MAKERERE UNIVERSITY

MAKERERE UNIVERSITY BUSINESS SCHOOL

FINANCIAL LITERACY, SELF-EFFICACY AND STOCK MARKETS PARTICIPATION: A CASE OF UGANDA SECURITIES EXCHANGE

BY

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2017/HD10/1681U

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A DISSERTATION SUBMITTED TO MAKERERE UNIVERSITY BUSINESS SCHOOL (FACULTY OF GRADUATE STUDIES AND RESEARCH) IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A DEGREE OF MASTER OF BUSINESS ADMINISTRATION OF MAKERERE UNIVERSITY

MARCH 2021

PLAN A

DECLARATON

I, **NANKONZI JANET,** declare that this dissertation is truly my original work and has never been submitted any time for the award of the degree in any University.

Signed ....

Date. 10 /March /2022

NANKONZI JANET

APPROVAL

This is to certify that this dissertation has been submitted as a partial fulfilment of the requirement for the award of Master of Business Administration of Makerere University, with our approval as University Supervisors.

Signed ....

Dr. Isaac Newton Kayongo

Date ..10/3/2022..................

Signed..............................

Mr. Okumu Moses

Date...10/3/2022..................

DEDICATION

I dedicate this dissertation to my loving husband and the entire family for the unending support they have rendered to me in all possible ways to make this research work a successful one.

ACKNOWLEDGEMENT

Firstly, glory and honour be to the Lord God for the gift of life during the period of this research project.

Special thanks and gratitude go to my family for especially encouraging and motivating me in various ways throughout my academic journey.

Gratitude goes to the management of the firms and the entire sample population for having granted me the opportunity to carry out my research from there.

In a special way, I express heartfelt gratitude to my supervisors, Dr. Isaac Newton Kayongo and Mr. Okumu Moses, for the guidance rendered to me during the preparation of this dissertation and I sincerely appreciate the time you spared to guide me during this intensive work.

May God richly bless you all!

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LIST OF ABBREVIATIONS

AMC: Domestic Asset Management Companies

CMA: Capital Markets Authority

CVI: Content Validity Index

IPO: Initial Public Offering

KACITA: Kampala City Traders Association

SPSS: Statistical Package for Social Scientists

UBOS: Uganda Bureau of Statistics

USE: Uganda Securities Exchange

ABSTRACT

The study sought to examine the relationship between financial literacy, self-efficacy and stock markets participation at the Uganda Securities Exchange. Particularly, it focused on examining the relationship between financial literacy and stock markets participation, the relationship between self-efficacy and stock markets participation and the effect of financial literacy and self-efficacy on stock markets participation in Uganda.

The study used a cross sectional research design, which followed a quantitative research approach. The population for the study comprised 160 individuals sourced from stock markets participants such as stock brokerage firms, master's students and businessmen in Kampala. The sample consisted of 113 respondents. This study employed simple random sampling, purposive sampling, and convenience sampling techniques to select the sample. Data was collected through questionnaire survey. Some supplementary interviews were conducted. Documented information supplemented the primary data. The collected data was analysed through SPSS.

The findings revealed that there was a high significant positive relationship between financial literacy and stock markets participation. The study further found that the relationship between self-efficacy and stock markets participation was significantly positive where by the change in self-efficacy significantly leads to a change in one's participation in the stock market. The findings also disclosed that financial literacy and self-efficacy had a positive effect on stock markets participation. It was thus discovered that possessing the requisite financial knowledge supplemented by the mediating effect of self-efficacy behavioural mechanisms induces and maintains the investment made in purchasing shares of publicly listed companies. As a key recommendation, there should be financial counsellors to instil notions of financial literacy and self-efficacy right from an individual's early age in order to drive stock market investments.

1.0 INTRODUCTION

1.1 Background of the study

Globally, individuals seek to build their wealth and welfare by investing in stocks (Cocco, Gomes, and Maenhout, 2005). Stock market participation is the issuance of new shares and raising funds through the public stock market (Dariusz, 2008). However, considerable variances exist in stock market participation rates such as those between European countries (Guiso, Haliassos, and Jappelli, 2003). In a study conducted in Sweden, variances in stock market participation in Europe were attributed to financial literacy and individual characteristics such as age, gender, wealth, risk aversion, and education (Almenberg and Dreber, 2015). However, emerging economies like India have low stock participation in equity markets despite high savings rates and forward-looking regulations due to limited awareness and knowledge about financial markets (Guiso and Sodini, 2013).

Financial literacy is the education and understanding of various financial areas including topics related to managing personal finance, money and investing (Mandell & Klein, 2009). Financial knowledge is vital before investing in the stock market. While the understanding of basic economic concepts related to inflation and interest rate compounding is far from perfect, it outperforms the limited knowledge of stocks and bonds, the concept of risk diversification, and the working of financial markets (Rooij, Lusardi, & Alessie, 2011). This provides evidence for limited financial knowledge, which affects stock market participation. Precisely, those who have low financial literacy are significantly less likely to invest in stocks.

Self-efficacy is an individual's belief in their innate ability to achieve goals (Bandura, 2005). In other words, self-efficacy is a personal judgment of how well one can execute courses of action required for dealing with prospective situations. According to Bryant & Oliver (2009), self-efficacy relates to what is expected to determine whether an individual will be able to exhibit coping behaviour in the face of obstacles and how long this behaviour will be sustained. Although literature associates self-efficacy with stock market participation, participation rates still are considerably low especially in subsarahan African nations like Ghana (Kannyiri and Nkuah, 2016). Yet, acccording to Bryant & Oliver (2009), individuals with higher self-efficacy are believed to be better at coping with the anxiety of experiencing a financial loss that would limit the investment performance of less confident investors.

Furthermore, academic literature discusses the linkage between financial literacy, self-efficacy and stock markets participation. Hong, Kubik, and Stein (2004) report that self-efficacy significantly matters for stock market participation while Brown, Ivković, Smith, and Weisbenner (2008) show a positive relation between stock market participation and individual characteristics and ability to participate in the stock market. Since such individual factors include self-efficacy and financial literacy, they turn out to be important in making the stock market participation decision. Despite so, there are still remains underlying issues with stock market participation particularly in Uganda. Acccording to Bulere (2015), Uganda's stock markets participation is still nascent and small arguing that the private sector has very limited awareness about listing on the stock market. Other researchers like Maghanga and Quisenberry (2015) add that the ability of investors to mobilise resources and the investment traits need to buy stocks accounts for low stock markets participaton in Uganda. Therefore, the problem with limited stock participation and non-participation in Uganda majorly lies with low financial literacy and limited levels of self-efficacy. This resulted into the quest of this research which was to examine the relationship between financial literacy, self-efficacy and stock markets participation.

1.2 Statement of the problem

Despite continuous efforts like financial markets' education to increase stock participation on the Uganda Securities Exchange (USE), in recent years there has been a low rate of market capitalization through stock (USE Report, 2019). Yet, even with the steady influx of foreign and regional participation in the stock market, there are only a measly 9 domestic companies listed on the Uganda Securities Exchange and 8 cross-listed regional entities as of January 2021 (Capital Markets Authority Report, 2021). Worse still, the few stock markets participants on the USE are characterized by inactivity and less vibrancy as portrayed in the significantly low average turnover levels. This simply depicts that there are few individuals who buy shares in these public listed companies at USE. For instance, USE has a daily average turnover of approximately UGX 635.9m (USE Bulletin, 2020). The low participation in Uganda could be arising not only from financial literacy (Amatucci & Crawley, 2011), but also self-efficacy amongst would-be participants who have varying individual beliefs in their capabilities to invest in the stock market (Bandura, 2006). Consequently, among the various East African Countries, the Nairobi Securities Exchange comprises 66 listed companies with a daily trading volume of approximately USD 10 million while Dar es Salaam Stock Exchange has 24 listed companies with a daily trading turnover of Tsh2.1billion (Market Screener Report, 2021). This has made the Uganda Securities Exchange one of the lowest in participation in the region.

1.3 Purpose of the study

The study sought to examine the relationship between financial literacy, self-efficacy and stock markets participation at the Uganda Securities Exchange.

1.4 Objectives of the Study

This study was guided by the following objectives:

i. To examine the relationship between financial literacy and stock markets participation in Uganda.

ii. To evaluate the relationship between self-efficacy and stock markets participation in Uganda.

iii. To assess the effect of financial literacy and self-efficacy on stock markets participation in Uganda.

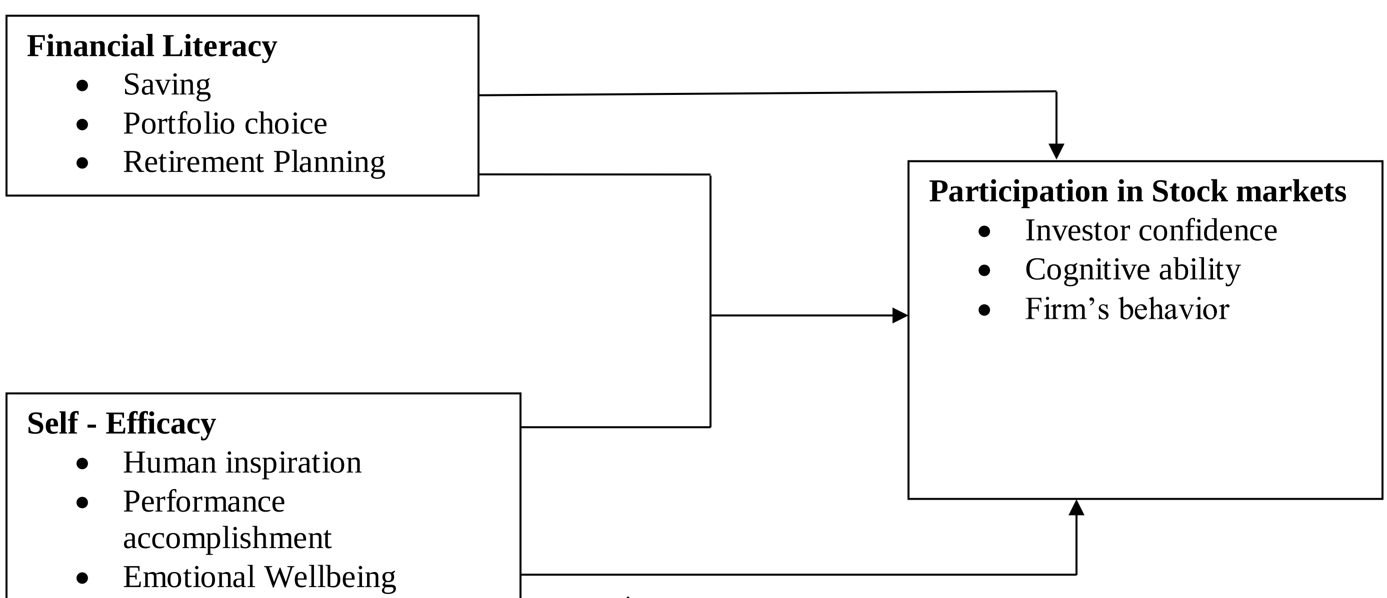
1.5 Research questions

i. What is the relationship between financial literacy and stock markets participation in Uganda?

ii. What is the relationship between self-efficacy and stock markets participation in Uganda?

iii. What is the effect of financial literacy and self-efficacy on stock markets participation in Uganda?

1.6 The conceptual framework:



Source: Adapted with modifications from Bandura (2006)

As demonstrated in the conceptual framework above, it is perceived that financial literacy and self-efficacy have an influential outcome on stock market participation. According to Bandura (2006), self-efficacy with its related constructs acts in concert with financial literacy to influence such financial decisions as investment, and this includes investing in the stock markets. This is supported by Sivaramakrishnan et al. (2018) who found in their study on the implications of financial literacy and attitudinal factors on stock market participation, that there exists a relationship between financial literacy, self-efficacy and stock markets participation. In the current study, stock market participation is measured in terms of investor confidence, cognitive ability and firms' behaviour as the dependent variable. The independent variables are financial literacy, which includes saving, portfolio choice, retirement planning, and self-efficacy, which involves human inspiration, performance accomplishment, and emotional wellbeing.

The financial literacy measures can be justified basing on the premise that the level of basic financial knowledge an individual has determines their ability to access, use financial products or services, and thus undertake financial decisions such as saving, portfolio investments and retirement planning (Amatucci & Crawley, 2011). On the other hand, the above self-efficacy measures are justified on the ground that an individual's belief in his or her capabilities to exercise control over their own functioning and over events that affect their lives is founded on the individual's sense of motivation or human inspiration, wellbeing (emotionally), and personal accomplishment (Bandura, 2006).

1.7 Scope of the study

1.7.1 Content Scope

This research studied three variables; financial literacy, self-efficacy and stock markets participation. Stock markets participation was the dependent variable while financial literacy and self-efficacy was the independent variables. Emphasis was laid on the relationship between financial literacy, self-efficacy and stock market participation on the Uganda securities exchange. Financial literacy entailed financial knowledge, awareness and background; self-efficacy necessitated human inspiration, performance accomplishment and emotional wellbeing while stock markets participation was looked at in terms of investor confidence, cognitive ability and firms' behaviour.

1.7.2 Geographical Scope

The study was carried out in Kampala because all the firms listed on the Uganda Securities Exchange have their head offices in Kampala.

1.7.3 Time scope

Data for this study was collected between June and July 2021 giving a time span of two months. This was dictated by the cross-sectional research design applied in this research, which gathers data at a particular point in time. Literature to facilitate the study ranged from the period of 2000 to 2020 except for theoretical studies that have earlier dates.

1.8 Operational definitions of key terms

Stock market participation; It refers to individuals or entities investing resources in stocks or securities quoted on a stock exchange.

Financial literacy; in this study, financial literacy is conceived as the understanding and knowledge of personal financial concepts.

Self-efficacy; refers to an individual's beliefs in their capabilities to produce desired effects by their own actions.

Stock; this refers to securities that represent an ownership share in a company.

1.9 Significance of the study

i) Firstly, conducting this study will enable the researcher to obtain a Master's degree in Business Administration, since the research is a partial fulfillment of academic requirements.

ii) This study will provide insight to business owners on how to establish a measure of financial competence, i.e. to stay knowledgeable about financial matters.

iii) The study results on financial literacy and self-efficacy will be helpful to prospective stock market participants in their decision-making process to invest in public stock.

iv) By gaining understanding of the reasons for low stock markets participation, organizations will align themselves with tools that ensure success in stock participation.

v) This study will act as a reference point to other researchers in the same field who may cite it in their own literature review.

vi) The study will add to the existing body of knowledge and stimulate further research on different programs for financial literacy to be adopted by firms as they operate in a very dynamic and competitive business environment.

vii) The study will aid the Uganda Stock Exchange to rethink the methods of imparting financial literacy and awareness to a wider section of the public in order to stimulate more participation.

2.0 LITERATURE REVIEW

2.1 Theoretical review

This study is anchored on some theories, which are models to understand financial literacy, self-efficacy and stock market participation.

2.1.1 Theory of social cognition

Albert Bandura pioneered social cognition theory in 1977. Social cognitive theory (SCT) suggests that a research can understand and predict individual and group behaviours and can also identify methods in which behaviours can be slightly modified or changed completely. Bandura's self-efficacy theory (1977) proposes a theoretical connection between cognitive processes and behavioural change. The term itself refers to an individual's perception of his or her capabilities to engage in behaviour that can influence his or her circumstances and produce a desired effect or outcome (Bandura,1989). In regard to stock markets participation, the theory suggests that stock markets can be influenced by self-efficacy. Albert Bandura's self-efficacy construct (Bandura,1977) is a component of his theory of social cognition (Bandura, 1988).

It is the individuals' belief that they can achieve a specific action within a given context, based on their motivation and cognitive resources. Tory (1987) believes that an individual can influence the situation and produce an outcome that makes a difference; it is believed that the stronger this belief is for an individual, the more likely they will be morally courageous. Households with higher levels of self-esteem are likely to derive greater utility from evaluating their investment choices by focusing on the positive outcomes rather than the risks (Swarnankur, Michael, & Nathaniel, 2009). The reduced psychic cost of investing in more complex instruments with higher expected yield and greater risk should have an impact on wealth creation over time (Tory, 1987).

2.1.2 Theory of Planned Behaviour

Theory of Planned Behaviour (TPB) can also be used to explain the behaviour of individuals participating in stock markets. According to the theory, communication among consumers affects their cognitive, affective, and behavioural attitudes (Ward, 1974). The theory suggests that unlike many consumer products, savings and investments decisions are not made on impulse. This implies that the individuals who in this case can be investors undertake extensive thought and contemplation before making investment decisions, making the Theory of Planned Behaviour suitable to be part of the theoretical framework of this study. Therefore, such as theory is incompatible with behaviours that are involuntary or are driven by social norms and conventions such as opening a savings account or compelled by prior commitments for instance the purchase of safety helmets where little thought is involved (East, 1993).

According to the theory, a person's behaviour is the first and main factor and this refers to the degree to which a person has a favourable or unfavourable evaluation of the behaviour in question. Social factor is the second factor and it refers to the perceived social pressure to perform or not to perform the behaviour. The third factor is perceived behavioural control (PBC), which refers to the sense of self-efficacy or ability to perform the behaviour of interest. According to Churchill, Jr. and Moschis (1979), consumers can learn consumption-related skills, knowledge, and attitudes in the marketplace through socialization. The theory explains consumer learning processes and how people perform their roles as consumers in society (Churchill, Jr. and Moschis, 1979). Consequently, consumer behaviours or attitudes tend to result from learning acquired through interactions between the consumer and socialization agents, and not mere impulse or force (de Gregorio and Sung, 2010; Moschis and Churchill, Jr., 1978). Basing on this theory, stock markets participation can be influenced by social and individual factors that influence investor behaviour.

2.2 Stock market participation

Stock market participation is the issuance of new shares and raising funds through the public stock market (Dariusz, 2008). In this study, stock market participation refers to individuals or entities investing resources in stocks / securities quoted on a stock exchange. Stock market participation involves selling shares on the primary and secondary stock market. The stock market, which is the market for the trading of corporate stocks, has several players ranging from the companies who issue the shares to the companies and individuals who buy these shares (Brealey and Myers, 2003). The primary market is one in which companies issue new securities on an exchange to raise capital in form of initial public offerings. Primary stock markets are facilitated by underwriting groups, which consist of investment banks that will set a beginning price range for a given security and then oversee their sales directly to investors. The secondary stock market is one in which shareholders can resell their shares to other interested buyers on the stock exchange or over-the-counter market (Adelegan, 2008). According to Karolyi (2004), most studies measure stock market participation in terms of market capitalization and volume of trade. Accordingly, companies participating in stock markets are those publicly listed or quoted and traded on the stock market.

The participants in stock markets stand to gain most importantly an economic outcome. For instance, there can be substantial welfare gain from participating in the stock market, as exposure to equities, and hence to the equity premium, may be an important determinant of the long-run return to individual savings (Cocco et al., 2005). Although stock market participation simply involves whether the investor invests in the stock market, the level of equity holding in an investor's portfolio on the stock market is also an equally important outcome. Cocco et al. (2005) assert that an investor with very low equity holding is not likely to reap the benefits of investing in stocks. This study is concerned with stock markets participation through investing in the stock markets (both directly through stockbrokers or indirectly through mutual funds) and through the levels of equity holding (both direct and indirect) in an investor's savings portfolio.

It is a striking fact that most households own no equities. Mankiw and Zeldes (1991) appear to be the first to document, using PSID data that in 1984 only 24% of US households owned equities. This is because the fraction of households owning stocks increases with average labour income and education, thus lending some support to the presence of fixed information costs. Mankiw and Zeldes (1991) also document a significant difference in the consumption patterns of stockholders versus non-stockholders: in particular, the aggregate consumption of stockholders is more highly correlated with the equity risk premium than is the aggregate consumption of non-stockholders and is more volatile. This phenomenon, known as limited participation, has received considerable attention in the theoretical asset pricing literature (Basak & Cuoco, 1998).

Inconsistent with a representative agent model, limited participation may be potentially responsible for the high equity premium, as argued by Constantinides, Donaldson and Mehra, 2002. Polkovnichenko (2004) constructed a model to show that risk sharing restrictions imposed by limited stock market participation do not imply a high equity premium. The model has a structure similar to other limited participation studies. It has two agents, a representative stockholder and non-stockholder. A distinct feature of the model is that both agents derive a significant fraction of their endowments from labour income. It is a common assumption in the limited participation literature that stockholders' consumption is largely restricted to income from dividends, perhaps even leveraged dividends (Davis & Willen, 1998).

Overall, stock market participation in this study means individuals or entities owning shares in a company listed on a stock exchange. In other words, it refers to household ownership of any shares in publicly listed companies. The participation in stock markets can be made through the primary market and secondary market. However, most of the exchange trading happens in the secondary market especially for individual investors in the “stock market”.

As earlier demonstrated in the conceptual framework, participation in stock markets in stocks is implied by constructs such as investor confidence, cognitive ability and firm’s behaviour.

2.2.1 Investor confidence

Investor confidence is investor confidence as investors’ willingness to engage in the investment opportunities and associated intermediation channels available to them based on their perception of risk and return (State Street Investor Confidence Index, 2016). This study analyses investor confidence through two components. The first component is called “investor optimism,” meaning investors’ perception of “fundamental” risk and the second component is expected return, i.e., the risk and return inherent to securities issued by corporations and other entities. This can include repayment risks associated with intermediaries and the issuing entities. This implies that investor confidence also consists of the ability of investors and their advisors to make rational investment decisions, i.e., those that result in optimal benefit to investors.

2.2.2 Cognitive ability

In the last decade, researchers have linked psychological factors like cognitive abilities with stock market participation (Christelis et al., 2010). Furthermore, the literature has shown that cognitive ability essentially influences stock market participation, for instance, high financial literacy and a person’s intelligence quotient. According to Lapp (2010), a higher financial self-efficacy level presented in terms of cognitive ability leads to less financial problems. Consequently, cognitively gifted individuals are less likely to display behaviours associated with high risk aversion or impatience, such as low levels of asset accumulation, obesity, smoking and low levels of financial market participation (Benjamin et al., 2006). Therefore, this implies that cognitive abilities like financial awareness, financial literacy, and IQ (intelligence quotient) can enhance the existing body of knowledge can affect stock markets participation.

2.2.3 Firm's behaviour

Some few micro-oriented studies have started concentrating on firm behaviour as a determinant for stock markets participation. Firm's behaviour is defined as an examination of the inner motives and direction of firms, using a range of models and different assumptions about those who work in a firm (Behavioural Economics Report, 2017). These behaviours can range from size of a firm/prestige, profit satisficing, co-operative/ethical concerns, and human emotion/bias among others. For instance, for most firms the objective is to maximize profits while avoiding illiquidity. Hence, unlike households or individuals, the firms in this case do not participate in stock markets based on a preference set but instead strive to position themselves optimally within a system of constraints.

2.2.3.1 Stock market participation participants and facilitators

Stock market participants and facilitators can be classified into companies, investors and traders, stockbrokers, stock exchanges, financial intermediaries as well as the regulators. A description of each of these categories and how it participates in the stock market is discussed below.

Companies; Companies operating in the various sectors and industries can participate in the stock markets by filing an Initial Public Offering (IPO) and in that way become listed on the stock exchanges. A company uses the money raised from its IPO to expand the business or to meet the working capital requirements (Nanduri, 2018). However, financial literacy plays the key role in influencing a firm to invest in the stock market. Financial literacy helps in information processing and decision-making for instance by providing knowledge regarding shares as a financial product. In other words, financial literacy is what a company must know in order to make important financial decisions in their own best interest. According to Lusardi et al. (2011), financial literacy provides knowledge of basic financial investment concepts such as inflation and risk diversification and the capacity to do calculations related to interest rates, which is all vital when a company wants to invest in stock or puts list its shares publicly. Additionally, financial literacy helps these firms to seek and understand advice from the middlemen or intermediaries who help them to make decisions to invest. On the other hand, self-efficacy such as the confidence firms have in their capabilities enhances or limits their ability to put up shares publicly for investment or even invest such shares (Forbes & Kara, 2010).

Investors; In simple terms, investors are individuals or firms who take decisions to buy stock. The stock market attracts individuals and corporations from diverse backgrounds who transact in stocks or shares. While investors typically hold their investment(s) for a long-term, those who invest for short time gains are called speculators. Thus, traders are individuals or firms who buy and sell the shares for a profit. Generally, investors can take the form of domestic participants and foreign institutional investors. Domestic Participants can be individual participants of the country who are transacting in the stock markets as well as domestic institutions, which also refer to institutional investors, who undertake investment in securities, and other financial assets of the country they are based in (Nanduri, 2018). Additionally, these domestic investors can Domestic Asset Management Companies (AMC). An AMC is a company that invests funds collected from its clients into securities that match declared financial objective. Examples would be the mutual fund companies. An investor with very low financial knowledge may make a poor decision about the equity holding and is thus not likely to reap the benefits of investing in stocks, hence the relevance of financial literacy (Mandell, 2006). Similarly, through self-efficacy exhibited in form of self-confidence, belief in one capabilities and emotional wellbeing, investors are able to make optimal decisions when buying shares in public listed companies (Chen, 2014).

Stockbrokers; The stockbroker is probably one of the most important financial intermediaries that you need to know. A stockbroker or share broker is registered as a trading member with the stock exchange and holds a stock broking license. A stockbroker buys and sells stocks and other securities for both retail and institutional clients through a stock exchange or over the counter in return for a fee or commission. Stockbrokers are usually associated with a brokerage firm or broker-dealer. Stockbrokers include Full-Service Brokers, Discount Brokers and Direct Access Brokers (Nanduri, 2018). In this instance, financial literacy provides stock brokers with objective measures and comparable financial data of the real world on which to evaluate conditions on the stock market, for example how certain financial conditions are perceived and also how they affect individuals and families who may intend to invest in the stock market (Guiso and Sodini, 2013). On top of this, a report by State Street Investor Confidence Index (2016) notes that self-efficacy gives stock brokers the confidence to make rational investment decisions, which yields optimal benefits to investors.

Regulators; In Uganda, the stock market regulator is called Capital Markets Authority (CMA), which is the statutory body responsible for regulating and promoting the development of capital markets in Uganda (CMA Report, 2020). In addition, Uganda Securities Exchange (USE) directly regulates stock exchanges listed on it, since USE is a “first tier regulator”, having direct oversight over the listed entities and member firms, on behalf of the CMA as a self-regulatory organization. Pursuant to that, the USE enacts its own regulation that governs listing of securities and membership of brokerage firms as well as conduct of trading through its automated trading system (USE 2019).

Financial Intermediaries; Financial Intermediaries play their role quietly behind the scenes; always complying with the rules laid out by USE and ensure an effortless and smooth experience for your transactions in the stock market. Together, these financial intermediaries, interdependent of one another, create an ecosystem in which the financial markets exist.

Depository and Depository Participants; When you buy a share the only way to claim your ownership is by producing your share certificate. A share certificate is a piece of document entitling you as the owner of the shares in a company (Nanduri, 2018). Depositories, generally, hold securities certificates for their participants, transfer positions between participants, and maintain ownership records.

Clearing Corporations; The clearing corporation ensure guaranteed settlement of your trades i.e. it identifies the buyer and seller and match the debit and credit process. The clearing corporations are heavily regulated, and they work towards smooth settlement, and efficient clearing activity.

Banks; banks facilitate funds transfer from your bank account to your trading account and vice versa. However, your bank account must be linked to your trading account to do so.

Stock Exchanges; A stock exchange or securities exchange, is an organization that facilitates listed stockbrokers and traders can buy and sell securities. Stock exchanges may also provide for facilities the issue and redemption of such securities and instruments and capital events including the payment of income and dividends. Securities exchanges are markets where securities are bought and sold (Nanduri, 2018). Currently, there are fifteen securities exchanges registered with the SEC as national securities exchanges, including NYSE Euronext, NASDAQ, The Chicago Board Options Exchange, and BATS Exchange. Securities Exchanges are also SROs. Securities traded on a stock exchange include stock issued by listed companies, unit trusts, derivatives, pooled investment products and bonds. In Uganda, the stock exchange is USE. The Uganda Securities Exchange (USE) was established in 1997 as a company limited by guarantee and was licensed in 1998 by the Capital Markets Authority to operate as an approved securities exchange. The Exchange is a central place for trading of securities by licensed brokers/dealers. It provides a credible platform for rising of capital; through the issuance of appropriate debt, equity and other instruments to the investing public. In this way, the Exchange provides essential facilities for the private sector and government to raise money for business expansion and enables the public to own shares in companies listed on the Exchange.

Credit Rating Agencies; Credit Rating Agencies provide opinions on the creditworthiness of a company or security. They indicate the credit quality by means of a grade. Generally, credit ratings distinguish between investment grade and non-investment grade. For example, a credit rating agency may assign a "triple A" credit rating as its top "investment grade" rating, and a "double B" credit rating or below for "non-investment grade" or "high-yield" corporate bonds. Credit rating agencies registered as such are known as “Nationally Recognized Statistical Rating Organizations” (SEC, 2018).

Investment Advisers; Investment advisers are persons or firms that are in the business of providing investment advice to investors or issuing reports or analyses regarding securities. They do these activities for compensation.

Transfer Agents; Transfer agents record changes of security ownership, maintain the issuer's security holder records, cancel and issue certificates, and distribute dividends. Transfer agents stand between issuing companies and security holders. Transfer agents are required to be registered, or if the transfer agent is a bank, with a bank regulatory agency (SEC, 2018). The intent is to facilitate the prompt and accurate clearance and settlement of securities transactions and assure the safeguarding of securities and funds.

2.3 Financial literacy

Financial literacy refers to as information, awareness, and knowledge of the people about financial products, institutions, and terms related to everyday decision making like interest rate, inflation, savings, borrowings, risk, return, etc.; and practical know how about financial products and terms (Lusardi & Mitchell, 2011; World Bank, 2013). On the other hand, OECD-INFE (2016) describes financial literacy as a "combination of awareness, knowledge, skill, attitude, and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing." In simple terms, financial literacy is what people must know in order to make important financial decisions in their own best interest (Mandell, 2006). Additionally, Lusardi et al. (2011) defined financial literacy as the knowledge of basic financial investment concepts such as inflation and risk diversification and the capacity to do calculations related to interest rates. Moreover, financial literacy is at times also referred to as Financial Numeracy (Huhmann and McQuitty, 2009). In this study, financial literacy is conceived as the understanding and knowledge of personal financial concepts.

Therefore, a financially literate person is who has enough knowledge and skills to make the best and most suitable decisions depending on one's financial circumstances. Nevetheless, there should be continutity in improving these skills and also being open to change and continuous growth on learning about the fundamentals as well as the constantly evolving landscape of finance. Simply said, a financially literate person has basic understanding of finances and a grasp on the value of money. a financillay literate persons is able to carry out personal financial management, budgeting, and investing. Short of these key components, the person is financially illiterate. The financial illitrate generally lacks the skills and knowledge on financial matters to confidently take effective action that best fulfills an individual's personal, family and global community goals (National Financial Educators Council, 2020). In otherwords, the financially illiterate individual lacks the ability to make informed judgments and to take effective decisions regarding the use and management of money.

Lusardi and Mitchell (2007) suggest that financial literacy is required to establish a measure of financial competence, i.e.to stay knowledgeable about financial matters. Literate people are more likely to participate in financial markets because they know financial matters. Financial illiteracy is widespread and particularly acute among specific groups of the population, such as women, the elderly, and those with low education (Lusardi & Mitchell, Baby Boomer retirement security: The roles of planning, financial literacy, and housing wealth, 2007). Further a study on the OECD (Organization for Economic Co-operation and Development) conducted by Lusardi and Mitchell (2007) reviews the evidence on financial literacy across countries and shows that financial illiteracy is a common feature in many other developed countries, including European countries, Australia, and Japan. These findings are reflected in the work of Christelis, Jappelli and Padula, (2010) who found that most respondents in Europe score low in participation due to a low financial literacy index. The work by Stango and Zinman (2007) shows that those who are not able to correctly calculate interest rates end up borrowing additional amount and accumulating lower amounts of capital gains. Agarwal, Driscoll, Gabaix and Laibson (2007) further show that stock participation errors are prevalent among the young and elderly, who are more likely to have the lowest amount of financial knowledge. Lusardi and Mitchell, 2007 analyse the importance of financial literacy in stock market participation and how financial knowledge helps stock participants in their decision making. Their analysis reflects on whether financially literate people earn more return than financially illiterate investors. As financial markets have great impact on any country's economy, the importance of financial markets cannot be neglected. In financial markets it's all about participation of investors.

In Uganda, financial literacy has been pointed out as critical to the development of both individual and household wealth. According to Bongomin et al. (2016), financial literacy is important because it can empower the poor to evaluate, compare financial products, and make informed financial choices and decisions. The researchers add that financial literacy may help in decision-making process, and may improve the saving rates and credit worth of debtors and consequently resulting into more financial access and utilization of financial products (Bongomin et al., 2016).

As highlighted in the conceptual framework, financial literacy constructed from such concepts like saving, portfolio choice and retirement planning.

2.3.1 Saving

According to Kubik, and Stein (2004), savings measure and capture the residual income from a household or individual that can be used for stock market participation. In other words, this variable captures the amount of each individual investors has to enable their participation in the stock markets. According to other scholars, savings can lead to a substantial welfare loss from not participating in the stock market, as exposure to equities, and hence to the equity premium, may be an important determinant of the long-run return to individual savings (Cocco & Gomes, 2012). Behavioural finance studies have found that investors are roughly twice as sensitive to losses as they are to gains (Jain, Jain & Jain, 2015). This means that investors will make saving as much as investments. People tend to evaluate gains and losses over a relatively short time horizon that may not be in sync with the longer horizon over which investment goals are expected to be realized. Another study by Cao (2004), savings can pose the implication that high saving rates should be associated with low participation rates. This negative correlation between saving rates and participation rates runs counter to theories based primarily on fixed participation costs.

2.3.2 Portfolio choice

Browning and Crossley (2001) emphasize that portfolio choice is one of the most important current challenges in making the stock markets participation decision. Simply put, portfolio choice involves the thought and the value of time spent to understand the basic functioning of stock markets, to learn how to follow price movements, how to trade, how to assess risk and return relationship for an optimal investment collection choice (Cocco et al, 1997).

2.3.3 Retirement planning

Empirical studies have started focusing on the relevance of financial literacy as a key determinant of crucial lifetime decisions such as retirement planning and stock market participation. According to Mitchell and Lusardi (2011), participating in stock is one of the major forms of retirement planning. Retirement planning in short is how one prepares for their future financially. Jappelli and Padula (2011) argue that where financial literacy is, planning for retirement is high. Moreover, retirement planning has been reported to be is lower among younger and older individuals, is lower among female individuals, is usually higher for self-employed and individuals working in business related sectors, is higher for higher income individuals the returns of non-stochastic saving and there is thus a trade-off between the benefits and costs of investing in one's retirement through stock markets participation.

2.4 Self efficacy

Pioneering studies on self-efficacy defined it as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives (Bandura, 1994, p1). Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective and selection processes (Bandura, 2006). In other words, self-efficacy beliefs are not simply predictions about behaviour. In the fresh field of behavioural finance, self-efficacy is the level of confidence an individual has on his ability to access, use financial products or services, undertake a financial decision, and deal with the complex financial situation (Ghosh & Vinod, 2017).

Self-efficacy is concerned not with that I believe I will do but with what I believe I can do. Breaking the term "self-efficacy" further, "self" is the identity of a person while efficacy is defined as the power to produce an effect. Synonyms for efficacy include effectiveness, efficaciousness, and productiveness (Merriam-Webster's Online Dictionary, 2007). The combination of these meanings implies a conscious awareness of one's ability to be effective and to control actions.

The basic premise of self-efficacy is that "people's beliefs in their capabilities to produce desired effects by their own actions" (Bandura, 1997, p. vii) are the most important determinants of the behaviours people choose to engage in and how much they persevere in their efforts in the face of obstacles and challenges. Therefore, self-efficacy studies maintain that these efficacy beliefs play a crucial role in psychological adjustment, psychological problems, physical health, as well as professionally guided and self-guided behavioural change strategies which can include behaviours of individuals participating in stock markets.

Self – Efficacy was conceptualized in the conceptual framework in terms of construct like human inspiration, performance accomplishment and emotional wellbeing.

2.4.1 Human inspiration

According to Psychologists Todd M. Thrash and Andrew J. Elliot, human inspiration has three main qualities as core aspects of inspiration in self-efficacy, namely; evocation, transcendence, and approach motivation. First, human inspiration is evoked spontaneously without intention. Human inspiration is also transcendent of our more animalistic and self-serving concerns and limitations. Such transcendence often involves a moment of clarity and awareness of new possibilities (Thrash & Elliot, 2010). This indicates that through the construct of human inspiration, one's self-efficacy or belief in one's ability to participate in the stock markets is raised.

2.4.2 Performance accomplishment

Studies maintain that self-efficacy expectations are derived from four information sources: performance accomplishment, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1977). In this case, performance accomplishment is derived from an individual or group personally participating (performance accomplishment) in an action. The individual or entity itself can reach these information sources say about what transpires on the stock markets through actual participation.

2.4.3 Emotional wellbeing

Till recent decades, researchers had not explored the effect of emotional wellbeing in stock markets participation. In fact, studies on the effect of subjective emotional wellbeing on stock market participation remain scarce. However, a study on which used data from the China Household Finance Survey found that emotional wellbeing leads to happiness which positively affected the decision of households to invest in stocks, as well the share of assets invested in stocks (China Household Finance Survey, 2011). This means that emotional wellbeing can affect the level of stockholding by individuals or households. Other researchers like Xiao, Chen, and Chen (2014) suggested that emotional wellbeing and behaviours was associated with holding risky assets had a significant impact on financial satisfaction. Moreover, these cognitions, emotions, and behaviours can dramatically alter the dynamics of securities-pricing and the capital marketplace, though these institutional and investor cognitive, emotional, and behavioural processes might be inaccurate depictions of the current financial landscape and faulty predictions of future market trends (MG Forex, 2007).

2.5 Financial literacy and stock market participation

In recent years, academics are starting to link financial literacy and stock market participation. Financial literacy is defined as people’s ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions (Lusardi and Mitchell, 2014). Financial Literacy involves what people must know in order to make important financial decisions in their own best interest. Due to this, a financial literate is likely to make an investment compared to one who is not financially literate. According to Lusardi et al. (2011), financial literate persons have the knowledge of basic financial investment concepts such as inflation and risk diversification and they do financial calculations such as those related to interest rates. Having an understanding and knowledge of personal financial concepts, it is worthwhile for financial literates to invest in securities. This is because of the role stock markets play in the financial lives of many individuals. Campbell (2006) states that many households see stocks as a form of investment, and therefore use them as a means to generate their asset-based income. From a theoretical point of view, the stock market provides a channel for families to effectively allocate their assets across multiple periods. Therefore, even households with relatively low risk tolerance should participate, to some degree, in the stock market (Campbell, 2006). Effective stock investments should, in theory, enhance consumer financial wellbeing in the long term (Xia, Wang, & Li, 2014).

According to Rooij, Lusardi, and Alessie (2011), financial literacy helps determine stock markets participation. To measure the extent to which financial literacy determines the decision to participate in stock markets, the scholars assess it using two special modules for the DNB Household Survey (DHS), namely; a panel data set covering a representative sample of the Dutch population and providing information on savings and portfolio choice. The data showed that most households that participated in the stock market displayed basic financial knowledge and had some grasp of concepts such as interest compounding, inflation, and the time value of money. However, many of these households exhibited only basic financial literacy, for instance most of the households did not know the difference between bonds and stocks, the relationship between bond prices and interest rates, and the basics of risk diversification. Nonetheless, we find that financial literacy affects the decision to participate in the equity markets. Evidence from a South African study on the determinants of corporate listing on stock market in Southern Africa revealed that knowledge about stock market dynamics and financial institutions support do encourage listing on the stock market conducted by (Acquaah, 2015).

In another empirical study, Rooij, Lusardi & Allesie (2017) conducted research to determine the relationship between financial literacy and stock market participation in the Netherlands. The study relied on a sample of over 2,000 households, which were representative of the Dutch population to seek information about demographic and economic characteristics particularly focusing on wealth and saving data. The questionnaire was divided into two sections, namely; basic and advanced financial literacy. Survey participants were interviewed via the Internet. The study conveyed evidence that there is an independent effect of financial literacy on stock market participation: It was concluded that individuals with low financial literacy are significantly less likely to invest in stocks.

On the other hand, scholars highlight that limited financial literacy is associated with low stock market participation. For example, individuals with low financial literacy were found to be more likely to rely on family and friends as their main source of financial advice and in turn were less likely to invest in stocks. Many families shy away from the stock market because they have little knowledge of stocks, the working of the stock market, and asset pricing (Kimball & Shumway, 2006). This implies that stock ownership increases exponentially with education levels, and as such only a small fraction of those with low education own stocks. Other studies, however; contend that even the large majority of those with a university degree do not participate in the stock market (Lusardi & Mitchell, 2007). This demonstrates that impediments to stock ownership go beyond levels of schooling.

It can then be noted that stock ownership increases sharply with financial literacy, not just basic education. Even when considering basic literacy that measures simple knowledge and ability to do calculations, we find that those who score high on basic literacy are disproportionately more likely to participate in the stock market than those with high literacy levels (Mandell & Klein, 2009). The relationship becomes much stronger when we consider the index of financial literacy, particularly. Participation in the stock market is concentrated among those with high financial literacy. Individuals who are not financially knowledgeable do not know about stocks and bonds and are not familiar with the working of financial markets, and they tend to stay away from the stock market (Lusardi & Mitchelli, 2007). This therefore portrays that lack of understanding of economics and finance is a significant deterrent to stock ownership.

In other studies, gender perspectives are now being included in finding out the link between financial literacy and stock participation. In Sweden, Almenberg and Dreber (2012) explored the relationship between the gender gap in stock market participation and financial literacy. The academics retrieved data from the 2010 consumer survey conducted by the Swedish Financial Supervisory Authority. The participants in the data set comprised of randomly sampled adults totaling to 1,300 adults in the age bracket of 18-79 years. The study reported evidence that for basic financial literacy, which essentially does not require knowledge about the stock market, it is the gender gap that greatly played a part in influencing stock market participation. The scholars also found that women were more risk-averse than men, thus explaining why they participated less than their counterparts. The study made the deduction that gender differences in financial literacy account for the significant part of the gender gap in stock market participation.

Additionally, Van et al. (2011) report that financial literacy influences financial decision making positively through developing financial understanding, product knowledge and risk assessment on different investment options. According to Gumbol & Sandada (2018) and Atia (2012), active participation in the stock markets in Ghana, Zimbabwe and other developing countries is because financial literacy helps individuals to know the importance of investing in shares. Hence, individuals with a low financial literacy are less likely to participate in the stock market. As even seen in the different measures of financial literacy that Rooij, Lusardi, and Alessie (2011) have employed in their work, lack of literacy prevents households from participating in the stock market. Thus, the role of financial literacy should not be under-estimated. Yet, the welfare loss from non-participation in the stock market can be huge (Cocco, Gomes & Maenhout, 2005).

That is why scholars advocate for increase in financial knowledge as a determinant for stock market participation. It is argued that the more workers transition to a system where they have to decide how much to save for retirement and how to invest their retirement wealth, the more important it is to consider ways to enhance their level of financial knowledge or to guide them in their financial decisions, especially as they opt for the stock markets (Guiso & Jappelli, 2005). Hence, it can be concluded that financial literacy is decisive in explaining the participation in the stock market. Latest studies suggest that financial literacy plays a key role in influencing one's money management and participation in the financial market (Zulfaris et al., 2020, Nguyen & Nguyen, 2020). Moreover, Sabri and Aw (2019) found that financial literacy has an impact on individuals' stock decisions and the possibility of having a financial planner. However, literature posits that there is more to stock markets participation than just financial literacy.

2.6 Self efficacy and stock market participation

Besides other dynamics, the puzzle of stock market participation has been associated with self-efficacy. In this case, self-efficacy relates to the cognitive and emotional belief system of institutional and individual investors that drives investor behaviours and ultimately stock market conditions and stock market performance (Chandra, 2009). The above description of self-efficacy suggests that there are psychological dimensions behind stock market participation. According to Tekchandani (2004), stock market activity is based on the two psychological components of fear and desire; i.e., a fear of losing capital during stock market declines and desire for earning more capital during stock market surges.

However, the psychological implications of stock market investing include feelings of self-esteem, self-worth, optimism, pessimism, audacity, fear, and anxiety (Bandura, 1995). This implies that the psychology of investing in the stock markets is dependent on the level of self-efficacy. Self-efficacy comes in as the basic principle behind the need to cope with situations especially obstacles in the investment process. Therefore, with self-efficacy, stock market investors aim at increasing returns while decreasing risk is the optimal investment strategy for institutional and individual investors, who must consider such situations like the undulating rhythm of the stock market, inevitable periods of uncertainty, securities pricing, and supply and demand (Hertz, 1998). Evidence from Behavioural finance studies indicates that investors are roughly twice as sensitive to losses as they are to gains (Jain, Jain & Jain, 2015)

Self-efficacy suggests that individuals are likely to participate in activities in which they deem themselves competent and confident and less likely to participate in activities in which they deem themselves incompetent and insecure (Bandura, 1977). Therefore, to participate in the stock markets, individuals have to be confident about their financial futures, by testing their self-efficacy in order to induce better-planned investment behaviour. According to previous studies, self-efficacy in individuals could potentially lead to a better understanding of how they can take an active role in shaping their circumstances and achieve various investment goals to produce intended outcomes, namely, financial wellbeing and long term security (Wilson, 1997). This suggests that investing in one’s financial future can be both an exciting proposition and a selfempowering practice, and that is how self-efficacy can influence one to invest in stocks. Wilson (1997) argues that in a consumer driven society with a voracious appetite for material possessions and conspicuous displays of wealth or affluence, an individual may feel compelled to reach this “gold standard” of privilege through unbridled spending patterns and sometimes faulty investments in depreciating material goods, thereby relinquishing his or her financial security to here and now must-haves in a consumer’s culture.

Self-efficacy can also be related to the psychological climate in the stock markets. In Bondt’s (1993) theoretical study, during the bull market, investors’ demand for financial advice regarding the buying and selling of securities is generally high, whereas during a bear market, the demand for financial advice and stock market participation is generally low. In regard to self-efficacy, during a bull market, investors’ decisions are driven by emotional attachments that can lead to risky behaviour, driving capital markets to extremes in both the high and low end. In this situation, it can be seen that fear and greed are two emotions that motivate investor behaviours, especially during a bull market like that of the late 1990s. Greed led some investors to purchase more securities even after securities climbed to peak levels, and fear caused investors to sell their securities after prices dropped. Market analysts and financial advisors suggest that purchasing securities when prices rise and quickly selling securities once prices fall is irrational and inadvisable investment behaviour, but that many investors act in this manner, nonetheless. The level of self-efficacy of an individual drives this behaviour. In assumption, if self-efficacy can be induced in prospective investors in a mutually beneficial and non-predatory manner, these expectations could influence investors’ willingness to invest their moneys in the stock market through a financial advisor or stockbroker at a financial services firm (Terry & O’Leary, 1995).

2.7 Effect of financial literacy and self-efficacy on stock markets participation

While there is limited literature associating financial literacy with self-efficacy, studies as shown above have attempted already to demonstrate the implication each of these variables has on stock market participation (Jain, Jain & Jain, 2015; Gumbol & Sandada, 2018; Lusardi and Mitchell, 2014; Acquaah, 2015). As such the combination of both financial literacy and self-efficacy is expected to have an enormous effect in influencing stock market participation patterns.

Given that financial decisions are often complicated, managing a portfolio involves a specific human capital investment in terms of effort and time from the investor to first familiarize themselves with the financial concepts involved in investing and later take inventory of his innate personal traits on to follow the market development to make justifiable stock market decisions (Fredrick, 2005). Accordingly, financial literacy and self-efficacy can be major factors influencing entry in the stock markets.

In a study by Korniotis and Kumar (2010), evidence is found that financial literacy affects self-efficacy in a sense that high or low financial reasoning significantly affects the confidence of the investor. The study concluded that high financial literacy resulted into the ample investor confidence and it also found a strong relationship between low cognitive ability and overconfidence. Similarly, the study noted that both financial literacy and self-efficacy affects financial decision-making by influencing individuals' decisions to invest in stocks. This is akin to earlier findings from Benjamin et al. (2006) who found that more cognitively able individuals are more risk neutral over small stakes and are more patient over short time horizons. Consequently, cognitively gifted individuals are less likely to display behaviours associated with high risk aversion or impatience, such as low levels of asset accumulation, obesity, smoking and low levels of stock market participation (Benjamin et al., 2006). This is why an individual with high self-efficacy is said to be more likely to have a positive sense of control over their financial future, while his or her financial education acts as the impetus and capacity to take competent and rational action, thereby achieving more favourable outcomes in the stock market (Goo et al., 2013).

In the same light, other studies have noted that while it is generally agreed that financial literacy entails equipping individuals with the knowledge and cognitive skills needed to understand the financial sector and handle their financial matters, other factors also play an important role (OECD, 2013). According to Atkinson & Messy (2011), being able to successfully manage one's personal finances also entails psychological and attitudinal traits: an individual needs to have the motivation to seek out financial information, the ability to control emotions that can affect their decision-making, and assurance in their own decision-making and financial management capabilities to invest in securities. In other words, the authors are simply suggesting that financial literacy and self-efficacy move hand in hand to motivate institutions and individuals to buy shares.

In a similar study, financial literacy was measured in terms of one's self-efficacy. One of the measurement scales used was the Financial Self-Efficacy Scale (FSES) developed and validated by Lown (2011). According to Forbes & Kara (2010), the econometric applicability of financial self-efficacy instruments is that they are used as standard models for predicting economic behaviour among financial literates. Thus, one can employ the Financial Self-Efficacy Scale as an explanatory variable to assess the significance of self-efficacy in predicting observed financial outcomes and behaviour amongst those deemed to be financially literate.

Furthermore, evaluation studies have correspondingly taken a social perspective on literacy by assessing the demonstration of knowledge contexts of financial literacy and self-efficacy through the performance of financial behaviours. According to Anthes & Most (2000), it is through socially constructed forms of self-efficacy that individuals interpret, communicate, compute, develop independent judgments, and take actions resulting from those processes in order to thrive in the complex financial world. The scholars suggest that individuals with self-efficacy are also socially perceived to be literate financially, and are thus more likely to participate in the stock markets, a field perceived "complex" and "technical" by society. Considered from a social perspective, that could be logical, however; more academics are only yet to provide evidence for such social constructivism in relation to self-efficacy and financial literacy and evaluate both constructs more precisely to ascertain their effect on stock market participation.

According to more recent studies, financial literacy acted in concert with self-efficacy is the behaviour that enables people to have financial traits that encourage them to save, borrow, invest, and transfer money officially (Serrao et al., 2012; Zins & Weill, 2016). However, the actual realization of benefits from any financial behaviour above depends upon individuals' financial capabilities. Financial capabilities such as financial literacy and financial self-efficacy enables individuals to make better economic decisions raise their rights and responsibilities by using the financial services, and to know and manage risk and return efficiently (Ghaffar & Sharif, 2016). According to Mindra et al. (2017), financial literacy and financial self-efficacy are capabilities that motivate individuals to plan for how they will properly manage events their lifetime such as housing, education, illness, marriage, or retirement planning through stock investment. Xiao (2016) supports this, pointing out that financial education helps enhance financial self-efficacy essential for individuals to participate in the stock market. Conversely, Hadar et al. (2013) highlights that adults with a high degree of recognized self-efficacy are convinced with their ability to obtain information for financial decision-making, their ability to make smart choices, and their ability to have good financial control. Moreover, Sejjaaka (2011) pointed out such individuals facing fewer problems to access relevant financial information are more likely to buy stocks compared to what he called “uninformed investors”. Here literature seems to suggest that one’s financial literacy levels causes them to obtain the right financial information available for decision-making purposes and self-efficacy will spur the user of the information to ultimately take the decision to buy shares in public listed companies.

Until recently, very little has been written about the financial literacy and self-efficacy. However, what we note from the above literature is that the notions are becoming more and more associated with financial decisions. Nonetheless, it is evident from some studies (Guo et al., 2013; Gumbol & Sandada, 2018; Acquaah, 2015) that both financial literacy and self-efficacy are related with investment decisions especially stocks.

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This section provides information regarding the methodology that was applied while conducting the study. It identifies the research design, the population, sample size, data collection instrument, issues of validity and reliability, data interpretation and analysis, ethical considerations.

3.2 Research design

The study used a cross sectional research design, which followed both a quantitative and qualitative research approach. A cross-sectional research study was used to measure situations at one point in time (Cooper & Schindler, 2011). This cross-sectional research design was chosen mainly because it helps to effectively resolve the constraint of time. As such, the cross-sectional study design allowed the researcher to compare the research variables at the same time. This approach allowed for data to be collected at a single point in time and for inferences to be made about the sample group. Moreover, the cross-sectional design helped to conduct the study in a relatively faster and inexpensive manner. Therefore, quantitative and qualitative data was collected once without repeating, as is the case with a cross sectional design. Quantitative research approach deals with numerical data that is measureable in a systematic way of investigating the relationships of phenomena (Kumar, 2005). Hence, here the study was mainly quantitative since it investigated the relationship between the predictive variables of financial literacy, self-efficacy and stock market participation. This was supplemented by qualitative data in form of views, opinions, perceptions, facts, etc. regarding the research phenomena. The qualitative approach enabled the study to understand attitudes and capture views that could not be got numerically.

3.3 Study population

The population for the study comprised 160 individuals sourced from stock markets participants such as members of stock brokerage firms, students on master's programs and businessmen and women in Kampala such as those under trade associations KACITA. According to the most recent data, this is the estimate average number of individuals directly involved in daily local stock investment decisions and activities (Uganda Securities Central Depository Agents Report, 2021). These respondents were sourced from the Kampala region because it is the Ugandan commercial hub where most business activities take place (UBOS, 2012). Individuals from these particular businesses, firms and academic institutions were perceived to constitute the unit of analysis from which data was collected while Uganda Security Exchange was regarded as the unit of inquiry composed of the public listed companies from which the above individuals can buy shares. This is because business people and students on Masters Programs were perceived as potential stock market participants (individual investors) at USE whereas stockbrokers were considered in this study due to their technical knowledge on stock markets participation at USE.

3.4 Sample size and sampling techniques

The sample consisted of 113 respondents determined using the Krejcie and Morgan (1970) tables for choosing a sample from a given population. The following table was helpful in coming up with the exact sample size of the population.

Table 3.0.1: Showing sample size distribution

	Population	*Sample size*
	160	113
Total	160	113

Source: Extracted from Krejcie & Morgan

Probability and non-probability sampling techniques were used to come up with categories of sample elements from the study population. This study employed simple random sampling, purposive sampling, and convenience sampling techniques to select the sample. The researcher used random sampling techniques in order to give equal opportunities of everyone in the study population to be included in the sample. This technique was used to randomly select businessmen and women in Kampala city. Purposive sampling enabled the researcher to acquire information on those people believed should not miss out of the sample. The researcher was convinced that the diverse people in different departments in the organization, due to their level of expertise, have an edge on what information the researcher wants. This technique helped to choose experienced and resourceful respondents from stock brokerage firms. Since the study population was not uniform and it was also scattered, the researcher correspondingly employed convenience-sampling techniques. Under this sampling technique, the researcher chose respondents who were accessible and were willing to be studied and these included students on master's programs especially those from Makerere University Business School.

3.5 Data collection methods and instruments

The researcher employed the following methods to collect data from the study sample.

3.5.1 Questionnaire survey

Data was collected through questionnaire survey. The questionnaire method was selected because this method allows the collection of data from a large number of respondents. Moreover, it had been established that questionnaires are effective in descriptive and predictive studies (Rowley, 2014). The method involved the researcher preparing a set of questions pertaining to the field of enquiry. Using this method, the researcher formulated questions in order to generate quantitative data (Amin, 2005). The questionnaire method used because it was cheaper to administer and it allowed collecting lot of data in a shorter period of time. A questionnaire also allowed respondents to feel free to give information and respondents answer the questions at their own time sometimes without the influence of the researcher. Additionally, a questionnaire was used to avoid subjectivity that results from close contact between the researcher and the respondent.

A questionnaire instrument was used in the survey. The questionnaire was structured in nature and contained closed-ended questions gauged on a 5-Likert scale. Under this scale, extreme values were defined as 1(strongly disagree) and 5 (strongly agree). The questionnaire was also self-administered to guarantee some level of data accuracy. The questionnaire as a data collection instrument was justified because the study sought to apply a quantitative research approach, which necessitates collecting quantitative data. The questionnaire instrument was regarded as the most reliable instrument for collecting quantitative data, which was a major focus in this study.

3.5.2 Interviews

A few interviews from 12 respondents were conducted to supplement the quantitative data. Qualitative data was collected through face-to-face interviews with some key research respondents, and these included senior personnel in stock brokerage firms. Amin (2005) argues that the advantage of using interview method is that it allows on spot explanations, adjustments and variation could be introduced during the data collection process and through respondent's incidental comments, use of facial and body expressions, tone of voice, gestures, feelings and attitudes (Amin, 2005). The study interviewed respondents such as experienced stock market participants, senior management and supervisors in stock brokerage firms among others in order to acquire their views and perceptions about financial literacy, self-efficacy and stock market participation, because the virtue of their position makes them more informed about these phenomena.

An interview guide was used as an instrument to help the interviewer remain systematic and focused on relevant issues (Sarantakos, 2005). According to Osborne (2008) an interview guide is list of thematic areas or issues that the research focuses on while engaging respondents during an interview. This included a list of key themes and question areas on which the face-to-face interviews focused.

3.5.3 Documentary review

Documented information supplemented the primary data. This method was aimed at collecting information from the already existing sources both published and unpublished. Documentary review used secondary sources to observe the viewpoint or argument of academic work (Babbie and Mouton, 2001). In that case, the process of documentary review involved assessing documents. This method enabled the researcher to obtain detailed data related to the topic of survey. It also has the advantage of saving time and costs of acquiring information (Sekaran, 2003). Thus, a documentary review checklist was utilized for this purpose. The documents that were reviewed include but not limited to; annual reports, stock participation reports, periodic USE and CMA reports, and performance review reports.

3.6 Validity and reliability of the instruments

This section explains how the study ensured research instruments are valid and how reliable data was.

3.6.1 Validity

Validity of the questionnaire was obtained using two methods, namely; expert judgment and content validity index computation. Expert judgment involved submitting the questionnaire designed by the researcher to the supervisor and financial experts to make a review of it. The comments arose after the review was analysed, and accordingly the questionnaire was adjusted to fit the advice. Designing questions in a Yes/No format for experts to express whether each question within the data collection instruments measures the construct in question and captures the issues to be measured attained content Validity Index (CVI) determination. Amin (2005) highlights that for a questionnaire to be considered valid, the CVI of 0.7 (70%) or better should be obtained.

In computing CVI, the researcher employed the following formula:

$$CVI = \frac{\text{Number of items declared valid}}{\text{The total number of items (questions)}}$$

$$CVI = 35/42$$

$$CVI = 0.833\ (83.3\%)$$

Since the computed CVI was (0.83) is greater than 0.7, the instrument was declared valid.

3.6.2 Reliability

Reliability on the other hand was determined through pretesting to check for consistence among responses and stability of the measures to be used. This guided me in modifying questions in a manner that can consistently be interpreted in several questionnaire trials. Nunnally (1978) indicated that instruments used in basic research should have a Cronbach Alpha of at least 0.70 after running the reliability test.

Table 3.0.1: Reliability Analysis

	No. Of items	Cronbach's Alpha Score	Composite Reliability Score
Financial literacy	14	0.807	0.801
Self-efficacy	16	0.804	0.808
Stock markets participation	12	0.795	0.793
Overall	**42**	**0.802**	**0.801**

Source: Primary Data (2021)

From Table 3.2 above, the results from the reliability analysis show that the research instrument was reliable as per the computed Cronbach's alpha score 0.807 and composite reliability score 0.801 for the questions on constructs measuring financial literacy. Similarly, the constructs measuring self-efficacy in the questionnaire were found to be reliable as they yielded a Cronbach's alpha score 0.804 and Composite reliability score 0.808. Finally, the items under the measures of stock market participation gave a Cronbach's alpha score 0.795 and Composite reliability score 0.793. The overall Cronbach's alpha score and composite reliability score was 0.802 and 0.801 respectively. Thus, the questionnaire was deemed reliable because the computed values were greater than 0.7, which is the minimum value, recommended by Nunnally (1978) and Amin (2005).

3.7 Measurement of variables

The researcher used the nominal scale in measuring the data. Nominal scale was used for capturing gender and age (Saldana, 2015). The researcher used the Likert scale rate system to rate the views of the respondents (Likert, 1967). The Likert scale was represented by 5= Strongly Agree; 4 = Agree; 3= Neutral; 2= Disagree and 1= Strongly Disagree.

3.8 Data processing and analysis

After data was obtained from the field, it was sorted, cleaned and edited accordingly. The data was then entered in the Statistical Package for Social Scientists (SPSS. v25) for processing. The researcher used descriptive statistics with frequency and percentages to facilitate the analysis of findings. Using inferential statistics of correlation and regression analysis, the researcher provided answers to the research questions presented in the earlier chapter. Pearson correlation analysis established the nature of the relationship between variables while regression analysis answered the extent to which the independent variables (financial literacy and self-efficacy) predict variance in the dependent variable.

3.9 Ethical consideration

The study ensured that the findings obtained are used purely for academic purposes. Questions presented within the questionnaire were strictly in line with the objectives of the study. This study ensured that all data obtained from respondents was handled with care to ensure that meets the confidentiality required. The questionnaire used in the field did not contain space for either name or telephone number. In addition, participation in this study was purely voluntary, while the questionnaire was distributed to respondents secretly to ensure that nonparticipants are unable to know their colleagues who had accepted to participate in this study.

4.0 PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presents and interprets the research findings of the study, obtained from the primary data, which was analysed in relation to the subject of the study: financial literacy, self-efficacy and stock markets participation. This chapter begins with the presentation and interpretation of the demographic characteristics of the respondents, such as gender of respondents, age category of the respondents, highest level of education, marital status, and nature of the company, company existence and rating on knowledge of stock markets before presenting findings on the study objectives. The data was collected by use of questionnaires and the findings are presented in the frequency distribution tables showing the frequency analysis. The research objectives were:

i. To examine the relationship between financial literacy and stock markets participation in Uganda.
ii. To evaluate the relationship between self-efficacy and stock markets participation in Uganda.
iii. To assess the effect of financial literacy and self-efficacy on stock markets participation in Uganda.

4.1.1 Response rate

To collect data for the study, 113 questionnaires were issued out. However, only 102 questionnaires were ticked and returned causing a response rate of 90.3%. This response rate of the study is quite high enough to give more accurate results as advanced by Amin (2005).

4.2 Descriptive statistics of the sample

4.2.1 Individual characteristics of the respondents

The results below show the descriptive analysis of the respondents' characteristics. Frequency analysis was used to analyse the demographic data of the respondents including gender of respondents, age category of the respondents, highest level of education, and marital status. The findings are presented in the table 4.1 below.

Table 4.0.1: Characteristics of respondents

Gender of Respondents				
		Count	**Percent**	**Cumulative Percent**
Valid	Male	60	58.8	58.8
	Female	42	41.2	100.0
	Total	**102**	**100.0**	
Age of the respondents				
		Count	**Percent**	**Cumulative Percent**
Valid	20 – 30 Years	25	24.5	24.5
	31 – 40 Years	48	47.1	71.6
	41– 50 Years	25	24.5	96.1
	51 Years and above	4	3.9	100.0
	Total	102	100.0	
Level of Education of the respondents				
		Count	**Percent**	**Cumulative Percent**

		Count	Percent	Cumulative Percent
Valid	Certificate	6	5.9	5.9
	Diploma	24	23.5	29.4
	Bachelor Degree	46	45.1	74.5
	Master's degree	23	22.5	97.1
	Others (specify)	3	2.9	100.0
	Total	**102**	**100.0**	
Marital status of respondents				
		Count	**Percent**	**Cumulative Percent**
Valid	Single	24	23.5	23.5
	Married	59	57.8	81.4
	Separated	14	13.7	95.1
	Divorced	5	4.9	100.0
	Total	**102**	**100.0**	

Source: Primary Data (2021)

Results from table 4.1 above indicate that of the 102 respondents, 60 (58.8%) were male and 42 (41.2%) were female. The key finding from table 4.1 on gender of respondents above is that the majority of the respondents in this study were male constituting 58.8% of the total population. However, the study is generally gender-balanced much as men were dominant.

Results from table 4.1 above indicate that the biggest proportion of the respondents in this study was between 31 – 40 years of age, constituting 47.1%. This is followed by the age brackets of 20 – 30 Years (24.5%) and 41– 50 years (24.5%) and lastly 51 years and above (3.9%). The interpretation of the results from table 4.1 above on age of respondents is that the majority respondents in this study were mature enough to comprehend the research questionnaire.

Results from table 4.1 above indicate that of the 102 respondents, 6 (5.9%) were at Certificate level, 24 had diploma represented by 23.5%, 46 (45.1%) had a bachelor's degree, 23 had master's degree represented by 22.5% and 3 (2.9) had other qualifications including ACCA, CPA, CIPS and CIMA. The interpretation of the results from table 4.1 above is that the majority of the respondents in this study had a Bachelor's degree, constituting a percentage of 45.1%. This implies that the majority of the respondents possessed the minimum qualifications to read, grasp and understand the questions under the research questionnaire.

Furthermore, results from table 4.1 above indicate that of the 102 respondents, 24 respondents were single with 23.5%, 59 respondents were married making up 57.8%, 14 (13.7%) were separated and 5 respondents were divorced representing 4.9% of the sample population. The interpretation of the results from table 4.1 above is that the majority of the respondents in this study were married, constituting 57.8% of the total percentage which meant that most of the organizations had many employees who were also committed to marital affairs and thus deemed to possess independent households on their part.

4.2.2. The firm's characteristics

The table below shows the descriptive analysis of firm's characteristics such as nature of the company, duration of existence and rating on knowledge of stock markets. Frequency analysis was used to analyse the background data relating to firm characteristics. The findings are presented in the table 4.2 below

Table 4.0.2: The firm's characteristics

Nature of the Firm		Count	Percent	Cumulative Percent
Valid	Sole Proprietorship	31	30.4	30.4
	Limited Liability company	58	56.9	87.3
	Partnership	9	8.8	96.1
	Public sector	4	3.9	100.0
	Total	**102**	**100.0**	
Duration of Existence of the Firm				
Valid	1 – 5 Years	25	24.5	24.5
	6 – 10 Years	40	39.2	63.7
	11 – 15 Years	21	20.6	84.3
	16 years and above	16	15.7	100.0
	Total	**102**	**100.0**	
Level of Knowledge on Stock Markets Participation				
Valid	Low	17	16.7	16.7
	Medium	52	51.0	67.6
	High	33	32.4	100.0
	Total	**102**	**100.0**	

Source: Primary Data (2021)

Results from table 4.2 above indicate that the biggest proportion of the respondents in this study were limited liability company with 56.9% representation. This is followed by those with sole proprietorship (30.4%); partnership (8.8%) and those in the public sector were 3.9%. The interpretation of the results from table 4.2 above is that the majority of the respondents in this study hailed from limited liability companies much as that the study composed of various categories of firms.

Based on the results from the table 4.2 above, it indicates that 24.5% of the firms have been in existence for a period of 1 – 5 years, 39.2% have been in existence for a period of 6 – 10 years, 20.6% of the firms have been in existence for a period of 11-15 years and those that had existed for 16 years and above were at 15.7%. The interpretation of the results from table 4.2 above is that the majority of the firms have been in existence for 6 – 10 years represented by 39.2%.

Lastly, results from table 4.2 above indicate the level of knowledge in stock markets participation where 17 (16.7%) had low knowledge, 52 (51.0%) had medium knowledge and 33 (32.4%) had high knowledge. The interpretation of the results from table 4.2 above is that the majority of the respondents in this study possessed intermediate knowledge on stock market participation constituting 51% followed by those who had high knowledge on the subject (32.4%). This implies that majority of the respondents had sufficient knowledge on stock markets participation to inform the study.

4.3 Relationships between the study variables

Pearson correlation coefficient (r) was carried out to establish the extent to which the study variables are associated to each other in line with the research objectives. Results in the table 4.3 below were presented so as to examine the nature of the relationships between the study variables. This was affected using the Pearson (r) correlations coefficient, which ranges between -1.00 and 1.00.

Table 4.3: Showing Correlations

		Financial literacy	Self-efficacy	Stock markets participation
Financial literacy	Pearson Correlation	1	.669**	.653**
	Sig. (2-tailed)		.000	.000
	N	102	102	102
Self-efficacy	Pearson Correlation	.669**	1	.645**
	Sig. (2-tailed)	.000		.000
	N	102	102	102
Stock markets participation	Pearson Correlation	.653**	.645**	1
	Sig. (2-tailed)	.000	.000	
	N	102	102	102

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

Source: Primary Data (2021)

4.3.1 financial literacy and stock markets participation

Results in the table 4.3 above indicated that there is a significant positive relationship between the financial literacy and stock markets participation as demonstrated by the correlation coefficient denoted by "r" (r = 0.653**, p<0.01). This implies that that as financial literacy increases; the stock markets participation improves in Uganda. Therefore, financial literacy of individuals under households and firms strongly affects the participation of individuals and institutions in the stock market. Hence, there is a need for potential and actual participants to possess literacy in financial matters so as to attract more people to be involved in buy shares in public listed companies. Therefore, a change in financial knowledge possessed in terms of saving, portfolio choice and retirement planning is bound to significantly affect the number of participants in the stock market.

Applying a qualitative approach, when asked about the influence of financial literacy as a determinant for stock market participation, the respondents tended to believe that possessing financial knowledge alone could not make one participate in stock markets, but agreed that financial literacy was involved in the process of investing in shares of public listed companies. The recurring theme was that one had to be educated enough about the financial aspects in buying shares such as how to invest and trade shares. One respondent noted that such financial education could increase an individual's chances to participate in the stock markets as demonstrated as follows:

> *"I think that financial education plays a major role in buying shares from these public companies. You cannot think of investing in shares say for New Vision or another company if you do not know how you are going to buy them and what you will do with the shares after they are purchased. Those without the minimum knowledge are left out. […] This is where education in financial matters becomes very necessary."*

It is clear from the responses that these interviewed individual potential stock market participants consider having some basic financial knowledge as a prerequisite for one to buy shares of USE-public listed companies such as UMEME, New Vision, among others.

4.3.2 Self-efficacy and stock markets participation

Additionally, as shown in the results in table 4 above, there is a positive and significant relationship between self-efficacy and stock markets participation ($r = 0.645^{**}$, $p<0.01$), which means that as self-efficacy increases, the stock markets participation in Uganda also improves. This indicates that a change in an individual and institution's level of self-efficacy can significantly lead to a change in the individual and firm's participation in the stock market. Thus, human inspiration, performance accomplishment and emotional wellbeing significantly affect the confidence, cognitive ability and behaviour of the individual and firm.

From a qualitative perspective, the third question of the interview focused on seeking respondents' views on the influence of self-efficacy on stock markets participation. When asked if there was any particular need for one to have high self-efficacy in terms of self-esteem, confidence, belief in one self in order to take part in buying shares, the males mostly replied by saying that it was necessary to believe in one's ability to succeed in the stock markets before one could take the step to buy shares in any public listed company. There was an agreement amongst all respondents concerning the need to possess a healthy emotional state to improve an individual's likelihood of investing in public listed shares and coping with stock market conditions. To illustrate this, one respondent mentioned that:

> "*One has to believe in their potential to make it.* […] *If you do not believe in yourself, you cannot win, that means you will shy away from buying shares for fear of losing."*

From the results, it is apparent that respondents were of the opinion that self-efficacy is essential in spurring individuals to buy public stock as well as enabling them cope with the prevailing conditions in the stock market.

4.3.3 Effect of financial literacy and self-efficacy on stock markets participation

Regression model was used to examine the predictive power of financial literacy and self-efficacy on stock markets participation. The regression analysis results explained the variance in participation in stock markets as a result of change in financial literacy and self-efficacy using coefficient of determination (r^2). The results in the table 4.4 below show the regression analysis results that were used to explore the degree to which the financial literacy and self-efficacy can predict participation in the stock markets.

Table 4.4: Multiple regression analysis Coefficients[a] of the variables

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.161	3.828		2.916	.004
	Financial literacy	.365	.087	.400	4.202	.000
	Self-efficacy	.289	.073	.377	3.961	.000

a. Dependent Variable: Stock markets participation

Source: Primary Data (2021)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.710[a]	.505	.495	2.86737

a. Predictors: (Constant), Self-efficacy, Financial literacy

Source: Primary Data (2021)

The table 4.4 above shows that financial literacy and self-efficacy were significant predictors of participation in stock markets with the parameters (Beta = 0.400, $p<0.01$) and (Beta = 0.377, $p<0.01$) respectively. These two variables had the capacity to predict 49.5% (Adjusted R Square = 0.495) of the variance in stock markets participation in this model, which was overall; the model was statistically significant (sig. <. 00). The t-test results revealed that financial literacy (t = 4.202, sig. <. 00) is a better predictor of stock markets participation than self-efficacy (t =. 3.961, sig. <.00).

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a discussion of findings, conclusions and recommendations. The discussion is as per the findings in chapter four, and recommendations are derived therefrom. The study focused on examining the relationship between financial literacy and stock markets participation, evaluating the relationship between self-efficacy and stock markets participation and assessing the effect of financial literacy and self-efficacy on stock markets participation.

5.2 Discussion of findings

5.2.1 Financial literacy and stock markets participation

The findings revealed that there was a high significant positive relationship between financial literacy and stock markets participation. This implies that the possession of financial knowledge especially in terms of savings, portfolio choice and retirement planning strongly affects the level of participation in stock markets. This is complemented by the response of one top business executive interviewed:

> "*Financial knowledge makes you aware about what happens in the stock market. It means if you're educated about these financial matters, so you are more likely to join. Not being educated enough about buying shares is a hindrance to many people, because as a result of possessing no clue on basic financial terms, they cannot invest. We (the firm) buy and trade shares because we know the technical know-how. It's not a game for everybody, (because) the processes involved require some bit of knowledge.*" (Interviewee 1)

The findings are akin to literature such as the works of Rooij, Lusardi, and Alessie (2011) who asserted that financial literature helps determine stock markets participation. The authors found that having even only basic financial literacy, for instance knowledge on the difference between bonds and stocks, the relationship between bond prices and interest rates, and the basics of risk diversification, one is more inclined to participate in the stock market than one who is financially illiterate. Additionally, in line with the study findings in chapter four, knowledge on stock market dynamics encourages many to buy shares in publicly listed firms on the stock market as similarly found in a South African study conducted by Acquaah (2015). The finding on this objective is consistent with Ward (1974)'s Theory of Planned Behaviour. As noted earlier, this theory suggests that unlike many consumer products, savings and investments decisions are not made on impulse. The study findings suggest investors undertake extensive thought and contemplation in form of financial knowledge before making investment decisions such as buying shares.

5.2.2 Self-efficacy and stock markets participation

The study found that the relationship between self-efficacy and stock markets participation was significantly positive where by the change in self-efficacy significantly leads to a change in one's participation in the stock market. This is further confirmed by a recurring theme in qualitative data where one interviewee stated that:

> *"Having information on stock markets is not enough. One has to believe in their potential to make it. Buying shares is like any other investment you know. You expect to win and make losses as well. It is not a sure deal as many people think be it for large companies. If you do not believe in yourself, you cannot win, that means you will shy away from buying shares for fear of losing. Your performance is determined by how prepared you are emotionally apart from just financial knowledge on the stock markets. That is what many people don't know."* (Interviewee 2)

This finding is in accord with previous studies such as one by Jain, Jain & Jain (2015), which found that self-efficacy, provides the force, which investors need to cope with situations especially obstacles in the investment process. The authors state that investors are sensitive to losses as they are to gains, and thus without self-efficacy one is more likely to avoid investment for fear of making losses. Moreover, the findings of this study confirm Terry & O'Leary (1995) supposition in their study that tentatively demonstrated a relationship between self-efficacy and stock markets participation. The scholars supposed that the level of self-efficacy of an individual drives investment behaviour. Thus, the study concluded that in assumption that if self-efficacy can be induced in prospective investors in a mutually beneficial and non-predatory manner, these expectations could influence investors' willingness to invest their moneys in the stock market through a financial advisor or stockbroker at a financial services firm (Terry & O'Leary, 1995). Findings of this study further empirically prove Bondt's (1993)'s theoretical study which asserted that fear and greed are two emotions that motivate investor behaviours.

5.2.3 Effect of financial literacy and self-efficacy on stock markets participation

The findings also disclosed that financial literacy and self-efficacy had a positive effect on stock markets participation. Therefore, the findings revealed that a change in knowledge on savings, portfolio choice and retirement planning in concert with human inspiration, performance accomplishment and emotional wellbeing led to a change in the level of participation in stock markets. This finding agrees well with a similar study by Atkinson & Messy (2011) who found that both financial literacy and self-efficacy influenced the level of investment one made in buying shares. The authors found that financial knowledge coupled with psychological and attitudinal traits cause one to be able to successfully manage one's personal finances and invest in shares to secure their future. This entails an individual to have the motivation to seek out financial information, the ability to control emotions that can affect their decision-making, and assurance in their own decision-making and financial management capabilities to invest in securities. In short, the study findings indicate that financial literacy and self-efficacy move hand in hand to motivate institutions and individuals to buy shares. This is supplemented by qualitative views from one interviewee:

> *"We need to understand that investing is a tricky adventure. You should not only possess the knowledge about the investment, but also how to carry it (investment) out which will call for your inner qualities. These include your belief in your potential, zeal, and fear of failure, resilience; generally your personal efficacy is what you bring to the table along with your investment knowledge. Think of them (financial literacy and self-efficacy) like twins."* (Interviewee 3)

However, the findings as analysed in the previous chapter highlight that financial literacy is more of a predictor of stock markets participation than self-efficacy. This also gives the implication that financial literacy is essential in predicting observed financial outcomes and behaviour amongst individuals who equally possess self-efficacy. Either way, the findings suggest that in order to invest in shares of public companies, one has to possess a certain level of basic financial knowledge as well as behavioural qualities suitable to make the investment. These findings are consistent with Lown (2011) and Forbes & Kara (2010) whose studies had applied a Financial Self-Efficacy Scale as an explanatory variable to assess the significance of self-efficacy in predicting observed financial outcomes and behaviour amongst those deemed to be financially literate. Their findings parallel what has been found in this study where results confirm self-efficacy as a moderating variable between financial literacy and stock markets participation.

5.3 Conclusion

The research has established that financial literacy has a bigger influence on the participation in stock markets. The findings revealed that when individuals possess at least basic knowledge in financial related matters, they could be able to understand stock market concepts better, hence being influenced to buy available stocks listed on the Uganda Securities Exchange. It was established many individuals are not participating in the trade on the stock market because they lack the sufficient knowledge on the relevant financial matters. It can be deduced that due to shortage or lack of this literacy especially on the financial concepts related to stock markets such as investments, risk diversification and other particularly in the developing world is why there has been low stock markets participation in Uganda. Therefore, financial literacy in managing financial matters will enable individuals to practice positive financial behaviour such as buying stock to increase household wealth or plan for retirement.

The findings revealed that self-efficacy and stock markets participation are significantly related. This meant that when individuals possess inherent beliefs in their capacity to win, they tend to be confident enough to invest without many impediments such as fear to make losses. In other words, self-efficacy will lead to more positive financial behaviour as it mediates the required behaviours such as coping behaviour and resilience needed to make long-term investments, which include buying shares in public companies.

Moreover, the study discovered that financial literacy and self-efficacy affected stock markets participation. This is because both financial literacy and self-efficacy together provide the impetus to make and sustain investment in shares in the stock exchange. It was thus discovered that possessing the requisite financial knowledge supplemented by the mediating effect of self-efficacy behavioural mechanisms induces and maintains the investment made in purchasing shares of publicly listed companies. Consequently, financial literacy is vital to guide one's financial behaviour while self-efficacy helps the individual cope with the financial behaviour ultimately influencing the level of participation in the stock markets.

5.4 Recommendations

The following recommendations and policy implications are suggested as derived from the study findings:

The study showed that financial literacy affects the level of stock markets participation. It is therefore recommended that a large number of emerging adults become conversant through training programs and workshops in financial literacy so as to guide their financial behaviour by taking part in the buying and selling of shares in the stock exchange. These financial literacy studies should be focused on understanding concepts relevant to making stock investments.

Since we know from the vast evidence of findings in this research that self-efficacy is crucial in influencing the level of participation in stock markets, it is proposed that people are made aware through various programs of the need for financial self-efficacy. For instance, women should be taught on how to increase their levels of confidence in their own abilities and men can be trained in how to efficiently manage their emotions including fear, anger and greed so as to have a significant impact on how they handle investments made in public stocks. These suggested self-efficacy building strategies aim to address the discrepancies in financial outcomes observed amongst different people, where low self-efficacy has worked to the detriment of possible positive outcomes accrued in stock markets participation.

Given that the study revealed that financial literacy is the stronger determinant to stock markets participation as compared to self-efficacy, emphasis should be put on financial literacy and financial literacy studies should be introduced in all schools and colleges as part of their curriculum. Additionally, every parent should have the responsibility of introducing basic financial knowledge to their children right from an early age in order to shape their youngsters' financial behaviour. Governments and relevant authorities should also ensure the availability and ease of access to financial experts and counsellors for young working adults for them to receive proper financial advice. This will greatly increase the financial literacy levels in Uganda and it is incidentally expected to improve the level of stock markets participation in the country.

It is further recommended that the general public especially the working and business class be made aware of the importance of having the right financial attitude and conduct by saving, budgeting, controlling one's expenditures, living within means, focus on real assets as opposed to material things with no continuous economic value, monitoring one's expenses, and planning for one's retirement and unexpected expenses. Further, let there be in place counsellors to instil notions of self-efficacy into individuals especially those who show interest in taking up stock market investments. This is because the study shows that financial literacy moves hand in hand with self-efficacy in order to significantly affect stock markets participation.

5.5 Limitations of the study

A cross sectional research design was not as exhaustive since it bases conclusions on data collected just for a short period of time. Therefore, there was no room for making several data collection trials to check for consistence over a period of time.

Despite the assurance that the data collected was purely for research purposes and would be treated with respect and utmost confidentiality, some respondents hesitated to answer the questions. However, majority of respondents were re-contacted and were able to complete filling the questionnaire and only a limited number failed and was negligible to be left out of the study.

5.6 Areas of further research

The researcher suggests the following areas of study to future researchers:

First and foremost, this study was cross-sectional in nature implying that the research design chosen limits the study's potential to infer causation. Therefore, further research using a longitudinal study is suggested to examine the effects of the predictors of financial literacy and self-efficacy has on stock markets participation as presented in this study.

Further research on the stock markets participation among different social-economic groups should be carried out. It would be interesting to explore how stock markets participation may differ among different socioeconomic groups. For instance, this study looked at the graduate employed class mainly from the perspective of business firms. The prospective researcher can expand this study by investigating stock markets participation from a wider range including the non-working and non-business class as key research participants.

Further research on the impact of gender on stock market participation should be carried out. A body of evidence from this study and previous literature has demonstrated that gender is a key independent variable that can affect the level of stock markets participation. For instance, in this study men dominated the women in participation. However, it is still questionable to what extent gender impacts stock markets participation, therefore; there is need to investigate further to test its implication on making stock market investments.

Prospective researchers can also benefit from conducting a study on the impact of particular emotional and psychological factors on stock markets participation. This will supplement this study that abstractly treated these emotional factors under the term of self-efficacy. Future research is necessary to address which particular emotions are useful and which ones are detrimental in charging one towards or away from investment. This study provides an insight into how some emotions work to influence financial behaviour, but it is not exhaustive in nature about the phenomena.

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APPENDIX I: QUESTIONNARE

MAKERERE UNIVERSITY BUSINESS SCHOOL

Dear Respondent,

I am **JANET NANKONZI,** a student of Makerere University pursuing a master's degree in Business Administration. I am conducting a study on a topic **"Financial Literacy, Self-Efficacy and Stock Markets Participation: A Case Study of Uganda Securities Exchange Listed Companies"**. I kindly request you to take a little of your precious time and answer this questionnaire for me. The purpose of this study is entirely for academic purposes, therefore all the information provided would be treated with utmost confidentiality. I greatly appreciate and thank you very much in advance for your kind cooperation.

SECTION A: BACKGROUND INFORMATION (Please tick appropriately):

1. **Name of the company**

……………………………………………………………………………………

2. **Gender of the respondent**

Male	Female

3. Age Category of the respondent

20 – 30 Years	31 – 40 Years	41-50 Years	51 Years and above

4. Highest level of education

Certificate	Diploma	Bachelor's degree	Master's degree	Others (specify)

5. Marital status of the respondent

Single	Married	Separated	Divorced

6. Nature of the company

Sole Proprietorship	Limited liability company	Partnership	Public sector

7. How long has the company been in assistance?

1 – 5 Years	6 – 10 Years	11 – 15 Years	15 years and above

8. How would you rate your knowledge of the Stock Market?

Low	Medium	High
1	2	3

SECTION B: FINANCIAL LITERACY AND STOCK MARKETS PARTICIPATION

Please respond to the statements below by circling or ticking the most appropriate number that corresponds to your level of agreement with the statement about financial literacy in regard to stock markets participation.

Strongly disagree	**Disagree**	**Undecided**	**Agree**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

No.	**Saving**	**Scores**				
1	My savings are enhanced as a result of the ability to calculate interest rates on savings	1	2	3	4	5
2	I earn more returns on savings and investments when I am financially knowledgeable	1	2	3	4	5
3	I understand concepts such as interest projection, inflation, and the time value of money	1	2	3	4	5
4	Financial knowledge improves my financial decision-making positively	1	2	3	4	5
	Portfolio choice					
1	I am more likely to participate in financial markets when I am educated about financial matters	1	2	3	4	5

2	I am likely to make more investment mistakes if I possess low amount of financial knowledge	1	2	3	4	5
3	Financial knowledge helps me in my decision making about investing in shares issued publicly	1	2	3	4	5
4	I rely on family and friends as the main source of financial advice to invest in stocks	1	2	3	4	5
5	Proper investment in shares bought in public listed companies such as New Vision, UMEME and others improves my financial well-being in the long term	1	2	3	4	5
	Retirement planning					
1	With enough financial education, I am able to plan for my retirement	1	2	3	4	5
2	Buying shares provides me with a channel to effectively allocate my wealth over a long period of time	1	2	3	4	5
3	I will buy shares, for retirement reasons, in companies listed on Uganda Securities Exchange such as Uganda Clays Ltd due to my financial knowledge	1	2	3	4	5
4	I am better off financially when I own shares in UMEME, Uganda Clays and other listed companies	1	2	3	4	5
5	I know how much to save for retirement and how to invest their retirement savings because I improve my financial knowledge	1	2	3	4	5

SECTION C: SELF-EFFICACY AND STOCK MARKETS PARTICIPATION

Please respond to the statements below by circling or ticking the most appropriate number that corresponds to your level of agreement with the statement about self-efficacy in relation to stock markets participation.

Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
1	**2**	**3**	**4**	**5**

No.	Human inspiration	Scores				
1	In order to buy shares in publicly listed companies like Stanbic Bank Uganda, UMEME, Uganda Clays and so on, I am driven by inner feelings such as the need for respect, hope, fear, confidence, doubt and so forth	1	2	3	4	5
2	I am likely to participate in activities in which I consider myself competent and confident	1	2	3	4	5
3	Investing in my financial future excites and empowers me because of the belief I have in my abilities	1	2	3	4	5
4	Due to my self-esteem, I am likely to get more satisfaction from weighing my investment choices by focusing on the positive outcomes rather than the risks	1	2	3	4	5
5	How I see myself and my capabilities to engage in a certain behaviour can influence my outcome in the desired activity	1	2	3	4	5
	Performance accomplishment					
1	My decision to invest in shares of publicly listed companies like New Vision and UMEME depends on the current conditions in the financial market	1	2	3	4	5

2	I focus on increasing returns while decreasing risk when I buy shares in companies like Uganda Clays and other listed companies	1	2	3	4	5
3	I have to believe in my ability to make more well-planned investments such as in public company shares in order for me to produce intended outcomes such as financial well-being and long-term financial freedom.	1	2	3	4	5
4	The confidence I have in my financial future puts me in a better position to control and shape my circumstances	1	2	3	4	5
5	Uncontrolled spending habits and sometimes poor investments in material things negatively affects my financial security	1	2	3	4	5
	Emotional Wellbeing					
1	My logic and belief system influences my behaviour and eventually affects my performance in investments made in buying shares of public companies like Uganda Clays	1	2	3	4	5
2	Fear and desire are two emotions that motivate me to invest	1	2	3	4	5
3	My decisions to buy shares in public companies like Stanbic Bank, KCB Group, BAT Uganda and others are driven by my feeling and emotions	1	2	3	4	5
4	My need for more can make me to buy more shares even after shares climb to the highest levels while fear causes me to sell my shares after prices drop	1	2	3	4	5
5	The stronger belief I have, the more likely I will be morally brave to make meaningful decisions	1	2	3	4	5

SECTION D; EFFECT OF FINANCIAL LITERACY AND SELF-EFFICACY ON STOCK MARKETS PARTICIPATION

Please respond to the statements below by circling or ticking the most appropriate number that corresponds to your level of agreement with the statement about the effect of financial literacy and self-efficacy on the participation in stock markets.

Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
1	**2**	**3**	**4**	**5**

No	Investor confidence	Scores				
1	My confidence influences how I buy shares in public listed companies like UMEME, BATU, DFCU and others more	1	2	3	4	5
2	In financial markets, it's all about the participation of individuals and institutions who buy shares in public listed companies	1	2	3	4	5
3	I focus more on the positive outcomes rather than the risks associated with buying shares in public listed companies like DFCU	1	2	3	4	5
4	I buy shares as a way of generating my income	1	2	3	4	5
	Cognitive ability					
1	The more financial knowledge I have, the more I am likely to buy shares in public listed companies such as Uganda Clays Ltd	1	2	3	4	5
2	Owning shares in public listed companies like UMEME, BATU, DFCU and others increases more with my education levels	1	2	3	4	5

3	Having low financial education greatly affects the confidence of the person who may buy shares of publicly listed companies	1	2	3	4	5
4	My financial education provides me with the motivation and capacity to take good and reasonable investment in shares, thus achieving better outcomes	1	2	3	4	5
	Firm's behaviour					
1	Firms are influenced by the nature of risks involved in investing in shares of any public company like Uganda Clays, DFCU and others	1	2	3	4	5
2	Financial management capabilities of some institutions hinders them from buying shares in companies like UMEME, BATU and other public listed companies	1	2	3	4	5
3	The confidence firms have in their capabilities enhances or limits their ability to buys shares of public companies such as DFCU, UMEME, Equity Group etc.	1	2	3	4	5
4	The level of earnings got from buying shares in public companies makes firms' decisions to invest in such shares possible or not	1	2	3	4	5

THANK YOU FOR YOUR COOPERATION!

APPENDIX II: INTERVIEW GUIDE

Time start ________________ Date________________

SECTION A:

A1. Name of Institution

____

A2. Name and title of respondent____

SECTION B:

1. What do you think are the major factors that influence households and companies to participate in the stock markets?

…………………………………………………………………………………………………
………………………………………………………………………………………………..

2. In your own words evaluate the influence of financial literacy as a determinant for stock market participation?

…………………………………………………………………………………………………
…………………………………………………………………………………………………

3. Evaluate the influence of self-efficacy as a determinant for stock market participation?

…………………………………………………………………………………………………
………………………………………………………………………………………………..

4. What are the factors that hinder the individuals and firms to participate in stock market trading?

…………………………………………………………………………………………………
…………………………………………………………………………………………………

5. What do think can be done to encourage the participation of individuals and entities in stock markets?

……
……

6. Evaluate the attitude and awareness of individuals and companies in the participation and performance of stock markets.

……
……………………………………………………………………………………………………….

<u>Thank you very much for your participation</u>

APPENDIX III: TIME FRAME

The time frame is demonstrated through a Gantt chart. The Gantt chart below shows the series of activities that were done in the process of the research project. The activities are plotted against time expressed in months from the start to the end of the research project as shown below:

ACTIVITY/TIME	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021
Developing Research Proposal and Questionnaire									
Submission of Final Research Proposal									
Data Collection at the case studies									
Data Entry and Analysis									
Writing of Final Report									
Submission of Dissertation									

APPENDIX IV: PROPOSED RESEARCH BUDGET

Item	**Quantity**	**Amount (UGX)**
Writing pads	3	15,000
Pens	1 packet	20,000
Flash disk	1	40,000
Folders	10	40,000
Telephone services		100,000
Secretarial services (Type, format and print)		400,000
Internet		250,000
Binding		150,000
Data entry and analysis		500,000
Supervisor's Transport expenses		500,000
Refreshments		100,000
Research assistant		300,000
Miscellaneous		100,000
Total		**2,515,000**

APPENDIX V: KREJCIE AND MORGAN (1970) TABLE

Table for Determining Sample Size from a Given Population

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note: *N* is population size.

S is sample size.