EFFECT OF FINANCIAL LITERACY ON STUDENTS' INVESTMENT BEHAVIOUR IN NAIROBI SECURITIES EXCHANGE. A CASE OF UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

BY

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A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirements for the Degree of Maters of Business Administration (MBA)

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STUDENT'S DECLARATION

I declare this work has not been submitted to any other university other than United States International University-Africa, it's my original work which has been submitted for the Academic purposes.

Signed: _________________________ Date: _______________________

Doriane Muhoza (ID NO 642005)

The project has been presented for examination with my approval as the appointed supervisor.

Signed: _________________________ Date: _______________________

Mr. Kepha Oyaro

Signed: _________________________ Date: _______________________

Dean, Chandaria School of Business

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ABSTRACT

The purpose of the study was to determine the effect of financial literacy on university students' investment behavior in Nairobi securities exchange. The study was guided by the following research questions; what are the behavioral factors affecting student's investment behavior? what is the effect of financial knowledge on student's investment behavior? and how does personal financial management affect student's investment behavior?

The study adopted the use of an explanatory research design. The target population included both graduates and undergraduate students in United States International University-Africa, totaling to 7,005 students. The study adopted the use of simple random sampling technique. The sample for this study was 378 both graduates and undergraduates' students. The study used questionnaires which was the main instrument for collecting the primary data required for the study. Descriptive and inferential statistics technique was used to analyze data. Data was first coded before analysis and Statistical Package for Social Sciences (version 24) computer software was used for analyzing the data. The findings were presented in frequency tables, percentages and graphs.

The findings of the study indicated that students are risk taker when it comes to investment decision and they can influence decisions making behavior which increases the chance of choosing a higher risky investment. Male students are more risk takers than female students and that the perception of risk influence students investing behavior this is because they have more financial knowledge in their investment decisions in the NSE. The results of the study for the correlation analysis between behavioral factors and investment behavior variables indicated a strong relationship between behavioral factors and investment behavior.

The results showed that financial behaviors and financial knowledge contribute to financial satisfaction for students and that economic status of parents has a significant direct effect on financial management. The findings of the study on the correlation and regression analysis between financial knowledge and investment behavior. There was a strong relationship meaning that changes in financial knowledge are strongly correlated with changes investment behavior.

The findings showed that financial management knowledge is the key of financial decision making and as the student they have higher financial management skills in using resources cost effectively. The results of the study showed that correlation analysis between financial knowledge and investment behavior variables had a strong relationship meaning that changes in financial management are strongly correlated with changes investment behavior.

The study concludes that investor sentiment, and overconfidence behavior significantly affect investment behavior of university students. It can also be concluded that male students are more risk takers than female students and that the perception of risk influence students investing behavior. Secondly, level of financial knowledge of university students influence the investment decisions they make. Financial behaviors and financial knowledge contribute to financial satisfaction for the university students and that economic status of parents has a significant direct effect on financial management. Thirdly, students in the university are financially educated which has minimized their spending behaviors and male students have more financial management skills than female student. This has made them to have positive attitude towards investment in the Nairobi Securities Exchange.

The study recommends that university students should get the relevant education which is important to overcome uncomfortable investment outcomes caused by behavioral biases. Secondly, students should invest in building financial literacy as higher financial literacy is positively related to successful investment decisions. Lastly, the university should offer free short courses on student's financial management this is because financially well-educated students make superior decisions for themselves and that financial skills will help them to manage financial needs according to their resources. Further researchers should base study on a bigger sample to include public universities which will make in generalizing the findings of the study on university student's investment behavior. The study recommends for further studies that more variables should be studied such as risk tolerance, psychological influence on investment decisions.

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ACKNOWLEDGMENT

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DEDICATIONS

The project is dedicated to my family for their contributions towards the journey of my education.

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LIST OF ABBREVIATIONS AND ACRONMS

ANOVA	Analysis of Variance
FINRA	Financial Industry Regulatory Authority’s
NSE	Nairobi Securities Exchange
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Financial literacy is an essential skill required for everyday life around the world. On daily basis people are called upon to make minor or important financial decisions. This includes making ends meet, budgeting, paying bills on time, saving, borrowing and investing (Philippas & Tzora, 2017). Nevertheless, people need to be properly educated to make the best financial decisions. Gale and Levine, (2013) define financial literacy as the ability to make informed and effective decisions about using and managing wealth and money. Atkinson, (2012) define the financial literacy as a combination of awareness, knowledge, skills, attitudes and behaviors necessary to make sound decisions to reach individual financial wealth. According to Lusardi and Mitchell (2014), financial literacy is the ability to make financial planning, build and maintain wealth, make informed decisions on debt and retirement and use economic knowledge. Thi and Nguyen, (2015) defines financial literacy as the ability to use knowledge and skills to manage financial resources throughout the life for financial security.

Lack of financial literacy has an impact on the ability of individuals to fulfil long-term goals such as daily money management, home purchase, tertiary education and pension financing. Inefficient money management resulting from the lack of financial literacy can lead to behavioral patterns that make consumers vulnerable to serious financial crises (Thi & Nguyen, 2015). Financial fallacies also affect well-being of individuals as well as occurring negative externalities that affect all economy. Family members without financial literacy can make negative decisions that affect not only themselves but their families and the society at all (Gale & Levine, 2013). People with adequate financial knowledge tend to save for future, retirement and unpredictable situations (Philippas & Tzora, 2017).

Many studies have been conducted to determine financial literacy level of people. Australian ANZ Bank showed that some consumers were lacking in basic financial skills and understanding of specific financial products and services. This survey indicated that individuals between 18- and 24-year old had the lowest financial literacy level among the consumer groups (Australian Securities & Investments Commission, 2003). On the other hand, ANZ Banking Group, (2015) conducted another research on adult financial literacy and found that 55% of the participants did not use newspapers, books, finance sites or government publications to reach financial information.

Financial literacy among university students in Estonia, Germany, Italy, Netherlands, Poland, Romania, Russian Federation and Turkey was conducted by Ergün, (2018). The purpose of the study was to determine the level of financial literacy among university students, and to find out the relationship between financial knowledge and demographic characteristics of students. Online survey instrument was used to collect data. 409 fully completed questionnaires were accepted for analysis. Logistic regression was used to analyze of impact of the demographic characteristics on financial literacy. This result represents a medium level of financial literacy about personal finance. Results indicate that male students, business major students, PhD students, those who live in a rental house, those whose parents have high level income, those who get advice on financial matters from their friends, those who took financial course before, those who get financial information about financial issues from university education, and students from Poland are more knowledgeable on personal finance. More financial courses should be provided in university education programmes, which could help more students handle their finances better and improve their financial wellbeing. It should be taken into consideration that in recent years, environmental and technological influences on financial literacy may be more important than parental influence (Ergün, 2018).

The relationship between Financial Education, Financial Socialization Agents and Money Attitude towards Financial Literacy among Students in Tashkent, Uzbekistan. In today 's world, the importance of financial literacy in a complex financial landscape is high but the relationship between Education, Financial Socialization Agents and Money Attitude towards Financial Literacy among students in Uzbekistan has not been empirically tested. Financial Education and Financial Socialization Agents have a positive impact towards financial literacy among students in Uzbekistan. Financial Education was found to have the highest significant impact. However, Money Attitude did not have significant impact on financial literacy (Isomidinova, Singh, & Singh, 2017).

A study conducted in Nigeria by Egbu (2018) asserts that financial literacy ensures that an individual is able to match his income with his expenditure, lives within his means and forestall going broke or bankrupt. Like general or health literacy, financial literacy could be conceptualized as having two dimensions: understanding (personal finance knowledge) and use (personal finance application). In this study, we review the literature on financial literacy, financial education, and consumer financial outcomes. Students' understanding of financial concepts and their level of financial literacy is an important factor in determining how they overcome financial problems and manage money (Mandell & Klein, 2009a). Chen and Volpe

(1998) surveyed 924 college students in 14 American universities and found that students in business and economics departments had high level of financial literacy. Financial literacy level of university students had increased over the years. It was also found that students in the field of social sciences, science, engineering, business and economics had high level of financial literacy.

Lusardi and Mitchell (2014) point out that individuals need financial skills to survive in today's volatile economic environment. Financial literacy impacts on an individual's financial decisions especially in the area of savings, borrowing, retirement planning, or portfolio choice. Failure to plan for a financial future can have dire consequences. According to Lusardi and Mitchell (2014), individuals must confront complicated financial decisions at a young age. Financial mistakes made early in life can be very costly. Young people often carry large amounts of student loans or credit card debt. This may negatively impact on their ability to create and accumulate wealth. Debt Free (2014) reports that in South Africa, the number of young people in the 18 to 25-year age group who have become over indebted has grown significantly in the past year. More than 50% of these consumers are battling to pay their debt. Student debt has increased by more than 100% in the last three years. In 2010, less than 10% of students had access to credit cards. 43% now have access to this form of credit.

Financial literacy also impacts on saving by young people Chowa and Ansong (2010) point the ability of youths to save and accumulate assets becomes very important as this will impact on their ability to accept financial responsibilities and plan for the future. To assist younger consumers and students, it is of critical importance for researchers to understand financial literacy among young people (Lusardi & Mitchell, 2014). Financial education is the key to decrease financial problems, especially among young adults (Ansong & Gyensare, 2012). According Shaari, Hasan, Mohamed,and Sabri, (2013), financial literacy can prevent the university students from engaging in extensive debt especially credit card debt. Financial decision's students make in the university have an important influence on their financial situation after university. Furthermore, the financial situation of students in the university can affect their academic performance. Students need to make financial decision on whether to save, spend or invest based on their financial knowledge. By assessing the financial literacy level of the students, researchers can understand better the financial habits and behaviors of the students (Shaari, *et. al*, 2013).

According to Mahdzan and Tabiani (2013), increasing financial literacy and capability promotes better financial decision-making, thus, enabling better planning and management of life events such as education, housing purchase, or retirement. This is particularly more relevant for college students. Thapa and Nepal (2015) stated that university students take on higher levels of personal financial responsibility. These students face more financial challenges in conjunction with relevant instruction. It is also more likely that college students are experiencing more challenges with finances as they pay bills, use credit cards, working, saving, budgeting monthly expenses, and manage debt. Thus, there is paramount importance of financial literacy among college students.

Financial behavior of individuals is important but difficult to understand, define and measure. Behavior is a demonstration of the activities, which are possible to watch and observe by the others too. Wagner (2015) opines that being financially informed and knowing the correct financial activities is not enough to bring financial change, there is need of change a poor financial habit into good. Dew and Xiao (2011) present financial behavior as the financial management behavior. Financial management is the activities of managing money in maximizing the yield. The people who behaves well with the money can get positive financial behavior and thereby sustainable financial well-being and vice versa. In this, Xio, Chen and Chen (2013) opine that financial literacy influences financial behavior.

Primarily, the financial behavior is about how persons deal with money. In other words, the financial behavior is an application part of financial literacy that is believed to contribute financial well-being of persons positively. Gradually, a conscious behavior shows in decision making, comparing opportunity cost, seeking alternatives of wastage minimization. Financial behavior can be divided into two; consumption and financing. The first one is related with how the money is to use in consumption expenditure and the second one is related with how the money is to use as investment and saving. Lusardi and Mitchell, (2014) argue that the basic implication of financial literacy is to change financial behavior of persons. Therefore, the literacy that cannot change the behavior is worthless. Similarly, Monticone, (2009) opines that there is a double relationship between financial literacy and behavior; financial literacy affects financial behavior and vice-versa. Lusardi and Mitchell (2014) find that causal relationship to find between financial literacy and behavior is difficult. In practice, if the literacy and behavior are measured by following the scientific process, however, measuring the literacy and behavior is not that much difficult.

A good financial behavior development in students calls for a special attention because the financial behavior aspect has a significant effect on their life after graduation from a university. For the students who live far away from their parents, for the first time they will be faced with the choice of monthly financial management by themselves. Financial behavior may be influenced by an individual's financial literacy. Financial literacy can be interpreted as financial knowledge with the purpose of acquiring wealth. An individual with good financial literacy will influence his or her financial behavior toward a positive direction, such as the payment of a bill on time, having savings and investment, and ability to manage credit cards wisely (Lusardi, Mitchell, & Curto, 2016). Students with a lower financial literacy tend to choose a wrong financial decision than those with a higher financial literacy. The other research findings Robb and Woodyard (2011) showed that a good financial behavior subjectively and objectively influence higher level of financial literacy significantly. Whether an individual's financial management is wise or not is closely related to the individual's ability and knowledge of concepts in financial literacy. Hence, financial literacy influences almost all aspects related to planning and expenditure including his or her financial behavior.

United States International University-Africa is among the private universities in Kenya. It has a total of about 7005 both undergraduate and graduate students with about 15 percent of the population made up of international students (NSE, 2019). This proportion of students make it a preferred Higher Institution of Learning for many students who may want to study in Kenya. It is competing against 22 public universities, 14 chartered private universities and 13 universities with Letter of Interim Authority to enroll students both locally and internationally in Kenya.

1.2 Statement of the Problem

There is an increasing need for financial knowledge and at minimum basic financial skills, financially educated society enables individual to better make financial decisions. With the students being more prone to make financial decisions, there are more risks for them to make a bad call and abysmal decisions may be taken. To reduce the risk of poor decision making financial education and awareness becomes pivotal (Albeerdy & Gharleghi, 2015). Students must be sensitized in such a way that they receive proper education towards financial management in order for them to get a grasp on their spending behavior and habits for the future. Higher educational institutions have for the aim to properly shape an individual so that he/she can adapt and survive in the real world and why is these institutes not the first body to consider when there is a need for the students to be financially literate.

A study by Ergün, (2018) on level of financial literacy among university students, and the relationship between financial knowledge and demographic characteristics of students. Logistic regression was used to analyses of impact of the demographic characteristics on financial literacy. Overall mean of correct answers for the survey was 72.2%. This result represents a medium level of financial literacy about personal finance. Results indicate that male students, business major students, PhD students, those who live in a rental house, those whose parents have high level income, those who get advice on financial matters from their friends, those who took financial course before, those who get financial information about financial issues from university education, and students from Poland are more knowledgeable on personal finance. According to Edirisinghe, (2017) on the evaluation to underpin 'the relationship between financial literacy level and nature of the financial behavior of undergraduates of Sri Lanka. The sample selected is 223 management undergraduates from three main government universities in Sri Lanka. Knowledge on money management, savings, investment, credit and insurance has been considered to measure the financial literacy level and undergraduates current and past manners related to same dimensions is used to measure financial behavior using questionnaire. Multiple Regression Analysis showed that apart from money management financial literacy level on all other dimensions has significant positive effect not only on overall financial behavior but also on individual dimensions.

A study by Amponsah, (2015) on the effect of financial literacy on saving behavior in Manso Atwere in Amansie West in Ghana. Descriptive and explanatory research designs was used with survey employed to collect information from small scale miners by asking questions to describe the sample. Financial literacy is found to influence individual saving behavior. The findings show high level of financial illiteracy among the respondents. This could be due to their educational level with majority of them having elementary/basic school education. Another study by Njehia, (2014) on the establishment on the effect of financial literacy on saving practices and social security planning of Mumias Sugar Company employees. Data was analyzed by using regression analysis and descriptive statistics which was presented using mean, correlation, standard deviation and percentages. The findings showed that most respondents moderately applied their financial knowledge in relation to managing credit and other liabilities. In general, it was observed that the employees implemented their financial knowledge and skills in personal financial management. The results of the regression showed that there was a positive relationship between financial literacy and personal financial planning of employees in Mumias Sugar Company.

Several studies has been done in respect to financial literacy however non has sought to look at the effect of financial literacy on university students' investment behavior in Nairobi Securities Exchange and therefore this study intended to seek the following research questions; what are the behavioral factors affects student's investment behavior, what is the effect of financial knowledge on student's investment behavior, and how does personal financial management affect student's investment behavior?

1.3 Purpose of the Study

The purpose of the study was to determine the effect of financial literacy on university students' investment behavior in Nairobi Securities Exchange in USIU-Africa.

1.4 Research Questions

The study was guided by the following research questions;

1.4.1 What are the behavioral factors affects student's investment behavior in USIU-Africa?

1.4.2 What is the effect of financial knowledge on student's investment behavior in USIU-Africa?

1.4.3 How does personal financial management affect student's investment behavior in USIU-Africa?

1.5 Significance of the Study

1.5.1 The Policy Makers

The study is of significant to the Policy makers who will be able to devise programs that promote and entrench savings among university students. Due to the research findings, policy makers are able to use the gaps in financial literacy to formulate appropriate training needs that address financial literacy which can lead to better financial management.

1.5.2 Academicians and Researchers

The findings contribute to academia knowledge in finance especially on impact of financial literacy on personal financial management. The researchers and academicians will find this study useful for further discussion and research so that they can explore and further develop their studies on financial literacy and financial behavior of university students. This study will also be of benefit to researchers who seek to further knowledge in the area of financial literacy and financial behavior by identifying knowledge gaps in the area and broadening their research in the field to target employees in other sectors of the economy.

1.6 Scope of the Study

The purpose of this research was to investigate the effect of financial literacy on university students' investment behavior in Nairobi Securities Exchange. To achieve desired results, this study was based on a case of United States International University-Africa. The target population of the study was graduates and undergraduate students from USIU-Africa. The population size of the study was 7,005 students. The period of study was three months starting from January 2019 to April 2019. Behavioral factors, financial knowledge and financial management were adopted as the independent variables of this study while investment behavior was the dependent variable.

1.7 Definition of Terms

1.7.1 Financial Literacy

Financial literacy is defined as a combination of awareness, knowledge, skills, attitudes and behaviors necessary to make sound decisions to reach individual financial wealth (Atkinson, 2012).

1.7.2 Financial behavior

Financial behavior is the capability to capture of understanding overall impacts of financial decisions on one's circumstances and to make the right decisions related to the cash management, precautions and opportunities for budget planning (Edirisinghe, 2017).

1.8 Chapter Summary

The chapter has presented the background of the study on the effect of financial literacy on financial behavior of university students in Kenya. This was followed by statement of the problem, purpose for the study, research questions, significance, scope and definition of terms that was used in the study. Chapter two presented literature review. Chapter three presented the research methodology which guided the study in conducting the study, chapter four presented the results and findings of the study, and lastly five discussed the findings, conclusions and recommendations to the policy makers, the university and scholar and academicians. .

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter review the analysis of relevant literature to analyze the effect of financial literacy on students of university students' investment behavior in Nairobi Securities Exchange. The research questions include; what are the behavioral factors affects student's investment behavior? what is the effect of financial knowledge on student's investment behavior? and how does financial management affect student's investment behavior? and lastly the chapter summary of the study.

2.2 Effects of Behavioral Factors on Student's Investment Behavior

2.2.1 Risk Aversion

According to a study conducted by Felton et al (2010) male students are willing to take more risk when it comes to investment decisions, nonetheless male tend to be more optimistic in nature which tends to be the reason they take more risks. Faff et al (2008) investigated gender behavioral differences in investment decisions and they confirmed that female tend to be more risk averse and less tolerant to financial risk. Studies and research in the field of behavioral finance also show that female tend to be more risk averse and they mostly allocate their assets towards fixed income. The findings of Bogan and Cheitan (2013) show evidence that not all men are risk seeking and it differs from one sample to another depending on age, income and marital status.

2.2.2 Risk Tolerance

Gustafsson and Omark (2015) defined risk tolerance as the maximum amount of uncertainty (or risk) that an individual willing to accept when making an investment decision. Moreover, Mayfield, Perdue and Wooten (2008) proposed that willingness of an individual to accept the risk and perception of risk could be influenced by their own personal characteristics. They suggested that the perception of risk influence investing behavior. Furthermore, the researcher study that the financial risk attitude of the investor has a positive influence on investment risk tolerance and invest in stocks in individual's portfolio.

According to Pak and Mahmond (2015), said that high risk tolerance investors have risk taking behavior. Research concluded that those people tend to invest in riskier investment. Risk taking overall was positively related with extroversion and openness to experience, and negatively with neuroticism, agreeableness and conscientiousness (Nicholson et al., 2005). In other words, personality traits have relationship either positive or negative relationship with risk tolerance. Investment decision of the investors may affect by risk tolerance that combined of few components. Those components included demographics, personality traits, emotion, education and others (Pak & Mahmood, 2015). There is positive relationship between risk tolerance and investment decision. The speed of the investors in the financial planning and investment management will slow down if they are low in risk tolerance.

2.2.4 Overconfidence and Investment Behavior

Overconfidence happens as people overestimate the reliability of their skills, knowledge and accuracy of their information, or over optimistic about the future and the ability of control the situations (Ezama, 2014). Overconfidence can be expressed in many different forms. Apart from miscalibration, many people do not actually think that their ability and understanding are only better than average effect. In addition, illusion of control makes investors believe that they have the ability to control the situations better than what they can, and they are overly optimistic about everything. They tend to overestimate their knowledge and ignore the risks. Shiller (2000) suggests that people often think they know more than they can do.

Glaser et al. (2009) also suggested the similar results as they did research about professional investors and students. Overconfident investors tend to believe that they are superior to others about the possibility of choosing the best stocks as well as the best time to join and exit the stock market. However, on average they often receive lower rates of return in comparison with the average return of the market. They summarized that both male and female expressed excessive confidence, but male was at the higher level. However, female investors can gain returns from individual stocks more than male (Phan & Zhou, 2014).

2.2.3 Gender Differences and Investment behavior

Worldwide, gender differences in many areas including education, income, and wealth continue to narrow however in terms of long-term financial security there still exist disparities (Hira & Loibl, 2006). Researchers and financial practitioners a like averse that female students invest their financial resources more conservatively and, in general accept less financial risk than male students (Lemaster & Strough, 2013). The disparity in long-term financial security between men and women is more pronounced in developing countries compared to developed countries where gender equity across many spheres has not been realized. The disparity in these countries is compounded by cultural practices which tend to promote a patriarchal system (Suda, 2002) and the absence of affirmative action.

Among other demographic factors gender is the first effective differentiating and classifying factor. Because of the role of emotional Variables Risk attitudes differ between men and women (Loewenstein *et al.*2001) As compared to male investors have wider risk aversion in different activities like financial decision making (Stendardi et al. 2002). Male's investors are more confident in their investment decisions, they have more financial knowledge and wealth and ability to take risks. When males are investing in their assets due to large income, they take greater risks (Parker, and Terry 2002). Some studies shown that there is no significant effect of gender on risk tolerance during financial decisions.

A study conducted by Wubie, Dibabe, and Wondmagegn, (2015), with the objective of analyzing and identifying the demographic factors that influence saving and investment decision of high school teachers. In order to meet this objective, primary data was collected from the sample of 88 high school teachers in Dangila Woreda. Linear regression model was used to analyze the effect of explanatory variables on the dependent variable (saving and investment). Out of these, 4 variables had statistically significant effect on saving and investment decision of the respondents. The variables that have significant relationship with the dependent variable are gender, age, family size, social ceremony expense.

Individuals across the globe and living in different economic, financial and social environments have to take more responsibility for their future financial satisfaction and protection. In most countries, the ongoing difficult economic situations and instable job market mean that individuals and their families must plan for their immediate and long-term future, and particularly for unexpected life events (Skreblin Kirbis, Vehovec, & Galic, 2017). The continuous changes and improvements in the financial world created by sophisticated and increased variety of financial products, and diversity in financial services make it essential for individuals to constantly obtain new information and exhibit desirable financial behaviors for financial satisfaction in order to respond to this financial environment. A study by Coşkuner, (2016), examined the impacts of financial behavior, financial knowledge, and selected demographic variables on financial satisfaction. The study sample consists of academic and administrative staff of a major state university in Turkey. Data was analyzed using binary logistic regression analysis. The regression analysis results showed that positive financial behaviors and financial knowledge contribute to financial satisfaction. The only demographic variable that has a significant impact on financial satisfaction was household income.

A study by Ali, (2014) investigated the determinants of financial literacy levels among employees of Kenya Ports Authority in Kenya. A sample of 500 employees was randomly selected to reflect the population of working class. Sampling was done using stratified multi-stage sampling to ensure that demographic and socio-economic considerations were represented in the population. A survey methodology was adopted with the design of self-administered questionnaires to capture the relevant information from the employees. Findings of the study suggest that the overall financial literacy level of the employees is low. Financial literacy levels get affected by gender, age, education levels, other wealth factors and sources of information & financial advice, whereas it does not get affected by occupation status and type, and personal income.

A study of final year high school students in Italy measured the financial knowledge by dividing the students into two groups. The first group had a 16-hour course of financial education and the second group only answered to the questionnaire in the beginning and in the end of the survey period. The researchers found that the course improved students' financial literacy and understanding of economic issues. They also found the course affected the students' virtual investment attitudes but the peer student group without the course didn't have similar improvement. The students that only filled out the two questionnaires did improve their financial literacy. The researchers noted the most improvement was made by female students and students from poorer background and with poorer mathematics and Italian grades (Becchetti, Caiazza & Coviello, 2011). This study signals that attitudes and even behavior might change after a course of financial education acting as a stimulus. Expanding the knowledge about finance could improve people's understanding of investing.

2.2.5 Psychology and Investing Behavior

Psychology is a field of study that tries to understand people. Different areas of psychological research have emerged to study specific areas of our mind and complex lives. Investing or even thinking about investing is inevitably linked with our minds and thus it can be studied by using psychology. Many different things in the present and past influences our decision making and behavior (Talab, Hasan, Flayyih, & Hussein, 2017).

Olson (2006) expressed that emotions which rational choice theory has ignored, however, could have an impact on financial behavior. Emotions are thought as disordered interims of mental activities in western tradition. In this respect, individuals in rational choice process have to share their energy and time between solving their problem and hence making a decision and regulating their emotional activities. Because, they ought to display an array of activities in order to understand, appraise and control their emotions respectively while trying to solve a problem. Therefore, individuals sometimes display irrational behaviors at the expense of experiencing psychological satisfaction or personal relief (Gao and Schmidt, 2005). Some academicians assert that the removal of emotions from decision making process could drive individuals to make decision better while others proclaim that the capability of using emotions in the decision process represents a significant determinant of a good decision.

In explaining the differences between investor behaviors, lots of studies argued the role of personality on investing behavior. The logical connection between these two phenomena in this manner: Personality influences risk perceptions or risk tolerance of investors and these risk reflections form the investor behavior (Mayfield *et al*., 2008). It is said that personality has a relation to regret feeling regarding current investment as well as investment preferences (Parhi, 2018). Sunk cost fallacy is widely visible in human purchase behavior whether the product or financial services. The misconception is one makes rational decisions based on the future value of investments. However, the truth is that decisions are tainted by emotional investments one accumulates. More is the investment made in something, harder it becomes to abandon it.

Mental accounting in a perpetual process of human thinking, comes into a reality as information received from different sources are matched by individuals with the existing information in the mind and making an effort to comprehend a certain situation from another perspective with different effect. This is an aspect of psychology in human being that differs from one individual to another significantly. A set of cognitive operations employed by households and individuals to keep, track and evaluate financial activities is called mental accounting. The way people categorize and evaluate different outcomes of financial activities is called mental accounting (Talab *et al*., 2017). This mental account is used to combine and gather the information that will be used in making decision while data that are considered redundant to make decisions are separated to another account.

2.3 Effects of Financial Knowledge on Investment Behavior

2.3.1 Budgeting and Financial Behavior

Budgeting is the best way to check how much financially responsible a person is (Loke, 2017). An individual with a budget surplus may choose to pay down debt or increase spending or investment. Learning how to budget for a surplus is essential for achieving financial integrity (Khan, 2012). In the paper named ‘Examining the behavioral aspects of budgeting’ authors explain the process of budgeting that involves setting strategic goals/objectives and developing forecasts for revenues, costs, cash flows & other important financial factors. The budget seeks to achieve optimal money allocation, cost awareness and quantification of profits become relevant. A comparison of actual results against budgeted projections provides a basis for evaluating performance and signals the need for corrective action (Raghunandan, Ramgulam, & Raghunandan, 2012).

Nidar and Bestari (2012) investigated the level and factors influencing the personal financial literacy of 400 students in Padjadjaran University of Indonesia and found that level of personal financial literacy was within the low category, especially in investment, credit, and insurance. Their study also showed that level of education, faculty, personal income, knowledge from parents, parents' income, and ownership of insurance factors have significant impact on personal financial literacy. They used personal financial literacy in: basic personal finance, income and spending, credit debt, saving investment and insurance.

In Srilankan context, Heenkenda (2014) explored the existing pattern and the levels of disparity of the functional financial literacy using quantitative data from urban, rural and state sector and found that the socio-economic-demographic characteristics have a very strong association with the financial literacy of individuals. And, it also found that the majority of the respondents demonstrated a modest financial knowledge and the functional financial literacy was quite diverse across respondents depending on the levels of education, income, gender, age, etc. Institute of Microfinance in Bangladesh conducted a survey covering nearly 9000 households and found very low and inadequate financial literacy in the country, particularly it is more serious in rural areas. VISA (2012) study ranked India at the 23rd position among the 28 countries surveyed. Following this study, Agarwalla *et al*. (2013) identified that there is the influence of various socio-demographic factors on different dimensions of financial literacy among the working young in urban India. A few factors specific to India, such as joint-family and consultative decision-making process were found to significantly influence financial literacy in urban Indian youths.

2.3.2 Financial Education and Financial Behavior

The goal of financial education may be to increase knowledge, but ultimately personal finance courses should encourage better financial behaviors. (Bernheim & Garrett, 2011), one of the first studies to estimate the long-term effects of financial education in high school, finds that the personal finance mandate increased student saving rates (Kalwij *et al*., 2017). Another study using the Money Talks curriculum in high school a show that students are financially illiterate but that after the curriculum students increased their saving score between the pre and post-test. This study would be improved if it had used actual behaviors rather than intentional financial behaviors. Personal finance education in high school can improve financial behaviors but it may take time after it is implemented to see the effects. Lecturers need to be trained and well versed in the topic to be effective. Economic education may also affect financial behaviors. A study estimating the long-term effects of an economic course finds that students who took a course in high school were more likely to have a bank account later in life (Grimes, Rogers, & Smith, 2010).

College students are at a particularly vulnerable position in life. These students are becoming less dependent on their parents, may have disposable income from a job, and are likely taking on large amounts of debt with student loans. It is important to teach undergraduates good financial practices before they engage in financial contracts or start to make financial decisions (Wagner, 2015). Financial mistakes made at in college can also snowball into larger mistakes that can be costly. One study estimates the relationship between confidence, actual financial knowledge, and retirement planning. In general, the four studies all found a positive and significant relationship between confidence and knowledge people who are more confident are more financially knowledgeable even after controlling for actual financial knowledge. Similar to confidence a person's perceived financial literacy may affect their financial behaviors (Gutter & Copur, 2011).

The continuous changes and improvements in the financial world created by sophisticated and increased variety of financial products, and diversity in financial services make it essential for individuals to constantly obtain new information and exhibit desirable financial behaviors for financial satisfaction in order to respond to this financial environment. A study by Coskuner, (2016) examined the impacts of financial behavior, financial knowledge, and selected demographic variables on financial satisfaction. The study sample consists of academic and administrative staff of a major state university in Turkey. Data was analyzed using binary logistic regression analysis. The regression analysis results showed that positive financial behaviors and financial knowledge contribute to financial satisfaction. The only demographic variable that has a significant impact on financial satisfaction was income.

2.3.3 Relationship between Financial Knowledge and Financial Behavior

To manage financial resources effectively in order to achieve the welfare of someone' life, individuals need a basic financial knowledge and skills in finance. Individual needs and increasingly complex financial products that requires an individual to have sufficient financial literacy (Stolper & Walter, 2017). Have a mastery of knowledge and skills in finance to encourage individuals to understand and engage national issues in the financial sector such as health care costs, taxes, investment and access to the financial system.

Widayati (2012) conducted a study entitled Factors Affecting Students' Financial Literacy for Economics and Business Faculty at University of Brawijaya. The survey was conducted on 220 students majoring in construction economics determined proportionate random sampling. Data was collected using tests and questionnaires. The results showed that socio-economic status of parents has a significant positive direct effect on family financial management education, and does not directly influence the cognitive aspects of financial literacy, learning in higher education has a significant positive direct effect on the cognitive aspects of financial literacy, and economic status of parents has significantly positive indirect effect on the financial literacy aspect of the attitude that is mediated by a family financial management education. From the results, it can be concluded that in order to have a proper financial behavior, someone must be based on adequate financial knowledge. Where in financial knowledge is also needed expertise to read and understand the issues related to financial issues, so that individuals can make analysis before making financial decisions to achieve welfare.

Scheresberg (2013) on finding out how young adults lack basic financial knowledge. Financial literacy is especially low among certain demographic groups, such as women, minorities, and lower-income or less-educated people. The findings indicated that respondents who display higher financial literacy or higher confidence in their math or personal finance knowledge have better financial outcomes: they are less likely to use high-cost borrowing methods, and they are more likely to plan for retirement or have set aside savings for emergencies.

According to Widyastuti, Suhud, and Sumiati (2016), on the impact of attitude, subjective norm, and financial literacy on saving intention and behavior among teacher students in a public university in Jakarta, Indonesia. Teacher students are pre-service teachers who could promote financial literacy at schools in the future. Data was collected using an online survey. In total, there were 212 usable instruments and data was analyzed using exploratory and confirmatory factor analysis. As a result, two hypotheses were rejected: financial literacy was insignificant to influence attitude towards saving and saving intention. Other results, financial literacy and saving intention significantly influenced saving behavior. In addition, attitude and subjective norm significantly influenced saving intention.

Shahrabani (2013) assessed financial literacy of college students in Israeli and examined the associations financial literacy would have with socio-demographic factors, as well as the difference between Arab and Jewish students. The study was based a questionnaire survey to collected primary data from 547 students from two colleges. Descriptive statics and chi square test of difference between different groups employed for data analysis showed an overall level of financial knowledge. The difference between Jewish and Arab students with respect to questions pertaining to calculation was not significantly different. The result also from logistic regression indicated that financial knowledge of Israeli students was explained by gender, academic year, work experience, and major area of study. Based on the study the author suggested personal finance education at college level which could address both general requirements and considered group differences as well.

A study by Opoku, (2015), on the level of financial literacy of Senior High School students in the Kumasi Metropolis. The study surveyed 320 students to investigate their level of financial literacy through the administration of questionnaires. Findings from the study reveal that students need to improve their personal finance knowledge. The results also reveal that many of the students are seen to be familiar with issues relating to simple interest, compounding and loan guarantee. In contrast, the students are less knowledgeable and inexperienced with issues concerning personal financial planning, budgeting and overdraft. The incompetency exhibited by the senior high school students therefore limits their ability to make sound financial decisions and hence more likely to have financial related issues in the real world. The low level of financial literacy could also make small financial issues become overwhelming which could turn into financial stress and consequently affects the other aspects of live such as personal relationships or performance at work.

A study by Robb and Woodyard (2011), examined the relationship between personal financial knowledge financial satisfaction, and selected demographic variables in terms of best practice financial behavior. Data are taken from the Financial Industry Regulatory Authority's (FINRA) National Financial Capability Study, a nationally representative sample of 1,488 participants and are analyzed using multiple regression analysis. Findings suggest that both objective and subjective financial knowledge influence financial behavior, with subjective knowledge having a larger relative impact. Other variables that have a significant impact on financial behavior include financial satisfaction, income, education, age, race, and ethnicity.

Kumar, Watung, Eunike and Luinata, (2017), investigated the influence of financial literacy on financial behavior and how financial behavior influences on financial decision among college students. The research applied quantitative method with 337 samples as respondents taken from President University students. This research applied convenience sampling technique. The results of this research show that there's a significant relation between financial literacy to financial behavior and from financial behavior to financial decision. Since parents are the first people for the children, they should give good understanding about financial matter towards their children that may affect to children's financial behavior and the decision that will be made later in the future. Education institution may consider about students' ages and economy status in making financial education program. Hence, it will be more effective to increase financial literacy among college students.

Financial decisions at any stage in life can have lasting effects on the students and increased levels of financial literacy in the younger years facilitate better decisions that lead to a higher quality of life in later years. Age and experience change an individual's perspective. Henager and Cude, (2016), examined the relationship between financial literacy and financial behaviors among various age groups. Financial literacy was measured in three ways: objective financial knowledge, subjective financial knowledge or confidence, and subjective financial management ability. Long-term financial behavior referred to retirement saving and investing behavior, whereas short-term financial behavior referred to spending and emergency saving behavior. In the full sample, both objective and subjective financial literacy variables were positively associated with long- and short-term financial behaviors. In the age subsamples, subjective financial knowledge or confidence was more strongly related to long- and short-term financial behavior than either objective financial knowledge or subjective financial management ability in the younger age groups. In the older age groups, objective financial knowledge was more strongly related to long-term financial behavior than either of the other two measures of financial literacy.

A study carried out in Finland on investment instruments, where young adults wanted to invest and how they prefer banks to contact them. The research found that young adults in Finland had the best knowledge of bank accounts such as deposit accounts. They had much less knowledge of stocks, retirement insurance or index loans. The interest to invest was highest for bank accounts and stocks followed by mutual funds. The least interesting was the index loan (Aakula, 2010). Seems to be a clear correlation of investing to products the respondents knew and understood best. The research found that people were funding their investing with saved money or earned salary. The respondents with a higher degree such as a university degree had more knowledge of different investment instruments and were more interested to invest than those with lower level of education (Aakula, 2010).

2.4 Effects of Financial Management on Investment Behavior

2.4.1 Student's Financial Management

Financial behavior can be related to the concept of financial management at individual level, i.e., planning, management, and controlling. Individual financial behavior can be related to the task of a financial manager in a company. The main functions of financial manager in a company are to plan, look for and use funds to maximize the value of the company, or in other words, the activity is related to the decision about the selection of resources and financial allocation. For this reason, he or she has to write financial budgeting to do the activities viewed from the capitalization aspect. Financial behavior is an activity of financial management at individual level consisting of planning, management, and controlling funds (Kasmir 2010).

Financial behavior in this study was students' behavior in planning, managing and controlling financial resources, in this case pocket money from the parents or other people give such as scholarship. The aspect used to describe the students' financial behavior is based on Danes and Haberman opinions (2007) by adapting to students' financial system in Indonesia. This adaption was made at the aspect of financial acquisition. In this case it is assumed that students in Indonesia in general are not yet familiar with the activity of working while studying. For this reason, this aspect can be omitted and is adapted to the students' behavior in writing a good financial plan. In addition, related to indicators of using loans by paying on time will be omitted, because in Indonesia the holders of credit cards are still limited to the ones with self-income and not for students. The aspect of financial behavior in students will be related to four important aspects of good financial management which include; the behavior in writing financial planning/budgeting, the behavior of savings and or investing, the behavior of using or expending money, and the behavior of evaluating, which, in this case, is related to communicating financial problems with family and the evaluation of the use of the budget.

According to Mahdzan and Tabiani (2013), increasing financial literacy and capability promotes better financial decision-making, thus, enabling better planning and management of life events such as education, housing purchase, or retirement. This is particularly more relevant for college students. Peng *et al*. (2007) stated that university students take on higher levels of personal financial responsibility. These students face more financial challenges in conjunction with relevant instruction. It is also more likely that college students are experiencing more challenges with finances as they pay bills, use credit cards, working, saving, budgeting monthly expenses, and manage debt. Thus, there is paramount importance of financial literacy among college students.

Financial management skills and behavior for the university students have a significant effect on their future life. The capability to handle financial resources is significant for every university student. Financially well-educated students make superior decisions for their families (Iqbal, Jan, Rehman, & Khan, 2012). Finance is the major factor in the option of whether to follow education or to do part time occupation. Generally, university students start their education with the hope that they will not exclusively accountable for their own finances. Educational workshops, seminars and print media have strong positive impact on the improvement of financial skills and knowledge. Financial knowledge and skills are helping the students to manage their financial needs according to their resources. Financial management skills contain understanding functions and uses of money. Financial management knowledge is the key of financial decision making and planning. Financial skills signify understanding of everyday financial matters and the right decisions. Financial management skills, knowledge and financial management education enable education policy makers to formulate suitable strategies to improve student's financial management knowledge. Enhancement of Financial management skills, knowledge and financial management education will advantage to universities, parents, individual and the nation. The objective was to assess financial management skills among the university level students of both came from urban and rural area enrolled in different universities and colleges

Iqbal, Jan, Rehman, and Khan (2012) investigated the skills among the university level students enrolled in different universities and colleges in Peshawar city by employing both t-tests and Analyses of Variances (ANOVA). Six universities (three public sectors and three private sectors) and five private sector business and management sciences colleges were selected randomly for this research study. By and large the results of the study based on the total mean score male students have more financial management skills than female students. There was a significant difference in the financial management skills both students of public and private universities and colleges. Students of public sector universities and colleges have higher financial management skills score (Mean 39.05) than students of private sector universities and colleges score (Mean 38.01).

2.4.2 Financial Wellbeing

Financial well-being is defined as the situation of individuals‟ financial status. Thus, how financially sound or happy ones‟ financial situation is (S. Ali, 2013). Financial well-being as apparent conditions of one's financial situation. The concept is measured based on one's total satisfaction of his or her financial situation. Financial wellness on the other hand is defined as the actual situation of individuals‟ financial standing. This is often indicated by a person's‟ low level of debt, active savings level and a sound spending plan (Elaine, Cheng, Ping, & Yeing, 2014).

2.4.3 Personal Financial Management

Personal financial management refers to the management of money in its various forms to ensure short- and long-term financial security. Dowling *et al*. (2009) defined that "financial practice as a set of behavior which include cash management, credit management, financial planning, investments, insurance, retirement planning, and estate planning." which requires understanding of basic concepts of finance and economics, such as interest and inflation, and performing some computations, risk diversification, awareness of financial products and ability to choose the one with ones best interest. Researches on financial literacy hypothesized that financial literacy and savvy personal financial management behavior are related (Kebede & Kuar, 2015).

Mohamad (2013) on the money management skill, financial planning, budgeting, saving and credit management abilities, and its relationship with financial knowledge, financial practice, and self-stem also considered in the context of Malaysian. Based on the analysis of survey data from a sample of 480 youth, they found significant moderate positive correlation of financial knowledge, and self-esteem with money management skills. The multivariate analysis implemented to determine the significant predictors for money management skills also indicated 26.5 % explanatory power of the independent variable in the study. Concerning the effect of each variable financial management practice found to have the highest effect followed by financial knowledge and self-esteem.

2.4.4 Financial Management and Investment Behavior

The level of financial management, the necessary expertise to manage traffic of money received and spent, ranging from financial planning, organizing, implementing and monitoring as well as how to perform feedback of the planning that has been compiled. In the planning activities involving excavation or determination of the source of revenue that comes from nowhere, the numbers how many, is used for what and when receipts will be accepted (Mandell & Klein, 2009). On organizing activities, involves determining how activities can be made to obtain a source of revenue that will not be missed, as well as the rules of procedure. In the implementation of the activities through monitoring and feedback, regarding anyone involved in the financial management to be able to control and supervise the expenditures incurred in order to not deviate from the plan (Nababan & Sadalia, 2012).

Good financial management can prevent someone from financial distress and financial problems. The level of income is not the only source of problems of financial difficulties. But more likely to errors in the financial management of a large city where the society is more concerned than the fulfillment of wish fulfillment, factors such as power prestige can be something that they need to be considered (Dwiastanti, 2015). Power prestige is not the only cause of the financial difficulties, other factors such as attitudes, subjective norms, behavioral control, intention, behavior and prudence (conscientiousness) into the factors that support a person in managing their finance.

As research conducted by Nababan and Sadalia (2012) to manage financial resources effectively in order to achieve the welfare of one's life, individuals need a basic financial knowledge and skills in finance. Individual needs and increasingly complex financial products that requires an individual to have enough financial literacy. Have a mastery of knowledge and skills in finance to encourage individuals to understand and engage national issues in the financial sector such as health care costs, taxes, investment and access to the financial system. Having a financial literacy is vital to obtain a prosperous life. With proper financial management which must be supported by good financial literacy, the standard of living is expected to increase, this applies to every level of income, however, because the high level of income a person, without the proper financial management, financial security would have been difficult to achieve (Dwiastanti, 2015).

Edirisinghe(2017) on the evaluation to underpin 'the relationship between financial literacy level and nature of the financial behavior of undergraduates of Sri Lanka. The sample selected is 223 management undergraduates from three main government universities in Sri Lanka. Knowledge on money management, savings, investment, credit and insurance was considered to measure the financial literacy level and undergraduates current and past manners related to same dimensions is used to measure financial behavior using questionnaire. The results suggest that financial literacy level of majority of the undergraduates of the three universities is at a moderate level. Multiple Regression Analysis showed that apart from money management financial literacy level on all other dimensions has significant positive effect not only on overall financial behavior but also on individual dimensions.

A study by Iqbal, Jan, Rehman, and Khan, (2012) on the assessment of financial Management skills among the university level students enrolled in different universities and colleges in Peshawar city by employing both t-tests and Analyses of Variances (ANOVA). Six universities (three public sectors and three private sectors) and five private sector business and management sciences colleges were selected randomly for the research study. By and large the results of the study based on the total mean score male students have more financial management skills than female students. There was a significant difference in the financial management skills both students of public and private universities and colleges. Students of public sector universities and colleges have higher financial management skills than students of private sector universities and colleges score.

Nyamute and Maina, (2011) examined the personal financial management practices that encompasses Savings practices, Expenditure practices, Debt management, Investment, Money management, retirement and unexpected practices of both employees who are financially educated verses those who are not. In this study, those who are financially literate are those perceived to have undergone some level of financial training such as bankers, accountants and auditors etc. The survey data was obtained from 192 employees using a structured questionnaire. This study focused on the effect of financial education on personal financial management practices. The results have shown that those who are financially educated do practice to an extent the standard financial behaviors. It further observes that one can still practice financial management behaviors whether or not they are financially literate. This is as a result of other available avenues of acquiring financial knowledge. Finally, there is significant difference between those who are perceived to be financially educated compared to those who are perceived otherwise.

2.5 Chapter Summary

Financial literacy has been a worldwide concern; it has been proven that one can still practice financial management behavior. Financial knowledge and literacy promote particular forms of positive financial behavior. It is important to establish the link between financial literacy and good financial behavior to elucidate the benefits of financially literate individuals. The next chapter explored the research methodology that was used in carrying out the study.

CHAPTER THREE

3.0 RESEARCH METHOLODY

3.1 Introduction

This chapter provides a discussion of the research methodology that was used. The purpose of a research methodology is to convey the plan for the collection and analysis of data. The sections in this chapter include; the research design, population and sampling design, data collection methods, research procedures and data analysis methods and the chapter summary.

3.2 Research Design

The study employed an explanatory research design. Explanatory research, according to Saunders *et al*. (2016) establishes the causal relationship between variables. In this study, the approach will be employed to establish how variables such as demographic, financial knowledge, and financial management on students' financial behavior. Thus, the main research strategy that was used in this study is a survey which allows quantitative data collection and analyses using descriptive and inferential statistics. Quantitative research methodology is also concerned with the collection and analysis of data in numeric form.

3.3 Population and Sampling Design

3.3.1 Population

The population refers to the complete set of individuals, subjects or objects or events having common observable characteristics in which the researcher is interested in. Blumberg, Cooper, & Schindler, (2011), define a population as the set of elements about which we wish to make some inferences. Population elements mean the subject on which the measurement is being taken. The data obtained from the university's registrar office showed that the university have a total students student population of 7,005. In this study, the target population included both graduates and undergraduate students in United States International University-Africa, totaling to 7,005 students. Table 3.1 below shows the population distribution of the students.

Table 3.1: Target Population Distributions

Students	Population	Percentage
Undergraduates	5,055	72%
Graduates	1,950	28%
TOTAL	**7,005**	**100%**

Source: USIU-A Registrar office, (2018)

3.3.2 Sampling Design

A sample is the sub-group of the entire population that is being studied. Sampling design is a working plan which specifies the population frame, sample size and selection, and estimation method in detail. The objective of the sampling design is to know the characteristic of the population.

3.3.2.1 Sampling Frame

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda, & Mugenda, 2013). These sources further argue that; this sub-group is precisely chosen to be illustrative of the entire population with the pertinent qualities. Every part or case in the specimen is alluded to as subject, respondent or interviewees. Inspecting is a method, process or system of picking a sub-set from an example edge to take an interest in the investigation (Easterby-Smith, Thorpe, & Jackson, 2012). It is the procedure of choosing numerous people for an examination such that the people chose to represent to the extensive gathering from which they were chosen. A specimen outline is a total posting of all the inspecting units or components that can each sufficiently represent to that population (Smith, Thorpe, & Jackson, 2012).

3.3.2.2 Sampling Technique

According to Denscombe (2008), discusses five different sampling techniques used in research. These are: random sampling, systematic sampling, stratified sampling, quota sampling and cluster sampling. Denscombe (2008) random sampling involves the selection of samples literally at random such that the resulting sample is likely to be representative of the whole population. In a random sample, each member of the population is likely to be chosen as part of the sample (Easterby-Smith, Thorpe, & Jackson, 2012). The study adopted the use of simple random technique. The sample is picked from a certain number of cases out of the total number of possible cases in the sampling frame (Cleary, Horsfall, & Hayter, 2014). According to Gravertter and Forzano (2011), the basic requirement of simple random sampling is that each case in the study has an equal chance of being selected, meaning that no one case is more likely to be chosen than another.

3.3.1.3 Sample Size

Blumberg, Cooper, and Schindler (2011), defines sample size as a section of a part that represents the larger whole. According to Kumar (2005), sampling refers to the process by which a few is selected from the entire group to become the basis for estimating the occurrence of an unknown piece of information or situation regarding the entire group. Sampling is significant because collecting data from the whole population is usually very costly. The sample for this study was 378 both graduates and undergraduates' students in the United States International University-Africa. Representatives were calculated using Yamane's (1967) formula with 95% confidence level of and P=.05 yielding a sample size of respondents (Cooper and Schindler, 2003). The total number of respondents sampled to participate in the study was large enough for the study given intended goals of the research. The representation was derived from the formulae below;

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

$$n = \frac{7,005}{1 + 7,005(0.05)^2}$$

This gives n = 378.392 => Therefore 378

Table 3.2: Sample Size Distribution

Students	Population	Percentage
Undergraduates	272	72%
Graduates	106	28%
TOTAL	**378**	**100%**

3.4 Data Collection Methods

The study used primary data. The questionnaire was the main instrument for collecting the primary data required for the study. Saunders, Lewis and Thornhill (2009) contend that questionnaires tend to be used for descriptive or explanatory research. This is because they are the best instruments for collecting factual data and enable more economic and timely collection of data from a large, geographically dispersed population. The questionnaire was categorized to directly respond to the specific objectives of the study. The researcher used this instrument of data collection in order to obtain standard form of answers or responses that gave way to easy and accurate analyses. The study conducted a pilot study to refine the instrument of data collection. Essentially, the questionnaire technique was used because of the numerous advantages offered to the researcher.

3.5 Research Procedures

The researcher sought the necessary authorization from the university to enable the researcher to collect data. Upon receipt of permission, the researcher physically distributed the questionnaires to the target respondents where they were allowed time to fill before the researcher collected the completed questionnaires. The researcher created a convenient environment with the respondents by explaining the purpose of the study and respondents' role in the research. A research permit was obtained from USIU-Africa Institutional Research Board *(*IRB*)* before commencing the primary data collection, the researcher used the official introduction letter from graduate school research and extensions when approaching the respondents. The researcher sought the assistance of two research assistants to help in the collection of the data, save for time and ease the movement to classes.

Reliability is a measure of how consistent the results from a test are (Kombo & Tromp, 2012). It measures the stability of the research instruments across two or more attempts. Mugenda and Mugenda (2003) define reliability as a measure of the degree to which research instruments yield consistent results or data after repeated trials. To test reliability, the data values collected was operationalized and the numerical scores were split into two using odd numbers versus even number items process to get two sets of values. The data collection tools were constructed in close consultation with the supervisors and later piloted to ensure validity. The researcher tested on the reliability methods which involved administering the same instruments to a selected population of respondents during the pilot study. To ensure reliability of the data collection instruments, the findings of the pilot study were incorporated in the final questionnaires to ensure the efficacy of each tool to collect reliable data prior to the actual study (Orodho, 2010).

3.6 Data Analysis Methods

Data analysis is the act of organizing and summarizing a mass of raw data into meaningful form (Healey, 2011). Quantitative techniques were adopted for data analysis. Data was first coded before analysis. Coding entails the attribution of a number to a piece of data, or group of data, with the express aim of allowing such data to be analyzed in quantitative terms. Descriptive statistical technique was used to analyze data this included the percentages, mean, and standard deviation. The study also adopted the use of linear regression to establish the relationship between financial literacy on university and students' investment behavior in the Nairobi Securities Exchange. This was performed using the linear regression model equation as shown below;

$$\mathbf{Y=\alpha+\beta\ 1X_1 +\beta 2\ X_2 +\beta 3\ X_3 + e}$$

Where;

Y= investment behavior

α is a constant,

$\beta 1X_1$ is the coefficient of behavioral factors

$\beta 2\ X_2$ is the coefficient of financial knowledge

$\beta 3\ X_3$ is the coefficient of financial management

e is the margin of error

The data was analyzed using a linear regression model with the use of Statistical Package for Social Sciences (SPSS) version 24 statistical analysis tool. Inferential statistics was used to test the significance between financial literacy on university and students' investment behavior. This included the use of Analysis of Variance (ANOVA) that was used to test the level of significance of the model at 95% level of significance. Coefficient of determination (R^2) was used to show the percentage for which the behavioral factors, financial knowledge, and financial management explain the change in student's investment behavior. The data from the study findings was represented in the form of tables and graphs as this will enhance easier interpretation and understanding of the research findings.

3.7 Chapter Summary

This chapter has discussed the methodology that was used in this study. It has explained the population, sampling frame, sampling technique, sample size, the data collection methods, the research procedure and finally the data analysis methods that was adopted. The next chapter presents the study results and the findings of the study.

CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter contains findings, discussions and presentation of findings that this study targeted. The aim was to determine the effect of financial literacy on university students' investment behavior in Nairobi Securities Exchange. Section A presents the general information, Section B shows the findings of behavioral factors that affects student's investment behavior, Section C shows the effect of financial knowledge on student's investment behavior, and Section D shows how personal financial management affect student's investment behavior. The findings are presented in the form of pie charts, graphs and frequency distribution tables where interpretations and conclusions were made.

4.2 General Information

The results on general information of the students were investigated in the first section of the questionnaire. General information of the students included gender, age group, level of study, the school they belong and personal attitude towards investments. These variables indicate the proportions of the respondents who were interested in this study.

4.2.1 Response Rate

To make the analysis more comprehensive a total of 378 questionnaires were distributed out of which 273 were filled and returned which is a response rate of 72%. The response rate was considered satisfactory for this study as in Figure 4.1 below. This constituted a response rate of 72% which according to Mugenda and Mugenda (2003), a response rate of 50 percent is adequate for analysis and reporting.

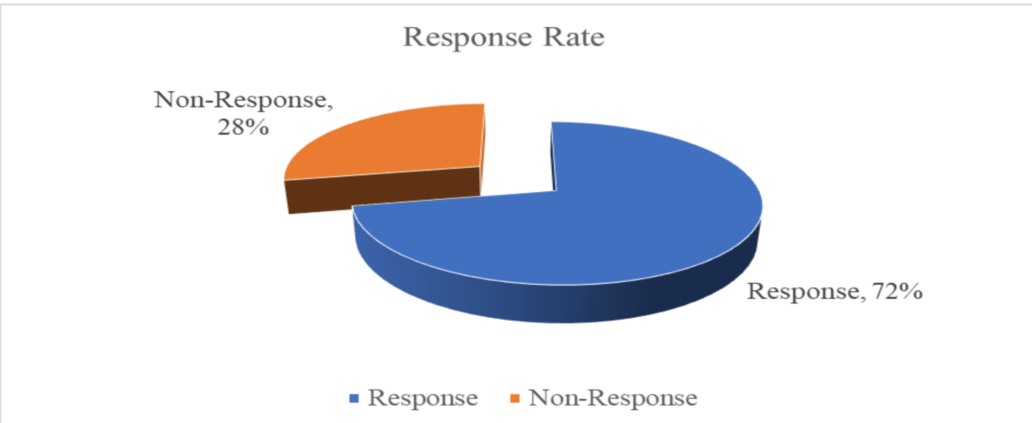

Figure 4.1: Response Rate

4.2.2 Gender of Students

Gender is the state of being male or female. Respondents were asked by the researcher to give their gender. Most of the students were female with 51% whereas male was represented by 49%. From the findings it can be concluded as much as female were the majority there was a gender balance representation.

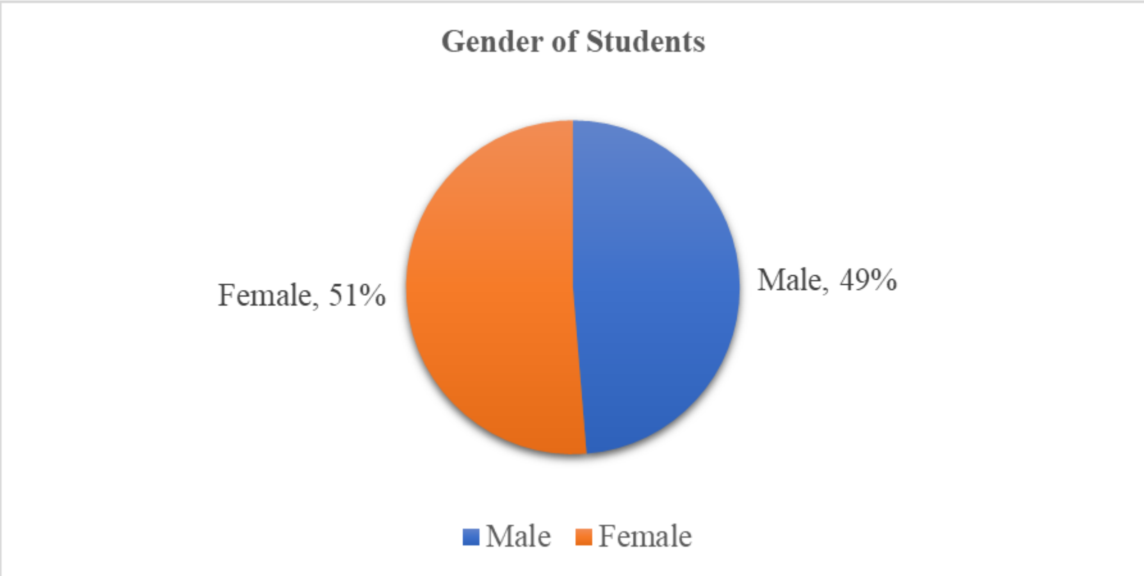

Figure 4 2: Gender of Students

4.2.3 Age Group of Students

The students were asked to give their age and the results were as follows. The findings from the study indicates that, majority of the students are those who are aged between 22 to 24 years with 41 %, followed by 37% aged between 18 to 21 years, 21% aged 25 years and above, 1% aged between 15 to 17 years. The findings of the study are indicated in the Figure 4.3 below.

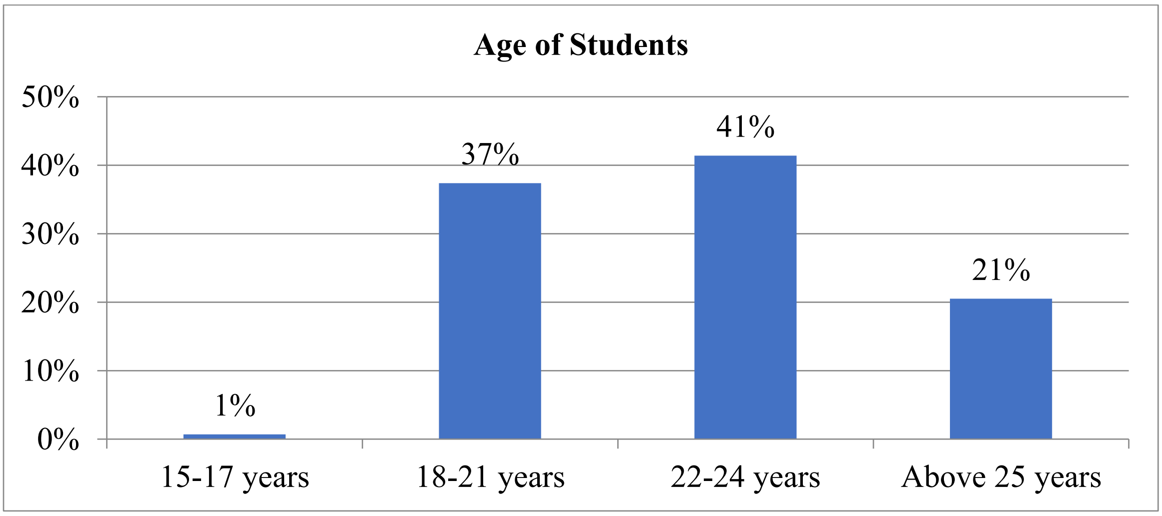

Figure 4.3: Age Group of Students

4.2.4 Level of Study for Students

The study sought to understand the level of study for the students. The findings show that most of the students were undergraduate with 83% this was followed by graduate students with representations of 17%. The Figure 4.5 below shows the results of the study.

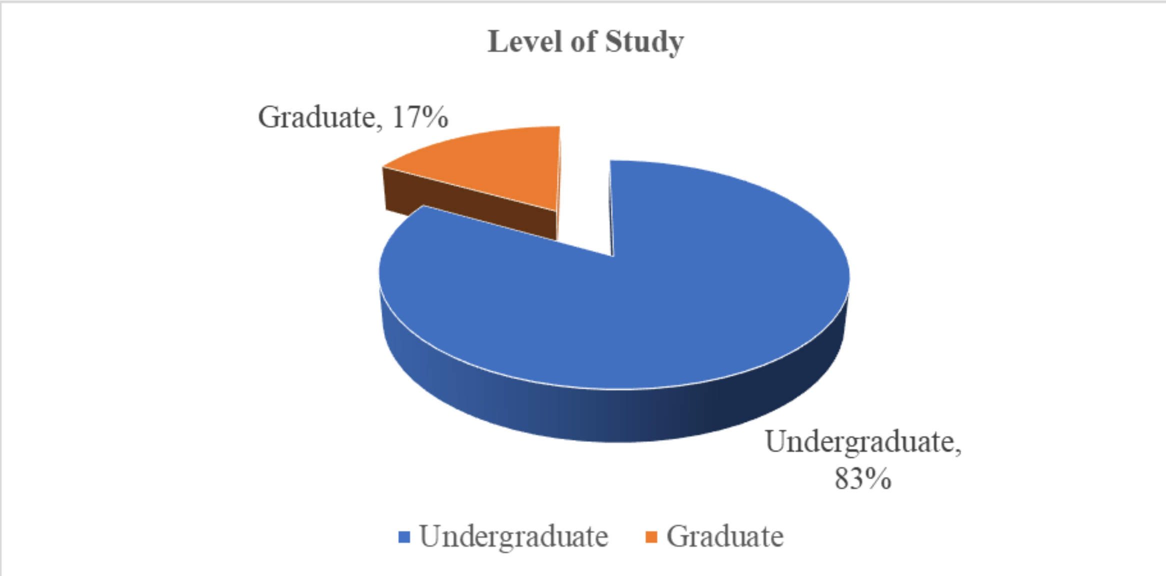

Figure 4.4: Level of Study

4.2.5 School of Study

The study sought to understand the school the students belong. The results of the study indicate that most of the students were from school of business with 58%, this was followed by school of science and technology with a representation of 21% and 21% for the school of humanities. The findings are indicated in the in the Figure 4.5 below.

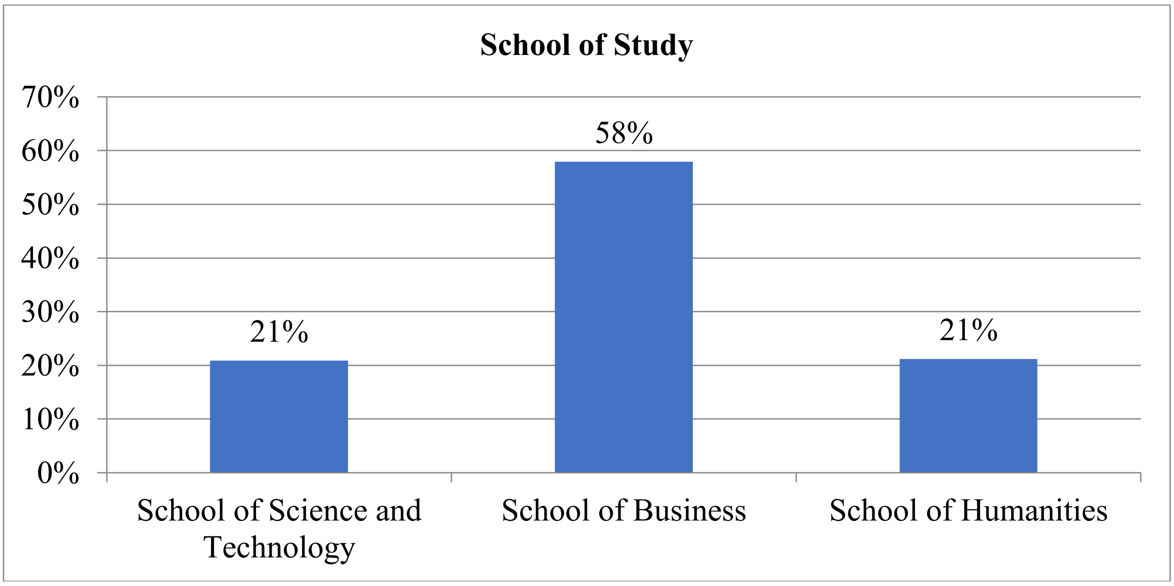

Figure 4.5: School of Study

4.2.6 Personal Attitude on Investments

The researcher sought to understand the personal attitude towards investment for the students. The results of the study show that most of the students are very positive towards investments with 47% representations, followed by being positive with 36%, 15% were neutral and only 2% were negative towards investments. The findings of the study are indicated in the Figure 4.6 below.

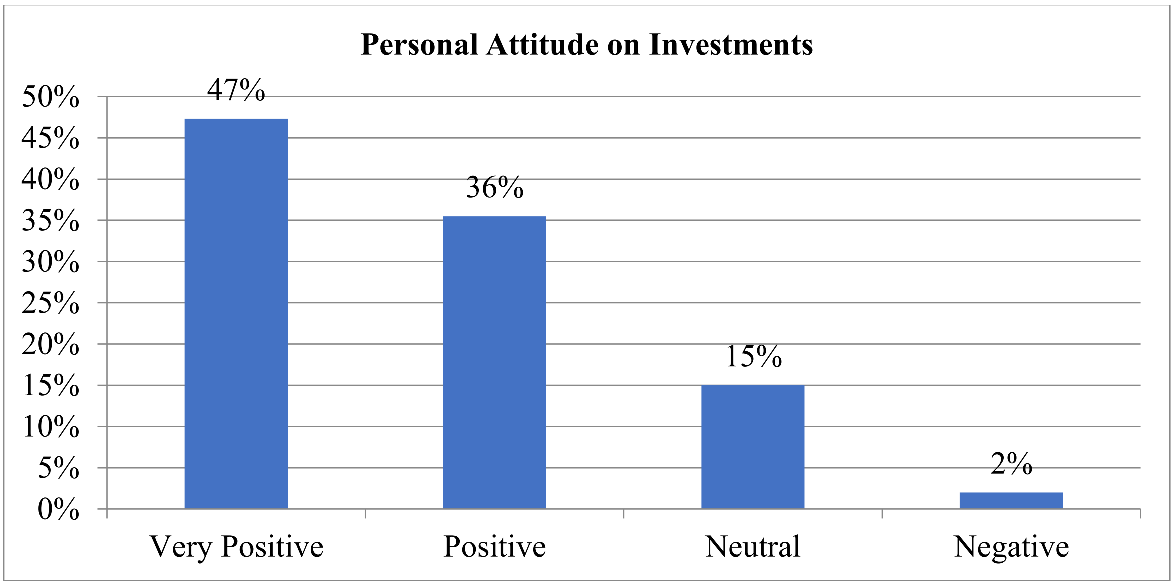

Figure 4.6: Personal Attitude on Investments

4.3 Effects of Behavioral Factors on Investment Behavior

4.3.1 Behavioral Factors and Student's Investment Behavior

The findings of the study indicated that students are risk taker when it comes to investment decision this was supported by a mean of 3.440 and standard deviation of 1.143 and they can influence decisions making behavior which increases the chance of choosing a higher risky investment as supported by a mean of 3.363 and standard deviation of 1.049. The findings also show that male students are more risk takers than female students as supported by a mean of 2.905 and standard deviation of 1.432, and that the perception of risk influence students investing behavior as supported by a mean of 3.744 and standard deviation of 1.068.

The results of the study showed that financial risk attitude of student's investors has a positive influence on investment decision as supported by a mean of 3.531 and standard deviation of 1.150 and that investment decision of the student's investors may be affected by risky investment portfolio of stocks as supported by a mean of 3.403 and standard deviation of 1.018.

The results of the study indicated that female students invest their money more conservatively than male students as supported by a mean of 3.528 and standard deviation of 1.263 and the students investors tend to portray different behavior while investing in Nairobi Securities Exchange as supported by a mean of 3.553 and standard deviation of 1.028. The findings also show that male students' investors have more financial knowledge in their investment decisions in the NSE as supported by a mean of 3.026 and standard deviation of 1.217 and investment experience affects level of risk tolerance as supported by a mean of 3.736 and standard deviation of 1.080. The results further show that male investors tend to be more optimistic in nature which tends to be the reason they take more risks. as supported by a mean of 3.344 and standard deviation of 1.274 and female investors tend to be more risk averse, less tolerant to financial risk. as supported by a mean of 3.110 and standard deviation of 1.116. As an investor they are willing to accept risk when making financial investment decision as supported by a mean of 3.828 and standard deviation of 1.016 and that financial risk attitude of the investor has a positive influence on individual's portfolio as supported by a mean of 3.703 and standard deviation of 1.038.

The findings of the study shows that problems arising in investing by students are from psychological biases through emotions as supported by a mean of 3.106 and standard deviation of 1.150, and that most investors overestimate their knowledge and ignore the risks as supported by a mean of 3.484 and standard deviation of 1.112. The students also indicated that overconfident investors tend to believe in choosing the best investment as supported by a mean of 3.506 and standard deviation of 1.185 and that investors can use psychology to control or at least affect outcomes of investment decision as supported by a mean of 3.414 and standard deviation of 1.112. They further showed that expanding the knowledge about finance could improve student's understanding of investing in the NSE as supported by a mean of 4.136 and standard deviation of 2.213.

Table 4.1: Behavioral Factors and Student's Investment Behavior

	Mean	Std. Deviation
I am risk taker when it comes to investment decision	3.440	1.143
I can influence decisions making behavior which increases the chance of choosing a higher risky investment	3.363	1.049
Male students are more risk takers than female students	2.905	1.432
Perception of risk influence students investing behavior	3.744	1.068
Financial risk attitude of student's investors has a positive influence on investment decision.	3.531	1.150
Investment decision of the student's investors may be affected by risky investment portfolio of stocks	3.403	1.018
Female students invest their money more conservatively than male students	3.528	1.263
Students investors tend to portray different behavior while investing in Nairobi Securities Exchange	3.553	1.028
Male students' investors have more financial knowledge in their investment decisions in the NSE	3.026	1.217
My investment experience affects level of risk tolerance	3.736	1.080
Male investors tend to be more optimistic in nature which tends to be the reason they take more risks.	3.344	1.274
Female investors tend to be more risk averse, less tolerant to financial risk.	3.110	1.116
As an investor I am willing to accept risk when making financial investment decision.	3.828	1.016
Financial risk attitude of the investor has a positive influence on individual's portfolio.	3.703	1.038
Problems arising in investing by students are from psychological biases through emotions	3.106	1.150
Most investors overestimate their knowledge and ignore the risks	3.484	1.112
Overconfident investors tend to believe in choosing the best investment	3.506	1.185
Investors can use psychology to control or at least affect outcomes of investment decision	3.414	1.112
Expanding the knowledge about finance could improve student's understanding of investing in the NSE	4.136	2.213

4.3.2 Correlation Analysis between Behavioral factors and investment Behavior

Correlation analysis was done to show how strongly two variables are related to each other or the degree of association between the two. The findings are presented in Table 4.2. The Pearson's r for the correlation between behavioral factors and investment behavior variables is 0.651 which is close to 1 with a significant value of 0.000 which is less than 0.05. This shows a strong relationship meaning that changes in one variable are strongly correlated with changes in the second variable. Therefore, it can be concluded that there is a strong relationship between behavioral factors and investment behavior.

Table 4.2: Correlation Analysis between Behavioral factors and investment Behavior

		Behavioral Factors	Investment Behavior
Behavioral Factors	Pearson Correlation	1	.651**
	Sig. (2-tailed)		.000
	N	273	273
Investment Behavior	Pearson Correlation	.651**	1
	Sig. (2-tailed)	.000	
	N	273	273

**. Correlation is significant at the 0.01 level (2-tailed).

4.3.3 Regression Analysis between Behavioral factors and investment Behavior

Regression analysis was carried out to show which among the independent variables were related to dependent variable. The findings are presented in Table 4.3. Table 4.3 shows a model summary that provides information about the regression line's ability to account for the total variation in investment behavior. The adjusted R^2 is 42.1% which variations of investment behaviors explained by the behavioral factors. The other 57.9% of the changes could be attributed to other factors.

Table 4.3: Regression Analysis between behavioral factors and investment behavior

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.651[a]	.423	.421	.47873

a. Predictors: (Constant), Behavioral Factors

The significance value is 0.000 which is less than 0.05 thus the model is statistically significant in predicting how behavioral factors influence investment behaviors of university students. The F calculated at 5% level of significance was 199.023. This shows that the overall model was significant. This study ran the procedure of obtaining the coefficients, and the results were as shown on the Table 4.4.

Table 4.4: ANOVA between Behavioral Factors and Investment Behavior

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.612	1	45.612	199.023	.000[b]
	Residual	62.108	271	.229		
	Total	107.720	272			

a. Dependent Variable: Investment Behavior

b. Predictors: (Constant), Behavioral Factors

The results of the study indicate that from the results in Table 4.5, holding behavioral factors, investment behavior of university students would be 1.310. In addition, the findings show that a unit increase in holding behavioral factors would lead to 0.663 increase in investment behavior of students. The study established for regression equation to be as follows; Investment Behavior = 1.310 + 0.663 Behavioral factors

Table 4.5: Coefficients between Behavioral Factors and Investment Behavior

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.310	.164		7.991	.000
	Behavioral Factors	.663	.047	.651	14.108	.000

a. Dependent Variable: Investment Behavior

4.4 Effects of Financial Knowledge on Investment Behavior

4.4.1 Financial Knowledge and Students Investment Behavior

The findings of the study indicated that budgeting is the best way to check how much financially responsible a student investment behavior as supported by a mean of 4.158 and standard deviation of 1.109 and the level of education has significant impact on personal financial literacy as supported by a mean of 3.758 and standard deviation of 1.185. The results also shows that the goal of financial education should be to encourage better financial behaviors as supported by a mean of 4.154 and standard deviation of 1.053, and that financial mistakes made at in college can also snowball into larger mistakes that can be costly as supported by a mean of 3.498 and standard deviation of 1.179. They further indicated that financial behaviors and financial knowledge contribute to financial satisfaction for students as supported by a mean of 3.839 and standard deviation of 0.987, and that economic status of parents has a significant direct effect on financial management as supported by a mean of 3.678 and standard deviation of 1.721.

The findings showed that financial literacy and my saving intention significantly influence my saving behavior 3.854 and standard deviation of 1.135 and that they have high financial knowledge which influences the financial behavior as supported by a mean of 3.674 and standard deviation of 1.057. They also indicated that their parents have good understanding about financial matter towards me as supported by a mean of 3.634 and standard deviation of 1.100 and that the university offer courses that are related to the student's financial literacy as supported by a mean of 3.487 and standard deviation of 1.198. They further indicated that financial decisions at any stage in life can have lasting effects on the students and increased levels of financial literacy as supported by a mean of 3.883 and standard deviation of 1.011 and that their financial knowledge and behaviors have led to making decisions for future financial management as supported by a mean of 3.974 and standard deviation of 1.012.

Table 4.6: Financial Knowledge and Students Investment Behavior

	Mean	Std. Deviation
Budgeting is the best way to check how much financially responsible a student investment behavior	4.158	1.109
Level of education has significant impact on personal financial literacy	3.758	1.185
The goal of financial education should be to encourage better financial behaviors	4.154	1.053
Financial mistakes made at in college can also snowball into larger mistakes that can be costly	3.498	1.179
Financial behaviors and financial knowledge contribute to financial satisfaction for students	3.839	0.987
Economic status of parents has a significant direct effect on financial management	3.678	1.721
Financial literacy and my saving intention significantly influence my saving behavior	3.854	1.135
I have high financial knowledge which influences my financial behavior	3.674	1.057
My parents have good understanding about financial matter towards me	3.634	1.100
The university offer courses that are related to the student's financial literacy	3.487	1.198
Financial decisions at any stage in life can have lasting effects on the students and increased levels of financial literacy	3.883	1.011
My financial knowledge and behaviors have led to making decisions for future financial management	3.974	1.012

4.4.2 Correlation Analysis between Financial Knowledge and Students Investment Behavior

The correlation analysis between financial knowledge and investment behavior variables is 0.646 which is close to 1 with a significant value of 0.000 which is less than 0.05. This shows that there was a strong relationship meaning that changes in financial knowledge are strongly correlated with changes investment behavior. Therefore, it can be concluded that there is a strong relationship between financial knowledge and investment behavior.

Table 4.7: Correlation Analysis between Financial Knowledge and Investment Behavior

Correlations

		Financial Knowledge	Investment Behavior
Financial Knowledge	Pearson Correlation	1	.646**
	Sig. (2-tailed)		.000
	N	273	273
Investment Behavior	Pearson Correlation	.646**	1
	Sig. (2-tailed)	.000	
	N	273	273

**. Correlation is significant at the 0.01 level (2-tailed).

4.4.3 Regression Analysis between Financial Knowledge and Students Investment Behavior

Regression analysis was carried out to show which among the independent variables were related to dependent variable. The findings are presented in Table 4.8. Table 4.8 shows a model summary that provides information about the regression line's ability to account for the total variation in investment behavior. The adjusted R^2 is 42.1% which variations of investment behaviors explained by financial knowledge. The other 57.9% of the changes could be attributed to other factors.

Table 4.8: Model Summary between Financial Knowledge and Investment Behavior

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.646[a]	.417	.415	.48145

a. Predictors: (Constant), Financial Knowledge

The significance value is 0.000 which is less than 0.05 thus the model is statistically significant in predicting how financial knowledge influence investment behaviors of university students.

The F calculated at 5% level of significance was 193.718. This shows that the overall model was significant. This study ran the procedure of obtaining the coefficients, and the results were as shown on the Table 4.9.

Table 4.9: ANOVA between Financial Knowledge and Investment Behavior

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.903	1	44.903	193.718	.000[b]
	Residual	62.817	271	.232		
	Total	107.720	272			

a. Dependent Variable: Investment Behavior

b. Predictors: (Constant), Financial Knowledge

The results of the study indicate that from the results in Table 4.10, holding financial knowledge, investment behavior would be 1.394. In addition, the findings show that a unit increase in holding financial knowledge would lead to 0.582 increase in investment behavior of students. The study established for regression equation to be as follows;

Investment Behavior = 1.394 + 0.582 Financial Knowledge

Table 4.10: Coefficients between Financial Knowledge and Investment Behavior

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.394	.160		8.705	.000
	Financial Knowledge	.582	.042	.646	13.918	.000

a. Dependent Variable: Investment Behavior

4.5 Effect of Financial Management on Students Investment Behavior

4.5.1 Financial Management on Students Investment Behavior

The findings of the study indicated that the students are able to plan, manage and control their personal financial resources as supported by a mean of 4.084 and standard deviation of 1.076 and that they are able to write financial planning/budgeting, and invest for future as supported by a mean of 3.674 and standard deviation of 1.138. The findings also indicated that financially well-educated students make superior decisions for themselves as supported by a mean of 3.784 and standard deviation of 1.167 and that financial skills are helping me to manage financial needs according to my resources as supported by a mean of 3.974 and standard deviation of 1.020.

The findings further showed that financial management knowledge is the key of financial decision making as supported by a mean of 3.865 and standard deviation of 1.095 and as the student they have higher financial management skills in using resources cost effectively as supported by a mean of 3.656 and standard deviation of 0.981. The results of the study showed that the students personal management of money ensures short and long-term financial security is meet as supported by a mean of 3.791 and standard deviation of 1.020 and that they have good financial management can prevent someone from financial distress and financial problems as supported by a mean of 4.022 and standard deviation of 1.064 and financially literate are those perceived to have undergone some level of financial training as supported by a mean of 3.443 and standard deviation of 1.114.

The results of the study indicated the financially educated students have tried to minimize their spending behaviors as supported by a mean of 3.403 and standard deviation of 1.084 and male students have more financial management skills than female student as supported by a mean of 2.711 and standard deviation of 1.298. They further showed that they have higher management skills for finances which enables me to have a saving culture as supported by a mean of 3.667 and standard deviation of 1.106. The findings of the study are indicated in the Table 4.11 below.

Table 4.11: Financial Management on Investment Behavior

	Mean	Std. Deviation
As a students' I can be able to plan, manage and control my personal financial resources	4.084	1.076
I am able to write financial planning/budgeting, and invest for future	3.674	1.138
Financially well-educated students make superior decisions for themselves.	3.784	1.167
Financial skills are helping me to manage financial needs according to my resources	3.974	1.020
Financial management knowledge is the key of financial decision making	3.865	1.095
As a student I have higher financial management skills in using resources cost effectively	3.656	0.981
Students personal management of money ensures short and long-term financial security is meet	3.791	1.020
Good financial management can prevent someone from financial distress and financial problems	4.022	1.064
Financially literate are those perceived to have undergone some level of financial training	3.443	1.114
I am financially educated which has minimized my spending behaviors.	3.403	1.084
Male students have more financial management skills than female students.	2.711	1.298
I have higher management skills for finances which enables me to have a saving culture	3.667	1.106

4.5.2 Correlation Analysis between Financial Management and Investment Behavior

The correlation analysis between financial knowledge and investment behavior variables is 0.606 which is close to 1 with a significant value of 0.000 which is less than 0.05. This shows that there was a strong relationship meaning that changes in financial management are strongly correlated with changes investment behavior. Therefore, it can be concluded that there is a strong relationship between financial management and investment behavior.

Table 4.12: Correlation Analysis between Financial Management and Investment Behavior

Correlations

		Financial Management	Investment Behavior
Financial Management	Pearson Correlation	1	.608**
	Sig. (2-tailed)		.000
	N	273	273
Investment Behavior	Pearson Correlation	.608**	1
	Sig. (2-tailed)	.000	
	N	273	273

**. Correlation is significant at the 0.01 level (2-tailed).

4.5.3 Regression Analysis between Financial Management and Investment Behavior

The findings of the study are presented in Table 4.13 shows a model summary that provides information about the regression line's ability to account for the total variation in investment behavior. The adjusted R^2 is 36.7% which variations of investment behaviors explained by financial management. The other 63.3% of the changes could be attributed to other factors.

Table 4.13: Regression Analysis between Financial Management and Investment Behavior

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.608[a]	.370	.367	.50057

a. Predictors: (Constant), Financial Management

The significance value is 0.000 which is less than 0.05 thus the model is statistically significant in predicting how financial management influence investment behaviors of university students. The F calculated at 5% level of significance was 158.899. This shows that the overall model was significant. This study ran the procedure of obtaining the coefficients, and the results were as shown on the Table 4.14.

4.14: ANOVA between Financial Management and Investment Behavior

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39.815	1	39.815	158.899	.000[b]
	Residual	67.905	271	.251		
	Total	107.720	272			

a. Dependent Variable: Investment Behavior

b. Predictors: (Constant), Financial Management

The results of the study indicate that from the results in Table 4.15, holding financial management, investment behavior would be 1.529. In addition, the findings show that a unit increase in holding financial management would lead to 0.552 increase in investment behavior of students. The study established for regression equation to be as follows;

Investment Behavior = 1.529 + 0.552 Financial Management.

Table 4.15: Coefficients between Financial Knowledge and Investment Behavior

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.529	.166		9.211	.000
	Financial Management	.552	.044	.608	12.606	.000

a. Dependent Variable: Investment Behavior

4.6 Chapter Summary

The study presented the results and findings of the study on the effect of financial literacy on university students' investment behavior in Nairobi Securities Exchange. Descriptive statistics shows that there was a moderate relationship between the study variables to the investment behaviors. The next chapter five provides information on the discussion, conclusions, and recommendations to the management of the university.

CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the results established through the study and the purpose of the study was determine the effect of financial literacy on university students' investment behavior in Nairobi securities exchange. Also covered are the key discussions, conclusions and recommendations as well as suggestions for further research. The recommendations borrow largely from the results of the study.

5.2 Summary

The purpose of the study was to determine the effect of financial literacy on university students' investment behavior in Nairobi securities exchange. The study was guided by the following research questions; what are the behavioral factors affecting student's investment behavior, what is the effect of financial knowledge on student's investment behavior, and how does personal financial management affect student's investment behavior?

The study adopted the use of an explanatory research design. Explanatory research, in the sense that it aims to establish the causal relationship between variables. In this study, the approach was employed to establish how variables such as demographic, financial knowledge, and financial management on students' financial behavior. The target population included both graduates and undergraduate students in United States International University-Africa, totaling to 7,005 students. The study adopted the use of simple random sampling technique. The sample is picked from a certain number of cases out of the total number of possible cases in the sampling frame. The sample for this study was 378 both graduates and undergraduates' students in the United States International University. The study used questionnaires which was the main instrument for collecting the primary data required for the study. Descriptive statistical technique was used to analyze data. Descriptive statistics allowed the researcher to summarize large quantities of data using measures that are easily understood by an observer. Data was first coded before analysis and Statistical Package for Social Sciences (SPSS version 24) computer software was used for analyzing the data. The findings were presented in frequency tables, percentages and graphs.

The findings of the study indicated that students are risk taker when it comes to investment decision and they can influence decisions making behavior which increases the chance of choosing a higher risky investment. Male students are more risk takers than female students and that the perception of risk influence students investing behavior this is because they have more financial knowledge in their investment decisions in the NSE and investment experience affects level of risk tolerance. While on the other hand female investors tend to be more optimistic in nature which tends to be the reason, they take more risks and female investors tend to be more risk averse, less tolerant to financial risk. The results of the study for the correlation analysis between behavioral factors and investment behavior variables was 0.651 which is close to 1 with a significant value of 0.000 which is less than 0.05. It was concluded that there is a strong relationship between behavioral factors and investment behavior.

The results also show that the goal of financial education should be to encourage better financial behaviors and that financial mistakes made at in college can also snowball into larger mistakes that can be costly. The results showed that financial behaviors and financial knowledge contribute to financial satisfaction for students and that economic status of parents has a significant direct effect on financial management. Personal finance education in high school can improve financial behaviors but it may take time after it is implemented to see the effects. The findings of the study on the correlation and regression analysis between financial knowledge and investment behavior. There was a strong relationship meaning that changes in financial knowledge are strongly correlated with changes investment behavior.

The findings also indicated that financially well-educated students make superior decisions for themselves and that financial skills are helping me to manage financial needs according to my resources. The results showed that financial management knowledge is the key of financial decision making and as the student they have higher financial management skills in using resources cost effectively. The results of the study showed that correlation analysis between financial knowledge and investment behavior variables had a strong relationship meaning that changes in financial management are strongly correlated with changes investment behavior.

5.3 Discussion

5.3.1 Effects of Behavioral Factors on Student's Investment Behavior

The findings of the study indicated that students are risk taker when it comes to investment decision and they can influence decisions making behavior which increases the chance of choosing a higher risky investment. The findings also show that male students are more risk takers than female students and that the perception of risk influence students investing behavior. The findings are supported by Felton *et al*. (2010) who noted that male students are willing to take more risk when it comes to investment decisions, nonetheless male tend to be more optimistic in nature which tends to be the reason they take more risks. It is also supported by Faff *et al*. (2008) who investigated gender behavioral differences in investment decisions, and they confirmed that female tend to be more risk averse and less tolerant to financial risk. The results show that financial risk attitude of student's investors has a positive influence on investment decision and that investment decision of the student's investors may be affected by risky investment portfolio of stocks.

The results of the study indicated that female students invest their money more conservatively than male students and the student's investors tend to portray different behavior while investing in Nairobi Securities Exchange. This is in line with the results of Lemaster and Strough, (2013) who noted that female students invest their financial resources more conservatively and, in general accept less financial risk than male students. The findings also show that male students' investors have more financial knowledge in their investment decisions in the NSE and investment experience affects level of risk tolerance. The results show that female investors tend to be more optimistic in nature which tends to be the reason they take more risks and female investors tend to be more risk averse, less tolerant to financial risk. This is disagreement with the results of Parker, and Terry (2002), who argued that when males invest more in their assets due to large income, they take greater risks. Some studies shown that there is no significant effect of gender on risk tolerance during financial decisions.

As an investor they are willing to accept risk when making financial investment decision and that financial risk attitude of the investor has a positive influence on individual's portfolio. The findings of the study show that problems arising in investing by students are from psychological biases through emotions and that most investors overestimate their knowledge and ignore the risks. The students also indicated that overconfident investors tend to believe in choosing the best investment and that investors can use psychology to control or at least affect outcomes of investment decision. They further showed that expanding the knowledge about finance could improve student's understanding of investing in the NSE. Gao and Schmidt, (2005) noted that individuals sometimes display irrational behaviors at the expense of experiencing psychological satisfaction or personal relief.

The results of the study for the correlation analysis between behavioral factors and investment which had a strong relationship between behavioral factors and investment behavior. The findings of the study was in agreement with that of Wubie, Dibabe, and Wondmagegn, (2015), whose findings had a statistically significant effect on saving and investment decision of the respondents. The variables that have significant relationship with the dependent variable are gender, age, family size, social ceremony expense. Another study that supports the results is that of Coşkuner, (2016) in which the regression analysis results showed that positive financial behaviors and financial knowledge contribute to financial satisfaction. The only demographic variable that has a significant impact on financial satisfaction was household income. Volpe [8] explained that online investors should have more information than normal investors to succeed in the securities markets, because they are more expected to be bounded by financial misinformation and manipulation. Therefore, the authors examined investment literacy of 530 online investors and the dissimilarity in the literacy level amongst various groups of participants using age, income, gender, education, and previous online trading knowledge as variables. Das, Markowitz, Scheid, and Statman, (2010) mental accounting is consistent with some investors‟ irrational preference for stocks with high cash dividends (they feel free to spend dividend income but do not dip into capital by selling a few shares of another stock with the same total rate of return) and with a tendency to ride losing stocks position for too long (because "behavioral investors" are reluctant to realize losses).

Investment decision process is calculated critical decision for every investor, especially when investing in equities as it involves high risk and the income are not certain. While choosing a particular stock to make an investment, 40 attributes have been recognized that influence the investor exchange decision process. The generally influencing attributes were identified and ranked based on the frequency of highly important ranking given by the investor (Tabassum & Pardhasaradhi, 2012). Aregbeyen and Mbadiugha (2011) in their study in Nigeria found that the ten most influencing factors on investor's decision in order of importance are: motivation by people who have attained financial security through share investment, future financial security, recommendations by sound and trusted stock brokers, management side of the company, awareness of the prospects of investing in shares, composition of the board of directors of companies, current financial performance of the business, ownership structure of the corporation, reputable predictions of future addition in share value and bonus payments.

5.3.2 Effects of Financial Knowledge on Students Investment Behavior

The findings of the study indicated that budgeting is the best way to check how much financially responsible a student investment behavior and the level of education has significant impact on personal financial literacy. The findings of the study is the same as that of Bernheim and Garrett, (2011), who noted that the long-term effects of financial education in high school, finds that the personal finance mandate increased student saving rates among the students. The results also show that the goal of financial education should be to encourage better financial behaviors and that financial mistakes made at in college can also snowball into larger mistakes that can be costly. The results showed that financial behaviors and financial knowledge contribute to financial satisfaction for students and that economic status of parents has a significant direct effect on financial management. Personal finance education in high school can improve financial behaviors but it may take time after it is implemented to see the effects. Grimes, Rogers, and Smith, (2010) noted that economic education may also affect financial behaviors. The long-term effects of an economic course find that students who took a course in high school were more likely to have a bank account later in life.

The results of the study is supported by that of Shahrabani (2013) who assessed financial literacy of college students in Israeli and examined the associations financial literacy would have with socio-demographic factors, as well as the difference between Arab and Jewish students. Descriptive statics and chi square test of difference between different groups employed for data analysis showed an overall level of financial knowledge. The difference between Jewish and Arab students with respect to questions pertaining to calculation was not significantly different. The result also from logistic regression indicated that financial knowledge of Israeli students was explained by gender, academic year, work experience, and major area of study.

The findings showed that financial literacy and my saving intention significantly influence my saving behavior and that they have high financial knowledge which influences the financial behavior. They also indicated that their parents have good understanding about financial matter towards them and that the university offer courses that are related to the student's financial literacy. They further indicated that financial decisions at any stage in life can have lasting effects on the students and increased levels of financial literacy and that their financial knowledge and behaviors have led to making decisions for future financial management. According to Scheresberg, (2013) noted that respondents who display higher financial literacy or higher confidence in their math or personal finance knowledge have better financial outcomes: they are less likely to use high-cost borrowing methods, and they are more likely to plan for retirement or have set aside savings for emergencies.

The findings of the study on the correlation and regression analysis between financial knowledge and investment behavior. There was a strong relationship meaning that changes in financial knowledge are strongly correlated with changes investment behavior. This is in agreement with the findings of Coskuner, (2016) who examined the impacts of financial behavior, financial knowledge, and selected demographic variables on financial satisfaction. The regression analysis results showed that positive financial behaviors and financial knowledge contribute to financial satisfaction. The only demographic variable that has a significant impact on financial satisfaction was income. Another study that is nin support with the findings is that of Widayati (2012) who reported that socio-economic status of parents has a significant positive direct effect on family financial management education, and does not directly influence the cognitive aspects of financial literacy, learning in higher education has a significant positive direct effect on the cognitive aspects of financial literacy, and economic status of parents has significantly positive indirect effect on the financial literacy aspect of the attitude that is mediated by a family financial management education.

The results of the study findings was in disagreement with that of Widyastuti, Suhud, and Sumiati, (2016), who found out that financial literacy was insignificant to influence attitude towards saving and saving intention. Other results, financial literacy and saving intention significantly influenced saving behavior. In addition, attitude and subjective norm significantly influenced saving intention. The study findings of Robb and Woodyard, (2011) was in agreement where they reported that both objective and subjective financial knowledge influence financial behavior, with subjective knowledge having a larger relative impact. Other variables that have a significant impact on financial behavior include financial satisfaction, income, education, age, race, and ethnicity.

The findings is supported by Nidar and Bestari (2012) who investigated the level and factors influencing the personal financial literacy of 400 students in Padjadjaran University of Indonesia and found that level of personal financial literacy was within the low category, especially in investment, credit, and insurance. Their study also showed that level of education, faculty, personal income, knowledge from parents, parents' income, and ownership of insurance factors have significant impact on personal financial literacy. Similarly, the findings of Coskuner, (2016) who examined the impacts of financial behavior, financial knowledge, and selected demographic variables on financial satisfaction. The study sample consists of academic and administrative staff of a major state university in Turkey. Data was analyzed using binary logistic regression analysis. The regression analysis results showed that positive financial behaviors and financial knowledge contribute to financial satisfaction. The only demographic variable that has a significant impact on financial satisfaction was income.

5.3.3 Effect of Financial Management on Students Investment Behavior

According to Iqbal, Jan, Rehman, and Khan, (2012) posits that finance is a major factor in the option of whether to follow education or to do part time occupation. University students start their education with the hope that they will not exclusively accountable for their own finances. Educational workshops, seminars and print media have strong positive impact on the improvement of financial skills and knowledge. The findings of the study indicated that the students are able to plan, manage and control their personal financial resources and that they are able to write financial planning and invest for future. In the research of Anita and Sari (2015) states that college learning proved to have a significant positive influence on financial management behavior means that the higher learning on collage especially financial knowledge will improve student's financial behavior better. This is not in line with the results of Herawati research (2015) states that the contribution of college learning proved not to have a significant effect on financial management behavior, because that teaching subjects related to financial management include the company's financial

The findings is supported by that of Danes and Haberman (2007) who noted that the aspect of financial behavior in students will be related to four important aspects of good financial management which include; the behavior in writing financial budgeting, the behavior of savings and or investing, the behavior of using or expending money, and the behavior of evaluating, which, in this case, is related to communicating financial problems with family and the evaluation of the use of the budget. The findings also indicated that financially well-educated students make superior decisions for themselves and that financial skills are helping me to manage financial needs according to my resources. The results showed that financial management knowledge is the key of financial decision making and as the student they have higher financial management skills in using resources cost effectively.

The results of the study showed that the students personal management of money ensures short and long-term financial security is meet and that they have good financial management can prevent someone from financial distress and financial and financially literate are those perceived to have undergone some level of financial training. This is in line with the results of Iqbal, Jan, Rehman, and Khan, (2012) who argued that financial management skills and behavior for the university students have a significant effect on their future life. The capability to handle financial resources is significant for every university student. Financially well-educated students make superior decisions for their families. They also indicated that they are financially educated which has minimized my spending behaviors and male students have more financial management skills than female student. They further showed that they have higher management skills for finances which enables me to have a saving culture.

The results of the study showed that correlation analysis between financial knowledge and investment behavior variables had a strong relationship meaning that changes in financial management are strongly correlated with changes investment behavior. The findings of the study was in disagreement with that of Iqbal, Jan, Rehman, and Khan, (2012) where they noted that there was a significant difference in the financial management skills both students of public and private universities and colleges. Students of public sector universities and colleges have higher financial management skills score. Sabri and Falahati (2012) states that financial literacy has a significant effect on financial management behavior. Individuals with limited financial condition, but able to leverage and run an understanding of financial literacy in everyday life, it can perform the implementation of financial management now and future so that individuals are not experiencing financial management problems. There are findings from Borden, Lee, Serido, and Collins (2008) after attending a seminar on financial literacy, students reported an increase in restricting the use of credit cards in order to manage finances in a more useful way. Nidar and Bestari (2012), however, the students' financial literacy tends to be in the low category.

The findings is supported by that of Mohamad (2013) who asserted that money management skills also indicated 26.5 % explanatory power of the independent variable in the study. Concerning the effect of each variable financial management practice found to have the highest effect followed by financial knowledge and self-esteem. The findings is also supported by Edirisinghe, (2017) whose results suggest that financial literacy level of majority of the undergraduates of the three universities is at a moderate level. Multiple Regression Analysis showed that apart from money management financial literacy level on all other dimensions has significant positive effect not only on overall financial behavior but also on individual dimensions.

The findings of and Dwinta (2010) is in disagreement in which their study stated that income has no effect on financial management behavior due to the difference between income with own hard work will be different with income earned from others as obtained from family especially their parent. Different from the results of research conducted by Andrew and Linawati (2014) states that one of the demographic factors that income significantly influence the individual financial behavior due to the higher individual's income the wiser in behaving towards the use of finance than someone who has lower incomes. Regardless of the income that someone has if they are not able to manage finances well then personal finance problems will occur.

5.4 Conclusions

5.4.1 Effects of Behavioral Factors on Student's Investment Behavior

There is a strong relationship between behavioral factors and investment behavior. Investor sentiment, and overconfidence behavior significantly affect investment behavior of university students. It can also be concluded that male students are more risk takers than female students and that the perception of risk influence students investing behavior. This is because female students invest their financial resources more conservatively and accept less financial risk than male students. The findings also show that male students' investors have more financial knowledge in their investment decisions in the NSE and investment experience affects level of risk tolerance.

5.4.2 Effects of Financial Knowledge on Students Investment Behavior

The level of financial knowledge of university students influence the investment decisions they make. There was a strong relationship indicating changes in financial knowledge are strongly correlated with changes investment behavior. The higher the financial knowledge level of an individual, the better his investment decision. Financial behaviors and financial knowledge contribute to financial satisfaction for the university students and that economic status of parents has a significant direct effect on financial management. Having financial knowledge enables students to make informed investment decisions concerning their money and it minimizes the chances of students being misled on financial matters.

5.4.3 Effect of Financial Management on Students Investment Behavior

The result of this study shows that there is positive and significant influence from financial management to investment behavior, which means that the greater the financial management possessed by students then the better the investment is done. University students are able to plan, manage and control their personal financial resources and that they are able to write financial planning and invest for future. The students in the university are financially educated which has minimized their spending behaviors and male students have more financial management skills than female student. This has made them to have positive attitude towards investment in the Nairobi Securities Exchange.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Effects of Behavioral Factors on Student's Investment Behavior

The study recommends that university students should get the relevant education which is important to overcome uncomfortable investment outcomes caused by behavioral biases. In order to manage and balance the effect of behavioral influences with respect to students investors decision making, training programs that create investor awareness through firms" websites in terms of the capacity to point out and protect against cognitive errors and emotional biases that lead to bad investment choices should be offered to prospective students investors at the same level in that information should not be hidden, misleading or given at different times for the students. This will allow them have array of opportunities to invest.

5.5.1.2 Effects of Financial Knowledge on Students Investment Behavior

The study recommends that students should invest in building financial literacy as higher financial literacy is positively related to successful investment decisions. The students can learn through online platforms for free or even pay small fees. Financial education is a strong predictor to financial knowledge. Therefore, the university should encourage early education among its students as education is a great source of financial literacy. Having financial literacy students will be able to learn more on where and how to invest in the stock exchange.

5.5.1.3 Effect of Financial Management on Students Investment Behavior

The study recommends that the university should offer free short courses on student's financial management this is because financially well-educated students make superior decisions for themselves and that financial skills will help them to manage financial needs according to their resources. Financial management knowledge is the key of financial decision making and as the student they have higher financial management skills in using resources cost effectively.

5.5.2 Recommendations for Further Research

The aim of the study was to determine the effect of financial literacy on university students' investment behavior in Nairobi Securities Exchange in USIU-Africa. Further researchers should base study on a bigger sample to include public universities which will make in generalizing the findings of the study on university student's investment behavior. The study recommends for further studies that more variables should be studied such as risk tolerance, psychological influence on investment decisions. Further researches are suggested to apply behavioral finance to explore the behaviors influencing the decisions of institutional investors at the NSE. These researches can help to test the suitability of applying behavioral finance for all kinds of securities markets with all components of investors.

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APPENDICES

APPENDIX I: INTRODUCTORY LETTER

Dear Respondent,

<u>RE: RESEARCH STUDY BY DORIANE MUHOZA</u>

Am pleased to inform you that I am a student at United States International University – Africa, pursuing Master of Business Administration in Finance. As a partial fulfillment for my degree program, I am conducting a research on the "***Effect of financial literacy on university students' investment behaviour in Nairobi Securities Exchange. a case of USIU-Africa".***

Please note that any information you provide will be treated with the highest level of confidentiality and at no single instance will it be used for any other purpose other than this research project. Your assistance will be highly appreciated. I look forward to your response.

Yours Faithfully,

Doriane Muhoza,

P.O. Box 14634-00800,

Nairobi Kenya.

Mobile +254-717893804

APPENDIX II: RESEARCH QUESTIONNAIRE

INSTRUCTIONS

This questionnaire is designed to collect information on the "***Effect of financial literacy university students' investment behaviour in Nairobi Securities Exchange. a case of USIU-Africa***". The information obtained will only be used for academic purposes and shall be treated in utmost confidence. You are requested to complete this questionnaire as honestly and objectively as possible. Please tick in the appropriate box and fill in the blank spaces provided for those questions where elaborate answers are required.

RESPONDENTS A: GENERAL INFORMATION

Instruction; please tick one box for the response best describes you as a respondent.

1. Gender of Students

Male ☐

Female ☐

2. Age Group

15-17 years ☐

18-21 years ☐

22-24 years ☐

Above 25 Years ☐

3. Level of study for Students

Undergraduate ☐

Graduate ☐

4. Which school do you belong?

School of Science & Technology ☐

School of Business ☐

School and Humanities ☐

Pharmacy and Health Sciences ☐

5. How would you evaluate your personal attitude towards investing?

Very positive ☐

Positive ☐

Neutral ☐

Negative ☐

Very negative ☐

SECTION B: BEHAVIORAL FACTOR AND STUDENT'S INVESTMENT BEHAVIOR

Indicate how much you agree with the following statements relating to the Effect of behavioral factors on student's investment behavior by using a scale of 1-5, where 1- Strongly disagree, 2- Disagree,3- Neutral, 4 Agree, 5- Strongly agree.

	Statement	**1**	**2**	**3**	**4**	**5**
1	I am willing to take more risk when it comes to investment decisions					
2	I am risk taker when it comes to investment decision					
3	I can influence decisions making behavior which increases the chance of choosing a higher risky investment					
4	Male students are more risk takers than female students					
5	Perception of risk influence students investing behavior					
6	Financial risk attitude of student's investors has a positive influence on investment decision.					
7	Investment decision of the student's investors may be affected by risky investment portfolio of stocks					
8	Female students invest their money more conservatively and, in general accept less financial risk than male students					
9	Individuals investors also tend to portray different behavior while investing in NSE, given its dependence risk					
10	Male Students investors are more confident in their investment decisions, and have more financial knowledge in the NSE					
11	Students investment knowledge, and investment experience effect the investors level of risk tolerance					
12	Male investors tend to be more optimistic in nature which tends to be the reason they take more risks.					
13	Female investors tend to be more risk averse and less tolerant to financial risk.					
14	As an Investor I am willing to accept risk when making financial investment decision.					
15	Financial risk attitude of the investor has a positive influence on individual's portfolio.					
16	Problems arising in investing by students are from cognitive errors, psychological biases and emotions					
17	Most investors overestimate their knowledge and ignore the risks					

18	Overconfident investors tend to believe that they are superior to others about the possibility of choosing the best investment in the NSE					
19	Investors can use psychology and emotions to control or at least affect outcomes of investment decision					
20	Expanding the knowledge about finance could improve student's understanding of investing in the NSE					

SECTION C: EFFECT OF FINANCIAL KNOWLEDGE ON STUDENT'S INVESTMENT BEHAVIOR

Indicate how much you agree with the following statements relating to the effect of financial knowledge on student's investment behavior by using a scale of 1-5, where 1- Strongly disagree, 2- Disagree,3- Neutral, 4 Agree, 5- Strongly agree.

	Statement	**1**	**2**	**3**	**4**	**5**
1	Budgeting is the best way to check how much financially responsible a person is					
2	Level of education, and personal income, have significant impact on personal financial literacy					
3	The goal of financial education should be to encourage better financial behaviors					
4	Financial mistakes made at in college can also snowball into larger mistakes that can be costly					
5	Financial behaviors and financial knowledge contribute to financial satisfaction					
6	Socio-economic status of my parents has a significant direct effect on financial management					
7	Financial literacy and my saving intention significantly influence my saving behavior					
8	I have high financial knowledge which influences my financial behavior					
9	My parents good understanding about financial matter towards me may affect my financial behavior in future					
10	The university offer courses that are related to the student's financial literacy					
11	Financial decisions at any stage in life can have lasting effects on the students and increased levels of financial literacy					
12	My financial knowledge and behaviors have led to making decisions for future financial management					

SECTION D: PERSONAL FINANCIAL MANAGEMENT AND STUDENT'S INVESTMENT BEHAVIOR

Indicate how much you agree with the following statements relating to the personal financial management and student's investment behavior by using a scale of 1-5, where 1- Strongly disagree, 2- Disagree,3- Neutral, 4 Agree, 5- Strongly agree.

	Statement	**1**	**2**	**3**	**4**	**5**
1	As a students' I can be able to plan, manage and control my personal financial resources					
2	I am able to write financial planning/budgeting, and save and invest for future					
3	Financially well-educated students make superior decisions for their families					
4	Financial knowledge and skills are helping me to manage financial needs according to my resources					
5	Financial management knowledge is the key of financial decision making and planning					
6	As a student I have higher financial management skills in using resources cost effectively					
7	My personal management of money wil ensure short- and long-term financial security is meet					
8	Good financial management can prevent someone from financial distress and financial problems					
9	Financially literate are those perceived to have undergone some level of financial training					
10	Financially educated do practice standard financial behaviors in their spending behaviors					
11	Male students have more financial management skills than female students.					
12	Students of public sector universities have higher financial management skills than students of private sector universities					

APPENDIX III: INTRODUCTION LETTER

USIU AFRICA United States International University-Africa

TO WHOM IT MAY CONCERN.

25th March, 2019

Dear Sir/Madam,

REF: PERMISSION TO CONDUCT RESEARCH – DORIANE MUHOZA
STUDENT ID. NO. 642005

The bearer of this letter is a student of United States International University (USIU) -Africa pursuing a Master of Business Administration.

As part of the program, the student is required to undertake a dissertation on the **"Effect of Financial Literacy on University Students' Investment Behavior in Nairobi Securities Exchange. A Case Study of USIU-AFRICA,"** which requires her to collect data.

Please note that information provided will be treated with utmost confidentiality and will only be used for academic purposes.

Kindly assist the student get the appropriate data and should you have any queries contact the undersigned.

Yours Sincerely,

Prof. Amos Njuguna,
Dean – School of Graduate Studies, Research and Extension
Tel: 730 116 442
Email: amnjuguna@usiu.ac.ke

p.o.box 14634-00800 Nairobi, Kenya | tel:254-730-116-000 | info@usiu.ac.ke

APPENDIX IV: NACOSTI PERMIT

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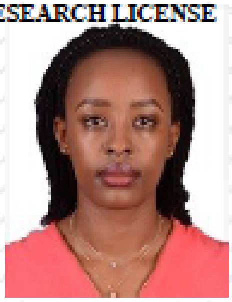

This is to Certify that Miss. DORIANE MUHOZA of United States International University Africa, has been licensed to conduct research in Nairobi on the topic: EFFECT OF FINANCIAL LITERACY ON STUDENTS' INVESTMENT BEHAVIOUR IN NAIROBI SECURITIES EXCHANGE. A CASE OF UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA for the period ending: 29/July/2020.

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