from the respondents. The researcher purposely selects respondents who are thought to have relevant information in the opinion of the researcher for the study. Sampling is essentially a collection of cases with similar features that serve as a representation of the entire population. To determine the sample to be used for the study, the study adopted the determination of sample size propounded by (Krejcie & Morgan, 1970). This sample size determination has been used by many researchers including (Hashim, 2010; Chuan & Penyelidikan, 2006).

The formula guiding this sample size determination is

$$n = \frac{X^2 NP(1-P)}{d^2(N-1) + X^2 P(1-P)} \quad (1)$$

Where  $X^2$  = at the desire confidence level, the table value of chi-square for 1 degree of freedom is calculated as  $1.96*1.96=3.8416$

P = the proportion of the population (0.5 since this would give the maximum sample size)

d = the degree of accuracy expressed as a proportion (0.05)

Hence, for the population size of 1370, the sample size is calculated as

$$n = \frac{3.8416*1370*0.5*0.5}{(0.05)^2(1370-1) + 3.8416*0.5*0.5} = \frac{1315.748}{4.3829} = 300.200 \cong 300$$

A sample of 300 respondents was therefore chosen for the study.

### **Data Collection Instrument**

The main research instrument used was a questionnaire. The information content of the completed questionnaires was organized and converted into data for in-depth analysis and interpretation. The questionnaire was adopted as the research tool for data collection. Descriptive statistics containing frequency tables, mean and standard deviation are used to interpret the quantities data. Tables are used to present gathered data for easy comparison and interpretation, the qualitative data is analyzed using content analysis techniques and coded to be entered by social scientist into statistical packages. The researcher used multiple regression to assess the relationship between financial literacy, investment/savings behaviour. The questions were designed to satisfy research objectives and to address the need for the objectives. Most of the questionnaire items were of the 5-point Likert rating scale of the range of (1-5 where 5 - strongly agree, 4 -agree, 3-undecided, 2 - disagree, 1 - strongly disagree). Four sections were constituting the questionnaire for the study. The first section, "Section A" contained items that measured the demographic data of the respondents. The section contained questions on gender, age, educational qualification of the traders, and the number of years in business (which also constitute socioeconomic factors). The section, "Section B" contained questions on the level of financial literacy. The third section "Section C" measured the Investment behaviour of traders. The fourth section looked at the saving behaviour of traders.

### **Reliability and Validity of Instruments**

In research, reliability tends to increase the degree of accuracy or precision measured by the instrument and the attribute it is intended to measure. Researchers refer to reliability as the accuracy of the research tools employed in the study. Validity is a quality of the translations and unitary concepts that are bolstered by distinctive sorts of prove (Roid & Koch, 2017). The study adopted both the content and construct validity. The validity of the content refers to the degree to which the value system is checked absolutely by the instrument. Reliability test and re-test whereby questions are administered to a sample of individuals and then the same questions are again administered at a later date to the same individuals. In other to assess the reliability of the testing methods, the researcher piloted using 10 individuals from the target population. The piloted results are not included in the final study. Validity helps assess the extent to which a device test what is meant to measure. The questionnaire is designed to ensure that in the course of the study it remains focused, consistent, and accurate. The researcher assesses the validity of the data by obtaining opinions from professionals in the field of study, especially from the supervisor.

### **Specification of the Model**

To assess the relationship between dependent variables and independent variables, the following regression technique is used.

The model is demonstrated in the form

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + \dots + B_nX_n + \varepsilon \dots \dots \dots (3)$$

Where  $X_n$  ( $n = 1, 2, 3 \dots n$ ) are the independent variables (predictors) and  $Y$  the dependent variable (response or predicted).

The estimation of the regression constants,  $B_0$  (Y-intercept) and  $B_n$  ( $n = 1, 2, 3 \dots n$ ), are possible through the method of least-squares.

The model for the determinant influencing financial literacy is predicted in this study as

$$\text{Investment Behaviour} = \alpha + \beta_1 (\text{FK}) + \beta_2 (\text{FA}) + \beta_3 (\text{FB}) + \beta_4 (\text{FE}) + \varepsilon \dots\dots\dots (4)$$

Where FK = Financial Knowledge, FA = Financial Attitude, FE = Financial Education, and FB = Financial Behaviour.

The effect of financial literacy on saving behaviour is shown as;

$$\text{Saving Behaviour} = \alpha + \beta_1 (\text{FK}) + \beta_2 (\text{FA}) + \beta_3 (\text{FB}) + \beta_4 (\text{FE}) + \varepsilon \dots\dots\dots (4)$$

Where FK = Financial Knowledge, FA = Financial Attitude, FE = Financial Education, and FB = Financial Behaviour.

ANOVA is used to assess the regression model's significance level, using f statistical value of p less than 5 percent. The significance value of 5% is often used to interpret the t statistics.

**Data Discussion and Analysis**

To analyse and discuss the data collected, both descriptive and inferential data analysis were adopted. Descriptive statistics are used to represent the fundamental characteristics of the data for the research. They give basic rundowns about the sample and measures. This statistical analysis is based on means, percentages, and standard deviation. Others are frequencies, kurtosis, and skewness. With inferential statistics, conclusions that extend beyond the immediate data are drawn. With this statistical analysis, the study adopted the regression (both the linear and multiple) and the Pearson correlation.

**Results and Discussions**

**Level of Financial Literacy**

Participants score themselves to determine their attitude towards awareness and information about financial decisions.

**Decision making and Financial Information**

Table 7

*Gender of Respondents*

		I understand information on financial issues					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
Gender of Respondents	Male	13	14	44	49	51	171
	Female	9	26	28	52	12	127
Total		22	40	72	101	63	298

Source: Field Survey (2020)

Table 7 above shows the cross tabulation that exists between gender and how they understand financial management issues. The statement about the individual understanding of information related to financial issues as SMEs, 164(55.03%) agreed to the statement to a high extends. Out of the 298 respondents for this statement, 171(57.4%) are males and the remaining 127(42.6%) are females.



Table 8

*Age of Respondent*

		I understand information on financial issues					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
Age of Respondent	16-20 years	0	1	20	13	2	36
	21-25 years	4	7	14	31	29	85
	26-30 years	4	6	0	5	5	20
	31-35 years	2	8	9	33	4	56
	36-40 years	11	10	10	18	20	69
	Above40 years	1	8	19	1	0	29
Total		22	40	72	101	60	295

Source: Field Survey (2021)

Table 8 depicts the cross-tabulation of the perception of financial information among different age groups is also seen. Nearly all respondents age 16 and above, from Table 8, have at least some knowledge of information on financial issues to some degree. The age bracket of 21-25 years recorded the highest responses (29%) of having much information on financial issues. This is evidenced through the mean value of 3.47 and a standard deviation of 1.178.

Table 9

*Educational Level of Respondent*

		I understand information on financial issues					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
Educational level of Respondent	No formal education	6	13	11	28	5	63
	Basic of Education	9	7	25	27	38	106
	SSS/SHS	5	3	22	19	12	61
	Tertiary	2	17	14	27	8	68
Total		22	40	72	101	63	298

Source: Field Survey (2021)

Table 9 also demonstrate the level of education of the respondent and their ability to grasp knowledge on financial issues. As opposed to age and gender, the educational level of the respondents has a great deal of impact on their level of understanding of financial issues that affect the capacity of respondents to understand financial problems. When it comes to financial problems, the report wanted to evaluate the competence of respondents. 164 (55%) of the respondents are, to a considerable extent, familiar with topics related to financial issues. Also, to identify the respondent's knowledge and understanding of various investment/savings product which might go a long way in influencing their savings behaviors, gender, age, and educational level were cross tabulated to bring out the correlation between them. From Table 9, it could be deduced that in terms of the decision on a various financial investment product, the male counterpart dominate. This is proved by the mean value of

3.466 and standard deviation of 1.200. 92(30.6%) of the male respondents agreed to some extent that they have much knowledge and understanding on various forms of investment products, while 71(23.7%) of the female respondents have agreed to the statement to some large extent. This is in line with issues raised by Yong, Yew, and Wee, (2018) that perceived behavioral control reflects the feasibility of regulating one's behaviour. In decision making, the male's counterpart is very versatile to financial issues and other related investment products through excessive and diligent assessment.

Table 10  
*Gender of Respondents*

		Have knowledge on various investment products					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
Gender of Respondents	Male	15	20	46	51	41	173
	Female	14	8	34	49	22	127
Total		29	28	80	100	63	300

Source: Field Survey, (2021)

Since the respondents are mostly the youth from age 16-40 years, it can be evidenced from table 10 that, in terms of having knowledge and understanding of various financial investment products are well known to them. Education as a means of enlightening individual understanding on issues could not be overlooked. Table 10, depicts the correlation that exists between the respondents and their knowledge and understanding of various financial investment products. This represents the respondent's gender and their confidence level in financial decision-making. The table reveals that when it comes to decision-making in finance, male participants have a greater confidence than female participants

Table 11  
*Age of Respondent*

		Have knowledge on various investment products					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
Age of Respondent	16-20 years	0	3	12	7	14	36
	21-25 years	0	9	26	19	31	85
	26-30 years	5	2	7	4	2	20
	31-35 years	13	10	3	23	7	56
	36-40 years	10	3	14	35	9	71
	Above 40 years	1	1	18	9	0	29
Total		29	28	80	97	63	297

Source: Field Survey (2021)

Table 11 shows the age of respondent on knowing various investment products. Nearly all respondents age 16 and above, from Table 11, have at least some knowledge of information

on various investment products. The age bracket of 21-25 years recorded the highest responses (29%) of having much information on various investment products.

Table 12

*Educational level of Respondent*

		Have knowledge on various investment products					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	
Educational level of Respondent	No formal education	3	5	26	18	11	63
	Basic Education	10	2	29	38	29	108
	SSS/SHS	12	11	7	23	8	61
	Tertiary	4	10	18	21	15	68
Total		29	28	80	100	63	300

Source: Field Survey (2021)

Evidence from Table 12 above shows that education has an effect on the knowledge gained about financial products by respondents. Respondents with at least a basic certificate and degree

have the highest knowledge of financial product details relative to the rest of the respondents. Majority of the respondent who does not have an educational background have difficulty understanding the obtained financial information.

**Correlation of Financial Literacy and Investment/savings Behaviour**

Correlation and regression are used in determining the effect or relationship of financial literacy and savings behaviour

***Coefficient of Correlation***

Karl Pearson's correlation coefficient has been used to determine the relationship between the under-study variables. Karl Pearson correlation was also used to measure the degree of correlation between the variables and how much the variables correlate. The value of the correlation varies from a positive one to a negative one. The table below depicts the level of correlation between the study variables. The table below shows that there is a positive relationship between gender and individual ability to plan and implement regular savings behaviour.

Table 13: Showing Correlation between variables

Control Variables		Gender of Respondents	Marital Status of Respondent	Age of Respondent	Working Experience of Respondent	Educational level of Respondent	
I am able to plan and implement regular savings	Gender of Respondents	Correlation	1.000	-.347**	.125*	.023	-.161**
	Marital Status of Respondent	Correlation	-.347**	1.000	-.311**	-.215**	.154**
	Age of Respondent	Correlation	.125*	-.311**	1.000	.588**	-.074
	Working Experience of Respondent	Correlation	.023	-.215**	.588**	1.000	-.052
	Educational level of Respondent	Correlation	-.161**	.154**	-.074	-.052	1.000

Source: Field Survey (2021)

\* \*: Correlation is significant at level 0.01

\*. Correlation is significant at level 0.05.

A correlation figure of 1.000 is shown. From Table 13 above, there is a correlation figure of 0.125 for age and individual ability to schedule and execute regular savings behaviour; marital status and the participant's savings behaviour has a correlation figure of -0.347; the work experience and participants savings behaviour has a correlation figure of 0.023; the educational attainment and savings behaviour of the participants has a correlation figure of -0.161. There is also a positive association/relation between financial literacy and the participant's willingness to plan and implement daily savings (savings behaviour).

## ANOVA

ANOVA is used in this research to determine the degree of regression significance with statistical value of p less than 0.05 and a 95% confidence level.

Table 14

### ANOVA Variance Analysis

	Model	Sum of Squares	of Df	Mean Square	F	Sig.
1	Regression	21.247	5	4.249	3.385	.005 <sup>b</sup>
	Residual	360.323	287	1.255		
	Total	381.570	292			

Source: Field Survey (2021)

a. Dependent variable: I can schedule and execute regular savings.

b. Predictors: (Constant), Educational level of Respondent, Working Experience of Respondent, Gender of Respondents, Marital Status of Respondent, Age of Respondent.

Table 15

ANOVA

Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Change Statistics				
					R Change	Square	F Change	df1	df2
1	.236 <sup>a</sup>	.056	.039	1.12048	.056	3.385	5	287	.005

Source: Field Survey (2021)

a. Predictors: (Constant), Educational level of Respondent, Working Experience of Respondent, Gender of Respondents, Marital Status of Respondent, Age of Respondent

b. Dependent variable; am able to plan and implement regular savings.

Table 16

Model Summary

Model		Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error				Lower Bound	Upper Bound
	(Constant)	3.374	.448		7.523	.000	2.491	4.256
	Gender of Respondents	.202	.144	.087	1.405	.161	-.081	.485
	Marital Status of Respondent	.029	.149	.012	.192	.848	-.264	.321
1	Age of Respondent	.126	.051	.177	2.445	.015	.025	.227
	Working Experience of Respondent	-.296	.110	-.190	-2.692	.008	-.512	-.079
	Educational level of Respondent	-.117	.063	-.110	-1.876	.062	-.241	.006

a. Dependent Variable: I can schedule and execute regular savings.

Source: Field Survey (2021)

**Regression Equation**

From the Table 16 above, multiple regression equation can be defined as;

$$Y = 3.374 + 0.202X_1 + 0.126X_2 + 0.029X_3 - 0.296X_4 - 0.117X_5 + e.$$

Where,

Y= the dependent variable (individual savings behaviour)

X1= the respondent's Gender

X2= the respondent's age

X3= Respondent's Marital Status

X4= Respondent's job experience

X5= respondent educational status

e = the error term

From the regression equation, the individual savings behaviour would be 3.374 if all variables are constant at zero. The results indicate that, if all other independents variables are held constant, if the respondent is a male, 0.202 of the individual saving behaviour will appear to decrease but there is no decreasing effect for female respondent; any upwards increase in

age by one unit, will lead to an increase in individual saving behaviour of 0.126, unit decrease in education may lead to a decrease in individual savings behaviour of -0.117, in marital status ( if the person is married ) the individual savings behaviour will appear to increase by 0.029. The unit decrease in work experience will lead to a decrease in individual savings behaviour of -0.296. Sex has a positive relationship with individual savings behaviour, according to the equation. Age, marital status, and financial literacy are also correlated positively with individual savings behaviour. But the p-values for gender, age, and marital status are greater than the 0.05 common alpha level, which means they are statistically insignificant. Age, marital status and their predictor variables have statistically relevant coefficients because the p-values are less than the common alpha level of 0.05

### ***Factors affecting savings/investment among SMEs***

This part of the report deals with the constraints/challenges that hinder the respondent's efforts to save or invest in any financial set-up. The participants showed their level of understanding of the difficulties faced in savings, 8(8.1%) of the respondent stated that they strongly disagree with inadequate information on savings opportunities and 4(1.3%) also disagree with that. So almost 240(80%) of the respondents believe, inadequate information on savings/investment opportunities is a challenge to them (SMEs). Out of the 300 respondents, 169(56.3%) responded that they strongly agree with the statement that a low level of education is a factor preventing them (SMEs) from savings. This was immediately followed by agreed respondents with 23.3%. In terms of finding out if inadequate financial earnings among SMEs is a factor affecting their savings abilities, 183(61%) out of the 295 valid responses showed that they strongly agreed to it. Among the factors raised by respondents that hinder their ability to save/ invest in any financial institution or establishment were lack of trust among financial institutions, low interest rates on investment and savings institutions, SMEs are not willing to take risks involved in investments or savings. These were coupled with many challenges faced by customers in having access to their saved/invested funds in some financial institutions. Among all these factors affecting the investment/savings abilities of SMEs in Ghana, the low interest rate on investment and saving was outstanding with a mean value of 4.37 with a standard deviation of 2.596. This was followed up by inadequate financial earnings among SMEs (mean of 4.29 and a standard deviation of 1.078). The least factor according to the respondent's rating was difficulties in accessing saved/invested funds with a mean of 3.38 and a standard deviation of 1.641.

Table 17 below gives a descriptive analysis of the factors affecting SMEs in their investments and savings abilities in Ghana.

Table 17

*Factors Affecting Savings and Investment of SMEs in Ghana*

Variable	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Inadequate Information savings/investment opportunities	296	1.00	5.00	4.2736	1.20568	1.454
Low level of education	300	1.00	5.00	4.1767	1.18185	1.397
Inadequate financial earnings among SMEs	295	1.00	5.00	4.2983	1.07815	1.162
Lack of trust among financial institutions	298	1.00	5.00	4.1174	1.10537	1.222
Low interest rates on investment and savings institutions	298	1.00	44.00	4.3792	2.59639	6.741
I am not ready to Takerisk involved in investment/savings Difficulties	300	1.00	5.00	3.8467	1.39869	1.956
accessing saved/invested funds	300	1.00	5.00	3.3833	1.64074	2.692
Valid N (listwise)	287					

Source: Field Survey (2021)

### Conclusions

Most of the respondents have obtained academic training, varying from basic or primary school to degree level, which is 237 out of the total sample. However, that doesn't mean that there is no illiteracy, with 63 of the respondents having no academic training at all. Most of the studied population are married. There are more of the respondent who has more working experience in terms of SMEs. At the financial literacy level, most of the respondents managed their finances with some of them having little knowledge of financial matters in Ghana. The majority of the participants are not confident in making the financial decision and do not trust financial decision-making and often find it difficult to comprehend the financial information obtained regarding financial issues. Savings behaviour, the majority of the respondents saved part of their income and mostly done when they earn enough by the end of the day. Karl Pearson's correlation coefficient is adopted to determine the significant relationship between dependent and independent variables. All the independent variables (gender, education, marital status, age, financial literacy) therefore has a significant relationship with savings behaviour with financial literacy of 1.00. (R) of 0.236 and R-square (r) of 0.056 was used to determine the coefficient for the study. The statistical equation developed shows that the individual savings behaviour would be 3.374 if all variables are constant at zero. According to the equation, age, education, marital status has a significant relation with savings behaviour

with age and financial literacy contributing most to the dependent variable. But for gender and education, the p-values are higher than the common 0.05 alpha level, suggesting that they are statistically insignificant. Marital status, age, and financial literacy predictor variables have a statistical significance coefficient since their P-value is smaller than the common alpha of 0.05. The limiting factor on an attempt to save is that majority of the participants believe that saving with financial institutions especially banks take time and there are insufficient saving outlets, banks operation is too complicated, charges on financial services are much higher, and financial products too are not tailored to the needs of the participants. Most of the participants have lost trust in the financial system due to the financial scandals which occurred in the country such as God is love fun club, perfect edge, DKM diamond microfinance, care for humanity, and many others. The findings indicate that education has an effect on the knowledge gained about financial products by respondents. Respondents with at least a basic certificate and degree have the highest knowledge of financial product details relative to the rest of the respondents. Majority of the respondent who does not have an educational background have difficulty understanding the obtained financial information. The study shows that sex/gender, age, and marital status have a statically enormous effect on savings behaviour. Due to the low level of education which reflects a high level of financial literacy, most of the participants use informal ways to save.

Since some attention has been paid to financial literacy in recent years, any boost in financial literacy is believed to help individuals make better decisions about financial services, as the financial literacy rate is low in Ghana among SMEs. The stakeholders should develop policies and programs to strengthen the financial well-being of these SMEs in Ghana who are contributing much to the economy of the country. To create awareness about finances and their related significance, financial institutions can organize more financial literacy programs to help these SMEs organizes their finances and develop an interest in savings. Institutions providing finance such as rural banks and commercial banks and non-banking institutions such as insurance should develop products that are tailored to the different needs of each individual in Ghana. This could discourage those saving in their homes and could cultivate their interest in financial institutions.

This is a critical area of research because it will not only help us to identify the methods, habits, and skills of financial capacity that can be helpful for traders to learn, but also illustrate the intermediate outcome metrics that policymakers can rely on to evaluate the performance of financial literacy initiatives. The study also appears to foster financial literacy in advance and emerging markets by the Organisation for Economic Co-operation and Development (OECD), the Department for International Development (DFID), and the World Bank, because this can have a positive direct impact on access to funding and savings that support livelihood, economic growth and sound financial structures in turn.

## References

- Adomako, S., Danso, A., & Ofori Damoah, J. (2016). The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Venture Capital, 18*(1), 43-61.
- Agarwal, S., Qian, W., & Tan, R. (2020). Investment. In *Household Finance* (pp. 139-173): Springer.
- Agyei, Y. A., Kumi, E., & Yeboah, T. (2016). Is better to be a kayayei than to be unemployed: reflecting on the role of head portering in Ghana's informal economy. *GeoJournal, 81*(2), 293-318.



- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control* (pp. 11-39): Springer.
- Ali, A., Abd Rahman, M. S., & Bakar, A. (2015). Financial satisfaction and the influence of financial literacy in Malaysia. *Social Indicators Research*, 120(1), 137-156.
- Almenberg, J., & Dreber, A. (2015). Gender, stock market participation and financial literacy. *Economics Letters*, 137, 140-142.
- Amagir, A., van den Brink, H. M., Groot, W., & Wilschut, A. (2022). SaveWise: The impact of a real-life financial education program for ninth grade students in the Netherlands. *Journal of Behavioral and Experimental Finance*, 33, 100605.
- Awais, M., Laber, M. F., Rasheed, N., & Khursheed, A. (2016). Impact of financial literacy and investment experience on risk tolerance and investment decisions: Empirical evidence from Pakistan. *International Journal of Economics Financial Issues*, 6(1).
- Ayres, R. (2016). *Energy, complexity and wealth maximization*: Springer.
- Baada, J. N., Baruah, B., & Luginaah, I. (2019). 'What we were running from is what we're facing again': examining the paradox of migration as a livelihood improvement strategy among migrant women farmers in the Brong-Ahafo Region of Ghana. *Migration Development*, 8(3), 448-471.
- Bakar, S., & Yi, A. N. C. (2016). The impact of psychological factors on investors' decision making in Malaysian stock market: a case of Klang Valley and Pahang. *Procedia Economics Finance*, 35, 319-328.
- Bonello, A. (2019). *Understanding the Investor: A Maltese Study of Risk and Behavior in Financial Investment Decisions*: Emerald Group Publishing.
- Brown, M., Henchoz, C., Spycher, T., & Organization. (2018). Culture and financial literacy: Evidence from a within-country language border. *Journal of Economic Behavior*, 150, 62-85.
- Calcagno, R., & Monticone, C. (2015). Financial literacy and the demand for financial advice. *Journal of Banking Finance*, 50, 363-380.
- Cheah, K. K., Foster, F. D., Heaney, R., Higgins, T., Oliver, B., O'Neill, T., & Russell, R. (2015). Discussions on long-term financial choice. *Australian Journal of Management*, 40(3), 414-434.
- Chen, C.-f., Xu, X., & Day, J. K. (2017). Thermal comfort or money saving? Exploring intentions to conserve energy among low-income households in the United States. *Energy Research Social Science*, 26, 61-71.
- Chuan, C. L., & Penyelidikan, J. (2006). Sample size estimation using Krejcie and Morgan and Cohen statistical power analysis: A comparison. *Jurnal Penyelidikan IPBL*, 7(1), 78-86.
- Chulia, H., Gupta, R., Uribe, J. M., Mone, & Wohar, M. E. (2017). Impact of US uncertainties on emerging and mature markets: Evidence from a quantile-vector autoregressive approach. *Journal of International Financial Markets, Institutions*, 48, 178-191.
- Clark, R., Lusardi, A., & Mitchell, O. S. (2017). Employee financial literacy and retirement plan behavior: a case study. *Economic Inquiry*, 55(1), 248-259.
- Demirguc-Kunt, A., Kane, E., & Laeven, L. (2015). Deposit insurance around the world: A comprehensive analysis and database. *Journal of financial stability*, 20, 155-183.
- Dunska, M., & Kravinskis, K. (2016). Impact of Financial Literacy on Domestic Economic Activity in the Baltic States. In *Contemporary Issues in Finance: Current Challenges from Across Europe*: Emerald Group Publishing Limited.
- Eastburn, R. W., & Sharland, A. (2017). Risk management and managerial mindset. *The journal of risk finance*.

- Edelen, R. M., Ince, O. S., & Kadlec, G. B. (2016). Institutional investors and stock return anomalies. *Journal of Financial Economics*, 119(3), 472-488.
- Eniola, A. A., & Entebang, H. (2016). Financial literacy and SME firm performance. *International Journal of Research Studies in Management*, 5(1), 31-43.
- Erner, C., Goedde-Menke, M., & Oberste, M. (2016). Financial literacy of high school students: Evidence from Germany. *The Journal of Economic Education*, 47(2), 95-105.
- Estelami, H. (2016). Cognitive drivers of suboptimal financial decisions: Implications for financial literacy campaigns. In *Financial Literacy and the Limits of Financial Decision-Making* (pp. 10-25): Springer.
- Farrell, L., Fry, T. R., & Risse, L. (2016a). The significance of financial self-efficacy in explaining women's personal finance behaviour. *Journal of Economic Psychology*, 54, 85-99.
- Farrell, L., Fry, T. R., & Risse, L. (2016b). The significance of financial self-efficacy in explaining women's personal finance behaviour. *Journal of Economic Psychology*, 54, 85-99.
- French, D., & McKillop, D. (2016). Financial literacy and over-indebtedness in low-income households. *International Review of Financial Analysis*, 48, 1-11.
- Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance Investment*, 5(4), 210-233.
- Frydman, C., & Camerer, C. F. (2016). The psychology and neuroscience of financial decision making. *Trends in cognitive sciences*, 20(9), 661-675.
- George, B., & Thomachan, K. (2018). Financial inclusion and women empowerment: A gender perspective. *International Journal of Research-GRANTHAALAYAH*, 6(5), 229-237.
- Gompers, P. A., Gornall, W., Kaplan, S. N., & Strebulaev, I. A. (2020). How do venture capitalists make decisions? *Journal of Financial Economics*, 135(1), 169-190.
- Grohmann, A., Kouwenberg, R., & Menkhoff, L. (2015). Childhood roots of financial literacy. *Journal of Economic Psychology*, 51, 114-133.
- Haberly, D., MacDonald-Korth, D., Urban, M., & Wójcik, D. (2019). Asset management as a digital platform industry: A global financial network perspective. *Geoforum*, 106, 167-181.
- Hashim, Y. A. (2010). Determining sufficiency of sample size in management survey research activities. *International Journal of Organisational Management Entrepreneurship Development*, 6(1), 119-130.
- Hassan, L. M., Shiu, E., & Shaw, D. (2016). Who says there is an intention-behaviour gap? Assessing the empirical evidence of an intention-behaviour gap in ethical consumption. *Journal of Business Ethics*, 136(2), 219-236.
- Hoegen, A., Steininger, D. M., & Veit, D. (2018). How do investors decide? An interdisciplinary review of decision-making in crowdfunding. *Electronic Markets*, 28(3), 339-365.
- Hoffmann, A. O., Post, T., & Pennings, J. M. (2015). How investor perceptions drive actual trading and risk-taking behavior. *Journal of Behavioral Finance*, 16(1), 94-103.
- Hsiao, Y.-J., & Tsai, W.-C. (2018). Financial literacy and participation in the derivatives markets. *Journal of Banking & Finance*, 88, 15-29.
- Johnson, R. D., Carlson, K. D., & Kavanagh, M. J. (2020). *Human resource information systems: Basics, applications, and future directions*: Sage Publications.
- Jonsson, S., Soderberg, I.-L., & Wilhelmsson, M. (2017). An investigation of the impact of financial literacy, risk attitude, and saving motives on the attenuation of mutual fund investors' disposition bias. *Managerial Finance*.

- Junghans, A. F., Cheung, T. T., & De Ridder, D. D. (2015). Under consumers' scrutiny-an investigation into consumers' attitudes and concerns about nudging in the realm of health behavior. *BMC public health*, *15*(1), 336.
- Kannadhasan, M. (2015). Retail investors' financial risk tolerance and their risk-taking behaviour: The role of demographics as differentiating and classifying factors. *IIMB Management Review*, *27*(3), 175-184.
- Kiliyanni, A. L., & Sivaraman, S. (2016). The perception-reality gap in financial literacy: Evidence from the most literate state in India. *International Review of Economics Education*, *23*, 47-64.
- Kramer, M. M. (2016). Financial literacy, confidence and financial advice seeking. *Journal of Economic Behavior Organization*, *131*, 198-217.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational psychological measurement*, *30*(3), 607-610.
- Kumar, S., & Goyal, N. (2015). Behavioural biases in investment decision making—a systematic literature review. *Qualitative Research in financial markets*.
- Kumar, S., & Goyal, N. (2016). Evidence on rationality and behavioural biases in investment decision making. *Qualitative Research in financial markets*.
- Lindsay, S., McDougall, C., Menna-Dack, D., Sanford, R., & Adams, T. (2015). An ecological approach to understanding barriers to employment for youth with disabilities compared to their typically developing peers: views of youth, employers, and job counselors. *Disability rehabilitation*, *37*(8), 701-711.
- Loerwald, D., & Stemmann, A. (2016). Behavioral finance and financial literacy: Educational implications of biases in financial decision making. In *International handbook of financial literacy* (pp. 25-38): Springer.
- Lucey, T. A. (2016). Preparing preservice elementary teachers to teach about financial literacy: Towards a broader conception. In *International handbook of financial literacy* (pp. 655-673): Springer.
- Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics Statistics*, *155*(1), 1.
- Mahmoud, A. B., Reisel, W. D., Fuxman, L., & Hack-Polay, D. (2022). Locus of control as a moderator of the effects of COVID-19 perceptions on job insecurity, psychosocial, organisational, and job outcomes for MENA region hospitality employees. *European Management Review*, *19*(2), 313-332.
- Maman, D., & Rosenhek, Z. (2019). Responsibility, planning and risk management: moralizing everyday finance through financial education. *The British Journal of Sociology* *70*(5), 1996-2019.
- Mathis, K., & Steffen, A. D. (2015). From rational choice to behavioural economics. In *European perspectives on Behavioural law and economics* (pp. 31-48): Springer.
- Mesoudi, A., Chang, L., Dall, S. R., & Thornton, A. (2016). The evolution of individual and cultural variation in social learning. *Trends in ecology evolution*, *31*(3), 215-225.
- Mishra, K., & Metilda, M. J. (2015). A study on the impact of investment experience, gender, and level of education on overconfidence and self-attribution bias. *IIMB Management Review*, *27*(4), 228-239.
- Nelson, J. M., Choi, H.-J., Clark, C. A., James, T. D., Fang, H., Wiebe, S. A., & Espy, K. A. (2015). Sociodemographic risk and early environmental factors that contribute to resilience in executive control: A factor mixture model of 3-year-olds. *Child Neuropsychology*, *21*(3), 354-378.

- Ng, A. W., & Tang, W. (2016). Regulatory risks and strategic controls in the global financial centre of China. In *The Political Economy of Chinese Finance*: Emerald Group Publishing Limited.
- Nielbo, K. L., & Sorensen, J. (2016). Attentional resource allocation and cultural modulation in a computational model of ritualized behavior. *Religion, Brain Behaviour*, 6(4), 318-335.
- Nitani, M., Riding, A., & Orser, B. (2020). Self-employment, gender, financial knowledge, and high-cost borrowing. *Journal of Small Business Management*, 58(4), 669-706.
- Oseifuah, E., Gyekye, A., & Formadi, P. (2018). Financial Literacy among Undergraduate Students: Empirical Evidence from Ghana. *Academy of Accounting Financial Studies Journal*, 22(6), 1-17.
- Owusu, E. N. (2016). *Assessing the Level of Financial Literacy among Teachers A Case Study of Sekyere East District of Ashanti Region of Ghana*.
- Pak, O., & Mahmood, M. (2015). Impact of personality on risk tolerance and investment decisions. *International Journal of Commerce Management*.
- Peters, G. W., & Panayi, E. (2016). Understanding modern banking ledgers through blockchain technologies: Future of transaction processing and smart contracts on the internet of money. In *Banking beyond banks and money* (pp. 239-278): Springer.
- Pillai, K. G., Hodgkinson, G. P., Kalyanaram, G., & Nair, S. R. (2017). The negative effects of social capital in organizations: A review and extension. *International Journal of Management Reviews*, 19(1), 97-124.
- Pilz, M., Uma, G., & Venkatram, R. (2015). Skills development in the informal sector in India: The case of street food vendors. *International Review of Education*, 61(2), 191-209.
- Pincus, K. V., Stout, D. E., Sorensen, J. E., Stocks, K. D., & Lawson, R. A. (2017). Forces for change in higher education and implications for the accounting academy. *Journal of Accounting Education*, 40, 1-18.
- Prina, S. (2015). Banking the poor via savings accounts: Evidence from a field experiment. *Journal of development economics*, 115, 16-31.
- Rao, K. (2019). Global Wind Energy and Power Generation Options: Socioeconomic Factors. In *Wind Energy for Power Generation* (pp. 703-828): Springer.
- Rao, K., & Tilt, C. (2016). Board composition and corporate social responsibility: The role of diversity, gender, strategy and decision making. *Journal of Business Ethics*, 138(2), 327-347.
- Roid, G. H., & Koch, C. (2017). Leiter-3: Nonverbal cognitive and neuropsychological assessment. In *Handbook of nonverbal assessment* (pp. 127-150): Springer.
- Sarkis Jr, A. M. (2017). A comparative study of theoretical behaviour change models predicting empirical evidence for residential energy conservation behaviours. *Journal of Cleaner Production*, 141, 526-537.
- Sarnovics, A., Mavlutova, I., Peiseniece, L., & Berzina, S. (2016). Financial literacy enhancement as a task of financial education for Latvian population. In *Business Challenges in the Changing Economic Landscape-Vol. 2* (pp. 365-389): Springer.
- Sebayang, S. K., Efendi, F., & Astutik, E. (2019). Women's empowerment and the use of antenatal care services: analysis of demographic health surveys in five Southeast Asian countries. *Women health*, 59(10), 1155-1171.
- Sherraden, M. S., & Ansong, D. (2016). Financial literacy to financial capability: Building financial stability and security. In *International handbook of financial literacy* (pp. 83-96): Springer.

- Stolper, O. A., & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Journal of Business Economics*, 87(5), 581-643.
- Sweet, S., Sarkisian, N., Matz-Costa, C., & Pitt-Catsoupes, M. (2016). Are women less career centric than men? Structure, culture, and identity investments. *Community, Work Family*, 19(4), 481-500.
- Tate, W. L., & Bals, L. (2018). Achieving shared triple bottom line (TBL) value creation: toward a social resource-based view (SRBV) of the firm. *Journal of Business Ethics*, 152(3), 803-826.
- Uen, J. F., Chang, H.-C., McConville, D., & Tsai, S.-C. (2018). Supervisory mentoring and newcomer innovation performance in the hospitality industry. *International Journal of Hospitality Management*, 73, 93-101.
- Van Damme, L., Vanderplasschen, W., Fortune, C.-A., Vandeveldel, S., & Colins, O. F. (2019). Determinants of female adolescents' quality of life before, during and after detention: A four-wave follow-up study examining a theory of individual quality of life. *Applied Research in Quality of Life*, 1-34.
- Van Raaij, W. F. (2016). Saving Behavior. In *Understanding Consumer Financial Behavior* (pp. 33-44): Springer.
- Vieira, K. M., Potrich, A. C. G., & Mendes-Da-Silva, W. (2019). A Financial Literacy Model for University Students. In *Individual Behaviors and Technologies for Financial Innovations* (pp. 69-95): Springer.
- Wahid, A. S. (2019). The effects and the mechanisms of board gender diversity: Evidence from financial manipulation. *Journal of Business Ethics*, 159(3), 705-725.
- Waisbord, S. (2020). Family tree of theories, methodologies, and strategies in development communication. *Handbook of Communication for Development Social Change*, 93-132.
- Wardani, L. M. I., & Firmansyah, R. (2019). The Work-Life Balance of Blue-Collar Workers: The Role of Employee Engagement and Burnout. *Jurnal Psikologi Ulayat: Indonesian Journal of Indigenous Psychology*, 6(2), 227-241.
- Worthington, A. C. (2016). Financial literacy and financial literacy programmes in Australia. In *Financial Literacy and the Limits of Financial Decision-Making* (pp. 281-301): Springer.
- Yong, H.-N. A., & Tan, K.-L. (2017). The Influence of Financial Literacy Towards Risk Tolerance. *International Journal of Business Society*, 18(3).