

**STOCK MARKET AWARENESS AND STOCK MARKET PARTICIPATION BY  
RETAIL INVESTORS IN KAMPALA, UGANDA**

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**A RESEARCH THESIS SUBMITTED TO THE  
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## **DECLARATION**

"This thesis is my original work and has not been presented for a degree or any other academic award in any university or institution of learning".

Signed \_\_\_\_\_ Date \_\_\_\_\_

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### **APPROVAL**

"We confirm that the work reported in this thesis was carried out by the candidate under our supervision".

Signed \_\_\_\_\_ Date \_\_\_\_\_

**Dr. Kayongo**

Signed \_\_\_\_\_ Date \_\_\_\_\_

**Dr. Joseph B. Kirabo**

## **DEDICATION**

To Kagibwami Godwin and Kagibwami Winnie. For the moral support.

## **ACKNOWLEDGEMENT**

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## **LIST OF ABBREVIATIONS**

AIMS	Alternative investment market segment
ANOVA	One way analysis of variance
BOU	Bank of Uganda
CAPM	Capital asset pricing model
CMA	Capital Market Authority
CVI	Content Validity Index
DFI	Direct foreign investment
PhD	Doctor of Philosophy
DV	Dependent variable
FISS	Fixed income securities segment
FSD	Financial system development
GDP	Gross Domestic Product
GTZ	Germany technical cooperation
IPO	Initial Public Offer
IV	Independent variable
MOF	Ministry of Education
MBA	Master of business administration
MIMS	Main investment market segment
NSE	Nairobi Stock Exchange
PLCC	Pearson linear correlation coefficient
REPO	Repurchase agreement
SPSS	Statistical Package for Social Sciences
SRS	Simple random sampling
USE	Uganda Securities Exchange.

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## **ABSTRACT**

*The purpose of this thesis was to investigate the effect of financial literacy on stock market participation in Uganda. The research problem for this study was the scrutinisation of the low level of stock market participation and its possible causes. The question to be answered was “Why is not the Uganda Stock market growing as fast as it should?” and what should be the role of the awareness of the Uganda Stock Market industry in developing the participation of the industry in Uganda. The study has emphasized on determining the effect of print media awareness, electronic media awareness and social media awareness on stock market participation as the objectives. The study was undertaken with selected respondents drawn from individual stock brokers. Data were collected by means questionnaires. The cross-sectional correlation research design was used in this study. The study has used a number of seventy one (71) respondents from stock brokers. This was done by setting a questionnaire with items that determine the media awareness techniques used by stock markets, and actions taken by them to increase the literacy on stock market participation by retail investors, and questionnaires for which respondents could judge the level of stock market participation. The study adopted description statistics, Pearson Linear Correlation Coefficient (PLCC) and multiple regression model in data analysis. Thus, the study established that there is a big gap between the financial literacy and stock market participation in Uganda, as expressed by the low level of public awareness in regard stock markets among Ugandan community, leading to the low level of participation. Therefore, the conclusion can be drawn that the financial literacy is a critical factor to be taken into consideration by the stock market industry in Uganda for its economic development. The study recommends that there is great need to put more efforts in public awareness of stock markets through financial literacy by all concerned individuals and institutions. The study further recommends the intensification of the literacy strategies programmes, accuracy and accountability in all activities involved in stock market participation by all Ugandan community members in their day to day concerns. Being part of the contribution to knowledge, findings and recommendations of this study are potential sources of information for planners, decision makers, researchers in their attempts to contribute to the development of the stock market participation industry in Uganda.*



## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

This chapter presents the background of the study; statement of the problem; purpose of the study, specific objectives, research questions, research hypotheses, scope of the study, significance of the study, and the operational definitions of the study.

#### **1.1 Background to the Study**

##### **1.1.1 Historical perspective**

In the end of the years of 1990s, African countries have set up stock exchanges as a precondition for the introduction of market economies under the structural adjustment programs propagated by the international monetary institutions and to facilitate the privatization of state owned enterprises (Norvilitis et al., 2006). In many developing countries financial markets play an important role in the process of economic growth and development by facilitating savings and channeling funds from savers to investors (Remund, 2010).

Currently, individuals have become increasingly active in financial markets, and market participation has been accompanied or even promoted by the advent of new financial products and services. However, some of these products are complex and difficult to grasp, especially for the financially unsophisticated investors.

At the same time, market liberalization and structural reforms in social security and pensions have caused an ongoing shift in decision power, away from the government and employers toward private individuals. Thus, individuals have to assume more responsibility for their own financial well-being (Hilgert et al., 2003). Existing studies indicate that financial illiteracy is widespread and individuals lack knowledge of even the most basic economic principles (Lusardi and Mitchell (2006). Financial literacy in the form of knowledge about the stock market has also been related to stock market participation. In a study of a representative sample of the Dutch population it was found that many families shy away from the stock market because they have little knowledge of stocks and the stock market (van Rooij *et al.*, 2011).

Financial literacy has been an issue in many countries including developed and developing countries. The cost of low financial literacy is substantial for the society and has been clearly identified by researchers (Joo & Garman 1998, Cuter & Delvin 2000). It helps to make informed decisions and well-being of an individual. Policymakers in both developed

and developing countries are increasingly recognizing the importance of financial literacy and of investing resources in financial education programs (Gallery et al., 2010).

The term financial literacy can encompass concepts ranging from financial awareness and knowledge, including of financial products, institutions, and concepts; financial skills, such as the ability to calculate compound interest payments; and financial capability more generally, in terms of money management and financial planning (Remund, 2010). In practice, however, these notions frequently overlap.

In today's world which has a market with complicated products, the need for financial literacy becomes inevitable. It also impacts the promotion of financial inclusion which ultimately results in financial stability of any economy (Cuter and Delvin 2000).

The stock market plays an important role in the financial lives of many individuals. Seeing stocks as a form of investment, many investors use it as a means to generate their asset based income. The capital market plays a fundamental role in stimulating economic growth and development through mobilization of resources in an economy (Yartey and Adjasi, 2007). The markets provide a platform for exchange of financial assets (stocks and bonds), following established regulations to provide continuous liquidity in the market.

In Uganda, Uganda Security Exchange (USE) was formed in 1997 as a company limited by guarantee by the Capital Markets Authority (CMA) under the Capital Markets (Licencing) regulations of 1996. The first product of the USE was a bond issued in 1998 (EADB) and no equity was listed on the USE until 2000 when the first two local equities were listed (Uganda Clays and BAT Uganda). The subsequent years saw six (06) more local equities listed in 2002 (Bank of Baroda Uganda), 2004 (DFCU Ltd and New Vision Limited), 2007 (Stanbic Bank Ltd), 2009 (National Insurance Corporation- NIC), and 2012 (Umeme Ltd).

Almost in the same period (2001 – 2013), 8 cross border companies were listed, and these are 2001 (EA Breweries Ltd), 2002 (Kenya Airways), 2006 (Jubilee HL), 2008 (KCB), 2010 (Nation Media Group- NMG), 2011 (Centum Holdings), 2012 (Equity Bank) and 2013 (Uchumi). The USE All Share Index was officially launched in 2003. It should be clearly noted that there has been no single IPO on the USE since 2013! This is very indicative of the problems of our market. (No IPO for more than 5 years should worry all and sundry especially our policy makers).

### **1.1.2 Theoretical perspective**

This study reviewed the theory that explains financial literacy and stock market participation. This theory is called “efficient markets hypothesis” (EMH). This is a financial economics theory which states that asset prices fully reflect all available information. The theory was developed by Eugene Fama who argued that stocks always trade at their fair value, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices.

The efficient market hypothesis is based on the notion that people behave rationally, maximize expected utility accurately and process all available information (Shiller, 1998). Fama (1965) defines an efficient market as a market for securities where given the available information, actual prices at every point in time represent very good estimates of intrinsic values. In this market, there are large numbers of rational profit maximizing investors actively competing with each other trying to predict future market values of individual securities and where important current information is freely available to all participants (Fama, 1965).

### **1.1.3 Conceptual Perspective**

#### **1.1.3.1 Financial literacy**

Financial literacy has been an issue in many countries including developed and westernized societies. The cost of low financial literacy is substantial for the society and has been clearly identified by researchers (Joo & Garman 1998, Cuter & Delvin 2000). It helps to make informed decisions and well-being of an individual. Policymakers in both developed and developing countries are increasingly recognizing the importance of financial literacy and of investing resources in financial education programs (Gallery, Newton and Palm, 2010). The term financial literacy can encompass concepts ranging from financial awareness and knowledge, including of financial products, institutions, and concepts; financial skills, such as the ability to calculate compound interest payments; and financial capability more generally, in terms of money management and financial planning (Remund, 2010). In practice, however, these notions frequently overlap. In today’s world which has a market with complicated products, the need for financial literacy becomes inevitable. It also impacts the promotion of financial inclusion which ultimately results in financial stability of any economy.



### **1.1.3.2 Stock market participation**

A stock market, equity market or share market is the aggregation of buyers and sellers (a loose network of economic transactions, not a physical facility or discrete entity) of stocks (also called shares), which represent ownership claims on businesses; these may include *securities* listed on a public stock exchange as well as those only traded privately (Phanel K. and Ken A, 1978). Examples of the latter include shares of private companies which are sold to investors through equity crowdfunding platforms. Stock exchanges list shares of common equity as well as other security types, e.g. corporate bonds and convertible bonds. Both stock market and bond market are instruments of capital markets. The difference is that Stock markets are traded shares where investors acquire the ownership of companies, whereas bond markets are traded securities where investors become creditors (Obbo N. 2011). Participants in stock markets are generally subdivided into three distinct sectors; households, institutions, and foreign traders. Direct participation occurs when any of the above entities buys or sells securities on its own behalf on an exchange. Indirect participation occurs when an institutional investor exchanges a stock on behalf of an individual or household. Indirect investment occurs in the form of pooled investment accounts, retirement accounts, and other managed financial accounts.

### **1.1.4 Contextual Perspective**

There exist very few studies that provide information on both financial literacy and variables related to financial decision-making; for example saving, portfolio choice, stock market participation and retirement planning. In this study, the research sought to find the effect financial literacy has on stock market participation by retail investors in Kampala, Uganda. Thus, the role of financial literacy should not be under-estimated. As more individuals transition to a system where they have to decide how much to save and how to invest their wealth, it is important to consider ways to enhance their level of financial knowledge or to guide them in their financial decisions.

Several studies have produced contradictory results, such as a study by Mwangi (2012) which found that financial literacy remains low in developing countries. However the results indicated that households access to financial services is not based on levels of financial literacy but rather on factors such as income levels, distance from banks, age, marital status, gender, household size and level of education. However, the study established that there was a probability of a financially illiterate person remaining financial excluded. Contrasting results are also found by Cole & Shastry (2009); using a sample from

the 1980-1990-2000 Public Use US Census Data to study the determinants of financial market participation. They found that education positively affected the probability of holding investment income. In investigating the determinants of this result, they show that cognitive abilities increase participation, while financial literacy education (measured by variations in state-mandated financial education in high schools, as in Bernheim *et al.* (2001)) does not. From the studies reviewed, it is evident that little has been done in relation to financial literacy effect on stock market participation. Most of the studies have focused on the relationship between financial literacy and other variables such as retirement planning, personal financial management, access to financial services and savings level among many other factors. This study is therefore geared towards investigating the nature and extent of the relationship between financial literacy and stock market participation by retail investors. The research question can therefore be posed as: What is the relationship between financial literacy and stock market participation by retail investors?

## **1.2 Statement of the Problem**

A low level of stock market participation is a significant problem to the well functioning of capital markets. Several studies have focused on the determinants of stock market participation. One of the variables that was found to be critical in the recent past is the effect of financial literacy. There is in fact evidence that financial literacy and schooling years are correlated and that the stream of education and effectiveness of education can actually affect financial literacy (Almenberg & Save-Soderbergh 2011). Financial literacy in the form of knowledge about the stock market has also been related to stock market participation. In a study of a representative sample of the Dutch population, Van Rooij *et al.* (2011) found that many families shy away from the stock market because they have little knowledge of stocks and the stock market. It has also been shown that more basic measures of financial literacy, essentially measures of numeracy, can predict stock market participation. For the Uganda case, Uganda Securities exchange was founded in 1997, and it has grown from zero equity listing to the current (paltry) 16 (8 Local and 8 Cross-border listings) in a space of almost 21 years and known to be the smallest in the region. The question to be answered is “Why is not the Uganda Stock market growing as fast as it should?” and what should be the role of the awareness of the Uganda Stock Market industry in developing the participation of the industry in Uganda.

### **1.3 Purpose of the study**

The purpose of this study was to evaluate the effect between financial literacy and stock market participation in Kampala, Uganda

### **1.4 Research Objectives**

The study was guided by the following objectives:

- To evaluate the relationship between print media awareness and stock market participation,
- To examine the relationship between electronic media awareness and stock market participation,
- To investigate the relationship between social media awareness on stock market participation.

### **1.5 Research Questions**

This study tried to answer the following questions:

- What is the relationship between print media awareness and stock market participation?
- What is the relationship between electronic media awareness and stock market participation?
- Is there any relationship between social media awareness and stock market participation?

### **1.6 Research hypotheses**

**HO<sub>1</sub>:** Print media awareness does not have a significant relationship with stock market participation

**HO<sub>2</sub>:** Electronic media awareness does not have a significant relationship with stock market participation

**HO<sub>3</sub>:** Social media awareness does not have a significant relationship with stock market participation

### **1.7 Scope of the study**

#### **1.7.1 Geographical scope**

The study was conducted in Kampala city –Uganda. This is because all potential participants are found there.

#### **1.7.2 Time scope**

The study was conducted during the period between 2016 and 2018.

## **1.8 Significance of the Study**

With this study, the researcher believes that its outcome would form a basic material to the following expected beneficiaries.

Data and information will be useful for planners and decision makers in different institutions dealing with stock markets.

The findings and recommendations will also be useful to managers of these institutions avoiding relying on their hazardous personal experiences, or subjective expert judgments or traditional way of decision making but on concrete knowledge supported by this study. The study finally will form a basic for further researches.

## **1.9 Operational definition of key terms**

### **1.9.1 Stock market**

A stock market, equity market or share market is the aggregation of buyers and sellers (a loose network of economic transactions, not a physical facility or discrete entity) of stocks (also called shares), which represent ownership claims on businesses; these may include securities listed on a public stock exchange as well as those only traded privately.

### **1.9.2 Primary markets**

These are new stocks or bonds are traded often via a mechanism of underwriting in public offering.

### **1.9.3 Secondary markets**

These are existing securities are traded usually on exchange, over-the-counter or elsewhere.

### **1.9.4 Stock markets**

These are traded shares where investors acquire the ownership of companies

### **1.9.5 Bond markets**

These are traded securities where investors become creditors. In contrary, money markets deal with raising short term funds.

### **1.9.6 Stock market participation**

Stock market participation refers to the number of agents who buy and sell equity backed securities either directly or indirectly in a financial exchange. Participants are generally subdivided into three distinct sectors; households, institutions, and foreign traders.

### **1.9.7 Financial literacy**

Financial literacy refers to the possession of the set of skills and understanding of various financial areas including topics related to managing personal finance, money and investment.

### **1.9.8 Electronic media**

Electronic media are media that use electronics or electromechanical audience to access the content. The primary electronic media sources familiar to the general public are video recordings, audio recordings, multimedia presentations, slide presentations, CD-ROM and online content.

### **Social media**

Social media are interactive computer mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks.

### **Print media**

Printing is a process for reproducing text and images using a master form or template. Print media transmit information via physical objects such as books, comics, magazine, news papers, or pamphlets. They all target readers who are interested in acquiring new information and updates on surrounding situation. The proliferation of digital media has lead to the decline in advertizing expenditure in traditional print media, but print has not dead.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter deals with related views, writings, and experience to our subject. The researcher started with breaking down the main topic into key elements that are close to making the topic understandable. Thus, the researcher identified different meanings on financial literacy and stock market participation with reference to Uganda context.

#### **2.1 Theoretical review**

According to Eugene Fama, 1965, in his “Efficient Market Theory” (EMH) when information arises, the news spread very quickly and is incorporated into the prices of securities without delay. Neither technical analysis nor even fundamental analysis would enable an investor to achieve returns greater than could be obtained by holding a randomly selected portfolio of individual stocks with comparable risk.

Efficient Market Hypothesis is associated with the idea of random walk which characterizes price series where all subsequent price changes represent random departures from previous prices. If the flow of information is unimpeded and information is immediately reflected in stock prices, then tomorrow’s price change will reflect only tomorrow’s news and will be independent of the price changes today. But news by definition is unpredictable and the resulting price changes must be unpredictable and random.

Malkiel(2003) concludes that as a result, prices fully reflect all known information and even uninformed investors buying a diversified portfolio at a tableau of given prices given by the market will obtain a rate of return as generous as that achieved by experts.

There are reasons to believe that markets do experience inefficiencies or inadequacies that would contradict the principle implied in the efficient market hypothesis (EMH). One such reason is the so called short term momentum and under reaction to news. Lo and Mackinlay (1999) have found that short term serial correlations are not zero and that existence of many moves in the same direction enable them to reject the hypothesis that stock prices behave as a random walk.

A number of researchers have found some seasons and days of the week to have unusual returns in the stock markets. Haugen and Lakonishok (1998) document the high January returns in the book entitled “The incredible January effect”. There also appears a number of day of the week effects. For example French (1980) documents significantly higher Monday returns. Another challenge to EMH is the predictability of future returns from

initial dividend yields and market returns from initial price-earnings multiples. Formal statistical tests of the ability of dividend yield to forecast future returns have been conducted by Fama and French (1988). Depending on the forecasts horizon involved, as much as 40% of the variance of future returns for the stock market as a whole can be predicted on the basis of initial dividend yield of the market index. Investors have tended to earn larger longhorizon returns when purchasing in the market stocks at relatively low price-earnings multiples.

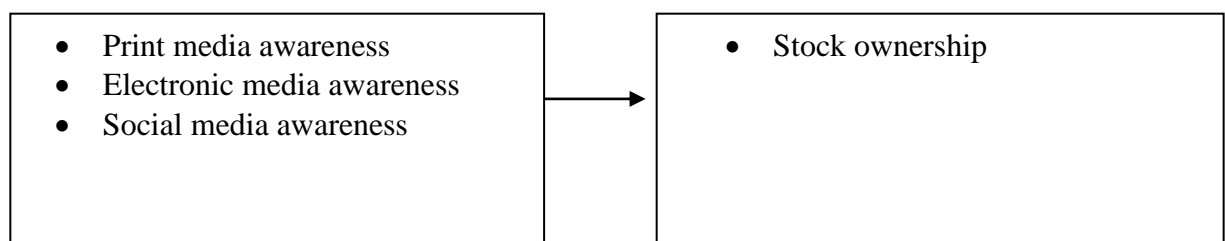
Over the years, efficient market hypothesis (EMH) has been the subject of rigorous academic research and intense debate. It has preceded finance and economics as the fundamental theory explaining movements in asset prices. The accepted view is that markets operate efficiently and stock prices instantly reflect all available information. Since all participants are privy to the same information, price fluctuations are unpredictable and respond immediately to genuinely new information (Kannt R. 2014). As a result, efficient markets do not allow investors to earn above average returns without accepting additional risks. Yet, as we all know or have experienced ourselves, markets do not always act this way or exhibit rationality.

In fact, a fundamental shortcoming of EMH is its inability to explain excess volatility. While efficient market theory remains prominent in financial economics, proponents of behavioral finance believe numerous biases, including irrational and rational behavior, drive investor's decisions.

## 2.2 Conceptual framework

**Figure 2. 1: Conceptual framework**  
Financial Literacy (IV)

Stock Market Participation (DV)



The figure above shows the influences of financial literacy on stock markets participation. It determines the measures that can be based on to evaluate the improvement of stock markets participation. In the figure, financial literacy represents independent variable and stock markets participation represents dependent variable. On one hand, the factors like

print media awareness, electronic media awareness and social media awareness can influence the extent to which stock markets participation would be improved. On the other hand, factors like stock ownership and bond ownership are indicators of that can make a good reference of the improvement of stock markets participation.

## **2.2.1 Conceptual review**

### **2.2.1.1 Financial literacy**

Financial illiteracy has implications for household behavior. Bernheim (1995, 1998) was the first to point out not only that most households cannot perform very simple calculations and lack basic financial knowledge, but also that the saving behavior of many households is dominated by crude rules of thumb. In more recent works, Bernheim, Garrett and Maki (2001) and Bernheim and Garrett (2003) show that those who were exposed to financial education in high school or in the workplace save more. Similarly, Lusardi and Mitchell (2006, 2007a) show that those who display low literacy are less likely to plan for retirement and, as a result, accumulate much less wealth (see also Hilgert, Hogarth and Beverly (2003)). This finding is confirmed in the work by Stango and Zinman (2007), which shows that those who are not able to correctly calculate interest rates out of a stream of payments end up borrowing more and accumulating lower amounts of wealth. Agarwal, Driscoll, Gabaix and Laibson (2007) further show that financial mistakes are prevalent among the young and elderly, who are those displaying the lowest amount of financial knowledge.

The measures of financial literacy used in existing studies are often crude. For example, Lusardi and Mitchell (2006, 2007a) rely on only three questions to measure financial literacy, and Stango and Zinman (2007) rely on one question. Moreover, the surveys that provide more extensive information about financial literacy often have little or no data on wealth, saving, or other important economic outcomes (see, for example, the NCEE survey).

There is in fact evidence that financial literacy and schooling years are correlated and that the stream of education and effectiveness of education can actually affect financial literacy (Almenberg & Save-Soderbergh 2011). Financial literacy in the form of knowledge about the stock market has also been related to stock market participation. In a study of a representative sample of the Dutch population, Van Rooij *et al.* (2011) found that many families shy away from the stock market because they have little knowledge of stocks and the stock market. It has also been shown that more basic measures of financial literacy, essentially measures of numeracy, can predict stock market participation.



Aroni (2014) studied the effects of financial information on investment in general. The results revealed that financial information variable had significant influence on decisions to invest in shares with p-value ( $p < 0.05$ ). Wachira & Kihiu (2012) conducted a study to establish the impact of financial literacy on access to financial services. The study established that the probability of a financially illiterate person remaining financially excluded is significantly high calling for increased investment in financial literacy programs to reverse the trend. Githui & Ngare (2014) in their study on financial literacy and retirement planning postulated that financial literacy is one of the main causes of poor retirement planning in the informal sector. Clement (2012) sought to investigate factors influencing investment decisions in equity stocks. The results indicated that decisions to invest in equity stocks are influenced by economic and behavioral factors. Tenai & Bitoket *al* (2014) investigated the factors influencing the development of capital markets in a developing economy. The study established that the greatest impediment to the NSE is the level of knowledge of the local investors.

Previous studies have focused on advanced financial literacy. This study sought to take departure from that and focused on both basic and advanced financial literacy to explain the relationship between financial literacy and stock market participation by retail investors. The study used a standard measure of stock market participation: direct stock market participation through ownership of stocks which was measured through the volume of shares traded by the respondent over the last one year. The measures of financial literacy used in existing studies are often crude. For example, Lusardi and Mitchell (2006, 2007a) relied on only three questions to measure financial literacy, and Stango and Zinman (2007) rely on one question. In this paper, the researcher overcame this shortcoming with some of the previous studies by providing comprehensive measures of financial literacy. In addition, the study linked financial literacy with an important economic outcome: participation in the stock market.

#### **2.2.1.2 Stock markets participation**

As of mid 2017, the size of the world stock market (total market capitalisation) was about US\$76.3 trillion. By country, the largest market was the United States (about 34%), followed by Japan (about 6%) and the United Kingdom (about 6%). These numbers increased in 2013. As of 2015, there are a total of 60 stock exchanges in the world with a total market capitalization of \$69 trillion. Of these, there are 16 exchanges with a market

capitalization of \$1 trillion or more, and they account for 87% of global market capitalization. Apart from the Australian Securities Exchange, these 16 exchanges are based in one of three continents: North America, Europe and Asia (US stocks statistics 2017).

Trade in stock markets means the transfer for money of a stock or security from a seller to a buyer (Guiso et al 2012). This requires these two parties to agree on a price. Equities (stocks or shares) confer an ownership interest in a particular company.

Participants in the stock market range from small individual stock investors to larger trader investors, who can be based anywhere in the world, and may include banks, insurance companies, pension funds and hedge funds. Their buy or sell orders may be executed on their behalf by a stock exchange trader. Some exchanges are physical locations where transactions are carried out on a trading floor, by a method known as open outcry. This method is used in some stock exchanges and commodity exchanges, and involves traders shouting bid and offer prices. The other type of stock exchange has a network of computers where trades are made electronically.

A potential buyer bids a specific price for a stock, and a potential seller asks a specific price for the same stock. Buying or selling at the market means you will accept any ask price or bid price for the stock. When the bid and ask prices match, a sale takes place, on a first-come, first-served basis if there are multiple bidders or askers at a given price.

The purpose of a stock exchange is to facilitate the exchange of securities between buyers and sellers, thus providing a marketplace. The exchanges provide real-time trading information on the listed securities, facilitating price discovery.

In addition to financial literacy, academic literature discusses other individual characteristics influencing stock market participation, which are age, gender, wealth, risk aversion, and education (see, e.g., Hong, Kubik, and Stein, 2004; Georgarakos and Pasini, 2011; Almenberg and Dreber, 2015).

### **2.2.1.3 Financial literacy linked to stock market participation**

The stock market “participation puzzle” was first investigated by Haliassos & Bertaut (1995). An important “puzzle” in the literature is why so few households hold stocks. One explanation about lack of stock ownership that has not yet been well-explored in the literature is that stocks are complex assets, and many households may not know or understand stocks and the working of the stock market.

Several studies have also tried to unveil the exact channels by which financial literacy affects the decision to participate in the stock market. For example, the results of the study

by Christelis *et al.* (2010) support the hypothesis that higher cognitive abilities, through their association with lower risk aversion, lower information costs, or higher perceived portfolio sharpe-ratio, raise stock market participation. Additionally, Arrondel *et al.* (2012) uncovered that stock ownership strongly correlates with both expectations and realizations of stock market returns, as well as with measures of financial literacy, ability or trust. This result holds true even among the affluent and the young.

Studies on the effect of human capital (education) on stock market participation are limited. For instance, several authors have shown that college educated individuals are more likely to own stocks (Haliassos & Bertaut 1995; Campbell, 2006; Lusardi & de Bassa Scheresberg, 2013). Cole & Shastry (2009) argued that one year of schooling increases the probability of financial market participation by 7-8%.

Looking a step further, empirical studies on stock holding show that including control for educational attainment does enhance the significance of the variable financial literacy (Van Rooij *et al.* 2011, Behrman *et al.* 2012, Lusardi & de Bassa Scheresberg 2013) underlying the fact that general knowledge (education) and specialized knowledge (financial literacy) both contribute for financial decision making, both in Netherlands and United States.

Financial literacy has been an issue in many countries both developing and westernized societies. The cost of low financial literacy is substantial for the society and has been clearly identified by researchers (Joo & Garman 1998, Cuter & Delvin 2000). It helps to make informed decisions and well-being of an individual. Policymakers in both developed and developing countries are increasingly recognizing the importance of financial literacy and of investing resources in financial education programs (Gallery, Newton and Palm, 2010).

The term financial literacy can encompass concepts ranging from financial awareness and knowledge, including of financial products, institutions, and concepts; financial skills, such as the ability to calculate compound interest payments; and financial capability more generally, in terms of money management and financial planning (Remund, 2010). In practice, however, these notions frequently overlap. In today's world which has a market with complicated products, the need for financial literacy becomes inevitable. It also impacts the promotion of financial inclusion which ultimately results in financial stability of any economy. Researches have been conducted globally for measuring the level of financial literacy. Financial literacy surveys have also been conducted at country level by the governments. Most of the surveys have thrown light on their poor level of financial literacy.

For decades, academics have been trying to get a better understanding of stock market participation and the parameters influencing individuals' decisions whether or not to participate in the stock market. More than 30 years ago, Mehra and Prescott (1985) researched equity investments and concluded that equity premiums are higher than what would be expected compared to risk-free government bonds. Nonetheless, multiple academics mentioned and showed relative low stock market participation rates in the years following (Mankiw and Zeldes, 1991; Haliassos and Bertaut, 1995). This phenomenon is better known as the stock market participation puzzle.

Van Rooij et al. (2011) report that financial literacy influences financial decision making and hence individuals with a low financial literacy are less likely to participate in the stock market. Their conclusion causes concern since individuals nowadays increasingly have to rely on themselves regarding important financial decisions and the financial literacy of young adults is worryingly low (Lusardi, Mitchell, and Curto, 2010).

Financial literacy is decisive for creating wealth and Van Rooij, Lusardi, and Alessie (2012) consider this feasible via stock market participation. The authors complement their argumentation by indicating that financial literate individuals face lower costs for collecting and processing information and thus face a lower economic threshold for stock market participation.

Campbell (2006) reports that non-participation and under-diversification, seen as investment mistakes, are dependent on the level of wealth and education. Moreover, he suggests that individuals aware of their limited investment skills are less likely to have any funds in the equity market.

This is in line with Graham, Harvey, and Huang (2009), whom indicate that individuals aware of their investment skills and feeling knowledgeable are more likely to participate in the stock market. This reasoning is in accordance with the findings of Guiso and Jappelli (2005) whom indicate that a lack of financial awareness contributes to the explanation of the relatively low participation rates in financial markets. The authors conclude that stock market participation rates would increase considerably if all investors were fully aware of risky assets.

The findings together underline that a lack of cognitive abilities contributes to the explanation of confined stock market participation rates, which is shown by Christelis, Jappelli, and Padula (2010). The authors state that an increase in an individual's cognitive ability lowers the information cost for both direct and indirect stock market participation. Additionally, they find this relation to be weaker compared to bondholding suggesting that

the relation between cognitive abilities and stock market participation is most likely driven by informational constraints. In other words, the decision to participate in the stock market is linked to the ease or cost at which the information required is available to a certain individual.

Academics seem to agree on the fact that an individual's financial knowledge is important in predicting stock market participation. Education in finance helps improving financial literacy (Baker and Ricciardi, 2014) and some even claim that motivation is a key factor in determining financial literacy (Mandell and Klein, 2007). Furthermore, Jappelli and Padula (2013) emphasize that improving numeracy early in life eventually increments wealth accumulation. The importance of financial literacy is further established in relation to financial turmoil since individuals with a greater financial literacy are less likely to suffer damage from unexpected macroeconomic shocks (Klapper, Lusardi, and Panos, 2013).

Taken together, financial literacy contributes to the explanation of the stock market participation puzzle even though major cross-country differences remain (Jappelli, 2010).

#### **2.2.1.4 Awareness of Stock Market**

The extent to which consumers are aware of available financial assets depends on the incentives of asset suppliers to spread the information about the instruments they issue (Guiso & Jappelli, 2002). Merton (1977) pointed out that awareness affects asset prices because those that are less widely known, and thus less commonly selected, pay a premium. Besides Merton's paper, Guiso & Jappelli, (2003) related three further strands of the literature: Financial information, social learning and advertisement.

On the determinants of awareness, (Guiso & Jappelli, 2005) presented a simple model where investors can learn about assets from distributors or through social interaction. They further held that the probability of becoming aware depends on distributor's incentives to inform investors and that people buy assets when they are aware of it.

Guiso & Jappelli, (2003) offered a direct test on the effect of social learning on awareness by providing insights into the mechanism by which social learning affects stockholding. They further observed that besides learning from signals and contacts with issuers and distributors, individuals often learn about investment opportunities from peers who have been informed by financial intermediaries. Therefore social learning changes distributor's incentives and hence the optimal signal policy.

Grossman & Stiglitz (1980) and Verrecchia (1980) in their examination of how information on asset returns effect portfolio choice established that differences among investors are

endogenous, and financial information reduces subjective uncertainty on returns. Rooij & Lusardi (2007) showed that, lack of understanding of economic and financial information is a significant deterrent to stock ownership and that lack of literacy prevents households from participating in the stock market.

Awareness of the existence of stock (financial asset) is exogenous to the investors' choice set. Issuers and distributors of financial assets have strong incentives to inform the pool of potential investors; broadening the investor base lowers the cost of raising external capital for issuers and increases revenue for distributors and this can be done by mailing, advertising in the financial press or with direct contact to potential investors.

Guiso & Jappelli, (2005) used data to construct summary indicators of financial awareness, where one of the measures of financial awareness is the number of assets that each individual knows divided by the number of potential assets. The second measure is an index that gives less weight to popular assets (such as checking accounts) than other assets that are less widely known (such as corporate bonds and mutual funds) and they weighted the index by the inverse of the proportion of people aware of the assets and scaled it by the sum of the weights. Issuers will target the individual (groups) that have a greater probability of investing in the stock market. Secondly, individuals are more likely to be aware where the cost of sending signals is lower, for instance in areas where the cost of contacting investors is relatively low. Thirdly, awareness should be higher in areas where one can learn from peers as well as from the general media and from intermediaries.

#### **2.2.1.5 Stock Markets in Uganda**

In Uganda, the Uganda Securities Exchange (USE) is the principal stock exchange. It was founded in June 1997. The USE is operated under the jurisdiction of Uganda's Capital Markets Authority, which in turn reports to the Bank of Uganda, Uganda's central bank. The exchange opened to trading in January 1998. At that time, the exchange had just one listing, a bond issued by the East African Development Bank. Trading was limited to only a handful of trades per week.

As of July 2014, the USE traded 16 listed local and East African companies and had started the trading of fixed income instruments. The exchange is a member of the African Stock Exchanges Association.

The USE operates in close association with the Dar es Salaam Stock Exchange in Tanzania, the Rwanda Stock Exchange, and the Nairobi Stock Exchange in Kenya.

According to published reports in 2013, there were plans to integrate the four exchanges to form a single East African bourse. Uganda All Stock Index (ALSIUG) is the benchmark Index of the Uganda Securities Exchange.

A published report in February 2011 claimed that USE would increase trading to five days a week in March 2011. During the first quarter of 2010, the USE adopted the Settlement and Clearing Trading Depository electronic trading system.

According to a published report in January 2011, other electronic modalities were being considered for the exchange. In 2010, the USE was the best performing stock exchange in Sub-Saharan Africa, with an All-Shares Index return of 74 percent between January and November 2010. On 20 July 2015, the USE initiated its electronic trading platform, backed by three independent data servers, cutting to three days (previously five days) the time it takes to settle trades.

**Table 2. 1: Market listing as of September 2015**

<i>No</i>	<i>SYMBOL</i>	<i>COMPANY</i>	<i>NOTES</i>
1	BOBU	Bank of Baroda (Uganda)	Finance/Banking
2	BATU	British American Tobacco	Tobacco products
3	DFCU	DFCU Group	Finance, Banking
4	EABL	East African Breweries	Distilling beverages
5	JHL	Jubilee Holdings Ltd	Insurance
6	KA	Kenya Airways	Aviation
7	KCB	KCB Group	Finance, banking
8	NVG	New Vision Group	Media, publishing
9	SBU	Stanbic Bank Uganda	Finance, banking
10	UCL	Uganda Clays Limited	Construction material
11	EBL	Equity Group Holdings Ltd	Banking, finance
12	NIC	National Insurance Inc.	insurance
13	UCHM	Uchumi Supermarkets	Retail trading
14	NMG	National Media Group	Media, publishing
15	CENT	Centum Investments	Investments, real estates
16	UMEME	Umeme	Power distribution

### **Notes on market listings**

- (1) East African Breweries Limited, Kenya Airways and Jubilee Holdings, are primarily listed on the Nairobi Stock Exchange and are cross-listed on the Uganda Securities Exchange and on the Dar es Salaam Stock Exchange.
- (2) Centum Investment Company Limited, Equity Group Holdings Limited, and Jubilee Holdings are listed primarily on the Nairobi Stock Exchange and are cross listed on the USE.
- (3) Kenya Commercial Bank Group and Nation Media Group are listed primarily on the Nairobi Stock Exchange and are cross listed on the USE, the Dar es Salaam Stock Exchange, and the Rwanda Stock Exchange.
- (4) Uchumi Supermarkets, a regional supermarket retailer with headquarters in Nairobi, Kenya, is listed on the Nairobi Stock Exchange, is crosslisted on the USE and the Rwanda Stock Exchange, and plans to crosslist its shares on the Dar es Salaam Stock Exchange.
- (5) Umeme, the largest electric power distributor in Uganda, is listed primarily on the USE and is crosslisted on the Nairobi Stock Exchange.
- (6) Equity Group Holdings Limited is listed primarily on the Nairobi Stock Exchange (2006). It is crosslisted on the USE (2009) and the Rwanda Stock Exchange (2015). (7) In February 2015, Ugandan media indicated that both Housing Finance Bank and Crane Bank, which had intended to list their shares on the USE, have since changed their plans and put their IPOs on hold.

### **Ownership**

The exchange is owned by 16 stock brokers (USE report, 2017). In August 2016, a law was passed to allow the owners to sell shares in the stock exchange to members of the public through an initial public offering.

On 18 May 2017, the USE demutualised and registered as a "public company, limited by shares". Its authorised share capital is Shs1 billion, consisting of 100 million shares of Sh10 each. At incorporation, the paid up capital was Shs42 million, with each of the founding investor firms owning 6,000,000 shares, each valued at Shs10 Each. The shareholding in the stock of the Uganda Securities exchange is as depicted in the table below.



**Table 2. 2: Uganda Securities Exchange Stock Ownership**

<b>RANK</b>	<b>NAME OF OWNER</b>	<b>% OF OWNERSHIP</b>
1	African Alliance Uganda Limited	14.29
2	Baroda Capital Limited	14.29
3	Crane Financial Services Limited	14.29
4	Crested Capital Limited	14.29
5	Dyer&Blair Uganda Limited	14.29
6	Equity Stock Brokers Uganda Limited	14.29
7	UAP Old Mutual Financial Services Limited	14.29
	<b>TOTAL</b>	<b>100.00</b>

Source: USE report, 2017

### **2.3 Review of Empirical Studies**

There has been a rising interest in financial literacy from the academic community, international organizations and governments recently. Most of the recent studies have concentrated on the relationship between financial literacy and other variables such as personal financial management, savings, entrepreneurial success and financial performance of firms among other variables. This paper deviates from this and focuses on an area that has not been widely researched.

Moore (2013) carried out a study on the effect of financial literacy on investment decisions, a sample of twenty companies was surveyed in Washington DC, a descriptive survey research design was used and data was analyzed by using a regression model, the results of the analysis showed that there was a positive correlation between the level of financial literacy and investment decisions of firms. It was concluded that financial literacy had a significant effect on the financial performance of firms since firms that had access to financial information and training invested in profitable investments.

Similar findings were reported by Agnew and Szykman (2015), who devised a financial literacy survey as part of an experiment held at a mid-size public university in the Southeast designed in the spirit of a John Hancock Financial Services Defined Contribution Plan Survey (2002). Their respondents produced similar patterns: college employees, tourists, parents of students, and local construction workers, all knew little about mutual funds and they could not explain even simple differences between stocks, bonds, and money market mutual funds.

Opio K. (2012) in his study examined the relationship between financial literacy and the influence of the factors that affect the investment decision by pension fund managers in Kenya. A modified likert scale questionnaire was used and the results of the study indicated that the financial literacy was far from the needed level. The financial literacy level was found to have a significant effect on investment decision making by fund managers, since these decisions are ongoing, requiring members to periodically monitor and evaluate the performance of their chosen fund and investment option, and decide whether to switch to another fund and/or investment option.

In his study Miles (2004) investigated the link between financial literacy and investment decision based on priorities. A cross sectional survey was conducted among customers of twenty five sampled banks. A structured questionnaire was used for data collection and descriptive statistics was used for data analysis. The results of the analysis showed that most customers that had access to financial information invested on profitable investments unlike the customers who were ignorant about financial instruments and investments.

Olima (2013) investigated the effect of financial literacy on saving practices and social security planning of Kenya Revenue Authority employees. The study used primary data collected from semi-structured questionnaires. Quantitative data was analyzed using descriptive statistics while qualitative data was analyzed using content analysis. The study also used multiple regression analysis to establish the relationship between financial literacy and personal financial management. The study findings indicated that generally financial literacy to a great extent affects personal financial management among the respondents.

A study done by Nyamute and Monyoncho (2008) surveyed employees of finance and banking institutions and concluded that the practices of those perceived to be financially literate seem to agree with the current literature. However survey findings also showed that even those perceived not to be financially literate exhibit some strong characteristics of personal financial management implying that probably, formal college education and employment environment may not be the only source of financial education.

Nyamute & Maina (2016) 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. The survey data were obtained from 192 employees using a structured questionnaire.

This study focused on the effect of financial education on personal financial management (stock market investment) 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. These results show that there is a significant difference between the personal financial management practices of the finance and the non-finance literate respondents.

The financially literate had a better appreciation and application of the financial management practices. It can be concluded that financial literacy influences personal financial management practices.

Tenalet *al* (2014) investigated the factors influencing the development of capital markets in a developing economy. The target population were all the 53 firms listed at N.S.E. Stratified random sampling based on the segmentation of the trading counters was used for sampling the population of the study. A sample of 30 firms was selected. Data was summarized using the inferential statistical methods. Descriptive research design was adopted and used for the study.

The study established that the greatest impediment to the NSE is the level of knowledge of the local investors, and recommended that the CMA in collaboration with other market stakeholders should implement a comprehensive awareness and public education programme that targets both supply and demand of securities. It should implement a specialized proficiency certification programme targeting both the market intermediaries and the general public to enhance financial literacy.

A program of education for the investors“ particularly educational tours and short courses offered on a continuous basis is very crucial in helping to educate the public about securities.

A study by Mwangi (2012) found that financial literacy remains low in Kenya. The results indicated that households access to financial services is not based on levels of financial literacy but rather on factors such as income levels, distance from banks, age, marital status, gender, household size and level of education. However, the study established that there is a probability of a financially illiterate person remaining financially excluded. The study recommends the development of a curriculum on financial education and administers it in local, middle level and higher learning institutions.

In Rwanda a study by Sindambiwe (2014) used a sample of 126 respondents who were managing directors and directors of finance. The results indicated that the extent of

directors awareness of stock market functioning is moderate with a mean of 2.40 on average. Regarding the directors stock market awareness, they have high financial literacy regarding interest rate calculation, exchange rate calculation, business diversification and portfolio management and the location of stock market while they have a little awareness of existence of brokerage services where the mean is only 2.05. In conclusion, the study confirmed that there is a significant relationship between the directors awareness of the stock market functioning and the level of organizations participation in the Rwandan stock market. The study recommended that the Capital Markets Advisory Council (CMAC) should prepare a development program or public awareness and financial literacy training targeting large industries to increase the level of their stock market awareness, awareness of existing policies, incentives, laws and regulations and this will attract them to the stock market.

Thomas and Spataro (2015) studied financial literacy, human capital and stock market participation in Europe by conducting a survey of 9 countries categorized into Continental Europe, Scandinavian countries and Southern European countries based on geographical proximity. They found out that higher financial literacy is associated with higher probability to participate in the stock market. Additionally, human capital (schooling years) and effectiveness of education (student-teacher ratio) are positively associated with stock market participation. Moreover, the financial attractiveness of the country also positively influenced the participation of workers in stocks.

Xia, Wang and Li (2014) examined the association between financial literacy overconfidence and stock market participation. Financial literacy overconfidence was measured by the difference between an individual's subjective and objective financial literacy scores. Data was from the 2012 China Center for Financial Research obtained from a nationwide online household consumption and finance survey. The researchers divided China into seven geographical regions and selected cities from each of these regions. In total, 24 cities across China were selected to be included in the survey. At the end, 3,122 valid samples were obtained. The results showed that financial literacy overconfidence is positively correlated with stock market participation. On the other hand, under-confidence is negatively correlated to stock market participation.

Murungi (2011) sought to find the relationship between awareness, trust and stock market efficiency in the Uganda securities market. The population included 63 employees from seven brokers, 20 employees and board members of CMA and 29 employees and board members from Uganda Securities Exchange (USE). The respondents were selected using

stratified sampling and simple random sampling. The population of 112 was divided into three categories, Capital Markets Authority, Uganda Securities Exchange and Brokers and consequently a sample of 80 was selected from the population through simple random sampling technique. A self administered questionnaire was used to collect data from the listed companies on the USE and market intermediaries. The findings revealed a strong positive correlation between awareness and trust among the investing public. The study also revealed a strong positive correlation between trust and stock market efficiency. Both awareness and trust had an impact on stock market efficiency but from the simultaneous multiple regression model the findings revealed that trust was a more important predictor of stock exchange performance. The study recommends the stepping of awareness campaigns and restructuring of the curricular to have stock market studies at A-level and to make incomes on stock trading tax free.

Rooij, Lusardi&Allesie (2017) sought to find the relationship between financial literacy and stock market participation in the Netherlands. The researchers used data from the 2015 De Nederlandsche Bank (DNB) Household Survey (DHS). The DHS is an annual household survey covering information about demographic and economic characteristics and focusing on wealth and saving data. The data set is representative of the Dutch population, and it contains over 2,000 households. Survey participants are interviewed via the internet. The questionnaire which was divided into two parts; basic and advanced financial literacy section was used to collect data from respondents. The study reported evidence of an independent effect of financial literacy on stock market participation: Those who have low financial literacy are significantly less likely to invest in stocks.

Wachira and Kihui (2012) conducted a study to establish the impact of financial literacy on access to financial services in Kenya using the 2009 National Financial Access (FinAccess) survey data. Using a multinomial logit approach to explain access the four major financial service access strands, the study found that financial literacy remains low in Kenya. Besides, regression results indicated that households' access to financial services is not based on levels of financial literacy but rather on factors such as income levels, distance from banks, age, marital status, gender, household size and level of education. However, the study established that the probability of a financially illiterate person remaining financial excluded is significantly high calling for increased investment in financial literacy programs to reverse the trend. The study recommended the development of a curriculum on financial education to be administered in local, middle level and higher learning institutions.

Almenberg and Dreber (2012) explored the link between the gender gap in stock market participation and financial literacy. They obtained data from the 2010 consumer survey conducted by the Swedish Financial Supervisory Authority. The participants constituted a random sample of 1,300 adults in Sweden aged 18-79, approximately representative of the Swedish population. The study showed that controlling for basic financial literacy, essentially a measure of numeracy that does not require knowledge about the stock market, may explain a large part of the gender gap in stock market participation. The researchers also found that women reported being less risk taking than men. In conclusion their results suggested that gender differences in financial literacy can explain a significant part of the gender gap in stock market participation.

Clement (2012) sought to investigate factors influencing investment decisions in equity stocks at the NSE among teachers in Kisumu. The study employed a descriptive survey design. A sample of 250 was selected. Data were collected using questionnaires and subsequently analyzed using descriptive statistics and factor analysis techniques. The study revealed that teachers in Kisumu Municipality had low financial literacy. Although many of them rate equity stocks as an investment just like others, a majority of them would prefer investing in other asset classes such as real estate. Only a small percentage (28%) of the study population had invested in the stock market. The results indicated that decisions to invest in equity stocks are influenced by economic and behavioral factors. The key economic factors influencing decisions to invest in equity stocks were found to be expected dividends, capital appreciation and affordability of shares. Among behavioral factors were herd behavior, depicted by decision to invest based on popular opinion or shares in high demand and friends and co-workers recommendation, and overconfidence depicted in the respondents belief that they are better than others; forming the basis of self attribution bias.

Njoroge (2013) investigated the relationship between financial literacy and entrepreneurial success in Nairobi County. The researcher interviewed a sample of 79 entrepreneurs who are registered and operate in Nairobi County. The samples were randomly picked from a population of 27,485 SMEs where questions in both financial literacy and SMEs success were asked. From the research findings, all the SMEs interviewed were found to have some level of financial literacy and on average most entrepreneurs scored well above average in financial literacy. Highly successful entrepreneurs scored highly in financial literacy and demonstrated high understanding of finance. In contrast, less successful entrepreneurs exhibited stagnant growth, and low level of financial literacy majority of who were found to be in informal sector.

This study concludes that there is a positive relationship between financial literacy and entrepreneurial success in Nairobi County. It further suggests that financial literacy plays a key role in SMEs success both in formal and informal sectors.

Onyango (2014) studied the effects of financial literacy on management of personal finances among employees of commercial banks in Kenya. Purposive sampling was used to select the major banks in Nairobi while simple random sampling technique was used to select 100 respondents from five commercial banks in Nairobi. A self-administered questionnaire was delivered to the respondents and collected after completion. The student t-test was used to examine the data with the objective of determining whether there is a significant relationship between financial literacy and personal financial management practices. The findings shows that most respondents had financial literacy acquired through training or work experience and that it affects personal financial management among the commercial banks in Kenya. The researcher also sought to establish effects of gender, age, level of education and specialization on personal financial management. In conclusion, the results indicated that financial literacy has a positive influence on personal financial practices.

Aroni (2014) studied the effects of financial information on investment in shares in Kenya. The main objective of this study was to examine the effect of financial information on investment in shares for Kenyan retail investors, applying the behavioral finance theory. Primary data was collected from 311 respondents randomly sampled from the population of 836,250 investors participating at the Nairobi Securities Exchange as at March, 2013. Data analysis was done applying descriptive and linear regression statistical data analysis. The results revealed that financial information variable had significant influence ( $p < 0.05$ ) on decisions to invest in shares. Acquiring financial information therefore has the potential to improve investors decision making resulting in improved overall portfolio performance. On formulating policy, he recommended that both the stock market regulators and financial advisers should make strategic frameworks to educate investors to improve their financial analysis knowledge, economic, and commercial skills as a means to encourage more participation in the securities markets.

## **2.4 Research gaps**

An examination of the literature revealed a number of research gaps.

A comprehensive reviews of the literature from diverse academic fields are needed to identify important theories and factors associated with financial behaviors for helping develop evidence-based financial education programs in relation to stock market participation improvement (Zingales 2005). These reviews should evaluate strengths and weaknesses of existing theories being applied and provide directions for developing new theories.

The other gap is that other relevant theories are need to be utilized to define desirable financial literacy effect on stock market participation by considering specific life-cycle stages, contexts, and macroeconomic environments (Weisbeener 2007). For example, is investing in stock market a desirable behavior for all age groups in all life-cycle stages so that it can be mobilized?

The other gap is related to the lack of consistency among researchers in how to define and measure stock market participation related program success. Significant differences across programs in core content, delivery methods, and target populations have resulted in considerable differences in the goals and objectives of these programs and what they are each trying to accomplish (Bertaut 1995). This makes it difficult for researchers to identify a common set of reliable measures (i.e., knowledge, attitude, and behavior indicators) that can be adequately validated in multiple settings. It also inhibits researchers' ability to make broad-based comparisons across programs. There is a need for researchers to develop a clear understanding of what it means to be "financially educated" in relation to stock market participation. In other words, what financial information and skills do consumers need to know in response to stock market participation? More research is also needed to better understand how financial education can be translated to improvements in knowledge retention and attitudes towards the stock market participation.

Finally, though other research have investigated the relationship between financial literacy and financial markets development, more research is needed to determine whether financial education alone is an effective tool to underpin the development of the financial markets sector. The researcher would therefore encourage the study on the other variables such as national economic liberalization, privatization, FDI promotion, economic integration, that can make contribution to the development of stock market participation(e.g., Kozup & Hogarth, 2008).



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter outlines the correlation and case study methods adopted in order to answer the research questions detailed in chapter one. It looks at the research design, research population, sampling techniques, data collection instruments and procedure of data collection, mode of data analysis and presentation as well as ethical consideration and limitations of the study.

#### **3.1 Research design**

In this study, the research has used the cross-sectional correlation research design. According to Best and Khan (1993), discovering the causal relationship is the key to correlation research.

#### **3.2 Population size**

Moonie, (2000) defines population as the entire group of persons having the same characteristics that are of interest to the researcher.

In our case, the population size was 86 retail investors on the ground (USE 2017 annual report).

#### **3.3 Sample size**

According to Best and Khan (1993:13) a sample refers to a small proportion of a population selected for observation and analysis. Simple random sampling (SRS) technique is the natural alternative. In this regard each element has an equal chance of being chosen.

The stock market industry in Uganda is still infant, where participants are still few, making a small population for this study. In addition, for the reason of lack of money, limited time, and nature of this study, the researcher could not take the whole population under this study. Thus, there was a need to select a sample of a specific number of respondents representing the total population.

Therefore, the target population of this study consisted of 71 individual stock market brokers as respondents in the study.

By using Slovene's formula

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

n= sample size.

N= population size.

e =level of significance.

In our case; population was 86 individuals.

$$n = 86 / 1 + (0.0025) = 71$$

### **3.4 Sampling procedure**

This study used convenience sampling to select the retail investors at Uganda Security Exchange. De Vos (1998) describes a convenience sampling procedure as the use of readily accessible persons in a study. As justification, the researcher preferred this procedure because of the complexity and the newness of the concept under investigation, where only dealers in stock markets were found to be familiar with terms used in questionnaires.

### **3.5 Data source**

This study used primary data source that was collected using questionnaires.

### **3.6 Data collection method**

In this study, data were collected using survey method. The researcher preferred using the method because it was effective for gathering descriptive data, relatively easy to administer, cost saving and time saving. The method was used to collect information about the educational techniques and especially media awareness techniques used as financial literacy towards stock markets participation.

### **3.7 Research Instruments**

#### **3.7.1 Questionnaire method**

Questionnaires are used to investigate attitudes, beliefs, feelings, opinions, knowledge and some aspects of behaviour (British Educational Research Association, 2006 - 2009 <http://www.bera.ac.uk/questionnaire/#use>). This method, if expertly designed, can give the researcher reliable data. Denscombe (1998) argues that the questionnaire works on the premise that if you want to find out something about people and their attitudes you simply go and ask them what you want to know, and get the information straight from the horse's mouth. Using questionnaires to collect data is a relatively quick way of gathering such information with relatively good response rates, in addition to preserving respondent confidentiality. In this respect the questionnaire were relying on intellectual and literacy competence of the respondents. The researcher never posted any questions but has physically distributed questionnaires. The researcher was concerned with views, opinion, perception and feelings from the environment. The sample size was not large, and given the time constraints and target population was literate and unlikely to have difficulties in responding to questionnaire items, questionnaire was ideal tool for collecting data.

#### **3.7.2 Validity**

To ensure the content validity, the researcher gave questionnaires to experts to judge the questions, after which a content validity index (CVI) was computed. The decision rule of the CVI is to accept an instrument as valid if the computed CVI is greater than 0.7 (Handinn, 2006).

In computing CVI, the researcher used the following formula:

CVI=Number of items declared valid over the total number of items(questions)

CVI=29/35=0.8 (82.8%)

Since the computed CVI was (0.82) is greater than 0.7, the instrument was declared valid.

### 3.7.3 Reliability

To ensure the content reliability, the researcher used Cronbach's Alpha to establish the reliability of the instrument. Similar to the CVI, an instrument was declared reliable if the Cronbach Alpha is greater than 0.7 (Handinn, 2006)

**Table 3. 1: Reliability testing**

<b>Variables tested</b>	<b>Number of items</b>	<b>Cronbach's results</b>
Financial literacy	28	0.813
Stock market participation	11	0.796
<b>Overall</b>	<b>39</b>	<b>0.804</b>

As presented in above table, there is high level of internal consistency between financial literacy and stock market participation, hence, indicating the high level of reliability of the instrument. This is because the average Cronbach alpha is greater than 0.7.

### 3.8 Data collection procedures

#### **Before the administration of the questionnaires**

1. An introduction letter was obtained from the School of Post Graduate Studies and Research for the researcher to solicit approval to conduct the study from potential respondents.
2. When approved, the researcher established and selected them using systematic random sampling from this list to arrive at the minimum sample size.
3. The respondents were explained about the study and were requested to sign the Informed Consent Form.
4. The researcher reproduced more than enough questionnaires for distribution.

#### **During the administration of the questionnaires**

1. The respondents were requested to answer completely and not to leave any part of the questionnaires unanswered.
2. The researcher emphasized on retrieving answered questionnaires within five days from the date of distribution.
3. On retrieval, all returned questionnaires were checked.

### **After the administration of the questionnaires**

The data gathered were recorded, encoded into the computer and statistically treated using the Statistical Package for Social Sciences ( SPSS).

### **3.9 Data Analysis**

During this process of data analysis, the researcher used frequencies and percentage distribution to analyze data on profile of respondent. Mean and standard deviation were used to determine the effect of financial literacy on stock market participation in Uganda. Items/respondents answer analysis helped to demonstrate strength and weakness of respondents' views on the financial literacy and stock market participation in Uganda.

The following numerical values and interpretation were used to interpret the respondents based on the mean score of each item or question;

**Table 3. 2: Likert table: for the level of financial literacy and stock market participation**

<b>Mean range.</b>	<b>Response mode.</b>	<b>Interpretation.</b>
3.26-4.00	Strongly agree.	Very high.
2.51-3.25	Agree.	High.
1.76-2.50	Disagree.	Low.
1.00-1.75	Strongly disagree.	Very low.

Range =High-Low/Low=4-1/4=0.75

The Pearson's linear correlation coefficient (PLCC) has been used to determine if there was a significant relationship between the level of financial literacy and stock market participation in Uganda.

The hypotheses were tested using the P-value.

The decision rule is to reject the null hypotheses if the P-value is less than 0.05

### **3.10 Ethical consideration**

To ensure confidentiality of the information provided by the respondents and to ascertain the practice of ethics in this study, the following activities were implemented by the researcher:

1. Seek permission to adopt the standardized questionnaire on capital market development through a written communication to the author.

2. The respondents were coded instead of reflecting the names.
3. Solicit permission through a written request to the concerned officials of the institutions included in the study.
4. Request the respondents to sign in the Informed Consent Form.
5. Acknowledge the authors quoted in this study and the author of the standardized instrument through citations and referencing.
6. Present the findings in a generalized manner.

## CHAPTER FOUR

### DATA PRESENTATION, INTERPRETATION AND ANALYSIS

#### 4.0 Introduction

This chapter presents, categorizes, interprets and analyses the data that was gathered using the questionnaire. A discussion of descriptive and inferential statistics was done. Data were collected from selected stock brokers.

#### 4.1 Response rate

**Table 4. 1: Respondents rate**

Questionnaires distributed	71
Questionnaires collected	58
Response rate	82%

Source: Primary data.

As indicated in a table above, 71 questionnaires were distributed and only 58 were collected, giving a rate of 82% of collected questionnaires. This was due to the low number of respondents as a result of the industry which is still young.

#### 4.1.1 Descriptive statistics of respondents

**Table 4. 2: Presentation of respondent's gender**

Category.	Classes.	Frequencies.	Percentage.
Gender	Males	45	77.5%
	Females	13	22.5%
	<b>Total</b>	<b>58</b>	<b>100</b>

Source: Primary data.

During the study, 58 questionnaires retrieved meaning the total number of returned questionnaires. 45/58 respondents were males, that is 77.5% of the respondents and 13/58 respondents were females, that is 22.5% of respondents. This creates an image of the extent to which men are more than women. This may be the consequence resulting from a majority of women who don't do their basic studies. In addition, women do not feel comfortable to work in this infant entrepreneurial sector. This requires efforts and incentives by government and different partners to bring more women on board participate in the growing financial sector and more specifically the stock market industry in Uganda.

**Table 4. 3: Presentation of respondent's age groups**

Category.	Age Classes.	Frequencies.	Percentages.
Age groups	Up to-20	0	0
	21-35	37	64.40
	36-55	21	35.60
	55 and above	0	0
TOTAL		58	100

Source: Primary data.

The table above shows that over 58 respondents, none of them is aged between of 20 years, 38 of them aged between 21 and 35 corresponding to 64.40%, then 21 of them are aged between 36 and 55 years old corresponding to 35.60%, and none of them is above 55 years old.

From the above summary, we can realize that most of the business organizations are not employing young generation as a major constituent of the future society and implication of this young generation can contribute a lot in promoting financial literacy and stock market participation by retailers investors.

**Table 4. 4: Presentation of respondents educational level**

Category	Classes	Frequencies	Percentages
Education level	Up to secondary school level	6	10.2
	Undergraduate	50	86.4
	Postgraduate	2	3.4
Total		58	100

Source: Primary data.

From the information in the table above, majority of respondents (50/58= 86.4%) in this study were having the level of undergraduate education. This brought the researcher to trusting the reality of what he was searching for, and there is a hope of the industry to develop in the future because of the skilled participants. On the other hand, out of 58 respondents, only 6 (10.2%) of them had an education level of up to secondary school. This low level of participation in the industry was connected to related financial and professional skills required for whoever wants to participate in the industry. Lastly, 2 (3.4%) respondents over the 58 were of postgraduate education level. The rationale advanced to



this handful rate was linked to the opinion that the sector seems to be informal following the irregular and instability of the markets as a major factor influencing the earnings to the participants.

#### **4.2 Statistical analysis of data**

The completed questionnaires were edited for completeness and consistency. Data collected were edited to ensure that it is correct and complete thus reducing biases, increasing the precision and achieving consistency.

Data was then analyzed using regression analysis and descriptive statistics. The results of analysis were visually displayed using graphs, frequency tables and charts.

A multiple regression model was applied to analyze the relationship between the various variables. It was also used to show how much variation in stock market participation could be explained by financial literacy. The model treats stock market participation as the dependent variable while the independent variables were the three dimensions of financial literacy namely; print media awareness, electronic media awareness and social media awareness.

The variables under study were analyzed by applying the following model;

$$Y' = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where:  $Y'$  = Stock market participation.

$a, b_1, b_2, b_3$  = constants

$X_1$  = Print media awareness

$X_2$  = Electronic media awareness

$X_3$  = Social media awareness

$e$  = error term

The model helps to better understand how financial literacy would explain the variation in the stock market participation. SPSS was used to generate both regression and descriptive statistics. The study assumed that the relationship between the independent and dependent variables is linear, all variables are multivariate normal and that independent variables are independent from each other.

#### 4.2.1 Analysis of effect of financial literacy variables on stock market participation

The research objective one was about investigating the effect of print, electronic and social media awareness on stock market participation. To find out this effect, the researcher used the percentage and ratios to calculate the extent to which respondents have rated the questionnaires items as shown below.

**Table 4. 5: Questionnaire on effect of print media awareness on stock market participation**

Questions	Strongly disagree	Disagree	Agree	Strongly agree
1. Is there awareness of stock market participation through news paper advertisements in Uganda?	3	14	11	32
2. Is stock market participation in Uganda promoted through articles publication?	36	10	10	4
3. Are brochures used to provide information on stock market participation in Uganda?	31	13	13	3
4. Are there billboards used to advertise the stock market participation in Uganda	29	12	15	4
5. Are factsheets used for education on stock market participation in Uganda?	28	7	18	7
6. Are annual reports on stock market participation in Uganda published?	5	19	13	13
7. Are promotional calendars used to disseminate information on stock market participation in Uganda?	34	16	10	2
8. Are promotional diaries containing the information on stock market participation distributed in Uganda?	31	14	11	4
9. Is there any magazine appropriate to promoting the stock market participation in Uganda?	26	21	8	5
10. Are stocks in Uganda published in news papers?	33	118	6	3
11. Are bond markets published in news papers?	35	13	7	5
<b>Mean</b>	<b>2.42</b>			
<b>Standard Deviation</b>	<b>0.365</b>			

Table 9 indicates that respondents agreed with the statement that print media awareness influences the participation in stock market at mean average of 2.42 which is equivalent to disagreeing with doubt according to the Likert scale, and this shows relatively low level of print media awareness on stock markets in Uganda.

**Table 4. 6: Relationship between print media awareness and stock market participation**

<b>Variables</b>	<b>Statistical tool</b>	<b>Dependent variable</b>	<b>X1</b>
Stock market participation	Pearson correlation	1	
	Sig. (2-tailed)		
	N	86	
Print media awareness (X1)	Pearson correlation	.621	1
	Sig. (2-tailed)	.001	
	N	86	86

Table 5 indicates that there was a significant relationship between print media awareness and stock market participation ( $R = .621$ ,  $P < 0.01$ ). This implies that effective use of print media awareness would improve the participation in stock market industry in Uganda.

**Table 4. 7: Questionnaire on effect of electronic media awareness on stock market participation**

<b>Question</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly agree</b>
12. Does USE have a website that provides information on stock market participation in Uganda?	26	21	9	4
13. Are there TV adverts that contribute to awareness of stock market participation in Uganda?	21	16	14	9
14. Are there radio adverts that provide information on stock market participation in Uganda?	28	20	7	5
15. Is there any radio programme that highlights awareness on stock market participation in Uganda?	32	13	11	4
16. Is there any TV show that provides information on stock market participation in Uganda?	33	15	6	6
17. In Uganda, are stocks advertised on TVs?	29	11	13	7
18. Are bond markets advertised on radios in Uganda	30	16	10	4
19. Are stocks in Uganda advertised on other websites?	27	12	14	7
20. Are bonds in Uganda advertised on TVs?	25	14	16	5
21. Are CDs containing information on stock market participation in Uganda distributed?	24	12	14	10
22. Are digital billboards used in Uganda to promote the stock market participation in Uganda?	33	10	12	5
<b>Mean</b>	<b>2.39</b>			
<b>Standard Deviation</b>	<b>0.138</b>			

Table above indicates that respondents agreed with the statement that electronic media awareness influences the participation in stock market at overall mean average of 2.39 which is the low level of stock market participation in Uganda according to the Likert scale, and this shows relatively low level of electronic media awareness on stock markets in Uganda.

**Table 4. 8: Relationship between electronic media awareness and stock market participation**

Variables	Statistical tool	Dependent variable	X1
Stock market participation	Pearson correlation	1	
	Sig. (2-tailed)		
	N	86	
Electronic media awareness (X1)	Pearson correlation	.525	1
	Sig. (2-tailed)	.001	
	N	86	86

Table 4.8 indicates that there was a significant relationship between electronic media awareness and stock market participation ( $R = .525$ ,  $P < 0.01$ ). This implies that effective use of electronic media awareness would improve the participation in stock market industry in Uganda.

**Table 4. 9: Questionnaire on effect of social media awareness on stock market participation**

Questions	Strongly disagree	Disagree	Agree	Strongly agree
23. Does USE uses a Facebook page that disseminates updates on stock markets participation in Uganda?	33	10	12	5
24. Is the Twitter used to promote the stock market participation in Uganda?	29	15	11	5
25. Are there social network clubs that are grouping stock markets promoters in Uganda?	27	11	15	7
26. Are advertisements of company listing in Uganda made through social media?	26	18	13	3
27. Are advertisements of new bonds and securities in Uganda made through social media?	19	16	15	9
28. Are listed companies on stock market in Uganda published through social media networks?	23	13	14	8
<b>Mean</b>	<b>2.51</b>			
<b>Standard Deviation</b>	<b>0.126</b>			

Table 4.9 above indicates that respondents agreed with the statement that social media awareness influences the participation in stock market at overall mean average of 2.51 which is the low level of stock market participation in Uganda according to the Likert scale, and this shows relatively low level of social media awareness on stock markets in Uganda.

Table indicates that 56.33% of the respondents agreed with the statement that social media awareness influences the participation in stock market, 38.5 % disagreed while 5.16% failed to reveal their position with the statement.

The highest agreement ratio (64%) in relation of effect of print social awareness on stock market participation revealed by respondents was the publication of listed companies through social media networks. The lowest agreement ratio (47%) in relation of effect of social media awareness on stock market participation was the creation of groups and clubs using social media networks as means of information sharing to improve awareness of stock market participation.

On the other hand, the highest disagreement ratio (52%) mentioned by respondents in relation to this statement of social media effect on stock market participation was the was the creation of groups and clubs using social media networks as means of raising awareness of this relatively new sector. The researcher found that the lowest disagreement ratio (23%) to this statement was the publication of listed companies through social media networks.

**Table 4. 10: Relationship between social media awareness and stock market participation**

Variables	Statistical tool	Dependent variable	X1
Stock market participation	Pearson correlation	1	
	Sig. (2-tailed)		
	N	86	
Social media awareness (X1)	Pearson correlation	.598	1
	Sig. (2-tailed)	.001	
	N	86	86

Table 4.10 above indicates that there was a significant relationship between social media awareness and stock market participation ( $R = .598$ ,  $P < 0.01$ ). This implies that effective use of social media awareness would improve the participation in stock market industry in Uganda.

### 4.3 Regression Analysis

In this study, a multiple regression analysis was conducted to test the influence among predictor variables (print media awareness, electronic media awareness and social media awareness). The research used statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions. The model summary is presented in the table below.

**Table 4. 11: Regression analysis model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1.	.819a	.671	.653	.37290

- a. Dependent Variable: stock market participation
- b. Independent Variables/ Predictors: Print media awareness, electronic media awareness, and social media awareness.

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variables. From the findings in the above table the value of adjusted R squared was 0.653; an indication that there was variation of 65.3 percent on Stock market participation due to changes in print media awareness, electronic media awareness, and social media awareness. This shows that 65.3 percent changes in stock market participation could be accounted to print media awareness, electronic media awareness, and social media awareness.

R is the correlation coefficient which shows the relationship between the study variables. From the findings shown in the table above is notable that there exists strong positive relationship between the study variables (financial literacy and stock market participation) as shown by 0.819

### ANOVA

The study further tested the significance of the model by use of ANOVA technique. The findings are tabulated in table below.

**Table 4. 12: Summary of One-Way ANOVA results**

Model	Sum of Squares	df	Mean Square	F	Sig.
1	3.772	4	.943	6.784	.000b
Residual	5.699	41	.139		
Total	9.471	45			

a. Dependent Variable: stock market participation

b. Predictors/ Independent variables; print media awareness, electronic media awareness, and social media awareness

From the ANOVA statistics, the study established the regression model had a significance level of 0.000% which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value was greater than the critical value ( $6.784 > 2.53$ ) an indication that print media awareness, electronic media awareness, and social media awareness all have a significant effect on stock market participation. The significance value was less than 0.05 indicating that the model was significant.

**Table 4. 13: Coefficients of Determination**

Model	Unstandardized coefficient		Standardized coefficient	T	Significance
	B	Standard error	Beta		
Constant (stock market participation)	.475	.177		2.688	.008
Print media	.250	.070	.166	3.571	.000
Electronic media	.128	.057	.096	2.245	.006
Social media	.184	.070	.236	2.615	.001



a. Dependent Variable: Stock market participation

The study adopted the following regression model

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

this becomes  $Y = 0.475 + 0.250(\text{Print media}) + 0.128(\text{Electronic media}) + 0.184(\text{Social media})$

From the above regression equation it was revealed that holding print media, electronic media and social media to a constant zero, the level of stock market participation among retail investors in Uganda would be at 0.475

The coefficient 0.250  $X_1$  denotes that if all other independent variables are rated as zero, a change of magnitude 0.250 in  $X_1$  (print media) lead to a unit change in  $Y$  (stock market participation). Similarly a change of magnitude 0.128 in electronic media, and 0.184 in social media, leads to a unit change in stock market participation.

The magnitudes of the coefficients of regression also show the strength of the influence and the nature of relationship between the variables. Therefore, there exists direct positive relationship between stock market participation and print media (coefficient 0.250), electronic media (coefficient 0.128), and social media (coefficient 0.184) among retail investors

The findings shows that social media has the highest influence on stock market participation among retail investors ( $p \text{ value} = 0.010$ ) followed by print media( $p \text{ value} = 0.015$ ) then electronic media ( $p \text{ value} = 0.026$ ). It was an implication that print media, electronic media, and social media all have positive influence on stock market participation among retail investors and vice versa.

The analysis was undertaken at 5% significance level. The criteria for comparing whether the predictor variables were significant in the model was through comparing the obtained probability value and  $\alpha = 0.05$ . If the probability value was less than  $\alpha$ , then the predictor variable was significant otherwise it was not. All the predictor variables were significant in the model as their probability values were less than  $\alpha = 0.05$ .

## CHAPTER FIVE

### DISCUSSION, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Discussion of findings

##### 5.1.1 Discussion on effect of print media awareness on stock market participation

According to statistical analysis, there was a significant relationship between print media awareness and stock market participation ( $R = .621$ ,  $P < 0.01$ ).

The finding is in agreement with Sindambiwe (2014), who investigated the effect of public awareness on capital market performance in Rwanda. This implies that effective use of print media awareness would improve the participation in stock market industry in Uganda.

##### 5.1.2 Findings on effect of electronic media awareness on stock market participation

According to statistical analysis, there was a significant relationship between electronic media awareness and stock market participation ( $R = .525$ ,  $P < 0.01$ ). The findings were similar to those of Opio (2012) in his study that examined the relationship between financial literacy and the influence of the factors that affect the investment decision by pension fund managers in Kenya. This implies that effective use of electronic media awareness would improve the participation in stock market industry in Uganda.

##### 5.1.3 Findings on effect of social media awareness on stock market participation

According to statistical analysis, there was a significant relationship between social media awareness and stock market participation ( $R = .621$ ,  $P < 0.01$ ).

These results were similar to those of Thomas and Spataro (2015) studied financial literacy, human capital and stock market participation in Europe. They found out that higher financial literacy is associated with higher probability to participate in the stock market.

This implies that effective use of social media awareness would improve the participation in stock market industry in Uganda.

Additionally, the findings for this study align with the study outcomes of Haliassos & Bertaut (1995), Christelis *et al.* (2010) and Lusardi & de Bassa Scheresberg (2013), all with a common view that without financial literacy, there will be a slow pace of stock market participation.

As a conclusion, all the hypotheses are rejected according to the degree of the level of significances in the relationship between financial literacy variables (print media with 0.15, electronic media with 0.026 and social media with 0.010) and stock market participation in Uganda.

## **5.2 Conclusions**

The findings reveal that there is a significant relationship between financial literacy and stock market participation in Uganda. therefore, the study, in alignment with its objective, has come out with following conclusions;

- There is a significant positive relationship between print media awareness and stock market participation in Uganda. This conclusion was supported by the results of statistical analysis of the study where ( $R = .621$ ,  $P < 0.01$ ).
- There is a significant positive relationship between electronic media awareness and stock market participation in Uganda. This conclusion was supported by the results of statistical analysis of the study where ( $R = .525$ ,  $P < 0.01$ ).
- There is a significant positive relationship between social media awareness and stock market participation in Uganda. This conclusion was supported by the results of statistical analysis of the study where ( $R = .598$ ,  $P < 0.01$ ).

Conclusion can be drawn that the financial literacy is a critical factor to be taken into consideration by the stock market industry in Uganda for its economic development.

## **5.3 Recommendations**

During this study, the researcher came up with solutions to the research questions based on the finding that is recommendations on what can be done to dress the analyzed situation.

According to findings, there is a low level of financial literacy and stock market participation in Uganda, and a significant relationship between two variables has been confirmed by the findings of this study.

Basing on the general frame of the findings, the researcher is proposing the recommendations to be applied on the following areas in stock market participation in Uganda.

### **5.3.1 Recommendations for developing the level of financial literacy**

Basing on the findings during this study, a number of elements was identified as factors of financial literacy that have left behind or not promoted by the stock market industry in Uganda. These factors need to be taken into consideration for increased participation in the industry. This should be done to bring responses to questionnaire particularly on questions relevant to financial literacy. The following suggestions are considered by the researcher;

1. Promotion of advertisement tools.

2. Changing the secondary education level curriculum to include financial literacy subject.
3. Creation and promotion of financial literacy-related social media technology.
4. Creation and maintenance of partnership with investors.
5. Trainings on legal and technical process in stock markets operations.

### **5.3.2 Recommendations for increasing the level of stock market participation**

During this study, the researcher found low level of stock market participation in Uganda. It has been approved by the respondents in their responses to questions relevant to stock market participation. Thus, suggesting provisional answers to those points will make the package of recommendations that should be used by the stock market industry in Uganda to be improved. The researcher suggests the following recommendations;

1. Favoring the retail investors by creating suitable investment climate by government.
2. Development of FDI promotion strategies.
3. Development of sustainable macroeconomic policies by government of Uganda.
4. Developing of incentives for listings.
5. Developing incentives for shareholders.

## **5.4 Area for further research**

Based on the gaps realized in the industry of stock market industry in Uganda, the researcher encourages the study on role of public awareness in developing the capital market in Uganda.

### **5.4.1 Research contribution to knowledge**

The findings from this research validate the hypothesis and the following contributions to knowledge are expected from it;

- The study provides a framework for the discussion on the subject of stock market sector development.
- Findings are also useful for planners and decision makers in different institutions dealing with stock markets.
- The findings and recommendations are useful to managers of these institutions avoiding relying on their hazardous personal experiences, or subjective expert

judgments or traditional way of decision making but on concrete knowledge supported by this study.

- The study finally will form a basic foundation and reference for further researches.

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**APPENDICES**  
**APPENDIX I A: TRANSMITTAL LETTER**

**OFFICE OF THE DEPUTY VICE CHANCELLOR (DVC)**  
**COLLEGE OF ECONOMICS AND MANAGEMENT**

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Dear Sir/Madam,

**RE: INTRODUCTION LETTER FOR MR. MINANI LEODEGARD REG. NO. MBA/37145/121/DU, TO CONDUCT RESEARCH IN YOUR INSTITUTION**

The above mentioned candidate is a bonafide student of Kampala International University pursuing a Masters Degree in Business Administration.

He is currently conducting a field research for her thesis entitled, *“Financial Literacy and Stock Market Participation by retail investors in Kampala-Uganda”*.

Your Institution has been identified as a valuable source of information pertaining to his research project. The purpose of this letter then is to request you to avail him with the pertinent information he may need.

Any data shared with him will be used for academic purposes only and shall be kept with utmost confidentiality.

Any assistance rendered to him will be highly appreciated.

Yours truly,

---

Novembrieta R. Sumil, Ph.D.  
Deputy Vice Chancellor, CHDR

## APPENDIX IB: TRANSMITTAL LETTER FOR THE RESPONDENTS

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Dear Sir/ Madam,

Greetings!

I am a Masters in Business Administration candidate of Kampala International University. Part of the requirements for the award is a thesis. My study is entitled, “***Financial Literacy and Stock Market Participation by retail investors in Kampala-Uganda***”

Within this context, may I request you to participate in this study by answering the questionnaires. Kindly do not leave any option unanswered. Any data you will provide shall be for academic purposes only and no information of such kind shall be disclosed to others.

Thanking you in advance for your cooperation.

Yours faithfully,

Minani Leodegard

## APPENDIX II: CLEARANCE FROM ETHICS COMMITTEE

Date \_\_\_\_\_

### Candidate's Data

Name: Minani Leodegard

Reg.#: MBA/37145/121/DU

Course : Master in Business Administration

Title of Study: *“Financial Literacy and Stock Market Participation by retail investors in Kampala-Uganda”*

### Ethical Review Checklist

**The study reviewed considered the following:**

- \_\_\_ Physical Safety of Human Subjects
- \_\_\_ Psychological Safety
- \_\_\_ Emotional Security
- \_\_\_ Privacy
- \_\_\_ Written Request for Author of Standardized Instrument
- \_\_\_ Coding of Questionnaires/Anonymity/Confidentiality
- \_\_\_ Permission to Conduct the Study
- \_\_\_ Informed Consent
- \_\_\_ Citations/Authors Recognized

### Results of Ethical Review

- \_\_\_ Approved
- \_\_\_ Conditional (to provide the Ethics Committee with corrections)
- \_\_\_ Disapproved/ Resubmit Proposal

### Ethics Committee (Name and Signature)

Chairperson \_\_\_\_\_

Members \_\_\_\_\_

### APPENDIX III: INFORMED CONSENT

I am giving my consent to be part of the research study of Mr. Minani Leodegard will focus on *“Financial Literacy and Stock Market Participation by retail investors in Kampala-Uganda”*

I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse participation and right to withdraw my participation anytime.

I have been informed that the research is voluntary and that the results will be given to me if I ask for it.

Initials:\_\_\_\_\_

Date\_\_\_\_\_

## **APPENDIX IV A: DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS**

**Respondent code.....**

Instructions; You will fill by ticking.

**Gender:**

☐ (1) Male

☐ (2) Female

**Qualifications under age groups:**

(1) Up to 20.....

(2) 21-35.....

(3) 36-55.....

(4) Above 55.....

**Qualifications Under Education Discipline:**

(1) Up to secondary school level\_\_\_\_\_

(2) Undergraduate level\_\_\_\_\_

(3) Post graduate level\_\_\_\_\_

## APPENDIX IV B: QUESTIONNAIRES

**Instruction:** As honestly as you can, indicate the extent to which there has been an improvement within financial literacy in relation to stock market participation by retail investors in Uganda as can be measured using below factors.

Tick the right number corresponding with each item key: 1= Strongly disagree, 2= Disagree, 3= Agree; 4= Strongly agree.

- Strongly agree= Agreeing without doubt
- Agree= Agreeing with doubt
- Disagree= Disagreeing with doubt
- Strongly disagree= Disagreeing without doubt

### Questionnaire on effect of print media awareness on stock market participation

1. Is there awareness of stock market participation through news paper advertisements in Uganda?	1	2	3	4
2. Is stock market participation in Uganda promoted through articles publication?	1	2	3	4
3. Are brochures used to provide information on stock market participation in Uganda?	1	2	3	4
4. Are there billboards used to advertise the stock market participation in Uganda	1	2	3	4
5. Are factsheets used for education on stock market participation in Uganda?	1	2	3	4
6. Are annual reports on stock market participation in Uganda published?	1	2	3	4
7. Are promotional calendars used to disseminate information on stock market participation in Uganda?	1	2	3	4
8. Are promotional diaries containing the information on stock market participation distributed in Uganda?	1	2	3	4
9. Is there any magazine appropriate to promoting the stock market participation in Uganda?	1	2	3	4

10. Are stocks in Uganda published in news papers?	1	2	3	4
11. Are bond markets published in news papers?	1	2	3	4

**Questionnaire on effect of electronic media awareness on stock market participation**

12. Does USE have a website that provides information on stock market participation in Uganda?	1	2	3	4
13. Are there TV adverts that contribute to awareness of stock market participation in Uganda?	1	2	3	4
14. Are there radio adverts that provide information on stock market participation in Uganda?	1	2	3	4
15. Is there any radio programme that highlights awareness on stock market participation in Uganda?	1	2	3	4
16. Is there any TV show that provides information on stock market participation in Uganda?	1	2	3	4
17. In Uganda, are stocks advertised on TVs?	1	2	3	4
18. Are bond markets advertised on radios in Uganda	1	2	3	4
19. Are stocks in Uganda advertised on other websites?	1	2	3	4
20. Are bonds in Uganda advertised on TVs?	1	2	3	4
21. Are CDs containing information on stock market participation in Uganda distributed?	1	2	3	4
22. Are digital billboards used in Uganda to promote the stock market participation in Uganda?	1	2	3	4

**Questionnaire on effect of social media awareness on stock market participation**

23. Does USE uses a Facebook page that disseminates updates on stock markets participation in Uganda?	1	2	3	4
24. Is the Twitter used to promote the stock market participation in Uganda?	1	2	3	4
25. Are there social network clubs that are grouping stock markets promoters in Uganda?	1	2	3	4
26. Are advertisements of company listing in Uganda made through social media?	1	2	3	4
27. Are advertisements of new bonds and securities in Uganda made through social media?	1	2	3	4
28. Are listed companies on stock market in Uganda published through social media networks?	1	2	3	4

Thank you very much for your contribution