KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING AND FINANCE

FINANCIAL LITERACY AMONG UNIVERSITY STUDENTS IN GHANA

By

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DECLARATION

I hereby declare that this submission is my own work towards the award of a Master of Business Administration, Finance Option and that to the best of my knowledge, it contains no material previously published by another person or any material which has been accepted for the forward of any other degree of the University, except where due acknowledgement has been made in the text.

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DEDICATION

To my lovely and cherished mom.

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I would like to express my deepest appreciation to the almighty God for his grace, mercy and protection all these years of my education. Glory be unto his name. I would also like to express my deepest appreciation to my family for their prayers and support. I am also profoundly grateful to my eminent supervisor **Dr. Beatrice Sarpong-Danquah** of

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ABSTRACT

Financial literacy plays a vital role in the lives of the individual and the nation as it impacts on savings, investments, borrowings and the management of money. Financial literacy contributes to better decision making on financial matters, help in the financial stability of household, individuals and the economy. The main objective of this study was to investigate the level of financial literacy among university students in Ghana. The was conducted using undergraduate students in KNUST, Kumasi. To achieve the study objectives, the study employed descriptive, quantitative, and questionnaires to gather data from a sample of 398 respondents. The study employed various statistical tools including SEM analysis, correlation and ANOVA for the data

analysis. Regression analysis was employed to assess the impact of financial literacy on students' financial behaviour. Results of the study revealed that the financial attitudes that are deemed important to the university students include control of monthly expenses, establishment of financial target for the future, saving money on a monthly basis and following a monthly expense plan. It was also revealed that the students go more than one month without balancing their personal expenses, and hardly save on a monthly basis. In addition, it was revealed that students with business background are more financially knowledgeable than the other students. Also, a significant positive impact was found between financial literacy and financial behaviour. Based on this, the study recommends to the various educational stakeholders to include some course in the curricula of non-business students to upgrade their level of financial literacy for their financial wellbeing. Students in the respective fields of non-business are also recommended to take short course on financial management to upgrade their financial literacy skills. The study further recommends to the stakeholders of the various universities to use their various platforms such as matriculations and orientations to educate students on the need for them to save and invest much of their income to meet unforeseen circumstances and prepare for the future.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ACCA –   Association of Certified Charted Accountant

ANOVA – Analysis of Variance

DFID -   Department for International Development

GES –   Ghana Educational Service

OECD -   Organization for Economic Cooperation and Development

SEM –   Structural Equation Model

SPSS   –   Statistical   Package   for   Social   Sciences

KNUST

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The concept of financial literacy has piqued the interest of scholars and academicians as a result of its strategic implications on the individual, society, government and the nation as a whole. Financial literacy plays a vital role in the lives of the individual and the nation as it impacts on savings, investments, borrowings and the management of money (Khusaini et al., 2022). There is the need for an individual to possess financial knowledge, skills and attitude to enable him to make the right informed financial decisions. To generate positive financial behaviour, the concept of financial literacy requires that a person should possess high financial knowledge and combine it with good financial attitudes (Jayaraman et al., 2018). As many financial services are delivered every day to the general populace, improving financial knowledge is crucial to the government and many sectors of the economy. In many countries, there is a shift on educating the individuals on how to manage their income, savings, investments, retirement plan and their wards' education (Oteng, 2019) for the betterment of the individual and the society.

The skills involved in financial literacy has a significant effect on a person, family, and the well-being of the economy in general. Over the last two decades, studies show that nations have placed much emphasis about financial literacy level of their citizen, particularly the youth (Douissa, 2020). Empirical literature suggests that low financial literacy level among individuals is a major cause of low savings rates, high customer debt, insufficient retirement planning, basis of divorce, emotional stress and other unfavorable outcomes, among others (Lusardi & Mitchell, 2011; Wolcott & Huges, 2019). As a result, not only do financial literacy skills contribute to better decision making on financial matters, but also help in the financial stability of household, individuals and the economy (OECD, 2017; Ghazali et al., 2017).

Under this current dispensation of global financial challenges, political leaders, savants, economic experts and the media usually express their sentiments on individual's less appetite to save and invest their funds, as well as their inability to understand and compute basic financial problems they come across in and outside school (Mandell, 2008; Hamilton, 2013; Huhmann, 2017; Jamaludin et al., 2019). Many individuals from all walks of life around the world are currently confronted with the challenges raised by a lack of financial literacy, a problem that became apparent during and after the global financial crisis, highlighting the value of financial literacy as a necessary life skill for financial and economic prosperity. Under this current dispensation, individuals are in control of their personal finances, necessitating the need for financial literacy and education (Lusardi, 2019; Oseifuah and Formadi, 2018).

Financial literacy skills are needed by persons to thrive under today's uncertain economic climate (Lusardi, 2019). People who possess low knowledge in financial literacy are usually unwilling to save for retirement, invest in the stock market, and have more debt (Kuntze et al., 2019). Financial literacy has an effect on a person's financial decisions, especially when it comes to saving, investing, retirement planning, and portfolio selection. De Bassa (2013) argued that financial markets have become more dynamic in the last two decades. Under this current dispensation, individuals have more financial responsibility over their personal financial stability in this modern financial world (Oseifuah et al., 2018). Failure on the part of an individual to prepare financially for the future has disastrous impact on his life. Lusardi et al. (2013) observed that individuals today are forced to make their personal financial choices.

Mistakes an individual committed early in life on financial matters will cost him a lot of money. This may have a negative effect on their ability to accumulate and generate wealth (Fatoki, 2014).

Young individual's savings are also influenced by their level of financial literacy. The ability of the youth to save and accumulate assets is critical in the sense that it triggers them to financially embrace obligations and prepares them in addition to face some time to come (Ghazali et al., 2017). According to Oseifuah (2018), household savings in Ghana have decreased over the past decades. It is imperative for scholars to consider financial literacy among the youth since they are considered as future leaders and successors (Lusardi et al., 2013). Education in finance, especially among young adults, is critical to reducing financial problems (Ansong and Gyensare 2012). Financial literacy may help university students avoid accumulating large amounts of debt (Shaari et al. (2013). Students' financial decisions at university have a major impact on their financial status after graduation (Fatoki, 2014). Furthermore, students' financial knowledge and decision at university may have an effect on their academic success. Students need to make financial decisions based on their financial experience, such as whether to save, spend, or invest.

In a number of developing nations, the repercussions of the economic challenges on citizens have prompted an increase in the level of savings and investments by individuals. This has moreover, enhance the level of students' financial literacy (Khusaini et al., 2022) which raises the questions: What is the level of financial literacy among university students in Ghana? What is the impact of student's financial literacy on their financial behavior? Are some groups of university students more financially knowledgeable than the others? It is to address these reasons that research of this nature is been carried out to help understand the level of financial literacy among university students in Ghana.

1.2 Statement of the Problem

After the global financial crisis, the concept of financial literacy among individuals began to attract much attention as a result of its impact on the welfare of the individual, businesses and the nation (Ghazali et al., 2017). Financial literacy contributes to better decision making on financial matters, help in the financial stability of household, individuals and the economy (OECD, 2017), and as well aid individual to withstand any form of financial distress that may occur (Mireku, 2015). In addition, financial literacy may help individuals to avoid accumulating large amounts of debt (Shaari et al., 2013) and also helps people to be wellsound in all financial affairs (World Bank, 2009). Besides, it also enables individuals to utilize their scares resources prudently (Kapoor et al., 2004).

Most studies done on financial literacy focus on developed countries (Gilenko and Chernova, 2021; Zhu et al., 2021; Bottazzi and Lusardi, 2021; Gallego-Losada et al., 2022; Cordero et al., 2022) with little attention in developing countries (Jungo et al., 2021; Lyons and KassHanna, 2021; Babajide et al., 2021). In addition, many studies on financial literacy have focused on public sector workers (Yankey, 2016; Aluodi et al. 2017; Kamakia et al., 2017; Jana et al., 2019); entrepreneurship (Oggero et al., 2020; Riepe et al., 2022; Anshika and Singla, 2022) and retirement planning (Katenova and Sang, 2020; Garcia, 2021; GallegoLosada et al., 2022). Notwithstanding, a number of studies on financial literacy has focus on university students (Artavanis and Karra, 2020; Philippas and Avdoulas, 2020; Liu and Zhang, 2021). In Ghana, most studies on financial literacy among students concentrates on their financial wellbeing (Kamakia et al., 2017) as well as their level of financial literacy (Oseifuah et al., 2018; Philippas and Avdoulas, 2020). The focus of this study is basically on students' financial attitude, financial behaviour and financial knowledge.

Though studies have been carried out on financial literacy (such as Chen, 2022; Cannistra et al., 2022; Nowotny, 2022; Khusani et al., 2022). Only few studies exist to assess the level of financial knowledge, financial attitude and financial behaviour among university students (Goyal et al., 2020). Khusaini et al. (2022) studied on the impact of financial education on financial literacy among university students. Bottazzi and Lusardi (2021) on the other hand studied on stereotyping in financial literacy. Gilenko and Chemova (2021) also analyse saving behavior and financial literacy among high school students, while SarpongKumankoma (2021) delve deeper on financial literacy and retirement planning in Ghana. This study also analyse the level of financial literacy among university students in Ghana, taking into consideration their level of financial knowledge, financial attitude and their financial behaviour.

Sequel to the above, many studies on financial literacy have delve deeper into old ages (Fong et al., 2018), public sector workers (Jana et al., 2019) and pensioners (Garcia, 2021), among others. However, looking at the importance of university students to the economy of Ghana, it becomes imperative to assess their level of financial literacy. This study fills a gap and contributes to the body of knowledge on the paucity of financial literacy studies among university students in the country. Centrally, the purpose of this study is to examine the level of financial literacy among university students in Ghana.

1.3 Objectives of the Study

This section of the study spelt out the main and specific objectives of the study.

1.3.1 Main Objective

The main objective of this study was to analyse financial literacy level among university students in Ghana.

1.3.2 Specific Objectives

Specifically, the following objectives were outlined:

i. To analyse the financial attitude and financial behavior of university students. ii.

   To investigate the impact of financial attitude on financial behavior of students.

iii. To examine whether some students are more financially knowledgeable than the others.

iv. To assess the impact of financial literacy on financial behavior of university students.

1.4 Research Questions

This section of the study spelt out the specific research questions of the study.

1.4.1 Specific Research Questions

The following research questions were asked:

i. What are the financial attitude and financial behavior of university students? ii.

   What is the impact of financial attitude on financial behavior of students.

iii.   Are some students more financially knowledgeable than the others?

iv.   What is the impact of financial literacy on financial behavior of university students?

1.5 Significance of the Study

A major importance of this study is that it is among the paucity of studies conducted to analyse the level of financial literacy among university students in Ghana. It should be noted that the university climate offers an ideal and conducive environment for young and old students on campus pursuing various degrees to pursue sound financial education. As a result, this research's expected final outcomes would bring to light the level of students' personal finance skills in order to establish recommendations for implementing an effective financial literacy program that will enhance their quality of life.

Secondly, because of the positive direct impact on access to finance and savings, which in turn supports livelihoods, economic growth, and sound financial management, this study complements the Organisation for Economic Cooperation and Development (OECD), the Department for International Development (DFID), and the World Bank's programme in promoting financial literacy in developing and emerging markets.

Furthermore, the study contributes to the existing literature in the field of finance and helps to build the appropriate environment for future research in Ghana and other developing countries. This study may also provide valuable information for universities in Ghana to establish personal finance curricula. The helpful recommendations given in this study can be used to develop students' personal financial literacy skills, which will have a long-term impact on the Ghanaian economy.

1.6 Scope of the Study

The scope of this study covers financial knowledge, financial attitude and financial behaviour. The geographical scope of the study is limited to some selected private and public universities in Ashanti Region. The study was conducted using KNUST in the Kumas metropolis of the Ashanti Region of Ghana. A sample size of 398 university students were drawn from the various fields of study.

1.7 Summary of Methodology

The main objective of the study is to assess the level of financial literacy among university students in Ghana. The study uses a quantitative research approach and a descriptive research design. The quantitative method will allow an objective and formal means to employ numerical data in the measurement of the study variables (Saunders et al., 2012). The study's population revolves university students in Ghana, however, due to limited resources and time constraints,

the study limits its sample size to 398 students in KNUST. The data source for this study is primary in nature as it made use of questionnaires to gather data for the study.

The study adopted structural equation modelling (SEM) approach to analyze the data.

1.8 Limitations of the Study

This study covers the level of financial literacy among university students. The research chose to limit the scope to one public universities within the Ashanti Region. The sample size of 398 respondents drawn from the chosen university is relatively small considering the number of university students within the selected institution. It cannot be said with certainty that the sample is an exact representation of the study population in this study.

1.9 Organisation of the Study

The research is group into five main chapters. The first chapter is the introductory chapter, and it highlights on the background to the study, the problem of the study, the objectives of the research, research questions, the scope and significance of the study and the brief methodology of the study. The chapter two presents the review of the literature. This chapter presents the theories backing the research and empirical studies conducted on the study area. The third chapter highlights on the research methodology. The methodology talks about the research design, sample and population, the data and sources of the data as well as ethical issues, among others. The fourth chapter is the presentation and analysis of data. This chapter presents and analyse the data using the various methodologies highlighted in the previous chapter of the study. The last chapter is the summary, conclusion and recommendation. The researcher summarizes the entire study and makes conclusions based on the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter of the study presents the literature review on the topic: "financial literacy among university students in Ghana". This chapter presents the literature review in four sections, namely; conceptual, theoretical, empirical review as well as conceptual framework model.

2.1 Conceptual Literature Review

In this section of the study, the researcher review literature on the various concepts under study. These concepts include financial literacy, financial knowledge, financial attitude and financial behaviour. The next sub-sections reveal them into details.

2.1.1 Financial Literacy

The term financial literacy was first introduced in the United States by the JumpStart Coalition for Personal Financial Literacy in the year 1997 (Stolper and Walker, 2017). The concept was defined by the coalition as "the ability to apply one's skills and knowledge to regulate his personal financial resources to ensure sound financial security". From the perspective of the Institute of Economic Affairs (2012), financial literacy is the set of skills and knowledge needed for a person to make effective and informed decisions through their understanding of finances. However, according to Hung et al. (2009), the definition of financial literacy proposed in literature lacks a universally accepted view on what really the concept hovers around. The researchers lament that the various definitions given on financial literacy place emphasis on different dimensions of what financial literacy is all about. Amisi (2012) approached the term from the perspective of an understanding of money and financial products which can help an individual to make sound financial decisions.

Financial literacy is seen as one of the key managerial competencies in the growth and performance of business as well as in the lives of individuals (ACCA, 2014). The Organization for Economic Corporation and Development (OECD) described financial literacy from three perspectives: financial knowledge, financial behaviour as well as financial attitude. In the words of Xiao (2017), financial literacy is the ability of an individual to understand, analyze and act on financial information. Financial literacy is the ability of a person to manage and strategize on financial knowledge and information which considerably impact on a person's knowledge, attitude and decision-making behaviour for a sound

decision making (Eniola, 2016). Remund (2010) posit that financial literacy is the extent to which an individual makes effective decision concerning the management and usage of financial resources for long-term financial planning. Fatoki (2014) revealed that financial literacy relates to financial knowledge, financial behaviour, financial attitude and perceived awareness obtained to make prudent financial decisions.

Financial literacy, as defined by the Financial Literacy and Education Commission (2018) is the ability to utilize the skills and knowledge gained to manage financial resources for the betterment of financial well-being. Similarly, financial literacy involves the capacity to utilise one's knowledge and skills for the management of scares financial resources for financial security (Jumpstart Coalition for Personal Financial Literacy, 2019). From the above definition, it can be deduced that both institutions looked it from the perspective of financial knowledge as well as the ability manage financial matters. Financial literacy, as defined by the Financial Literacy and Education Commission (2018) is the ability to utilize the skills and knowledge gained to manage financial resources for the betterment of financial well-being.

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Financial literacy, as defined by Lusardi and Mitchell (2014) involves financial knowledge possessed by an individual to manage his personal finances to avoid any form of financial difficulties as well as improve his standard of living. It involves the ability and knowledge that enable an individual to know much of financial markets and institutions and other financial matters to enhance their prudent decision making. Sugiyanto et al. (2019) revealed that in order for an individual to enhance financial knowledge through financial products and services, financial literacy is key. The four indicators of financial literacy as highlighted in the study by Ulfatun et al. (2016) include savings, borrowings, insurance and investments.

2.1.2 Financial Knowledge

Financial knowledge as defined by Gina et al. (2012) is the understanding of essential concepts in finance and the diversification of risks in investment portfolios. For one to invest prudently and to diversify well, there is the need for one to be knowledgeable in financial matters (Musundi, 2014). The researcher revealed that households that possess little knowledge in savings, investment, insurance and borrowing usually jeopardize their portfolios. For one to negotiate better returns at a tolerable risk, one must be well-sound in financial matters. Key areas that an individual needs to be have an in-depth knowledge concerning investment decisions are credit risks and returns, diversification and how to compute various investments made (Kefala, 2010). To remain knowledgeable about issues pertaining to finance, Annamaria et al. (2014) contends that there should be a measurement of one's financial capability. Individuals and institutions with high financial knowledge are able to keep proper financial records and have a positive edge in terms of accessing credit and loan facilities than their counterparts who do not. Individuals who possess high financial knowledge do partake in stock market and are more likely to carry out a number of financial practices (Wise, 2013; Lusardi, 2013).

The concept of financial knowledge relates to the ability of an individual to understand and compute basic calculations relating to risk, interest rates, returns, and financial securities, among others (Lusardi et al., 2017). A person who possesses strong financial knowledge is capable of weighing available alternative and making better informed decisions on financial matters (Kadoya and Khan, 2020). When an individual develops his financial knowledge into skills, it helps that person in his financial attitude and behavior. From the above arguments, it can be deduced that a person's financial knowledge influences his financial attitudes and financial behavior. As revealed by Mutlu and Gukhan (2022), an individual with in-depth

financial knowledge is able to plan well on financial matters and also remained satisfied with financial matters.

2.1.3 Financial Behaviour

A person's financial behaviour provides information about the degree to which he takes responsibility for his personal finances and budgeting (Jappeli and Padula, 2013). According to Graf (2012), one of the crucial competencies of management for business success and growth is financial behaviour. This assertion is confirmed in a study by Musie (2015) who stated that financial behaviour helps in the decision-making process of an individual as well as businesses. However, Bucher-Koenen et al. (2014) posit that individuals with low financial literacy mostly take their advice on financial matters from friends and families and do participate less in the stock market. Oseifuah (2010) put forward that an individual with good financial behaviour is able to comprehend financial decisions better and also make the right choice relating to the management of cash, insurance, savings, and long-term planning. Previous studies have significantly connected financial literacy to financial behaviours such as savings, cash and debt management that realize the maximum benefit for the individual

(ACCA, 2014).

Financial behavior relates to the financial situation, savings, spending, investments, as well as debt management of an individual. From the perspective of Hilgert et al. (2013) financial behavior can be viewed from credit and cash management, as well as savings and investments. For an individual to make financial decisions, financial behavior is key. In literature, many studies have employed socioeconomic variables as well as demographic factors to explain the financial behavior of individuals (Mutlu and Gukhan, 2022). An individual should possess financial knowledge in attempt to build a proper financial behavior for his life. Following Britt et al. (2019) financial behavior refers to an individual's techniques in managing his finances.

2.1.4 Financial Attitude

In the words of Kebede et al. (2017), financial attitude is the means of applying certain principles in finance with the view of creating and upholding value through prudent decision making and management of resources. According to Lusardi (2013), financial attitude is one of the key ingredients that have impacted successfully on the practice of financial management. Through the use of financial principles and conventions, financial attitude is view as the formation of prudent decision making and resource management (Carpena and Zia, 2011). Efe (2014) argued that financial attitude is enhanced through the generation of appropriate information. Jonsson et al. (2017) allude that financial literacy is enhanced through the realization of financial attitude. Through the financial performance of the individual, financial attitude improves the management of risk and diversification of portfolios with the aim of enhancing the financial success of the individual (Usama and Yusoff, 2018). In the area of business operation, the financial attitude of the owner plays a crucial role in the determination of the performance of the business based on the strategy of risk management (Fisher and Yao, 2017).

The concept of financial attitude is taught to relate to savings, investment and retirement plans of an individual that impact on his financial behavior. Based on the spending, consumption and investment pattern of an individual, it is possible for that person to show a consistent financial attitude (Alkaya and Yagli, 2015). For instance, a person would be less incline to invest if that individual has developed a negative attitude towards investment and vice versa. The decision that an individual makes with regards to his or her personal savings, borrowing and investments are influenced by his attitude towards finance (Denk et al., 2018).

In addition, an individual who possess good financial attitude are can't predict the fortunes of his future are more likely to spend less, save and invest more to meet unforeseen future circumstances (Aydemir and Aren, 2017).

2.2 Overview of the Ghanaian Educational Sector

The educational system of Ghana was mainly informal before the arrival of the Europeans. Governed by the Education Act, 2008, Act 778, the system is divided into basic, secondary and tertiary education. The Act spelt out compulsory universal basic education for all Ghanaian citizens. The official language is English. According to Aheto-Tsegah (2011), the system of education in the country is tie to sociopolitical changes that took place during the colonial period. The system of education in Ghana is administered by the Ministry of

Education which oversees other bodies which include the Ghana Education Service (GES). The educational system of Ghana is responsible for educating and training students for the betterment of the country.

The current minister of education is Honourable Yaw Edutwum who oversees all affairs relating to the system of education in Ghana with the help of bodies such as the GES and TVET. According to the Ministry of Finance Report in 2017, the educational system of Ghana alone takes covers about 23% of government's expenditure. This reveals that the government of Ghana is so concern about the system of education in the country. However, the system of education in Ghana is saddled with a lot of challenges that derails it progress. Adu-Gyamfi et al. (2016) revealed that to meet the basic requirements needed at the educational sector to develop, frantic efforts should be made by government in power as well as their successors.

2.3 Theoretical Literature Review

This study is anchored on the goal setting theory and social learning theory. In as much as university students set goals based on their financial knowledge and financial behaviour, this

theory is deemed relevant for the study as it comprehensively explains the reason why such action leads to success. In addition, a lot of students learn through their social interaction with others. This section of the study discusses the goal setting theory as well as the social learning theory and how relevant it is to the study.

2.3.1 Goal Setting Theory

The goal setting theory was propounded by Locke (1968). The theory states that students who set goals desire to achieve their goals set which leads to success. In as much as university students set goals, this theory is relevant to the conduct of this study. The level of financial literacy among university students enables them to set financial goals and work towards their attainment to achieve the maximum satisfaction in the long run. Kappor et al. (2004) contend that students who set goals and work towards their attainment are always successful. The researchers further reveal that all those individuals who set goals want to achieve a stated result in the long term. This approach is deemed appropriate as it help an individual to utilize their scares resources prudently (Kapoor et al., 2004). The theory also posits that individuals who have plans and always try to achieve them are more successful that those who do not (Lusardi et al., 2022).

This theory is deemed relevant to the study because it holds a key financial management concept, which is financial planning and financial well-being of students. The scares nature of resources at a student's disposal makes him to plan and make good use of the resources and allocate some for prosperity. Students with long term financial goals tend to utilize the scares resources at their disposal through goal setting. Such students usually put down measure to secure their current and future needs (Kapoor et al., 2004). They usually save, borrow, insure their properties, and invest. In addition, such people usually plan towards their future financial goals.

2.3.2 Social Learning Theory

The social learning theory can be referred back to the work of Bandura (1960) who contend that process of learning among individuals usually occur through observation and social interaction with people. As argued by the proponent, there is a weakness attributable to learning process which highlights that social learning factors were not included pertaining to certain responses generated on certain human aspects. This theory is essential to a study of this since most decisions made on financial matters by students can be ascribed to their learning process which can be formal or informal in nature. This theory explains how social variables such as information and advice on financial matters influence the shaping of a students' financial behaviour (Luardi et al., 2022).

With this theory, Glaeser and Scheinkman (2003) posit that the students' attitude about money emanates from the environment as a result of social interaction on the behaviour of individuals. In financial literacy, differences in culture play a crucial role as a result of dissimilarity in students' norms, attitudes, and experiences relating to the management of money. Some culture view debt as carrying a negative connotation which may hinder students from such background from taking loans and other credit facilities to build their portfolios (Wanjiru, 2017). According to Berkowitz (2013), social interaction may impact on student's financial decisions as they obtain and process information through their daily interaction with other people. Many students rely on information from their peers, family and acquaintances when deciding on investments as they may lack quality and reliable information on available financial options and products. Moreover, due to the desire to behave similarly in their social groups, students are mostly influence by their beliefs about social norms.

2.4 Empirical Literature Review

In this section of the study, the researcher presents the review of empirical literature of the study. The empirical literature review is presented, taking into consideration the study objectives.

2.4.1 Financial Attitude and Financial Behavior of Students.

A student's financial attitude got to do with his personal inclination towards financial affairs. In order to enhance the level of financial literacy among students, Bhushan and Medury (2014) contend that the focus should be on financial attitude. Financial attitude of students is as a result of the outcome of certain financial behaviors (Ajzen, 1991). To enhance the financial attitude of students, Rai et al. (2019) revealed that financial education should be massive as it impacts on their financial well-being. Lee and Kim (2012) contend that students with positive financial attitude towards finance are able to exhibit good financial behaviour. Haque and Zalfiqar (2015) revealed a strong positive correlation between good financial attitude and students with high income level.

Financial attitudes of a student determine the extent to which he will make prudent financial decision or not. Students with poor financial attitudes always end up behaving poorly on financial matters. Researchers such as Setiawati and Nurkhim (2017) reported a positive relationship between financial attitude and financial behavior of students. Following Potrich et al. (2016), financial attitude shapes the way students spend money, save, invest and also plan for other financial matters. As such, a student with positive financial attitude is able to analyse how well to take prudent action in relation to his money. In as much as positive financial attitude serves as an indicator of how well students spend their money, Setiawati and Damanik (2016) revealed that it has a positive link on their financial behavior.

Financial behavior of students is imperative for better financial decision-making and money management (Kalekye & Memba, 2015). A positive financial behavior enhances their level of financial literacy whereas negative financial behavior weakens their financial well-being. Financial behavior, as revealed by Banerjee et al. (2017) enhance financial awareness and impact positively on their financial well-being. According to Bucher-Koenen et al. (2016), students with good financial behavior mostly participate in stock and other financial markets. Such students pay their bills on time (Dewi et al., 2020), carefully evaluate financial products (Mokhtar et al., 2020) and as well prefer savings to borrowings during hard times. Proper financial behavior among individuals is as a result of financial knowledge they possess. According to Dewi et al. (2020), good financial behavior of university students enhances their financial security and financial well-being. To assess the financial behavior of students, Dew and Xioa (2013) proposed four factors. These factors include credit management, consumption behavior, management of cashflow as well as the management of savings and investments. A student with good financial behavior is able to blend these four factors for financial well-being and proper management of personal finances. For a student to exhibit proper financial behavior, financial knowledge and financial attitude are paramount and the three variables need to properly utilised to ensure effective financial freedom and financial well-being. However, most university students exhibit poor financial behavior which triggered them to save and invest less, pile up bills and overspend the amount in their account (Lusardi and Mitchell, 2019).

2.4.2 Impact of Financial Attitude on Financial Behaviour of Students.

Fatoki (2014) revealed that financial attitude correlates with financial behavior, and as well enable an individual to perceive awareness obtained to make prudent financial decisions. When an individual develops his financial knowledge into skills, it impacts on his level of financial attitude, which in turn enhance his financial behavior (Kadoya and Khan, 2020). To enhance the financial attitude of students, Rai et al. (2019) revealed that financial education should be

19

massive as it impacts on their financial behavior. For a student to exhibit proper financial behavior, financial knowledge and financial attitude are paramount and the three variables need to properly utilised to ensure effective financial freedom and financial wellbeing. Haque and Zalfiqar (2015) revealed a strong positive correlation between good financial attitude and students financial behavior. In as much as positive financial attitude serves as an indicator of how well students spend their money, Setiawati and Damanik (2016) revealed that it has a positive link on their financial behavior.

2.4.3 Why Some Group of Students are more Financially Knowledgeable than the Others

Students differ in terms of age, gender, level of education, income level, and program of study, Age has a significant connection with the level of individual's financial literacy level (Mbarire and Ali, 2014). According to Lusardi and Mitchell (2011), findings from studies across diverse countries reveal that the financial literacy level among the aged and the young individuals are low. Empirical literature has revealed that financial literacy varies by age, being higher in adults in the middle of their life cycle and lower in children and the elderly (Azeez and Akhtar, 2021). In addition, Gender as a determinant of financial literacy has been investigated by various researchers (Lusardi and Tufano, 2015; Klapper et al., 2015; Agnew and Harrison, 2015). Findings from these researchers revealed that men usually score high on measured financial literacy as compared to women. This statement confirms the findings of Mbarire and Ali (2014) who found in their studies that men usually perform far better than women on various financial literacy tests.

Studies have found a positive relationship between an individual's formal educational level and financial literacy (Lusardi, 2012; Christelis et al., 2010; Lusardi and Mitchell, 2011; Mbarire and Ali, 2014). Putting it in a different context, individuals with higher level of education are

more financially literate. Likewise, students who are into business majors have been found to be more financially knowledgeable than non-business students (Lusardi et al., 2010). A number of studies have reported a positive correlation between a person's level of income and wealth in connection with their financial literacy level (Lusardi and Mitchell, 2011; Klapper et al., 2015; Lusardi and Tufano, 2015). Stolper and Walker (2017) found in their study that 76 percent of individuals with high level of income turn out to possess some knowledge and skills in financial literacy.

2.4.4 Impact of Financial Literacy on Financial Behaviour

The impact of financial literacy on financial knowledge is well documented in finance literature. Among such studies, Lusardi et al. (2017) revealed that one key variable that enhance financial behavior of an individual got to do with financial literacy. From the perspective of OECD (2013), one fundamental component of financial literacy got to do with financial behavior. According to Grohmann et al. (2014), individuals that behave well financially by making better and informed financial decisions for themselves and their family are those who have developed high financial knowledge. A positive financial literacy of a person has the ability to influence his financial behavior (Atkinson and Messy, 2012). The study of financial literacy carried out by Banerjee et al. (2017) conclude that financial awareness as well as financial inclusion behavior positively impact on a person's financial literacy level. From the above arguments, it can be said that financial literacy and financial behavior of persons are highly correlated.

Following Bhushan et al. (2014), individuals, government, and other key stakeholders should primarily focus on building a strong and vibrant financial behavior to enhance people's financial literacy level. To attain financial well-being, an individual needs to be equipped and as well engage herself in a proper financial behavior in order to secure one's financial future.

21

According to Calcagno and Monticone (2015), financial behaviour and financial literacy are positively correlated. A person's financial behaviour has a big impact on how well off he is financially. Therefore, it is crucial to include behavioural evidence for measuring financial literacy (OECD, 2013). Individuals with positive financial behaviour were more likely to actively save, pay bills on time, carefully consider financial products, prefer savings to borrowing during times of crisis, assess their own ability to afford products, plan for retirement, accumulate and manage assets well, prefer low-cost borrowing, plan and monitor personal and household finances, have a bank account, and participate in the stock market and formal financial markets (Lusardi et al., 2017).

HIlgert et al. (2013) revealed that a strong correlation exists between financial literacy and positive financial behavior of an individual such as having a bank account, savings behavior, investment behavior, as well as insurance behavior, among others. When financial behavior of a person leads to positive financial behavior, it manifests itself in areas such as regular savings, budgeting, prudent use of credit cards, among others. On the other hand, Gutter et al. (2010) posits that negative financial behavior results in over spending, less savings, exceeding credit limit, as well as late payment with a penalty. Specifically, financial behavior of a person is influenced by his or her level of income as Erglin (2017) revealed that individuals with high income mostly behave well financially.

2.5 Conceptual Framework

Based on the review of literature, the conceptual framework in figure 2.1 is showcase to depict the interaction between the study variables.
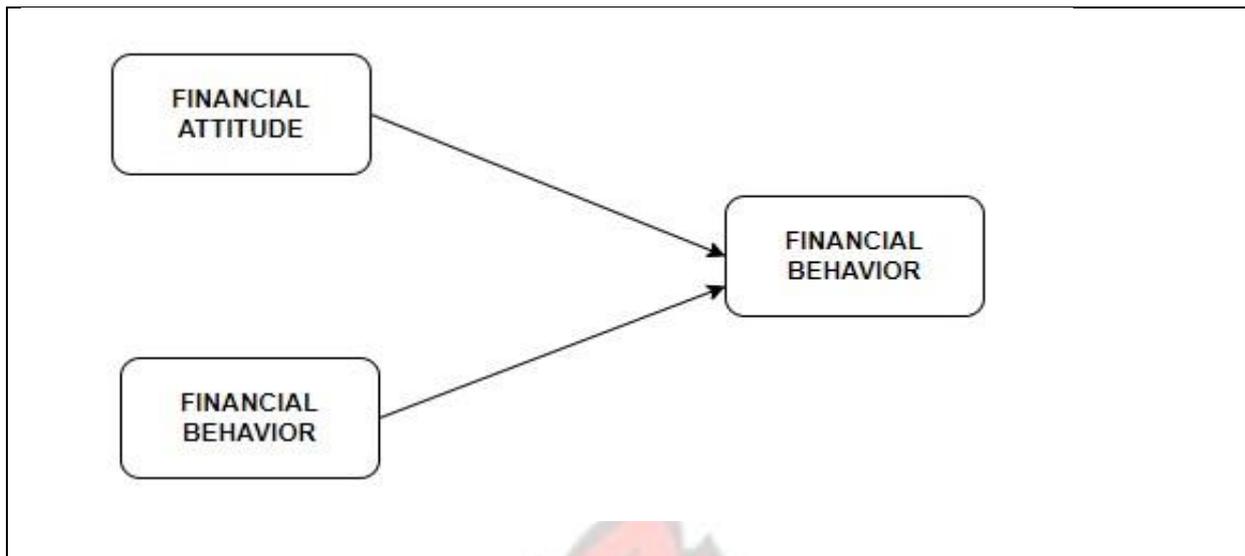
Source: Researcher's Construct (2023)

Figure 2.1: Conceptual Framework Model

2.6 Summary of Chapter

This chapter reviews the literature on the level of financial literacy among university students in Ghana. Issues discussed under this chapter include the concept of financial literacy, financial knowledge, financial behavior and financial attitude. The chapter basically presents the conceptual, theoretical, overview of the Ghanaian educational sector as well as the empirical literature view. The study was premised on goal-setting theory and social learning theory The empirical literature was done looking it from the perspective of both developed and developing countries. The next chapter will delve deeper into the research methodology of the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the research methodology followed by the researcher to conduct the study. Basically, the chapter describes the methods and research instruments used in assessing the level of financial literacy among university students in Ghana. The chapter expatiates on

research design, research purpose, population and sample size, data collection methods, as well as the data analysis techniques. In addition, the chapter highlights on the research validity and reliability as well as the ethical consideration of the study.

3.1 Research Design

The research design is critical to the success of any study. The objectives of the study guide the selection of a research design. When a proper research design is used, the researcher may deal with the study question quickly and effectively. Researchers can use study design to create a thorough strategy for achieving their research objectives by ensuring that every data obtained is suitable for theoretical evaluations (Rindfleisch et al, 2008). Using an ineffective design can have a negative impact on the research findings' validity. As a result, in any study, efforts must be taken to determine the best method for reaching an acceptable conclusion. The research design of a study can either be quantitative, qualitative or mixed research design (Saunders at al., 2009). This study employs the quantitative research design in order to achieve the study objectives. The quantitative approach would enable the researcher to employ systematic and organized numerical data that can be used to make statistical inference (Creswell and Creswell, 2017).

In addition, the research purpose of a study can be classified into explanatory, exploratory and descriptive approach (Saunders et al., 2011). Exploratory studies attempt to find out what is happening and is adopted where not much studies have been conducted in the study area (Collins and Hussey, 2003). Descriptive approach describes a phenomenon by employing numeric data. Explanatory study approach on the other hand intend to establish a causal relationship between the variables employed in a study (Saunders et al., 2017). To achieve the stated objectives, this study employs the descriptive and explanatory study approach. The explanatory study approach will enable the researcher to explain the relationship between

financial literacy and financial behavior, whiles the descriptive approach would enable the researcher to describe the variables using numeric tools and techniques.

3.2 Population of the Study

Population of a study is the category of persons, activities, or artifacts with similar measurable characteristics (Mugenda and Mugenda, 2012). The population is the entire number of observations or units from which samples can be drawn. The population of this study is made up of students of KNUST. This study was carried out using non-business university students in KNUST. Currently, KNUST has a total undergraduate population of 43,757. Therefore, the study population is made up of 43,757 university students.

3.3 Sample Size and Sampling Technique

Samples were drawn from the given population for the study. This study utilized the convenient sampling technique to select the respondents for the study. The convenient sampling technique is affordable, saves time, and also provides a wealth of quality information. The convenient sampling technique is convenient to the researcher and as well utilised to reach a very large number of respondents within a particular time frame.

Samples were selected from students in the field of business, engineering, health related science, building and architecture, general and other sciences, as well as humanities and social sciences. This study made utilized a sample size of 398 respondents in KNUST. The sample size of this study is determined using Yamane (1987) formula. That is;

$$n = \frac{N}{1+N(e)^2}$$

where n = sample size N=

population size

E= margin of error (0.05)

Mathematically, $n = \dfrac{43757}{1+43757(0.05)^2}$ =398.126

$$n = 398$$

3.4 Source of Data

There are two main sources of data. These are the primary and secondary data source. While primary data is the form of data collected for the first time, secondary data is a form of data that had been collected and processed already by an individual (Kothari, 2004). The main data source for this study is primary. Data gathered from the questionnaires administered to respondents constitute the primary data source of this study. However, secondary data were also sourced from journals, books, publications, and cited articles, among others.

3.5 Data Collection Instrument

Questionnaires was the instruments used by a researcher in a quantitative study to collect data (Creswell, 2011). The questionnaire used for this study were adopted and refined by the researcher together with his supervisor. The question items of the questionnaire used involves closed-ended questions. Data for this study were gathered through the use of online questionnaires distributed to the 398 respondents who are students in KUNST. The questionnaire was design to cover general financial literacy, financial behaviour and financial knowledge, among others The questionnaire was designed in online google form and sent to the respective students for them to respond to it. The questionnaires involved a 5-point Likert scale, where 1, 2, 3, 4 and 5, represents strongly disagree, disagree, neutral, agree and strongly agree respectively. Table 3.1 gives the details of the constructs, sub-constructs, number of items with their respective sources used in the study.

Table 3.1 Measurement Construct

Constructs	Sub-Constructs	No. Of Items	Sources
Financial Attitude	None	9	Lusardi (2019)

Financial Behavior	None	8	Lusardi (2019)
Financial knowledge	Basic	3	Kaiser et al. (2022)
	Advanced	4	

Source: Researcher's Construct (2023)

3.6 Data Collection Method

Data collection took place four weeks. The data was collected within June, 2023. First of all, after the questionnaire was approved by the supervisor, the researcher took an introductory letter from the Accounting and Finance Department to gain access to restricted places. The researcher went to the various faculties and departments within KNUST with the help of the introductory letter. First of all, participants were briefed about the academic exercise they were about to engaged and were given full assurance of any sensitive information they give to complete the questionnaires. After approval was granted, the researcher administered the questionnaires to the selected respondents. Those that needed help were given assistance. The answered questionnaires were then retrieved afterward. The questionnaires were further developed in Google form for participants who preferred to partake in the data gathering online.

3.7 Data Analysis Technique

This section of the study presents how the data gathered were analysed and classified to make meanings. The data of this study were analysed quantitatively with the help of Smart PLS software. To avoid any mistake in the data entering, the data were cross-checked. The researcher performed various reliability and validity test to validate the results of the study. The researcher employed various descriptive and inferential statistics technique to analyse the data. The study adopted structural equation modelling (SEM) approach to analyze the data.

3.8 Research Validity and Reliability

To validate the findings of the study, various validity and reliability tests were performed. Validity, according to Schutt (2009) refers to the measurement of what a construct is supposed to measure, while reliability on the other hand got to do with the accuracy and precision of a measurement procedure (Cooper and Schindler, 2012). The internal reliability of the questionnaires was guaranteed in tested through the design of the questions with my supervisor as well as pilot testing. The internal consistency of all research constructs was tested with the Cronbach's alpha statistical technique.

3.9 Ethical Consideration

Ethics is a guarantee that a researcher delivers to a respondent that they would remain loyal and that their reputation will be protected from the public. This indicates that their data collection strategy should mirror their behaviour. Before the respondents were engaged in the study, they were informed of the study's purpose. The respondents were given the option of participating in or withdrawing from the data collection procedure at any time. Respondents were also informed that the information gathered would be utilized strictly for the purpose of the study. The information they submitted for the study was communicated to the respondents in a way that they could understand and answer better. All cited papers in this study were referenced using the Harvard referencing style. Besides, acknowledgements were made with respect to all high profiles and scholars whose contribution were deemed relevant to the completion of the study.

CHAPTER FOUR

ANALYSIS AND DISCUSSION

4.0 Introduction

In this section of the study, the researcher presents the data and analyses the findings of the study on financial literacy among university students in Ghana. In this chapter, the researcher presents the descriptive statistics of the constructs, correlation analysis, and the multiple regression analysis, among others. Analysis of variance (ANOVA) was employed to assess whether some groups of students are more financially knowledgeable than the others. The study

utilised both descriptive and inferential statistics to analyse the data. The discussion of findings was backed by literature.

4.1 Response Rate

The study has a sample of 398 targeted respondents. Out of the sample size, 259 of them partook in the study. This brought the response rate to 65.07%. Mathematically, the response rate was derived by (259/398 x 100). A response rate of 65.07% is quite okay and the researcher is optimistic that it can impact well on the findings of the study.

4.2 Demographic Background of Respondents

In this section of the study, the researcher presents the profile of the respondents who partook in the study taking into consideration their age, gender, year of study, income and field of study. Frequencies and percentages were employed to assess the demographic background of the respondents. Table 4.1 presents the demographic information of the respondents engaged for the study.

Table 4.1 Data on Respondents' Demography

Category	Factors	Frequency	Percentage (%)
Age	Up to 20	26	10.0
	21-25	159	61.4
	26-30	65	25.1
	31-40	9	3.5
Gender	Male	174	67.2
	Female	85	32.8

Year/Level	1st year	33	12.7
	2nd year	71	27.4
	3rd year	78	30.1
	4th year	77	29.7
Monthly Income	Up to GHS500	8	3.1
	GHS501-GHS1000	75	29.0
	GHS1001-GHS5000	157	60.6
	Above GHS5000	19	7.3
Field of Study	Business related	42	16.2
	Engineering	28	10.8
	Health science	39	15.1
	Building and architecture	11	4.2
	General and other sciences	74	28.6
	Humanities and social sciences	65	25.1

Source: Field Study (2023)

4.2.1 Age

In this section of the study, the researcher presents the age category of the respondents who were engaged in this study. From Table 4.1, it is indicated that 26 (10.0%) of the respondents were aged up to 20 years. 159 (61.4%) were aged between 21-25, while 65 (25.1%) fall within the age category of 26-30 years. In addition, 9 (3.5%) of the respondents are between the age category of 31-40 years. As indicated from the table, majority of the respondents fall within the age category of 21-25 years.

4.2.2 Gender

From Table 4.1, it can be indicated that 174 (67.2%) of the respondents were male, while 85 (32.8%) of the respondents who successfully partook in the study were female. This is an indication that majority of the respondents who partook in the study were male.

4.2.3 Year/Level

Pertaining to the year of study of the respondents who were engaged in the study, 33 (12.7%) of them are in their first year, 71 (27.4%) are in their second year, while 78 (30.1%) are in their third year. Lastly, 77 (29.7%) are final year students. It can be said from the available data that majority of the respondents are third year students.

4.2.4 Monthly Income

In line with their monthly income, 8 (3.1%) receive a monthly income of up to GHS500. 75 (29.0%) receive a monthly income of between GHS500 and GHS1000, while 157 (60.6%) and 19 (7.3%) of the respondents obtain a monthly income of GHS1001-GHS5000 and above GHS5000 respectively. From the data, it can be witnessed that majority of the respondents receive a monthly income between GHS1001-GHS5000.

4.2.5 Field of Study

In connection with this study, 42 (16.2) are reading business related programmes, whilst 28 (10.8%) are in the engineering field. Again, 39 (15.1%) are from the health sciences, whilst 11 (4.2%) are in the field of building and architecture. In addition, whilst 74 (28.6%) are reading general and other sciences courses, 65 (25.1%) of the respondents were from the humanities and social sciences field.

4.3 Descriptive Statistics

This section of the study employed the mean, standard deviation, minimum and maximum to presents the descriptive results of the study. The descriptive statistical model was presented on all the three constructs under study. These are presented in the next sub-sections.

4.3.1 Financial Attitude

To provide a clear picture of the respondents' financial attitude, a descriptive statistical model was employed. Respondents gave their answers on a scale of 1 to 5. An overview of the descriptive statistics of this construct indicates the extent to which the students apply certain principles to make prudent decisions on their financial matters and manage their finances. From Table 4.2, the highest and the lowest averages obtained was 4.50 and 3.73 Overall, the construct achieved an average of 4.16. This is an indication that the students apply certain principles in the management of their finances.

Table 4.2 Descriptive Statistics Results on Financial Attitude

Construct	Mini	Maxi	Mean	Std. D
FINANCIAL ATTITUDE				
FA1	3.00	5.00	4.20	0.567
FA2	3.00	5.00	4.14	0.535
FA3	3.00	5.00	4.28	0.558
FA4	3.00	5.00	4.03	0.667
FA5	3.00	5.00	4.33	0.532
FA6	3.00	5.00	3.73	0.706
FA7	3.00	5.00	4.08	0.592
FA8	3.00	5.00	4.11	0.658
FA9	3.00	5.00	4.50	0.631

Source: Field Survey (2023)

4.3.2 Financial Behaviour

This section of the study provides the descriptive statistics on financial behaviour of the students. Respondents gave their answers on a scale of 1 to 5. An overview of the descriptive statistics of this construct indicates the extent to students take personal responsibilities on their personal finances and budgets From Table 4.3, the highest and the lowest averages obtained was 4.30 and 2.24. Overall, the construct achieved an average of 3.59. This is an indication that the students under study takes personal responsibility over their budget and finances to some extent.

Table 4.3 Descriptive Statistics Results on Financial Behavior

Construct	Mini	Maxi	Mean	Std. D
FINANCIAL BEHAVIOUR				
FB1	2.00	3.00	2.62	0.486
FB2	3.00	4.00	3.58	0.495
FB3	3.00	5.00	3.89	0.505
FB4	3.00	3.00	1.88	0.550
FB5	1.00	5.00	4.24	0.568
FB6	3.00	3.00	2.76	0.425
FB7	2.00	4.00	3.46	0.500
FB8	1.00	3.00	2.29	0.487

Source: Field Survey (2023)

4.3.3 Basic and Advanced Financial Knowledge

As illustrated from Table 4.4, only 22.4% of the students who partook in the study answered the question on savings account correctly. 66.8% of them provided incorrect answers, while 10.8% provided don't know response. With respect to the question on savings and inflation, 56.0% of them answered the question correctly, 29.3% answered it wrongly, while 14.7% opted for don't know response. In line with the question that seeks to ask these students about the time value of money, 39.4% of them answered correctly, 21.6% got the answer wrong, and 39.0% of these responses provided don't know response.

Likewise, as witnessed from Table 4.4, 27% of the students under study got the answer correct with respect to the question on stock market function. 44.4% of them got the question wrongly, while 28.6% provided don't know answer. With respect to the question on rate of returns, the responses of 41.7%, 39.0% and 19.3% obtained correspond to correct answer, wrong answer, and don't know response respectively. In line with the question on high oscillation asset, 31.3% provided the correct answer, 43.7% provided wrong answer, while 25.1% opted for don't know response. Interestingly, 45.2% of the respondents provided the correct answers on the question

relating to the concept of diversification, while 36.7% got the answer wrong. In addition,18.1%
of the respondents provided don't know response.

Table 4.4: Pattern of Response on Basic and Advanced Financial Knowledge

Basic financial knowledge	Correct Answer	Wrong Answer	Don't know Response
GFK1: savings account	22.4	66.8	10.8
GFK2: savings vs inflation	56.0	29.3	14.7
GFK3: time value of money	39.4	21.6	39.0
Mean percentage score	**39.3**		
Advanced financial knowledge	Correct Answer	Wrong Answer	Don't know Response
AFK1: stock market function	27.0	44.4	28.6
AFK2: rate of return	41.7	39.0	19.3
AFK3: high oscillation asset	31.3	43.7	25.1
AFK4: diversification	45.2	36.7	18.1
Mean percentage score	**26.3**		

Source: Field Survey (2023)

4.4 Correlation Analysis

This section of the study utilized Pearson correlation matrix to assess the presence of
multicollinearity among the variables. In this study, when the variables employed to study the
phenomenon are highly correlated, the model cannot be estimated correctly for the analysis.
Table 4.5 indicated the existence of no perfect correlation among the variables employed in this
study. Correlation matrix of 0.456 relates to financial behaviour and financial attitude. A
correlation result of 0.028 also relates to basic and advanced financial knowledge, and is said
to be the lowest correlation obtained for the model. Table 4.6 presents the results of the
correlation matrix.

Table 4.5: Pearson Correlation Matrix

	1	2	3	4

1. Financial Attitude	1			
2. Financial Behavior	0.456**	1		
3. Basic Financial Knowledge	0.091**	0.376**	1	
4. Advance Financial Knowledge	0.068	0.159**	0.028**	1

Source: Field Study (2023)

4.5 Evaluation of the Outer Measurement Model

To ensure reliability as well as validity for the outer model, several statistical techniques as suggested by Hair et al. (2019) were utilised. Included in these statistical techniques are composite reliability (C.R.), Cronbach's alpha and average variance extracted (AVE), among others. From Table 4.6, the values pertaining to Cronbach alpha ranges from 0.712 to 0.755, while the C.R. also ranges from 0.721 to 761. As indicated by Sobaih and Elshaer (2022), these are good scale which indicates an acceptable internal reliability. In addition, the factor loadings of the model were greater than 0.70, depicting a good level of acceptability of reliability. To ensure convergent validity, the researcher utilised AVE to ensure whether the values are not more than o.5 as revealed by Hair et al. (2021).

Table 4.6: Evaluation of the Measurement Model and VIF for multicollinearity

CONSTRUCT	Outer Loading	Alpha (α)	C.R.	AVE	VIF
FINANCIAL LITERACY		0.732	0.719	0.725	
FL1	0.712				3.112
FL2	0.701				3.232
FL3	0.706				3.433
FL4	0.751				3.322
FL5	0.792				4.323
FL6	0.714				3.411
FL7	0.722				2.322
FINANCIAL ATTITUDE		0.743	0.721	0.721	
FA1	0.721				3.442

36

FA2	0.745			3.311
FA3	0.743			3.534
FA4	0.711			4.691
FA5	0.734			3.752
FA6	0.732			4.533
FA7	0.712			3.187
FA8	0.732			2.578
FA9	0.785			4.653
FINANCIAL BEHAVIOUR		0.743	0.752	0.724
FB1	0.742			3.121
FB2	0.781			4.232
FB3	0.811			3.233
FB4	0.798			4.324
FB5	0.787			3.567
FB6	0.753			3.186
FB7	0.732			3.543 FB8
0.765		3.543		

Source: Field Study (2023)

4.6 Assessment of the Structural Inner Model

To assess the relationships among the variables and text for the study's hypotheses, a structural equation model (SEM) was utilised. Specifically, the main aim is to examine the effect of financial literacy and financial attitude on financial behavior of students. To ensure a satisfactory model fit, the R^2 values of at least 0.10 as suggested by Chin (1998) were achieved. Figure 4.1 presents the estimate of the structural model of the report.
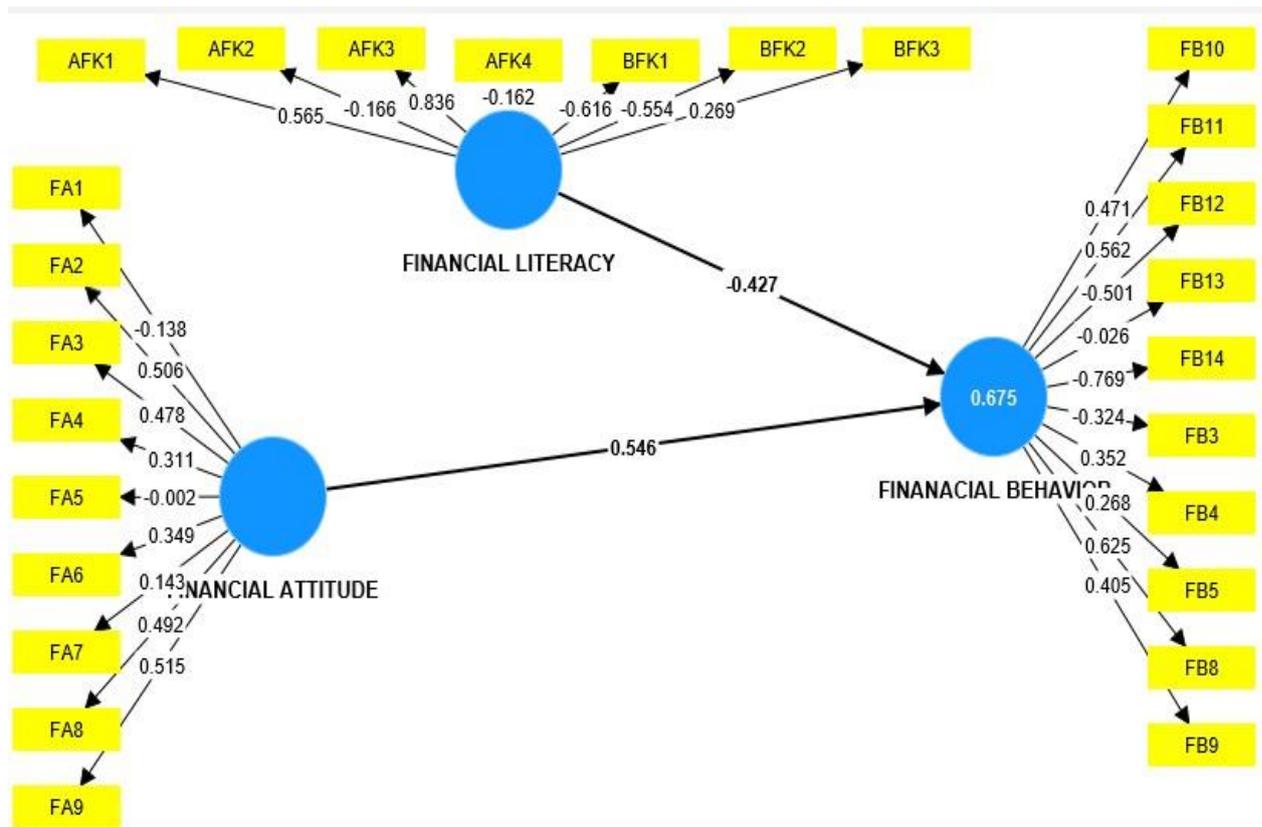
Figure 4.1: Inner and Outer Model (2023)

4.7 Path Coefficient

In this section of the study, the researcher implemented a bootstrapping method in Smart PLS 4 to determine the path coefficient and the p-values. Using SEM, the researcher demonstrated the relationships between the study variables by revealing their respective path coefficients and P-values. Figure 4.2 presents the path coefficients and their respective p-values.
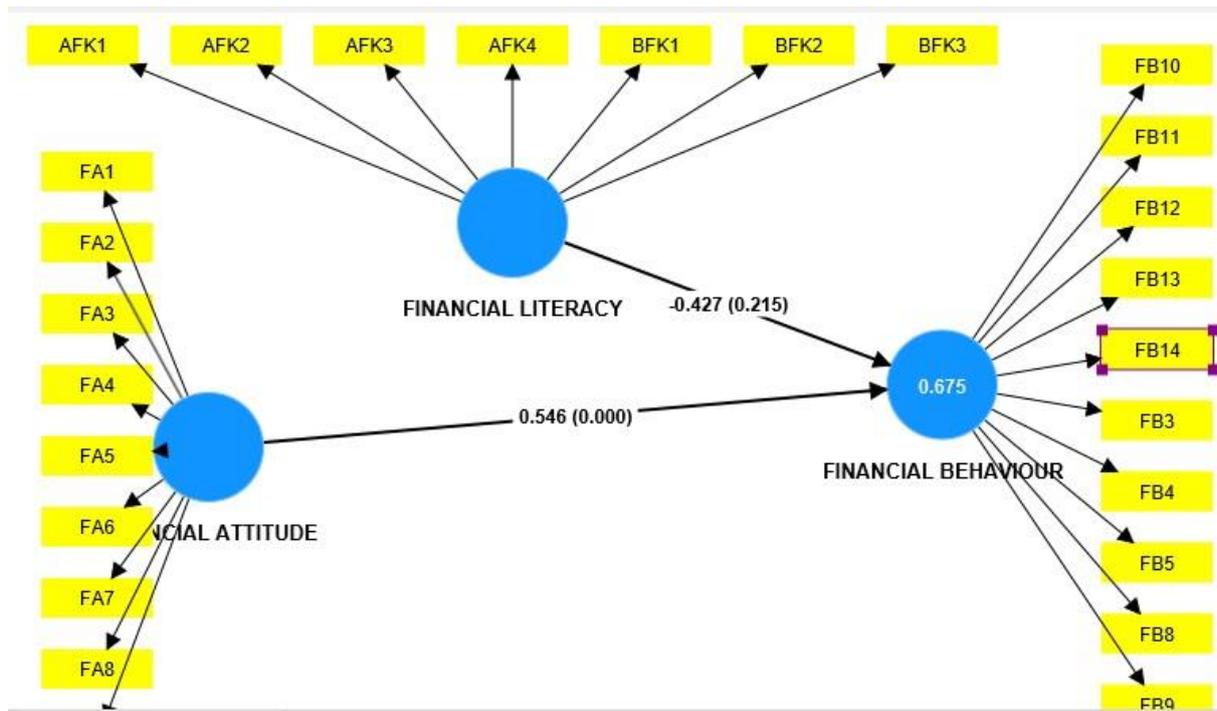
Figure 4.2: Path coefficient and their P-values.

Table 4.7: Summary of Path Coefficients

	Beta	S. Error	T-stat	P-value
Financial Literacy ->Financial Behaviour	-0.427	0.313	1.364	0.215
Financial Attitude ->Financial Behaviour	0.546	0.226	2.415	0.000

Source: Field Study (2023)

4.8 Hypothesis Tests

This section of the study presents the results of the hypotheses tested for the study. Table 4.8 presents the results of the hypotheses results.

Table 4.8: Summary of Hypotheses

Hypothesis	Beta	P-value	Results
Financial Literacy ->Financial Behaviour	-0.427	0.215	Not Supported Financial
Attitude ->Financial Behaviour	0.546	0.000	Supported

4.9 Students Characteristics and Their Level of Financial Literacy

In this section of the study, the researcher analyse the level of students financial literacy in relation to the age, gender, field of study, level, and the monthly income. To test if there are significant differences existing among these characteristics, the researcher used one-way analysis of variance. As observed from the Table 4.9, although the level of financial knowledge among the university students under study are not high, there however exist significant differences across the various characteristics of employed in the study. *Table 4.9: Mean Percentage of Responses by Characteristics Using ANOVA*

Category	Factors	Basic knowledge	Advanced knowledge
Age	Up to 20	30.4	28.5
	21-25	35.5	32.4
	26-30	29.9	27.6
	31-40	31.4	26.4
	F-statistics	(12.67)***	(18.05)***
Gender	Male	38.6	33.5
	Female	28.6	26.7
	F-statistics	(38.34)***	(26.52)***
Year/Level	1st year	26.7	26.1
	2nd year	28.6	27.5
	3rd year	32.5	30.5
	4th year	36.7	34.6
	F-statistics	(33.45)***	(31.54)***
Monthly Income	Under GHS500	21.6	19.1
	GHS500-GHS1000	29.6	27.6
	GHS1001-GHS5000	32.5	31.3
	Above GHS5000	38.7	34.6
	F-statistics	(37.42)***	(23.54)***
Field of Study	Business related	76.4	72.8
	Engineering	32.4	29.6
	Health science	28.7	25.6

	Building and architecture	25.5	22.4
	General and other sciences	34.5	23.4
	Humanities and social sciences	39.9	37.8
	F-statistics	(36.30)***	(21.43)***

Source: Field Study (2023)

The results from Table 4.9 revealed that students within the age category of up to 20 years scored correctly 30.4% and 28.5% with respect to the questions on basic financial knowledge and advanced financial knowledge respectively well. Pertaining to respondents within the age group of 21-25, they scored correctly 35.5% of the basic financial knowledge questions correctly, 20.6% and 32.4% of the advanced financial knowledge questions correctly. Similarly, respondents within the age group of 26-30 scored 29.9% of the questions on basic financial knowledge correctly, and 27.6% correctly on advanced financial knowledge. In addition, respondents aged between 31-40 years scored 31.4% correctly on basic financial knowledge, and 26.4 % on advanced financial knowledge correctly.

From Table 4.9, it can be witnessed that students who are male respond and perform well on the financial knowledge questions that the females. With respect to the basic financial knowledge questions, the male students answered 10.0% more correctly than the female students. With the questions on advanced financial knowledge, the male students did well by answering 6.8% of the questions more correct than their female counterparts. Though their scores are not high, there exist some significant differences among the level of financial literacy with respect to their gender.

On average, the final year students answered the questions more correctly. With respect to Table 4.9, the first-year students scored correctly 26.7% and 26.1% of the questions relating to basic and advance financial knowledge respectively. The second-year students also scored correctly 28.6% and 27.5% of the questions relating to basic and advanced financial knowledge. In

addition, 32.5% and 30.5% of the correct scores corresponding to basic and advanced knowledge respectively relates to third years. Lastly, the correct scores of the fourth years relating to 36.7% and 34.6% corresponds to basic and advanced financial knowledge questions.

In connection to this study, respondents who receive a monthly income up to GHS500 answered 21.6% of the questions relating to basic financial knowledge correctly, with a correct score of 19.1% relating to advanced financial knowledge. Respondents who receive an income between GHS501 and GHS1000 answered 29.6% of the basic financial knowledge questions correctly, and 27.6% of the advanced financial knowledge questions correctly. Pertaining to respondents who receive a monthly income between GHS1001 and GHS5000, the correct scores of 32.5% and 31.3% relates to basic and advanced financial knowledge questions. Lastly, respondents with monthly income of above GHS5000 answered 38.7% of the basic financial knowledge questions correctly, with 34.6% of the correct score on advance financial knowledge.

On average, the business students answered the questions more correctly than their colleagues who have majored in non-business-related courses. With respect to the question on basic financial knowledge, students who have majored in business related courses scored 76.4% correctly, with 72.7% of the correct score relating to advanced financial knowledge questions. Students in the engineering field obtained 32.4% and 29.6% of the correct score on basic and advance financial knowledge questions respectively. In addition, students in the health science field secured 28.7% and 25.6% correct scores on basic and advanced financial knowledge. Also, those who have majored in building and architecture scored 25.5% and 22.4% correctly, with respect to the questions on basic and advanced financial knowledge respectively. Likewise, 34.55 and 23.4% of the correct scores on basic and advance financial knowledge related to students in general and other sciences. Lastly, humanities and social sciences major obtained 39.9% correct score on the basic questions, with 37.8% correct score on the advanced financial knowledge question.

4.10 Discussion of Findings

In this section of the chapter, the researcher discusses the findings of the study in line with exiting literature. The discussion of findings has been presented in accordance with the study objective.

4.10.1 Financial Attitude of University Students

The first objective of the study seeks to investigate the financial attitude and financial behavior among university students in Ghana. Referring to Table 4.3, results of the study revealed that the students deemed it essential to control their monthly expenses. According to Lusardi (2013), financial attitude is one of the key ingredients that have impacted successfully on the practice of financial management. It was also revealed that the students under study attached some level of importance to establishing financial targets for the future. Likewise, the students see it as very important to save money on a monthly basis. The decision that an individual makes with regards to his or her personal savings, borrowing and investments are influenced by his attitude towards finance (Denk et al., 2018). In addition, the study revealed that the students knew the way they manage their money today can affect their future. Similarly, results of the study revealed that the students were of the opinion that it is crucial for them to have and follow a monthly expense plan. It was also revealed that the students deemed it essential to compare available credit offers when they buy in instalments. Results of the study also unearthed that the students believe it is crucial for them to stay within their budgets. Following Potrich et al. (2016), financial attitude shapes the way students spend money, save, invest and also plan for other financial matters. Lastly, it was reported that the students were of the opinion that it is important to invest regularly to achieve targets in the long-term. To enhance the financial attitude of students, Rai et al. (2019) revealed that financial education should be massive as it impacts on their financial wellbeing.

Referring to Table 4.4, it was revealed that the students somehow disagree that they worry about how best to manage their money. According to Lusardi et al. (2017), individuals with positive financial behaviour were more likely to actively save, pay bills on time, carefully consider financial products, prefer savings to borrowing during times of crisis, assess their own ability to afford products, plan for retirement, accumulate and manage assets well, prefer low-cost borrowing, plan and monitor personal and household finances. The study results confirmed that the students to some extent take note and control their personal expenses. The study also found that the students establish financial targets for the long-tern with the aim of managing their personal expenses. In addition, this thesis unearthed that the students do not follow a weekly or monthly plan for expenses. The students also agreed and responded that they go more than month without balancing their expenses. Gutter et al. (2010) posits that negative financial behavior results in over spending, less savings, exceeding credit limit, as well as late payment with a penalty. The students moderately responded that they pay their bills without delay. It was also found that the students compare available credits when buying on instalments. Majority of the respondents also revealed that they don't save monthly. However, when it comes to buying expensive items, the students confirmed that they save in order to buy such items. It was also revealed that the most of the students doesn't have financial reserves they can rely upon to meet unforeseen circumstances in the future. The study also revealed that the students compare prices when buying things. In connection to this study, it was found that the students analyse their financial stands before buying major items.

Lastly, the study unearthed that the students mostly prefer to buy on impulse.

4.10.2 Impact of Financial Attitude on Financial Behavior

Specifically, the second objective of this research was to assess the impact of financial attitude on financial behavior of students. The Smart PLS results revealed a coefficient 0.546 and a P-

value of 0.000 This depicts a positive relationship between financial attitude and financial behavior. The p-value of 0.000 revealed that the relationship betweenfinancial attitude and financial behaviour is significant. The constant of 0.243 is explained by other variables which caused students financial behavior holding financial attitude of this study constant. The R-squared of 0.654 obtained is indication that the model can explain up to 65.4% of the changes in financial attitude among students. Findings of this study is in line with the study of Haque and Zalfiqar (2015) who revealed a significant positive relationship between financial attitude and financial behavior of students. The results of the study do not support the first hypothesis of the study.

4.10.3 To Examine Whether Some Students are more Financially Knowledgeable than the Others

To test if there are significant differences existing among these characteristics, the researcher used one-way analysis of variance (ANOVA). Although the level of financial knowledge among the students under study was not much high, however, there exist significant differences across the various characteristics of employed in the study. As revealed in Table 4.9, students who were aged between 21-25 years scored high, followed by those who were aged between 31-40 years. With respect to gender, it was clearly indicated that the male students possess high financial knowledge than the female students. This finding had been confirmed by Filipiak and Walle (2015). In connection with their level of study, results revealed that the final year students obtained the highest correct score, followed by the 3rd,

2nd, and 1st students. Erglin (2017) revealed that individuals with high income mostly behave well financially. In line with their income, it was revealed that students with income above GHS5000 are more financially knowledgeable, followed by students with income between GHS1001 and GHS5000. Lastly, in line with the field of study, students with business related courses demonstrated high level of financial literacy, followed by students with humanities and

social sciences background, and then with students with general and other sciences major. This confirms the study by Lusardi et al. (2012) that business students possess high financial knowledge than non-business students.

4.10.4 Impact of Financial Literacy on Financial Behaviour

Specifically, the fourth objective of this research was to assess the impact of financial literacy on financial behavior of students. To assess the impact of financial literacy on financial behavior, 398 non-business students of KNUST were utilized. Generally, researchers such as Lusardi et al. (2011) revealed that the level of financial literacy among non-business university students in low as compared to the business students. Specifically, this study also presumed toe level of financial literacy among non-business university students of KNUST to be low. The Smart PLS results revealed a coefficient of -0.427, standard error of 0.313, tstatistics of 1.364 and a P-value of 0.215 The coefficient of -0.427 revealed a negative relationship between financial literacy and financial behavior. This might be due to the fact that the low level of financial literacy among the non-business students under study does not enhance their financial behavior positively. The p-value of 0.251 revealed that the relationship between financial literacy and financial behavior is insignificant. At 0.05 level of confidence, the insignificant relationship between financial literacy and financial behavior might be that the study failed to include some variables that may enhance students financial behavior. The R-squared of 0.675 obtained is indication that the model can explain up to 67.5% of the changes in financial literacy among students. Drawing on the goal setting theory, the level of financial literacy among university students enables them to set financial goals and work towards their attainment to achieve the maximum satisfaction in the long run. Kappor et al. (2004) Presumably, a high financial literacy among university students is expected to enhance financial behavior positively. Findings of this study contradicts extant literature that revealed a significant impact

of financial literacy on financial behavior (Calcagno and Monticon, 2015). The results of the study do not support the first hypothesis of the study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.0 Introduction

In this chapter, the researcher presents the summary of findings, conclusion and recommendations. The chapter further provides some areas that could guide the conduct of future studies on financial literacy.

5.1 Summary of Findings

The first objective of the study seeks to investigate the financial attitude among university students in Ghana. Results of the study revealed that the financial attitudes that are deemed important to the university students include control of monthly expenses, establishment of financial target for the future, saving money on a monthly basis and following a monthly expense plan. In addition, it was revealed that students deemed it important to compare available offers when buying in instalments, and as well stay within their budgets.

This thesis unearthed that the students hardly take note of their personal expenses and does not follow a weekly plan of expenses. It was also revealed that the students go more than one month without balancing their personal expenses, and hardly save on a monthly basis. However, it was revealed that the students compare prices when buying items and also prefer to buy in impulse.

The second objective seek to assess the impact of financial attitude on financial behavior of students. The results of regression output revealed a positive and significant relationship between financial attitude and financial behaviour of university students.

The third objectives seek to establish whether some students are more financial knowledgeable than the others. It was revealed that students who were aged between 21-25 years scored high, followed by those who were aged between 31-40 years. With respect to gender, it was clearly indicated that the male students possess high financial knowledge than the female students. In

addition, findings confirmed that business students as well as those with high income level possess high financial knowledge.

The final objective seeks to establish the impact of financial literacy on financial behavior. The results of regression output revealed a negative and insignificant relationship between financial literacy and financial behaviour of university students.

5.2 Conclusion

The main objective of this study was to investigate the level of financial literacy among university students in Ghana. The was conducted using undergraduate students in KNUST, Kumasi. To achieve the study objectives, the study employed descriptive, quantitative, and questionnaires to gather data from a sample of 398 respondents. The study employed various statistical tools including SEM analysis, correlation and ANOVA for the data analysis. Regression analysis was employed to assess the impact of financial literacy on students' financial behaviour. Based on the analysis, the study concludes the level of financial literacy among the university students under study is not high, though higher with the business students. Furthermore, the study revealed that there exist significant differences on the level of financial knowledge with respect to the demographic characteristics of these students. The study further concludes that the financial literacy has a significant impact on financial behaviour of students.

5.3 Recommendation

Based on the study findings, we recommend the following to appropriate stakeholders;

The findings of the study revealed that the level of financial literacy among non-business students is low. Based on this, the study recommends to the various educational stakeholders to include some course in the curricula of non-business students to upgrade their level of financial literacy for their financial wellbeing. Students in the respective fields of nonbusiness are also recommended to take short course on financial management to upgrade

their financial literacy skills.

To study further revealed that the level of savings and investments of university students under study are low. In line with this finding, the study recommends to the stakeholders of the various universities to use their various platforms such as matriculations and orientations to educate students on the need for them to save and invest much of their income to meet unforeseen circumstances and prepare for the future.

In addition, since almost all university students possess most electronic gadgets which include smart phones, tablets, and laptops, among others, they can harness these gadgets to enhance their level of financial literacy skills by undertaking short course on financial literacy online and learning from scholars and other genius with in-depth knowledge in money management and financial literacy.

5.4 Directions for future Studies

1.   Th study recommends that for comparison purpose, future studies should consider expanding the sample size and scope to cover both private and public Ghanaian universities. The study further recommends that future studies should include more variables on financial literacy, which include borrowings, insurance, and investments.

2.   Ideally, this study was conducted using university students in Ghana. Since financial literacy is essential to an individual, the society and the economy in general, future studies should be carried out by assessing the level of financial literacy of either public sector workers, informal sector workers, old ages, or pensioners.

3.   Specifically, this study was carried out on university students as a whole. Future studies can be carried out specifically on business students or non-business students to ascertain the findings for comparison purpose.

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KNUST

KNUST SCHOOL OF BUSINESS DEPARTMENT OF ACCOUNTING AND FINANCE <u>QUESTIONNAIRE</u>

Dear respondent,

This research is an academic exercise and it intends to study "the level of financial literacy among university students in Ghana" in partial fulfilment of a Master's degree program. Your responses and suggestions are very crucial to the success of the study. Please bear in mind that your suggestions will be guarded with outmost confidentiality and will be used for the intended purpose. Thank you.

DIRECTIONS: Please indicate your response to each question by selecting the most appropriate answer for each question.

SECTION 1

SECTION A: DEMOGRAPHIC BACKGROUND OF RESPONDENTS

1. Age

A. up to 20   [ ] B.

21-25   [ ]

C. 26-30   [ ]

D. 31-50   [ ]

E. 51 and above   [ ]

2. Gender

A. Male   [ ]

B. Female   [ ]

3.Field of Study

A. Business Related   [ ]

A. Engineering   [ ]

B. Health Science   [ ]

C. Building and Architecture   [ ]

D. General and other Science   [ ]

E. Humanity and Social Sciences   [ ]

4. Year/Level

A. 1st year   [ ]

B. 2nd year   [ ]

C. 3rd year   [ ]

D. 4th year   [ ]

5. Personal Monthly Income

A. Under GHS500   [ ]

B. GHS500-GHS1000   [ ]

C. GHS1001-GHS5000   [ ]

D. Above GHS5000   [ ]

SECTION B: FINANCIAL ATTITUDE

Please answer the following items with respect to your financial attitude (Please make sure to answer each question and circle the correct response based on the number that best corresponds to your answer).

1 Strongly Disagree	2 Disagree	3 Neither agree nor Disagree	4 Agree	5 Strongly Agree

1	It is important to control monthly expenses	1	2	3	4	5
2	It is important to establish financial targets for the future	1	2	3	4	5

3	It is important to save money on a monthly basis	1	2	3	4	5
4	The way I manage money today will affect my future	1	2	3	4	5
5	It is important to have and follow a monthly expense plan	1	2	3	4	5
6	It is important to pay the full value on credit cards	1	2	3	4	5
7	When buying in installments, it is important to compare available credit offers	1	2	3	4	5
8	It is important to stay within a budget	1	2	3	4	5
9	It is important to invest regularly to achieve targets in the long-term	1	2	3	4	5

SECTION C: FINANCIAL BEHAVIOR

Please answer the following items in each construct with respect to your financial behaviour (Please make sure to answer each question and circle the correct response based on the number that best corresponds to your answer).

1 Strongly Disagree	2 Disagree	3 Neither agree nor Disagree	4 Agree	5 Strongly Agree

1	I worry about how best to manage my money	1	2	3	4	5
2	I take notes and control my personal expenses	1	2	3	4	5
3	I establish financial targets for the long-term that influence the managing of my expenses	1	2	3	4	5
4	I follow a weekly or monthly plan for expenses	1	2	3	4	5
5	I go more than one month without balancing my expenses	1	2	3	4	5
6	I pay my bills without delay	1	2	3	4	5
7	When buying in instalment, I compare the available credit options	1	2	3	4	5
8	I save monthly	1	2	3	4	5
9	I save so I can buy something expensive	1	2	3	4	5
10	I have financial reserves at least three times my monthly earnings, which can be used in unexpected moments	1	2	3	4	5
11	I compare prices when buying something	1	2	3	4	5
12	I analyse my financial situation before a major purchase	1	2	3	4	5
13	I buy on impulse	1	2	3	4	5
14	I prefer to buy a financial product to save money to buy in cash	1	2	3	4	5

SECTION D: BASIC FINANCIAL KNOWLEDGE

Please answer the following questions with respect to basic financial knowledge (Please make sure to answer each question and circle the correct response based on the number that best corresponds to your answer).

1. Imagine you have GHS100 in the savings account and the tax rate is 10% a year, after 5 years, how much money will you have in this account?
   A. More than GHS150
   B. Exactly GHS150

C. Less than GHS150
D. Don't know

2. Imagine the tax rate applied to your savings account is 6% a year and the inflation tax is 10% a year. After one year, how much will you be able to buy with the money from this account? A. More than today
   B. Exactly the same
   C. Less than today
   D. Don't know

3. Imagine Joseph inherit GHS10000 today and Peter inherit GHS10000 in three years. According to the time vale of money, who is going to be wealthier?
   A. Joseph
   B. Peter
   C. They are equally as wealthy
   D. Do not know

SECTION E: ADVANCED FINANCIAL KNOWLEDGE

Please answer the following questions relating to advance financial knowledge (Please make sure to answer each question and circle the correct response based on the number that best corresponds to your answer).

1. Which of the options below best describes the stock market's function?
   A. Allow for the meeting of people who want to buy and sell shares
   B. Predict gains of shares
   C. Increase the prices of shares
   D. Don't know

2. Considering a long time period, which asset described below normally gives the highest rate of return?
   A. Account
   B. Bonds
   C. Stocks
   D. Don't know

3. Normally, which asset exhibits higher oscillations over time?
   A. Savings
   B. Shares
   C. Public securities
   D. Do not know

4. When an investor diversifies, his investments are divided among different assets. Then the risk of losing money:
   A. Increases

B. Decreases
C. Remain the same
D. Don't know

THANK YOU FOR YOUR PARTICIPATION