DETERMINANTS OF STOCK MARKET PARTICIPATION BY INDIVIDUALS:
THE STUDY OF DAR-ES-SALAAM STOCK EXCHANGE

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THE STUDY OF DAR-ES-SALAAM STOCK EXCHANGE

By

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A Dissertation submitted in partial fulfillment of the requirements for the degree of masters of accounts and finance of Mzumbe University

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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the Mzumbe University a dissertation titled determinants of stock market participation by individuals. A study of Dar-es-Salaam Stock Exchange as partial fulfillment of the requirements for the Degree of Masters of Science in Accounts and Finance at Mzumbe University.

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SCHOOL OF BUSINESS

DECLARATION AND COPYRIGHT

I, **Noel Marobe,** declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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Date_____

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DEDICATION

This study is dedicated to my sisters Jane, Rehema, my best friend Mima, my father Mr. Hezekiah Masinde Marobe, for his authoritative parenting and for laying the cornerstone of my intellectual abilities. Lastly I dedicate this study to my late mother Doris and my late sister Esther may the almighty Father rest their soul in eternal life; AMEN.

LIST OF ABBREVIATION

ARU	Ardhi University
BOT	Bank of Tanzania
CDS	Central Depository System
CMSA	Capital Market and Security Authority
DSE	Dar-es-Salaam Stock Exchange
JSE	Johannesburg Stock Exchange
LAN	Local Area Network
MUHAS	Muhimbili University of Health and Allied Sciences
NSE	Nairobi Security Exchange
TAM	Technological Acceptance Model
USE	Uganda Stock Exchange
UTAUT	Unified Theory of acceptance and Use of technology
WFE	World Federation of Exchanges
WAN	Wide Area Network

ABSTRACT

The importance of well-functioning stock markets on economic development cannot be overemphasized. Since the early 1980's, many African countries embarked on the establishment of these markets. The citizen's participation however, is still very minimal. The main objective of this study was to determine the factors that influence stock market participation in Tanzania. Specifically, the aim was to examine the influence of social, economic, and financial literacy factors.

The study applied a survey approach. Both purposive and incidental data collection techniques were employed to administer the questionnaires. A total of 173 respondents completed the instrument.

The findings revealed that income, occupation, education and age were significant explanations of the determinants of stock market participation in Tanzania. On the other hand financial literacy and gender were found to be insignificant. The analysis of the findings was based on cross tabulation, chi square and binary correlation under spsss version 20 package. This study recommends that DSE needs to enhance market participation, by providing education and training to students and the public so as to increase awareness on stock issues in order to attract more participants to buy and sell shares of companies listed at the Dar-es-Salaam Stock Exchange.

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CHAPTER ONE
BACKGROUND OF THE STUDY

1.1 Introduction

Most of the developed countries like, United States of America, United Kingdom, France, and Germany have strong and efficient stock markets. These stock markets have many buyers and sellers of shares.

The importance of stock market and its linkage to economy is explained by (Demirgüç-Kunt and Levine,1996) that countries with better developed stock markets also have better-developed banks and nonbank financial intermediaries such as finance companies, mutual funds, investment companies, brokerage houses, and pension funds, while countries with weak stock markets tend to have weak financial intermediaries. This implies that stock market development goes hand-in-hand with other aspects of financial development.

A well functioning and efficient stock market holds when the market is said to be liquid and vice versa, liquidity is the ability to trade equity easily and is an indicator of market growth. It is assumed that a well functioning and efficient stock markets needs capital to be invested for the future returns in terms of dividends, but many of profitable investments require a long run commitment of capital, although savers do not like to relinquish control of their savings for long periods (Bencivenga and Smith 1991).

All these scenarios show that a necessity of having a strong, efficient and liquid stock market in Tanzania is inevitable for enhancement of economic growth of the country.

This study is concerned with the determination of stock market participation by individuals in Tanzania. The Dar-es-Salaam Stock Exchange market was a survey study based on the following merits, is the only autonomous market in Tanzania authorized by the Capital Market and Security Authority of Tanzania to manage the issues of securities in the country. The study focused on the factors that influences stock market participation by individuals.

1.2 Background to the Study

On 12 January 2012 the World Federation of Exchanges issued a market report on globe exchanges performance. The WFE reports that, equity volumes remained stable despite a fall in market capitalization. The report shows that derivatives, bonds and securities continued to grow strongly; the total turnover value remained stable in 2011 at USD 63 tn despite a sharp decrease of the global market capitalization (-13.6% at USD 47 tn) according to (WFE, 2012).

Basing on the WFE report only one African stock market namely Johannesburg stock exchange limited of South Africa performed well in the following categories, top 5 performing broad market indexes last year, on local currency terms within Europe, Africa and Middle East, number 3 in the category of largest exchanges by total value of bonds traded in USD terms out of 10 countries. Johannesburg was ranked number 5 out of 5 countries as the largest exchanges by number of equity derivates traded on single stock futures in 2011 on USD terms (WFE, 2012).

As evidenced by WFE, (2012) the Johannesburg stock exchange as an emerging market is the best stock market in Africa in terms of operational performance and individual participation. Regardless of early established in 1887 but has listed 410 registered companies. A comparison of the east African exchange market (Dar-es-Salaam Stock Exchange, Nairobi stock exchange, Uganda security exchange was done by (shahdil, 2010).

The results of his findings form the background of this study. These are Nairobi Stock Exchange perform more trades and has greater turnover than its East African counterparts. A company who needs registration on the three countries normally starts registered in Nairobi Stock Exchange first, followed by Uganda security exchanges and lastly in Dar-es-Salaam stock exchange; this is evidenced by the following companies with the registrations in the three countries, years of establishment on the bracket, Jubilee holdings ltd and Kenya airways was established in NSE (1996), USE (2002), and lastly DSE in (2004), East African Breweries based in Kenya registers in the following market, NSE in (1954), USE in (2001), DSE in (2005).

Another fact based on number of registered companies to this market where by JSE have 410 companies, NSE have 50 companies, DSE have17 companies and USE have 14 companies in accordance with African exchanges market reports. Since the registered companies sells shares to individuals and companies hence the Johannesburg security market have high liquidity, enough capital and much number of individual participants who buys shares from these companies.

The main concern here is the issue of the liquidity to Dar-es-Salaam Stock Exchanges that was left behind for years without considering issues of individual participation on the stock market as a solution to accelerate liquidity through the increasing of, number of buyers and sellers to stock market. All this contradicting situations brings attention of analyzing and examining the backwardness of the DSE on issues that determines stock market participation by individuals in order to solve the problem of liquidity.

To the best knowledge of the researcher there is no study in Tanzania conducted on determination of stock market participation by individuals, hence this study provide solutions to issues relating to individual investors on stock market and provide the basis of other researchers to conduct studies on stock market under individual perception.

1.2.1 Importance of Stock Markets on Economic Development

Stock market is a place where buyers and sellers trade company stock for a set price. In the financial world, stock simply means a supply of money that a company has raised from individuals or other organizations. If you buy stock, then you own a part of a company, this part is called a share. People who own stock are referred to as shareholders or stockholders.

Stock markets have the following significances to the economic development. Stock market is a component of financial markets that provide avenues for long term and channel them to economic ventures due to its contributions it provides to the market. This kind of contribution is like provision of liquidity, price discovery, reduced

inflation, reduced cost of financial transaction, transfer of risk, and alternative source of financing investment.

Stock markets enhances liquidity which is an engine for economic development to take over, liquidity can be easily defined as easy buying and selling of shares. According to (Emerson,1976) stock market liquidity predicts economic growth, capital accumulation and stock markets existence which stimulates the increase of productivity growth rate; the dividends from this market can be invested to the economy in terms of small business, medium business or larger business that may include manufacturing firms. These manufacturing industries provides jobs to natives, pays corporate tax to the nation, hence increases productivity growth rate of the nation in terms of gross domestic income, per capital income and national net income.

Employment opportunities, the existence of stock markets has enabled citizens and non citizens of certain countries to be employed, employment gives them money as salaries which increases their gross domestic income and gross national income which are the key components of the economic growth. Some of these employers are bureau de change, governments through its stock exchanges offices, brokers, dealers, banks, financial institutions and the like, (Levine,1996).

The capital markets have also acted to reduce the volatility of the economy. Recessions are less frequent and milder when they occur. As a result, upward spikes in the unemployment rate have occurred less frequently and have become less severe, (zervos, 1998)

Housing finance, the development of the capital markets has also facilitated a revolution in housing finance. As a result, the proportion of households in the USA that owns their homes has risen substantially over the past decade due to participation on stock markets industry, (WFE 2012)

However, effective stock markets require a firm foundation. This includes the enforcement of laws, property rights, transparency, accuracy in accounting and

financial reporting, and laws and regulations that provide the proper incentives for good corporate governance.

A well developed financial system is a spur to growth, macroeconomic performance, and in general, there exists an overwhelming consensus that well functioning intermediaries have played a significant role in economic growth (Demirgüç-Kunt and Levine, 1996; Levine and Zervos, 1998).

1.2.1.1 Link between Stock Market and Economic Growth

A first link of stock market development on the economy is based on the premise that the presence of stock markets would mitigate the principal agent problem, thus promoting efficient resource allocation and growth, (Adjasi and Biekpe, 2006). Given that the stock price at any time is mirror of firm performance, weakening corporate governance would be reflected as a fall in share price. Management would have a disincentive to work in their personal interests if their compensation is tied to stock performance, (Jensen and Murphy, 1999). Thus the emphasis is on the role of equity markets in providing proper incentives for managers to make investment decisions. (Dow and Gorton, 1997) argued that such investment decisions affect firm value over a longer time period than the managers' employment horizons through equity based compensation schemes.

Second link states that, stock markets provide an alternative channel for savings mobilization and better resource allocation, (N'Zué, 2006). They enable savings mobilisation for financing immense works, (Bagehot, 1906; Hicks, 1969; Greenwood and Smith, 1997). More efficiently mobilised savings cause capital accumulation, which firms tap to finance large projects via equity issues. This, undoubtedly, spurs economic growth, (Levine and Zervos, 1998; Adjasi and Biekpe, 2006).

Focusing on liquidity, (Bencivenga and Smith, 1991; Levine and Zervos, 1998) argue that stock market liquidity plays a key role in economic growth. Without a liquid stock market, many profitable long-term investments would not be undertaken because savers would be reluctant to tie up their investments for long periods of time. In contrast, a liquid equity market allows savers to sell their shares easily, thereby

permitting firms to raise equity capital on favorable terms. By facilitating longer-term, more profitable investments, a liquid market improves the allocation of capital and enhances prospects for long-term economic growth.

Liquidity has also been argued to increase investor incentive to acquire information on firms and improve corporate governance (Holmström and Tirole, 1993), thereby facilitating growth. Levine further argued that a liquid stock market complements a strong banking system, suggesting that banks and stock markets provide different bundles of financial services to the economy.

However, (Demirgüç-Kunt and Levine, 1996; Levine and Zervos, 1998) point out that increased liquidity can deter growth through at least three channels. First, by increasing returns to investments, greater stock market liquidity may reduce saving rates through income and substitution effects. If savings rates fall enough and if there is an externality attached to capital accumulation, greater stock market. Indeed, for the case of the African subcontinent, liquidity has been a significant factor in hampering stock market development (Adjasi and Biekpe, 2006) and consequently retards economic growth. (Naceur et al, 2007) also posit that the beneficial effect of liquidity is only found after a threshold level. Furthermore, (Chordia et al, 2006) discussed that stock market development may have no effect on fixed capital formation due to the high transaction and information costs in least developed countries.

Conclusively, stock market trading drives the global financial economy in the following channels.

1. Stock market trading provides financial capital for business growth and development. Adding capital to businesses allows for increased employment which in turn adds more spendable income to the economy.
2. Successful stock market trading provides increased income for investors, and increases the flow of money into economies.
3. The stock markets and exchange directly employ immense numbers of people to oversee the various aspects of trading.

4. Global financial re-distribution of wealth occurs when successful corporations diversify and enter global trading sectors.

1.2.2 Stock Markets in Tanzania

The stock market in Tanzania is governed by an autonomous body called Dar-es-Salaam stock exchange. The Dar-es-Salaam Stock Exchange was dully approved as stock exchange in 1994 by capital market and security Act of Tanzania, and incorporated in 1996 as a company limited by guarantee without a share capital. The DSE is a non-profit making body created to facilitate the government implementation of the reforms, and in the future to encourage wider share ownership of privatized and all the companies in Tanzania.

It became operational in April, 1998. The DSE aims on achieving the following key issues for its existence, Mission "to provide a responsive securities market which, mobilizes savings and channel them into productive sectors, encourages a saving cultures that contributes to the country's economic growth, facilitate wider access to resources" and its vision is "to be a model Securities Exchange in the Region".

1.2.3 DSE Profile

The DSE is governed by a Governing Council which consists of members drawn from the following groups in the society.

a. Three licensed dealing members.
b. Two Associate members representing listed companies.
c. One Associate member representing institutional investors.
d. Two associate members representing professions.
e. One associate member representing the public.
f. The Chief executive officer who is an ex-officio member.

1.2.4 Regulatory Framework Governing Stock market in Tanzania

The legal framework governing the entry into the business, conduct and operations of capital markets in Tanzania is built on a three-tier structure.

1. The Capital Markets and Securities Act, 1994, (Cap.79) (as amended). This is the basic law which regulates the conduct of business in capital markets. The enforcement organ is the Capital Markets and Securities Authority (CMSA).
2. The Companies Act, 2002 (Cap.212), this law regulates a wide range of corporate issues including; the formation of private as well as public companies and all matters relating to issuance of securities, rights of shareholders, prospectuses' contents, obligations of directors and governance issues. The enforcement agency is the Registrar of companies.
3. Regulations and Rules made by CMSA and DSE; the understanding that the Capital Markets are sufficiently complex and the speed of changes within the industry is so fast that the ability of the Parliament to cope with it through statutory enactments is limited.

1.2.5 Trading System at DSE

All trading at DSE trading floor is done by automated trading electronic system, which matches bids and offers using an electronic matching engine. Brokers post their orders in the system, and matching orders are displayed on computer terminals in the trading room.

Clearing and settlement is conducted through an electronic Central Depository System (CDS). This is the share registration system which facilitates registration of changes of ownership of securities electronically. The CDS facilitates the delivery of securities in time for the settlement of trades to be implemented within five working days. The automated trading system operates on a local area network (LAN).

Future plans include operation in a wide area network which can be accessed by brokers even out of Dar-es-Salaam. This system will enable the DSE to meet the potential growth expected to take place in the Tanzania securities industry.

1.2.6 Functions of DSE

Dar-es-Salaam Stock Market has the following functions.

I. Provides a market for listed securities, it enables those wishing to join or leave the listed companies to do so and vice versa. The DSE therefore provides liquidity by way of providing a continuous market for securities whereby securities are exchanged for cash.

II. Facilitates price discovery. The pricing mechanism ensures that buyers and sellers can do so at a price determined by demand and supply forces. Neither the exchanges nor brokers determine the prices of the securities traded on Stock Exchanges.

III. Facilitator of transparency, disclosure requirements put in place by the DSE require listed companies to promptly disclose all price sensitive information so that investors may make informed decisions. This is achieved at two levels; first, at the initial offering period when companies have to meet stringent listing requirements relating to offering documents and second through continuous listing obligations. In this context, the DSE becomes information clearing point between listed companies and investors (information hub).

IV. Facilitates privatization and wider ownership of resources. The DSE has facilitated and continue to facilitate the privatizations of the some parastatal organizations which were hitherto under the control of the Government whose shares have been sold by the Government through the DSE.

V. Facilitate raising of capital for enterprises. The DSE facilitates companies to sell new shares/bonds at better prices which lower the cost of capital to such companies and improves their chances of increasing operating profits. Experience has shown that investors accept higher prices for shares and lower interest rates for bonds, when the companies selling these securities are well known and have met stringent listing conditions and reporting requirements as opposed to lesser known enterprises where the investors are faced with a greater amount of uncertainty and as a result they demand lower prices for shares or higher yields as a compensation for this increased risk.

VI. Creation of wealth through investing in listed securities. It has been proved in many occasions that shares offer investors the real return because shares outperform inflation on average and have done so consistently since share markets came into existence. Shares listed at the DSE have performed very well above the inflation rate when compared with bank deposits. Shares are not a passive store of value like bank's deposits. Bank's deposits do not increase in size during the locking period but shares do increase in value over time.

VII. Contributes to the cultural transformation of Tanzanians. At the time the DSE was established, only a handful Tanzanians could claim to be knowledgeable with stock market operations. Operationalization of the DSE has contributed substantially towards public enlightenment which has caused a few Tanzanians to invest in listed companies as a result of this transformation. The public enlightenment exercise is a continuous one and will continue while taking into account past experiences. It is the DSE's goal that Tanzanians appreciate and eventually adopt a thrift culture that thrives an equity ownership in successful business concerns.

1.2.7 List of Companies Listed At DSE

Company Name	Symbol	Issued Shares
TOL Gases Limited	TOL	42,472,537
Tanzania Breweries Limited	TBL	294,928,463
Tanzania Tea Packers Limited	TATEPA	17,857,165
Tanzania Cigarettes Company Limited	TCC	100,000,000
Tanga Cement Company Limited	SIMBA	63,671,045
Swiss port Tanzania Limited	SWISSPORT	36,000,000
Tanzania Portland Cement Company Limited	TWIGA	179,923,100
Dar-es-Salaam Community Bank	DCB	32,393,236
National Micro finance Bank Plc	NMB	500,000,000
Kenya Airways Limited	KA	461,615,484
East African Breweries Limited	EABL	658,978,630
Jubilee Holdings Limited	JHL	36,000,000
Kenya Commercial Bank Limited	KCB	2,950,169,143
CRDB Bank Public Limited Company	CRDB	2,176,532,160
Nation Media Group Limited	NMG	157,118,572
African Barrick Gold Plc	ABG	410,085,499
Precision Air Services PLC		193,856,750

Source .www.dse.co.tz

1.3 Statement of the Problem

The main challenges of the stock markets globally are first, to provide a responsive securities market which mobilizes savings and channels them into productive sectors, secondly to encourage saving cultures that contributes to the country's economic growth, and thirdly to facilitate wider access to resources.

The Dar-es-Salaam Stock Exchange has failed to overcome these challenges due to the following reasons: that there are only 17 companies despite of its 14 years of existence; the volume of trade is thin (see DSE market reports); and the number of sellers and buyers in the market is few, (Shahdil, 2010). These two challenges are the typical reasons for infant markets and can be attributed to the limited instruments traded, which in turn leads to lack of liquidity.

The individual's participation in the market is of paramount importance for it to be liquid. In Tanzania, however, the majority of the population does not participate in the stock market as is the case in other parts of the world. The question is therefore,

why is it so? This calls for the need to examine the determinants of stock market participation by individuals. The current study intends to cover this gap.

1.4 Objectives of the Study

The general objective of this study was the determination of stock market participation factors by individual investors. Specifically the study focuses on empirical examination of the influence of three attributes namely; social factors, economical factors, and financial literacy on stock market participation.

1.5 Research Questions

The main research question of this study was: What are the determinants of stock market participation by individual investors? Three specific research questions that relate to this study are:

1) What are the social factors that affect stock market participation by individuals?
2) Are the individuals aware of the existence and work of stock market?
3) Which economic factors hinder the development of stock market participation in Tanzania?

1.6 Significance of the Study

The study will have significance to the following issues:

I. To academicians: the study provides reference to the academicians as basis for other researches, and as a guide to some concepts as far as the stock market issue is concerned in Tanzania.

II. To government: the study provides some issues as recommendations at the end which can be applied by the Government to provide solutions to problems on stock market participation in Tanzania in order to increase the Gross Domestic Product and enhancement of economic growth in the country.

III. The study is useful for improvement of the stock market industry in Tanzania in terms of individual participation and liquidity due to recommended solutions as suggested by researcher.

IV. To capital Market and Security Authority, as the controller of the security market in Tanzania the study is helpful on ways to increase participants on the market so as to increase liquidity.

1.7 Scope and Limitation of the Study

The scope of the study was based only on determinants of stock market participation as related to Dar-es-Salaam Stock Market; this is due to the time limit that led to some of the interested parties or partners of stock market not being included in this study. Those participants are financial institutions like BOT and CMSA, moreover, the researcher was focusing only on socio-economic, and financial literacy determinants of stock market participation, hence suggestions and recommendations on this category were of vital importance and help to the researcher.

1.8 Delimitation of the Study

This research was conducted within the following parameters, Participants and non-participants of shares under DSE market, and was limited to determinants of stock market participation by individuals based on primary data collected from Dar-es-Salaam.

CHAPTER TWO
LITERATURE REVIEW ON DETERMINANTS OF STOCK MARKET PARTICIPATION

2.0 Introduction

This chapter provides a review from various authors, academicians, professional journals and newsletters. Specifically this chapter encompasses a theoretical literature review which consists of theories and definitions relating to the study, an empirical literature review that covers findings of others or previous researchers on the same study or related study and conceptual framework which explains the variables that was used under this study. This chapter will enable the researcher to show the existing gaps on previous studies that led to this research being conducted.

2.1 Theoretical Literature Review

This part covers theories that relate to the study of determination of stock market participation by individuals. The main contents of the theory are explained under this part in terms of definition of the theory, main assumptions of the theory, prediction of the theory and its link with this study. There are various theories that could explain market participation but the following theories are relevant for this study.

2.1.1 Social Interaction Theory

This theory explains the relationship among individuals in terms of social solidarity and social patterns, these individuals are known as peer groups or sociable people. The theory can be categorized into two broad channels namely word of mouth and observational learning. The concept of social solidarity and social patterns under this theory can be explained with reference to peer groups sharing certain common values or people living in the same geographical areas. Some of these peer groups are workmates, classmates, households, neighbours, friends and such like. The theory is based on the assumption that there is a direct effect between socialization and market participation (Hong et al, 2005).

Evidence from scholars provides detailed explanations on the effect of peer groups to market participation as Banerjee, (1992); Ellison and Fudenberg, (1993, 1995) many

individuals may find it easier to learn how to open a mutual fund or brokerage account by talking to their friends than through other mechanisms. (Bernheim, 1994) model of conformity, individuals may wish to maintain the same consumption as their social group does. Banerjee and Fudenberg, (2004), (Bikhchandani and Sharma 2000) with a hearing or word of mouth model which postulates that people can hear about the returns incurred on investing in a certain market and become motivated to invest in the same market due to social interaction amongst them and vice versa for those who didn't hear the information. Hong et al, (2005) suggests that social factors have influence on market participation.

Conclusively, since the theory comprises the social factors on determination of market participation as discussed by scholars, the same theory will be of vital importance to determine stock market participation by individuals under this study.

2.1.2 Risk Aversion Theory

Risk aversion is a concept in finance that explains a situation where by investors can face risks during market participation. The major concern of investors is to mitigate these risks or uncertainties so as to gain from the market.

The theory assumes that individuals tend to invest in the market that is risk free and assume that high return investments have higher risks, low returns with lower risks and medium returns with normal risks.

Several scholars have predicted this theory in the following dimensions, (Hong et al, 2005) assert that socialization can encourage peer groups to participate in the stock market since they will be aware of the risks, returns of the market and are less risk averse on market participation. (Rabin, 2003) on the other hand predicts that the diminishing marginal utility of wealth theory of risk aversion is psychological intuitive and people are approximately neutral to risk when stakes are small. This implies that wealthy people are risk lovers hence are good investors compared to other groups.

Given that, wealth is an economic determinant under this study and the scholars have shown their impact with respect to behaviour and attitudes towards risk by individual investors. Therefore it is plausible to argue that risk aversion theory can be relevant to study market participation intentions.

2.1.3 Theory of Innovation Diffusion

This theory explains the relationship between communication of innovations (new ideas) and its social system. The theory is said to be popularized by (Rogers and Cartano, 1962).

The theory lies on the assumption that when the technology is new few people tend to buy and adopt, but as the technology gains popularity to the market its usefulness or benefits become known to the users and causes an increase of participants in the market by adapting to that technology. More over the theory assumes that the market participants adopts technology when that technology is either familiar or has shown some benefits to the users, hence the number of users of the technology increases as its usefulness diffuses to the community or market.

Several scholars have provided a detailed prediction and extension of the theory as follows. (Brancheau and Wetherbe, 1990) assert that social forces affect the introduction and diffusion process within an organization; these social forces can be defined as anything in society with the capability to cause change or anything that influences people: for example, education, religion, economy, social values, age grades, sex and the like. (Dwivedi and Lal, 2007) predict that socio-economic factors like age, sex, education and income have an effect on the diffusion theory and it influences people to invest in innovation.

The factors age, education and income predicted by scholars are the variables under this study. In due course the theory of innovation diffusion applied in the adoption of broadband in Pakistan can be of vital importance to this study by determining the stock market participation factors in Tanzania with respect to individual perspective.

2.1.4 Theory of Technological Acceptance Model

Is a theory that explains the intention of use or non-use of technology. The theory was put forward by (Davis, 1989). The theory assumes that, the intention and behaviour use of technology is determined by two beliefs, namely:-

a) Perceived usefulness, defined as the expectation that the technology will enhance one's job performance.
b) Perceived ease of use, defined as the belief that using the technology will be free of effort

This formulation of technological acceptance model has been developed as a result of extensive testing and refinement (Venkatesh and Davis 1996, 2000). Venkatesh and Davis extended the original TAM model to explain perceived usefulness and usage intentions in terms of social influence and cognitive instrumental processes. The extended model, referred to as TAM2, was tested in both voluntary and mandatory settings. The results strongly supported TAM2 (Venkatesh et al, 2003).

Several researchers have replicated Davis's original study (Davis et al, 1989) to provide empirical evidence on the relationships that exist between usefulness, ease of use and system use (Davis et al, 1989; Adams et al, 1992; Hendrickson et al, 1993; Szajna 1994; Groves et al, 2009). Much attention has been focused on testing the robustness and validity of the questionnaire instrument used by Davis. (Adams et al, 1992) replicated the work of Davis (Davis et al, 1989) to demonstrate the validity and reliability of his instrument and his measurement scales. They also extended it to different settings and using two different samples, they demonstrated the internal consistency and replication reliability of the two scales. Hendrickson et al, (1993) found high reliability and good test-retest reliability. Szajna, (1994, 1996) found that the instrument had predictive validity for intent to use, self-reported usage and attitude toward use. Al-Shafi et al, (2010) predicts that social influence determined citizen's intentions towards e –government services in Qatar.

The sum of this research has confirmed the validity of the Davis instrument, and to support its use with different populations of users and different software choices.

Conclusively, technical acceptance model has considered social influence as a factor that influences intension use of technology, since social influence is an independent variable under this study hence the theory has applicability on determinants of stock market participation by individuals. Due to this connection, the theory of technical acceptance model will be used in this study to determine the intentional use of individuals to participate in the stock market investment in Tanzania.

2.2.0 Empirical Literature Review

Several studies have been done on stock markets in the globe and Tanzania as well; their contributions have led to a knowledge gap that formulates this study. These studies are; (Brown et al, 2004) found that individuals are influenced by investment behaviour of members of their community in terms of financial and demographic characteristics. Moreover, the findings show that the influence of community members is strongest for less financially sophisticated households and strongest within peer groups as defined by age and income on publicly traded firms. These findings based on investigating the importance of geography in explaining equity market participation are the main objective under this study in United States of America.

Another recent study on stock markets was undertaken by Jeffrey et al, (2006). The findings of his study were; there is a causality relationship between the average stock market participation decisions of one's community and an individual's decision of whether to own stocks based on primary tax returns panel data from year 1987 to 1996. The researcher analysed data based on ordinary least square regression analysis (OLS).The findings of the study was, **"**an individual's equity market participation decision is influenced by the equity market participation of other individuals in the community".

A survey study conducted in Holland using panel data and questionnaires by (Van Rooij et al, 2007) on stock market participation found that, there is an independent effect between financial literacy and stock market participation. This implies that

people who have either low knowledge on financial literacy or who lack knowledge on economics and finance are significantly less likely to invest in stock markets.

Hong et al, (2005) found that stock market participation is influenced by social interaction, which means investors find a market attractive when their peer group participates in that market and the impact of sociability is stronger in those states where stock market participation is higher. More over the findings show that the differential between social and non-social households appears to have widened over the course of the 1990's, as overall participation rates climbed sharply with respect to United States of America. These peer groups are those who interact with their neighbours, those who attend church together and such like, as described by the social interaction theory in the theoretical literature review.

A related study on socio-economic determinants of broadband adoption by (Dwivedi and Lal, 2007) found that socio-economic determinants such as education, age, income and occupation except for gender significantly helped to explain differences between adopters and non-adopters of broadband by survey instrument. Based on this fact, this study assumed that these socio-economic determinants can also influence stock market participation by individuals in Tanzania.

Another recent study on stock market participation was done by (Luotonen, 2009). The findings of his study were personal values significantly affect the probability of stock market participation, that it is those people who emphasize the self enhancement values of power and achievement that are more likely to invest in the stock market than others. The influence of value orientation is stronger than that of several previously suggested determinants of participation. Moreover the researcher found that emphasis on the conservation values of tradition, conformity, and security increases the probability of reporting non-interest in stocks and equity funds are the reason for not investing in the stock market.

Grinblatt et al, (2011) conducted a study on stock market participation using panel data from the following six authorities in Finland namely: Finnish Central Securities Depository Registry (FCSD), Helsinki Exchanges (HEX) Stock Data, Finnish Tax

Administration (FTA) Data, Finnish Armed Forces (FAF) Intelligence Assessment, Finnish Address Data Set and Finnish Census Data Set. The conclusion drawn from the regression analysis model was that stock market participation is monotonically related to IQ controlling for wealth, income, age and other demographic and occupational information. The high correlation between IQ and participation exists even among the affluent and higher IQ investors are more likely to hold mutual funds, larger number of stocks, experience lower risk and earn higher sharp ratios.

A surveyed research on Dar-es-Salaam stock exchange was done by (shahdil, 2010), Aimed at finding the reasons why DSE was stagnant compared to two east African community stock exchanges in Kenya and Uganda. The results of his findings were that out of 68 participants, only 27 were aware of the DSE but 41 participants had never traded in the stock exchange which is 60% of all the population. Nairobi stock exchange performs a lot of trades and has greater turnover than its East African counterparts and companies doing business in East Africa; it lists first in NSE followed by USE market, and lastly to DSE. Conclusively the researcher found that the DSE is a more difficult exchange to get listed on.

2.3 Conceptual Framework

The aim of this section is to develop an integrated conceptual model to assess factors that determine stock market participation by individuals. The dependent variable is market participation.

Dependent Variables; these are variables which the researcher has no control over it. This variable is the one that acts as the main base of all variables. The dependent variable responds to the independent variable. It is called dependent because it depends on the independent variable (Patton, 1990). Under this study, the dependent variable is market participation whereby the other variables (independent variables) depend on this nature. The dependent variable under this study is stock market participation.

Market participation as a dependent variable under this study is defined as a situation whereby people invest or participate in the market by buying or selling the product.

Under this study the product is shares of companies listed at DSE. Market participation is both a cause and a consequence of economic development. The measurement between stock market participation and non-participation was done against the independent variables (age, income, education, gender, occupation and financial literacy) based on binary questions on the structured questionnaire**.**

Independent Variables: an independent variable is the variable which the researcher has control over. It is usually what the researcher thinks will affect the dependent variable. In some cases, the researcher may not be able to manipulate the independent variable. It may be something that is already there and is fixed. Something a researcher would like to evaluate, with respect to how it affects something else; the dependent variable (Patton, 1990). The independent variable under this study was social, economic determinant and financial literacy.

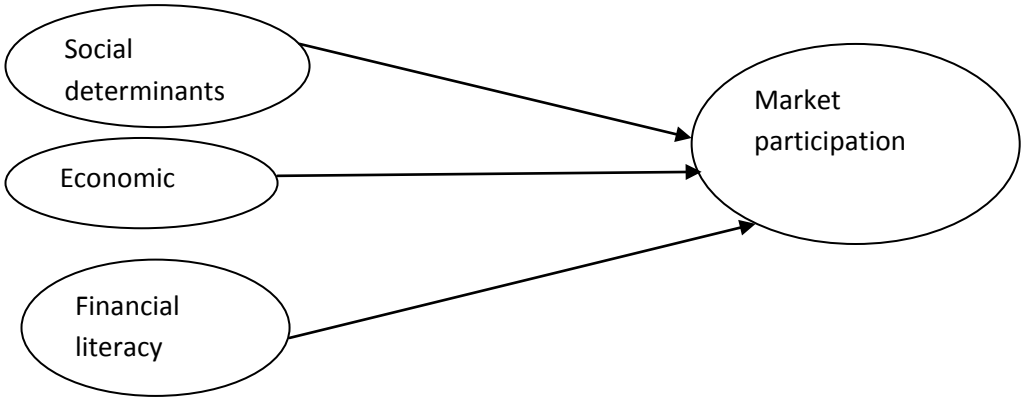
Socio-economic determinants: socio-economic determinants have a direct relationship with broadband adoption and non-adoption; information systems (IS) researchers employed socio-economic characteristics to study various issues including adoption and usage of technology within organizations (Venkatesh et al. 2003; Dwivedi and Lal, 2007). These characteristics are age, income, education level and occupation; their findings were some of the social economic determinants influenced adoption and non-adoption of broadband or technology. Since the socio-economic determinants influenced adoption and non-adoption of technology they therefore can have influence on stock market participation by individuals under this study.

Financial literacy: Financial literacy often entails the knowledge of properly making decisions pertaining to certain personal finance areas like real estate, insurance, investing, saving (especially for college), tax planning and retirement. It also involves intimate knowledge of financial concepts like compound interest, financial planning, and the mechanics of a credit card, advantageous savings methods, consumer rights, time value of money and the like.

Financial literacy has a direct relationship with stock market participation. A study by the (Co-operation, 2005) and work by (Lusardi and Mitchell, 2011) considered financial literacy as an independent variable on stock market participation or non-participation, due to this fact the same variable was considered of vital importance under this study of market participation by individual investors.

Therefore the aim of this study was to conduct an empirical examination to determine the impact of social, economic determinant and financial literacy attributes such as age, income, occupation, gender, education level and financial literacy upon stock market participation by individual investors as shown on diagram 1 below.

Figure 1: Conceptual Model for Determinants of Stock Market Participation by Individuals



Source. Researcher's own construction

Model. Market participation = f (social determinants + economic determinants +financial literacy +error)

2.3.1 Definition of Variables and Research Hypothesis

The variables under this study comprised of social determinants such as age, education level, occupation and gender. Economic determinants include income; financial literacy has only one variable namely income. Moreover, this part encompasses the research hypothesis of the study.

A research hypothesis is a tentative answer to a research problem expressed in the form of a clearly stated relation between independent (cause) and dependent (effect) variables. Hypotheses are built around a more general research problem (Kenneth, 2005). This part formulates hypotheses derived from literature to test whether a statistically significant relationship exists between these variables. In this study, the explanatory key variables were classified as, social determinants of stock market (age, gender, education, occupation), economic determinant of stock market (income) and financial determinant of stock market (financial knowledge).

2.3.3 Age

Age is defined as the length of time a being or thing has existed, normally for man it is measured in years. Various researchers provide a relationship between age and market participation or non-participation these are, (Banisi and Finch, 2001) argued that age can be employed as a factor or independent variable to explain a particular social grouping, social process, or piece of individual or collective behaviour, (Dwivedi and Lal, 2007) assert that age is an independent factor that determines the adoption of broadband.

Age is an independent variable under this study that determines the stock market participation or non-participation. Its effect to stock market participation was measured by a binary question of age groups against stock market ownership on the questionnaires administered. The hypothesis drawn from this variable was H1; there is a difference between market participants and non-participants of the various age groups.

2.3.4 Education

Education in its general sense is a form of learning in which the knowledge, skills, and habits of a group of people are transferred from one generation to the next through teaching, training, or research. Education frequently takes place under the guidance of others, but may also be auto-didactic.

Several researchers have included education as an independent variable. (Burgess, 1986) argued that individuals with educational qualifications are more likely to

achieve higher status occupations; therefore such individuals are more likely to adopt innovations. (Rogers, 1995) described education as a correlation or antecedent of innovativeness. This study proves that education can also be considered as an independent variable as suggested by scholars above. The deterministic nature of age under this study was measured by a binary question on stock market participation or non-participation against different education levels by the population.

The research hypothesis that explains this variable was H2; there is a difference between the participants and non-participants of stock market in terms of education.

2.3.5 Occupation

Occupation can be referred to as a job (role) or regular activity performed for payment that occupies one's time. Arguments of using occupation as independent variable have been done by various scholars, (Rogers, 1995) described socio-economic status (income and occupation) as a correlate or antecedent of innovativeness, (Dwivedi and Lal, 2007) argued that, occupation is a variable that helps to explain the non-participation of technology adoption.

The deterministic nature of occupation on stock market participation or non-participation under this study was measured based binary question between stock market participation and non-participation against different occupation groups. The research hypothesis under this variable was H3; there is a difference between the participants and non-participants of stock market of different types of occupation.

2.3.6 Gender

Gender is defined by FAO as 'the relations between men and women, both perceptual and material.' The connection between participation and non-participation against gender can be explained by the following researchers.

Harrison, (1997) argued that gender is not determined biologically, as a result of sexual characteristics of either women or men, but is constructed socially. It is a central organizing principle of societies, and often governs the processes of production and reproduction, consumption and distribution, (Bravo-Baumann, 2000).

Gender relations affect household security, family well-being, planning, production and many other aspects of life, (Bravo-Baumann, 2000). According to (Lewis and Morgan, 1994) gender is a key and common variable in social investigations.

Gender as an independent variable under this study was measured using a binary question between stock market participation and non-participation against gender. The research hypothesis that explains gender was H4; there is no significant gender differences between the participants and non-participants of stock market by individuals.

2.3.7 Income

Is the consumption and savings opportunity gained by an entity within a specified time frame, which is generally expressed in monetary terms. However, for households and individuals, income is the sum of all the wages, salaries, profits, interest payments, rents and other forms of earnings received in a given period of time. In the field of public economics, the term may refer to the accumulation of both monetary and non-monetary consumption ability, with the former (monetary) being used as a proxy for total income.

Various scholars used income as independent variables in the following sense. Rogers, (1995) described socio-economic status (income) as an income correlate or antecedent of innovativeness. (Dwivedi and Lal, 2007) described income as an independent variable that determines the broadband adoption.

Income under this study was measured using a binary question between stock market participation, non-participation and income groups. The research hypothesis that explains income was H5; there is a difference in terms of household's income between the participants and non-participants of stock market.

2.3.8 Financial Literacy

The possession of knowledge and understanding of financial matters, financial literacy, is mainly used in connection with personal financial matters.

Financial literacy often entails the knowledge of properly making decisions pertaining to certain personal finance areas like real estate, insurance, investing, saving (especially for college), tax planning and retirement. It also involves intimate knowledge of financial concepts like compound interest, financial planning, and the mechanics of a credit card, advantageous savings methods, consumer rights, time value of money and the like.

A study by (Co-operation, 2005) and work by (Lusardi, 2011) considered financial literacy as an independent variable on stock market participation or non-participation, due to this fact the same variable was considered of vital importance under this study of market participation by individual investors.

Financial literacy was measured by a binary question between stock market participation and non-participation against financial knowledge of the stock market on the questionnaire administered. The research hypothesis that explains financial literacy was H6; there is difference to participants and non-participants of stock market participation in terms of financial knowledge.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodological framework and research design of this study. The contents of this chapter are research design, population of the study, area of the study, sampling approach and procedures, data collection strategy, data processing, data analyses strategy, and the reliability of data and validation of data.

3.2 Research Design

The research design is the overall plan or program of the research, based on the particular area of the study. Normally the research design enables a researcher to use effectively and efficiently financial resources endowed for the study.

A survey study was done on this study due to large sample of data, large number of cases, field research. More over empirical research survey creates an enabling environment for combining variety tools including questionnaires, so as to conduct a thorough inquiry in the phenomenon of stock market participation based on a larger number of population used by a researcher in a quantitative approach so as to draw a reasonable conclusion.

3.3 Population of the Study

The population of the study was people living in Dar-es-Salaam city. This population was given priority due to the following reasons. First, most of the companies listed under Dar-es-Salaam stock exchange have their head quarters at the city hence it was easy to get data of share holders from this companies. Second, brokers offices are found at the city hence enabled a researcher to be linked easily with share holders. Third, the city has good communication and infrastructure network hence it was cheaply and easily to move around during data collection period. Lastly the availability of various individuals in the city inspires a researcher to use Dar-es-Salaam as a case study; this enabled him to draw a reasonable conclusion of the study. The said individuals are availability of university students at the city, most of bankers, large income earners, most of large businessmen and educated individuals

are assumed to live in the city. Regardless of those reasons but also the Dar-es-Salaam exchange is located at the city this testimony that residents of the city are almost aware of the function and activities of the stock market than the up-country residents. Specifically, Muhimbili University and hospital, Ardhi University, CRDB Bank, AAR Health Centre, DCB Bank, Tanzania Breweries Limited and residents of the city were the population used under this study.

The major reason behind this population was to combine different academic angles (professionalism) so as to draw a reasonable conclusion this based on assumption that (MUHAS) is a medical centre and comprises of doctors and medical students, ARU the population taken were final year students in Accounts and Finance and some of their lecturers, CRDB bank and DCB bank were bank workers whom the researcher assumes have knowledge on dividends and business, TBL an industry that has several individuals for example engineers, accountants, marketers and so on and lastly residents of the city who were incidentally sampled. The population under this study balanced all dimensions of academics, professionals and individuals.

3.4 Area of the Study

The area of the study was Dar-es-Salaam. This was selected since it's the only board that is licensed by capital market and security of Tanzania to control and manage all issues relating to stock market in the nation. This means that any related issue on stock in Tanzania must consider DSE as the heart of stock market in the country.

3.5 Sampling Approach and Procedures

According to (Kothari, 2009), a sampling design can be defined as a definite plan for obtaining a sample from a given population or the procedure that the researcher adopts in selecting items for the sample.

Relying on the nature of the study, time framework for the study and budget available for the study were the key issues to be considered for sampling design. Basing on those limitations the researcher used a sample size of 250 people.

The sampling approach used was categorized as incidental sampling and purposive sampling. Purposive sampling was used to populations owning shares only. The researcher had prior information of these respondents, and requested them to participate in the study. Incidental sampling was used to populations with intention of getting either share holders or non share holders. All in all the population used was from Dar-es-Salaam this was done in accordance with the nature of the study.

3.6 Data Collection Strategy

In order to draw a reasonable conclusion on this study, only primary data was collected based on questionnaires. Primary data is fresh data collected from the first time respondents and it is original in nature (Kothari, 2009). Under this study the primary data was collected based on a questionnaire method. Questionnaires are a technique for collection of data beyond the physical reach of the researcher (Kothari 2009). Questionnaires were employed as devices to gather information about people's opinions or perception on the topic under study.

This study employed self-structured administered questionnaires. The reason behind self-administered questionnaires are that it addressed the issue of reliability of information by reducing and eliminating differences in the way by which the questions are asked (Klecun and Cornford, 2005), relatively low costs of administration, it can be accomplished with minimal facilities, it provides access to widely dispersed samples, respondents have time to provide thoughtful answers, it helps in asking questions with long or complex response categories; it allows asking of similar repeated questions, and also the respondents do not have to share answers with interviewers (Groves et al, 2009).Only 173 people responded to questionnaires employed by a researcher out of 250 people.

3.7 Data Analyses Strategy

Data collected from the field was organized in a manageable and meaningful form through editing, coding, checking and comparing the information to have the relevant information which was used to draw a reasonable conclusion.

The unit of analysis focuses on determinants of stock market participation by individuals. The analysis of data based on quantitative approach through application of chi square, cross tabulation and binary correlation between market participation against the deterministic variables on stock market participation.

3.8 Reliability and Validity of Data

Data reliability and validity is a cornerstone of making a successful and meaningful study. In order to draw a reasonable conclusion a researcher collected data based on primary survey instrument. A primary survey instrument t(self-administered questionnaire) method was used during data collection, this method is said to be much reliable since it reduces and eliminating differences in the way by which the questions were asked (Cornford and Smithson, 1996).

More over a cronbanch's or alpha test was done to variables and found to be 0.775 which is more significant and reliable according to (Hinton et al, 2004)

Cronbach's Alpha	N of items
0.775	173

CHAPTER FOUR

DATA ANALYSES AND DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter presents the findings of the study, analysis of the study and discussion of the findings. Furthermore this chapter attempts to answer the hypothesis of the study.

4.2 Data Analysis

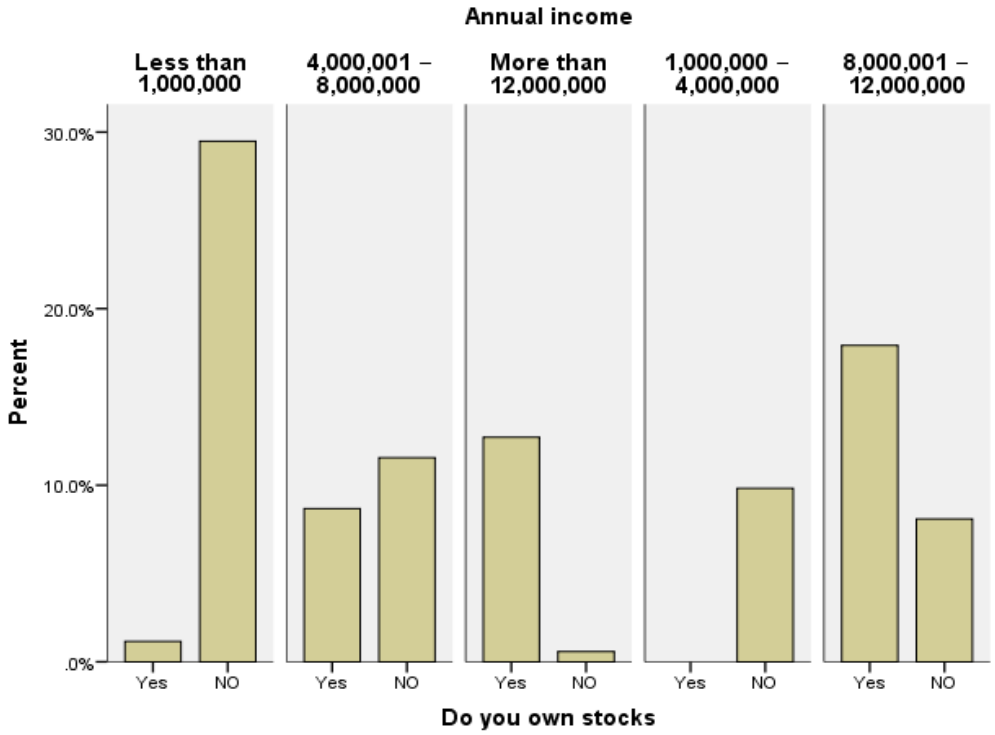
The questionnaire data was analysed by statistical package software version 20 (SPSS 20), this allowed for calculation of frequency through cross tabulation, percentage, chi square and binary correlation on 173 respondents to analyse the variables determined under this study. The reason for using this package based on the fact that variables on this study were nominal based, in so doing to test the determinants of market participants and non-participants of stock markets the chi square method was considered to be the most appropriate method (brace et al, 2003), (Dwivedi, 2007). In order to examine the of association between stock market participation and its determinants the Spearman's P correlation method was utilized (Dwivedi and Lal, 2007).

4.2.1 Research Findings

4.2.1.1 Income

Out of 173 respondents (figure 4.0), 30.6% of respondents earned income less than Tshs 1,000,000 million per year, followed by 20.2% whose income was Tshs 4,000,001 million to Tshs 8, 000, 000 million, 13.3% had income of more than Tshs 12,000,000 million, 26.0% had income ranging from Tshs 8,000,001 to Tshs 12,000,000 million and the least income household was Tshs 1,000,000 million to 4,000,000 million which was 9.8% of the respondents.

Figure 4.0 Annual Income and stock ownership Frequency Distribution



Seventy (70) respondents owned shares registered under DSE as related to income which is 40.5%, while 103 numbers of respondents received had no shares under DSE as related to income which is 59.5% of the all population. The 40.5% of ownership of shares and 50.5% of non shares under DSE has been tabulated on table 4.1 with respect to income household per year.

The distribution of income to share holding shows that 17.9% of share owners had income ranging from Tshs 8,000,001 to 12,000,000 million, followed by 12.7% who had income of more than Tshs 12, 000,000, household income owners ranging 4,000,001 had shares equals to 8.7% and lastly income household of less than Tshs 1,000,000 million had shares equal to 1.2%. This is in accordance with table 4.1 above. This implies that stock participation in Tanzania especially Dar-es-Salaam is determined by level of income, since higher income earners own shares under DSE than low income earners.

Table 4.0 Cross tabulation between stock market participation against annual income.

			Annual income					Total
			Less than 1,000,000	4,000,001 – 8,000,000	More than 12,000,000	1,000,000 – 4,000,000	8,000,001 – 12,000,000	
Do you own stocks	Yes	Count	2	15	22	0	31	70
		% within Annual income	3.8%	42.9%	95.7%	0.0%	68.9%	40.5%
		% of Total	1.2%	8.7%	12.7%	0.0%	17.9%	40.5%
	NO	Count	51	20	1	17	14	103
		% within Annual income	96.2%	57.1%	4.3%	100.0%	31.1%	59.5%
		% of Total	29.5%	11.6%	0.6%	9.8%	8.1%	59.5%
Total		Count	53	35	23	17	45	173
		% within Annual income	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	30.6%	20.2%	13.3%	9.8%	26.0%	100.0%

Source: Research findings (2013)

To test for the deterministic nature of income against market participation a chi square method was used, as applied by (fowler 2002) on internet access at home and (Dwivedi and Lal) on social determinants of technology for two variables gender and age. The findings are, there is a linear association between income and market participation, and hence income is strongly significant to stock market participants since it has a Pearson's chi-square of 0.000 at 95% confidence interval as shown in table 4.1.

Table 4.1 Chi-Square Tests between stock market participation and annual income

Annual income	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	85.426[a]	4	.000
Likelihood Ratio	104.634	4	.000
Linear-by-Linear Association	30.401	1	.000
N of Valid Cases	173		

Source: Research findings (2013)

A binary correlation outcome was done between annual income and stock market participation, the results from correlation tests show that annual income is strongly

correlated to stock market participation under two tailed test as shown on table 4.3 below.

Table 4.2 Correlations between stock market participation and annual income

Annual income		Do you own stocks	Annual income
Do you own stocks	Pearson Correlation	1	-.420**
	Sig. (2-tailed)		.000
	N	173	173
Annual income	Pearson Correlation	-.420**	1
	Sig. (2-tailed)	.000	
	N	173	173

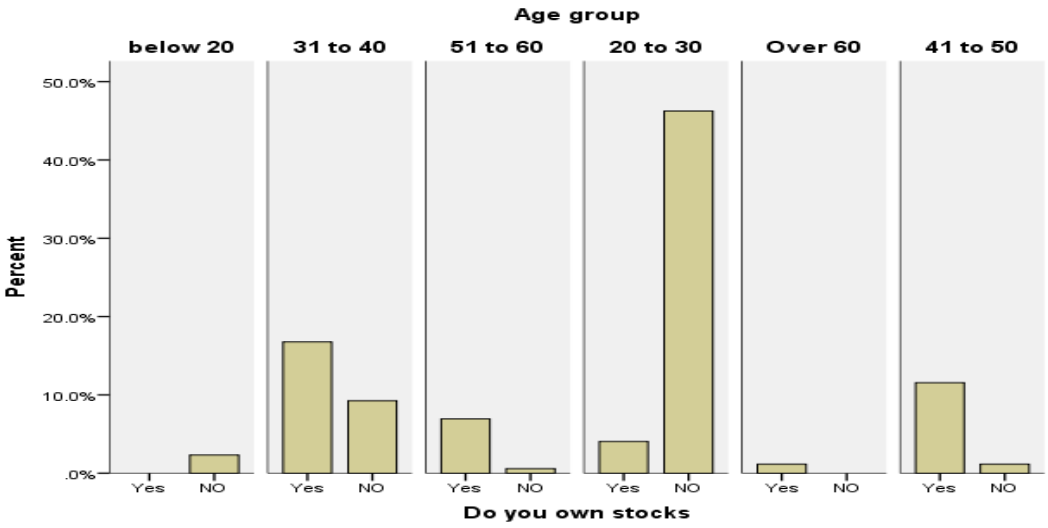
**. Correlation is significant at the 0.01 level (2-tailed).

Source: Research findings (2013)

4.2.1.2 Age

173 people responded to questionnaires regarding age group versus stock market participation (figure 4.1). The age analysis with respect to respondent is as follows, 50.3% of age respondent were aged 20 to 30, followed by 26% in the age group of 31 to 40, 12.7% in the group of 41 to 50, 7.5% in the group of 51 to 60, 2.3% in the age group that is below 20 and lastly 1.2% which falls under age group of over 60.This implies that the largest response lies on people aged in a group of 20 to 3o years and the smallest responded group lies in the group aged below 20 years as shown on figure4.1.

Figure.4.1 Age Group Frequency Distribution



The cross tabulation of stock market participation in terms of shares owning and non shares owning on age group as shown on table 4.5, illustrates that out of 70 shares owners under DSE which is 40.5% of all respondents. The largest part of share ownership lies in the age group of 31 to 40 which is 16.8%, followed by the age group 41 to 50 with 11.6% .Then the age group 51 to 60 with 6.9%, the age group of over 60 with 1.2% and the last age group which below 20 has 0%. This implies that age group 31 to 40 is the investing group of shares in Tanzania and the over 60 age group is a retirement age hence few people invested in the market. Out of 103 people who are non-shareholders of DSE, 46.2% of the age group 20 to 30 forms the largest non-share group. The smallest age group was 0% which falls under the age group of over 60, this implies that this age comprises of most students hence it needs to be emphasized.

Table 4.3 Cross tabulation between age group and stock market participation

			Age group						Total
			below 20	31 to 40	51 to 60	20 to 30	Over 60	41 to 50	
Do you own stocks	Yes	Count	0	29	12	7	2	20	70
		% within Age group	0.0%	64.4%	92.3%	8.0%	100.0%	90.9%	40.5%
		% of Total	0.0%	16.8%	6.9%	4.0%	1.2%	11.6%	40.5%
	NO	Count	4	16	1	80	0	2	103
		% within Age group	100.0%	35.6%	7.7%	92.0%	0.0%	9.1%	59.5%
		% of Total	2.3%	9.2%	0.6%	46.2%	0.0%	1.2%	59.5%
Total		Count	4	45	13	87	2	22	173
		% within Age group	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	2.3%	26.0%	7.5%	50.3%	1.2%	12.7%	100.0%

Source: Research findings (2013)

As described by income test approach, a chi square method was done to test the relationship between participation and age groups as shown on table 4.4. The findings of the study were a Pearson's value of 0.000 at 5% level of confidence interval.

This implies that age is significant to stock market participation or non stock market participation.

Table 4.4 Chi-Square Tests between age group and stock market participation

Age	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	92.100[a]	5	.000
Likelihood Ratio	105.766	5	.000
Linear-by-Linear Association	.000	1	.992
N of Valid Cases	173		

Source: Research findings (2013)

A binary correlation was done to define the stock market participation and non-participation in terms of age. The findings of binary correlation supported a chi square method that age is significant to stock market participation with a Pearson's

correlation of 0.01 as shown on table 4.5 and, there is no degree of association between age and stock market participation as explained by two tailored tests.

Table 4.5 binary correlations between age and stock market participation

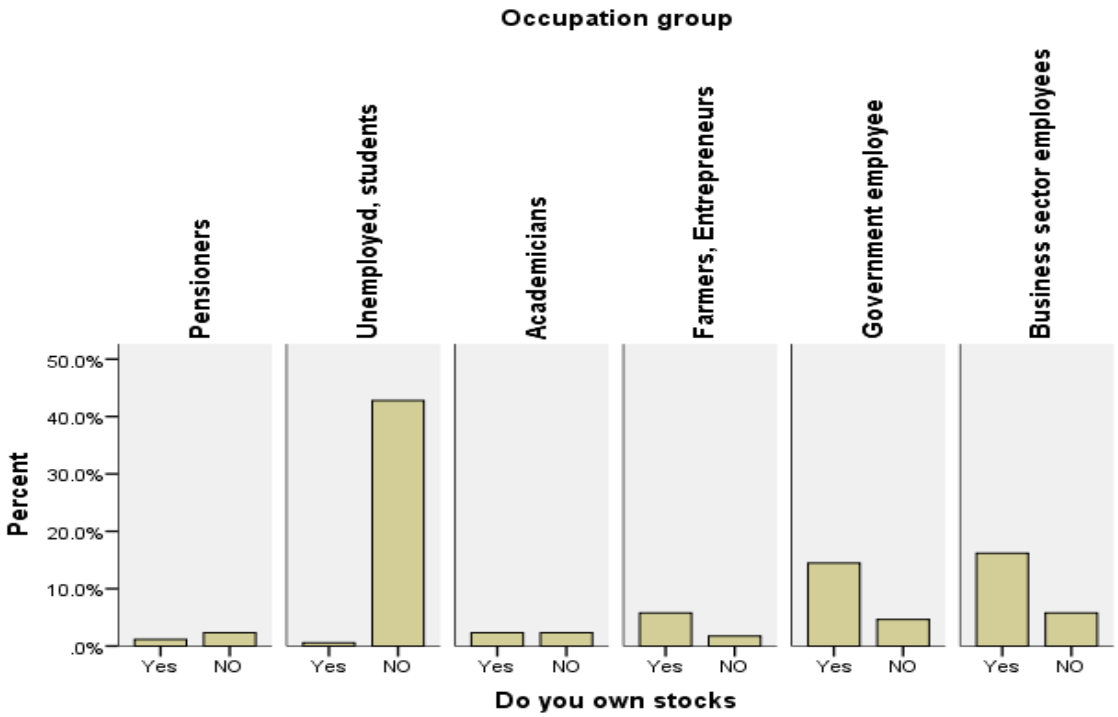
		Age group	Do you own stocks
Age group	Pearson Correlation	1	.001
	Sig. (2-tailed)		.992
	N	173	173
Do you own stocks	Pearson Correlation	.001	1
	Sig. (2-tailed)	.992	
	N	173	173

Source: Research findings (2013).

4.2.3 Occupation

173 people responded to the question relating to occupation against stock market participation and non-participation. Frequency analysis of respondents shows that, unemployed or students were 43.4%, business sector employees were 22%, government employees were 19.1%, farmers or entrepreneurs were 7.5% and pensioners were 3.5% out of 100% respondents as shown on figure 4.2. This implies that most of the students responded positively and pensioners had low number of respondents compared to other occupation groups.

Figure 4.2.Occupation Frequency Distribution



Moreover, table 4.6 shows that, only 40.5% occupancy had shares on DSE and 50.5% occupancy had no shares on DSE. Out of 40.5%, business sector employees hold 16.2% which is the major ownership percent, government employees owns 14.5%, farmers or entrepreneurs 5.8%, academicians 2.3%,pensioners 1.2% and 0.6% lies on unemployed or students occupancy category which is a minor percent. On the other hand out of 59.5 % non shares 42.8% students or unemployed had no shares under DSE and the minor group being 1.7 famers and entrepreneurs who had no shares as shown on table 4.6. This implies that business sector employees are major share owners under DSE while the farmers and students are not highly engaged on stock market investing under DSE.

Table 4.6 Cross tabulation between occupation and stock market participation

			Occupation group						Total
			Pensioners	Unemployed, students	Academicians	Farmers, Entrepreneurs	Government employee	Business sector employees	
Do you own stocks	Yes	Count	2	1	4	10	25	28	70
		% within Occupation group	33.3%	1.3%	50.0%	76.9%	75.8%	73.7%	40.5%
		% of Total	1.2%	0.6%	2.3%	5.8%	14.5%	16.2%	40.5%
	NO	Count	4	74	4	3	8	10	103
		% within Occupation group	66.7%	98.7%	50.0%	23.1%	24.2%	26.3%	59.5%
		% of Total	2.3%	42.8%	2.3%	1.7%	4.6%	5.8%	59.5%
Total		Count	6	75	8	13	33	38	173
		% within Occupation group	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	3.5%	43.4%	4.6%	7.5%	19.1%	22.0%	100.0%

Source: Research findings (2013).

The chi square method was done to analyse the differences between occupation and participation of stock market, the result shows a Pearson's value of 0.000 as shown on table 4.7. This implies that occupation is strongly significant to stock market participation.

Table 4.7 Chi square test between occupation and stock market participation

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	89.744[a]	5	.000
Likelihood Ratio	109.744	5	.000
Linear-by-Linear Association	73.163	1	.000
N of Valid Cases	173		

Source: Research findings (2013).

A study based on participation or non-participation hence a binary correlation between occupation and stock market participation was done. The result of the findings was a significance level of 0.000 between occupation and stock market participation. This implies that occupation is strongly significant to stock market participation as expressed on table 4.8.

Table 4.8 Correlations between occupation and stock participation

		Do you own stocks	Occupation group
Do you own stocks	Pearson Correlation	1	-.652**
	Sig. (2-tailed)		.000
	N	173	173
Occupation group	Pearson Correlation	-.652**	1
	Sig. (2-tailed)	.000	
	N	173	173

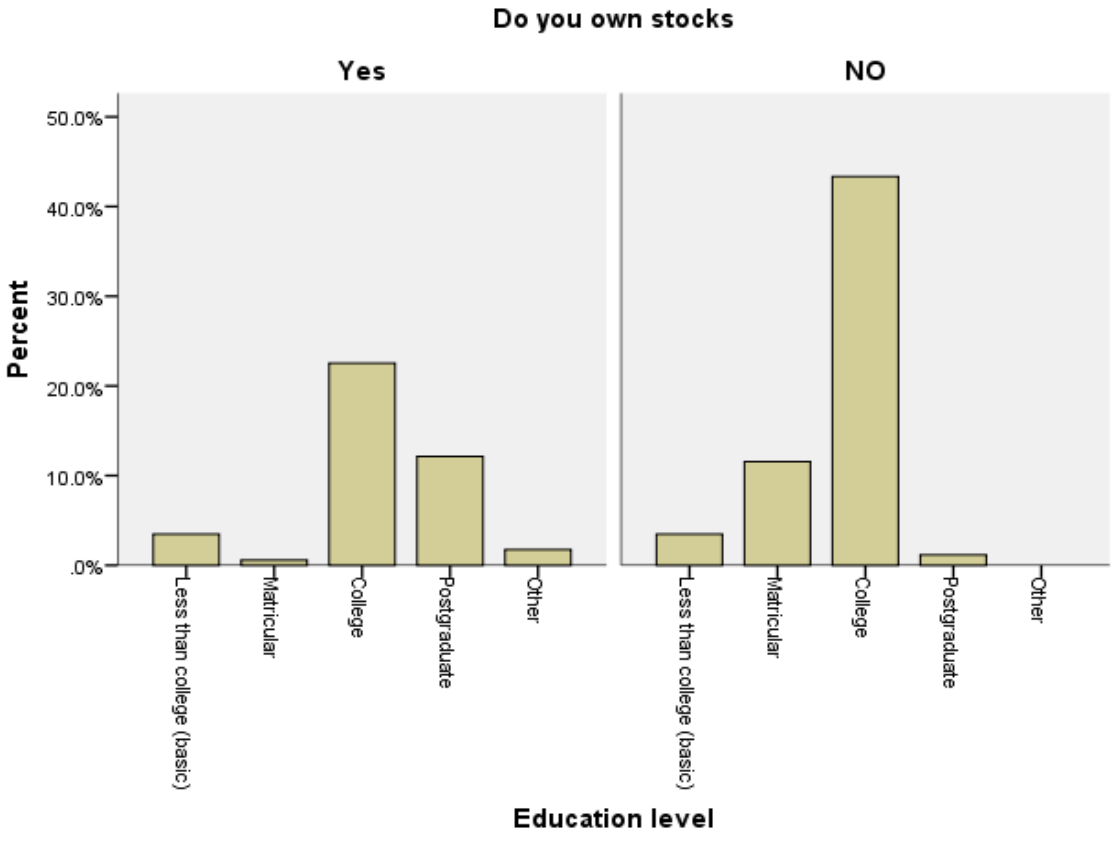
** Correlation is significant at the 0.01 level (2-tailed).

Source: Research findings (2013).

4.2.4 Education

Out of 173 respondents received, 65.9% had college education level, postgraduate level were 13.3%, matricular level were 12.1%, basic level were 6.9% and other level were 1.7% as shown on figure 4.3.

Figure 4.3 Education Level Frequency Distribution



The frequency distribution of shares and non shares against education level is 40.5% had shares listed on DSE and 59.5% had no shares on DSE as shown on table 4.9. A cross tabulation between stock ownership and education level shows that a larger percent lies on bachelor degree holders who owns shares by 22.5% and the least education level was matricular level who owns shares by 0.6%, the other distribution lies on the following percentages, postgraduate level 12.1%,basic level 3.5% and other level 1.7%. On the other hand 43.4% of bachelor degree holders had no share which is the higher percent and the lower percent being 0.0% for other education category as shown on table 4.9. This implies that degree holders are the major participants of stock market in terms of share ownership or non-ownership. On the other hand the number of matricular is said to be very small compared with even those whose level of education is less than college level whom have 3.5% according to table 4.9 below.

Table 4.9 Cross tabulation between education level and stock market participation

			Education level					Total
			Less than college (basic)	Matricular	College	Postgraduate	Other	
Do you own stocks	Yes	Count	6	1	39	21	3	70
		% within Education level	50.0%	4.8%	34.2%	91.3%	100.0%	40.5%
		% of Total	3.5%	0.6%	22.5%	12.1%	1.7%	40.5%
	NO	Count	6	20	75	2	0	103
		% within Education level	50.0%	95.2%	65.8%	8.7%	0.0%	59.5%
		% of Total	3.5%	11.6%	43.4%	1.2%	0.0%	59.5%
		Count	12	21	114	23	3	173
		%within education level	6.9%	65.9%	12.1%	13.3%	1.7%	100%

Source: Research findings (2013)

The Pearson's chi square test validated that there is a strong significance of differences between stock market participation as related to education level with a Pearson's of 0.000 as tabulated on table 4.10.

Table 4.10 Chi-Square Tests between stock market participation and education level

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	42.506[a]	4	.000
Likelihood Ratio	48.757	4	.000
Linear-by-Linear Association	16.875	1	.000
N of Valid Cases	173		

Source: Research findings (2013)

Lastly a binary correlation was done to support the analysis of chi square method. A binary correlation shows a significance value of 0.000, this implies that education level is strongly significance to stock market participation as shown on table 4.11.

Table 4.11 Correlations between education level and stock market participation

		Do you own stocks	Education level
Do you own stocks	Pearson Correlation	1	-.313**
	Sig. (2-tailed)		.000
	N	173	173
Education level	Pearson Correlation	-.313**	1
	Sig. (2-tailed)	.000	
	N	173	173

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

Source: Research findings (2013)

4.2.5 Gender

Respondents on gender were 173 people whom males were 110 people (63.6%) and females were 63 people or 36.4% as shown on figure 4.4.This implies that males responded much more to the questionnaires than females.

Figure 4.4 Gender Frequency Distribution

The cross tabulation of gender against stock market participation shows that 22.5% of males and 17.9% of females had shares listed on DSE out of 40.5% who are share holders. On the other hand 71 males (41.0%) and 32 females (18.5%) had no shares on DSE out of 59.5% non share holders under DSE as shown on table 4.12.This implies that males are much investing on shares than females. The difference between share owning between male and females is not significant or large, but approximately 4.6% as shown on table 4.12.

Table 4.12 Cross tabulation between gender and stock market participation

			What is your gender		Total
			Male	Female	
Do you own stocks	Yes	Count	39	31	70
		% within What is your gender	35.5%	49.2%	40.5%
		% of Total	22.5%	17.9%	40.5%
	NO	Count	71	32	103
		% within What is your gender	64.5%	50.8%	59.5%
		% of Total	41.0%	18.5%	59.5%
Total		Count	110	63	173
		% within What is your gender	100.0%	100.0%	100.0%
		Total	63.6%	36.4%	100%

Source: Research findings (2013).

More over a chi square test was done and found a Pearson's value of 0.76 at 95% confidence interval as shown on table 4.13. This implies that there is no significant difference between gender and stock market participants.

Table 4.13 Chi-Square Tests between gender and stock market participation

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.145[a]	1	.076
Continuity Correction[b]	2.600	1	.107
Likelihood Ratio	3.127	1	.077
Fisher's Exact Test			
Linear-by-Linear Association	3.126	1	.077
N of Valid Cases	173		

Source: Research findings (2013)

Since a study based on participation or non-participation hence a binary correlation was done on variables. The findings of the study were a significance level of 0.076 under two tailed tests. This implies that gender is insignificant to stock market participation as shown on table 4.14 below.

Table 4.14 Correlations between gender and stock market participation

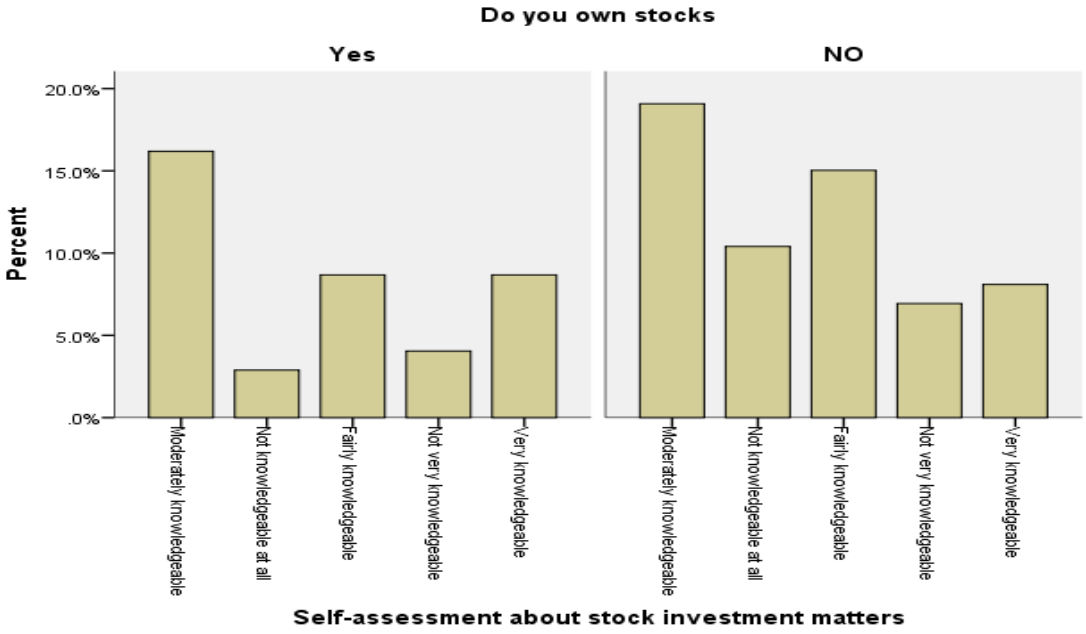
		Do you own stocks	What is your gender
Do you own stocks	Pearson Correlation	1	-.135
	Sig. (2-tailed)		.077
	N	173	173
What is your gender	Pearson Correlation	-.135	1
	Sig. (2-tailed)	.077	
	N	173	173

Source: Research findings (2013)

4.2.6 Financial Literacy

173 people responded to the questions relating to financial literacy knowledge. The analysis of respondents is, 28 respondents (35.3%) were moderately knowledgeable, 15 respondents (23.7%) were fairly knowledgeable, 15 respondents (16.8%) were very knowledgeable, 5 respondents (13.3%) were not knowledgeable at all and lastly 7 people (11.0%) were not very knowledgeable as shown on table 4.5.

Figure 4.5 Financial Literacy Frequency Distribution



The cross tabulation against stock participation and financial literacy as been analysed on table 4.21 as 16.2% of moderately knowledgeable respondents owned shares followed by. Two identical percents of 8.7 under fairly and very knowledgeable, 4% were not very knowledgeable and lastly 2.9% of stock owners were not knowledgeable at all about stock issues. This implies that many shares owners under DSE have no knowledge about stock markets. On the other hand 19.1% of non share holders under DSE were moderately knowledgeable, 15.0% fairly knowledgeable, 10.4% not knowledgeable at all and the like as shown on table 4.15.

Table 4.15 Cross tabulation between financial literacy and stock market participation

			Self-assessment about stock investment matters					Total
			Moderately knowledgeable	Not knowledgeable at all	Fairly knowledgeable	Not very knowledgeable Very knowledgeable		
Do you own stocks	Yes	Count	28	5	15	7	15	70
		% within Self-assessment about stock investment matters	45.9%	21.7%	36.6%	36.8%	51.7%	40.5%
		% of Total	16.2%	2.9%	8.7%	4.0%	8.7%	40.5%
	NO	Count	33	18	26	12	14	103
		% within Self-assessment about stock investment matters	54.1%	78.3%	63.4%	63.2%	48.3%	59.5%
		% of Total	19.1%	10.4%	15.0%	6.9%	8.1%	59.5%
count			61	23	41	19	29	173
		%within stock investment matters	100%					
		%total	35.3%	13.3%	23.7%	11.0%	16.8%	100%

Source: Research findings (2013)

The difference between stock market participation and financial literacy difference has been validated by a chi square. Pearson's value which is 0.200 as shown on table 4.16 implies that financial literacy is not significant to stock market participation at 95% confidence interval.

Table 4.16 Chi-Square Tests between financial literacy and stock market participation

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.982[a]	4	.200
Likelihood Ratio	6.230	4	.183
Linear-by-Linear Association	.136	1	.712
N of Valid Cases	173		

Source: research findings (2013)

Lastly a binary correlation was done to support the analysis of chi square method. A binary covariate shows an insignificance value of 0.714, this implies that education level is insignificance to stock market participation as shown on table 4.17.

Table 4.17 Correlations between stock market participation and financial literacy

		Do you own stocks	Self-assessment about stock investment matters
Do you own stocks	Pearson Correlation	1	-.028
	Sig. (2-tailed)		.714
	N	173	173
Self-assessment about stock investment matters	Pearson Correlation	-.028	1
	Sig. (2-tailed)	.714	
	N	173	173

Source: Research findings (2013).

4.3 Discussion of the Findings

All the six hypotheses have been supported by a cross tabulation between stock market participation against independent variables, a chi square test for each hypothesis and a binary correlation, of the six hypotheses four were significant namely H1; H2; H3 and H5 at 0.05 level of chi square, while H4 and H6 were insignificant at the same level of confidence interval as shown on tables labeled 4.1 to 4.17. This implies that the four variables selected under this study namely, age, education, income and occupation significantly differentiated stock market participation from non stock market participation. However gender and financial literacy failed to explain the differences between stock market participation from non stock market participation.

Binary correlation tests also indicated strong significant association between four variables namely, age, income, occupation, education level and stock market participation as shown on tables labeled 4.2,4.5,4.8 and 4.11.

Theoretical background and literature review illustrates that the five determinants namely age, education, income, occupation and financial literacy were significantly differentiated the adoption and non-adoption of broadband. However, under this study, gender and financial literacy failed to explain stock market participation and non-participation of individual investors, based on cross tabulation, chi square method and binary correlation. The discussion of the determinants can be specifically explained as follows.

4.3.1 Income

According to the findings the majority of share owners under DSE were respondents with income ranging from Tshs 8,000,001 to Tshs 12,000,000 which is 17.9%, compared with the minority of share ownership that ranges from Tshs below 1,000, 000, with respect to Tanzania the income owners less than a million belongs to secondary, certificate, diploma holders and university students whom are concentrating only on their ambitions of schooling but not investing on stock market. While those with income ranging from Tshs 8,000,001 to Tshs 12, 000,000 are said to be a productive class that struggles to invest in several channels so as to increase their saving and income.

Early studies have predicted this in terms of broadband adoption as done by (Rogers 1995; Venkatesh et al. 2003) who states that income levels are good predictors of broadband adopters and non-adopters, it can be learnt that the adopters are fewer than the lower income groups.

However, the number of adopter's increases as the income level rises. Therefore, the numbers of non-adopters are higher in the lower income group but decrease as the income level increases. This implies even to stock market in Tanzania since more income earners of more than Tshs 12,000,000, and income earners Tshs 8,000,001-12,000,000 invested much on shares than other groups. The research findings and literature review goes hand in hand by supporting that income is a determinant of stock market participation based on chi square tests and binary correlation as concluded by (Dwivedi and Lal 2007) on socio-economic determinant of broadband adoption in Pakistan.

4.3.2 Age

Early predictions of the impact of the age ranges of broadband adopters and non broadband adopters in Pakistan go together with the results of this study, that is age has a strong association with market participation and it's a determinant of stock market participation as was on broadband adoption by (Dwivedi and Lal, 2007).

Earlier anecdotal evidence suggested that older aged people are less likely to subscribe to broadband, which was supported by the findings of this research. The above 60 years age category achieved only 1.2% out of 40.5% of stock market participation on shares and below age of 20 has 0.00% of stock ownership. This is due to the fact that below the age of 20 is the school population and immature population, hence not aware of investment issues but the age above 60 is a retired age and they are dependent in nature with respect to Tanzania; in so doing they are showing less investing , since the majority of them have no income.

The majority of shares holders under DSE lies on age group 31 to 40 years; this implies that this group is economically active. The respondents within this age group are mainly entrepreneurs, are in employment and are expected to have a high disposable income (Rice, 1997). Therefore any new investment channel like technology is more likely to be attracted by this age group like the innovation of broadband adoption as illustrated by (Rogers, 1995). This age group plays positively to stock market participation since they are the main share holders with 16.8% out of 40.5% of all share holders.

Conclusively chi square tests and binary correlation tests as evidenced the literature review that age is a determinant of stock market participation as shown on the research findings.

4.3.3 Occupation

The findings has shown that the majority of stock market participants come from the business sector which is 16.2% and the minority percent on stock market participation comes from unemployed people or students which is 0.6% out of 40.5% of share holders on DSE. On the category of non stock market participation 43.4% was the majority under unemployment or students category. The business sector is much more influenced by acquiring profits hence people are investing in shares so as to acquire dividends, Students have no more knowledge on stock issues hence the need to be educated on this matter.

Moreover, even academics who are teachers in this category have only 2.3% out of 40.5% of total stock ownership, hence more knowledge and emphasis must be provided to this group so as to encourage their stock market participation.

A chi square tests and binary correlation tests done on this variable evidence the research findings of (Dwivedi and Lal, 2007) on broadband adoption that occupation is a determinant of stock market participation in Tanzania.

4.3.4 Education

Research findings shows that many of the stock market participants in terms of stock ownership arise from bachelor degree holders which form 22.5% and the least education level comes from matricular which is 0.6%, this implies that bachelor degree holders are the people who have been linked with several activities in the country like social, economic and the like. Hence this linkage or interaction allows them to invest in the stock market while the students occupied in a certain unified unity do not have this connection and are hence less motivated to participate. This study can be evidenced by (Rice, 1997).

More over chi square tests and binary correlation tests found that education level is significant to stock market participation as shown on research findings part, this goes hand in hand with the research findings of (Dwivedi and Lal 2007) on socio-economic determinants of broadband adoption in Pakistan.

4.3.5 Gender

Out of 173 people, only 40.5% owned shares under DSE. In terms of gender males owned a lot of shares than females (22.5% for male and 17.9% females) as shown on table 4.9.This implies that males are bigger risk takers than females and they are highly motivated to engage in new issues as suggested by risk aversion theory on the theoretical part.

On the other hand the chi square method fails to explain the minor difference between males and females in terms of participation; this has been supported by

(Dwivedi and Lal, 2007) on adoption of broadband in due course gender is not a determinant of stock market participation in Tanzania.

4.3.6 Financial Literacy

Out of 173 people, only 40.5% owned shares under DSE. In terms of gender males owned a lot of shares than females (22.5% for male and 17.9% females) as shown on table 4.21. This implies that males are risk takers than females and are highly motivated to engage in new issues as suggested by risk aversion theory on the theoretical part.

On the other hand the chi square method fails to explain the minor difference between males and females in terms of participation, this goes against (Van Rooij et al, 2007) who found that financial literacy does have an impact on stock market participation.

Most of the respondents who had no shares on DSE (59.5%) as shown on table 4.12 had little knowledge on stock issues and on the other hand out 40.5% share holders 30.6% had knowledge on stock market issues. This implies that there is a minor relationship between financial literacy and stock market participation, as evidenced by a chi square test and logistic regression that financial literacy is not a determinant of stock market participation, since it is insignificant as shown on tables 4.11 and 4.12 respectively. This implication has not been supported the studies by (Lusardi and Mitchell, 2007a, 2008, in the press; National Council on Economic Education (NCEE,2005, (Hilgert et al, 2003) states that there has been little research on this topic and the few existing studies that do indicate that financial illiteracy is widespread and that individuals lack knowledge of even the most basic economic principles, find that financial literacy affects financial decision-making: Those with low literacy are much less likely to invest in stocks**.** Conclusively, financial literacy is not a determinant of stock market participation in Tanzania.

CHAPTER FIVE
CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the conclusions, recommendations and areas for further studies. It also recommends several issues to be undertaken by the DSE, so as to improve the stock market participation by individuals in Tanzania in order to accelerate stock liquidity in the country.

5.2 Conclusion

The aim of the study was to determine the determinants of stock market participation by individuals in Dar-es-Salaam stock market. The objectives of the study were to assess the determinants of stock market participation in terms of social determinants, economic determinants and financial literacy as related to stock market participation by individuals. Specifically these determinants were age, income, gender, occupation, education level and financial literacy.

The study concludes that income, education, age and occupation are the determinants of stock market participation while gender and financial literacy were found to be the non-determinants of stock market participation. The findings of this study were supported by a cross tabulation between stock market participation against the deterministic variables, a Chi-square test, and binary correlation. The following variables were strongly significant with a Pearson's value of 0.000 these are income, age, education and occupation. Financial literacy and gender were found to be insignificant.

5.3 Recommendations

In order for the Dar-es-Salaam Stock Exchange to enhance liquidity of the stock market, in terms of individual participation, the following recommendations have been suggested by the researcher and respondents under this study.

i. Education: The government of Tanzania through DSE must provide education to individuals in all sectors for example social sectors, economic sectors, political sectors, scholars and the like so as to educate people on the

relevance of stock market investments in order to increase their income and per capita income of the nation. It is advised that the stock market subject needs to be taught in secondary school and also at higher education level so as to increase awareness.

ii. Training and Seminars: DSE must provide seminars and training to shareholders, non-share holders, companies registered under DSE and non companies registered so as to provide information on the necessity of stock market investment nationally and globally. This will influence more individuals and companies to participate in the market; in so doing the number of buyers and sellers of stock will be increased, this will accelerate the rise of liquidity.

iii. Transparency and Creativity: the DSE needs to be transparent and creative to attract new individuals to the investments, since many of the respondents are not aware even of the functions done by this autonomous body; moreover the DSE functions could be decentralized in terms of brokers so as shares could be sold in terms of zonal offices instead of currently being done in Dar-es-Salaam city only.

iv. The capital market and security authority needs to hold events and workshops for companies and individuals on the importance of financial markets to the economy of individuals and the country; this will influence participation of these two groups.

v. Brokers should collaborate with DSE by providing financial data online so as individuals can review company performance this will encourage participation.

vi. DSE must command the listed companies to display their financial statements online; this will encourage individual participation since the value of shares will be known.

vii. DSE should provide incentives to individual investors by reducing trading fees and companies should be encouraged to list at DSE by reducing listing fees, this will enable many companies to be listed as a result many individuals will participate by buying and selling shares

5.4 Recommendation for Further Studies

Lastly this research will form the foundation of other researchers on issues of stock market participation by individuals in Tanzania, since it is believed to be the first research paper to cover issues of stock participation by individuals in the country.

However, this study has the following limitations: it focused only on Dar-es-Salaam residents and did not include other citizens of the country from other regions. The sample size used was small since it comprised of only a 250 person sampling size and lastly the study focused only on some variables of social, economic and financial literacy.

Given that this study suggests further investigations on stock issues to base on public awareness, determinants of stock market participation by institutional investors, and other social influence variables on stock market in Tanzania and the like.

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APPENDIX 1

COVER LETTER

Dear Participant,

My name is Noel Marobe, a Masters student at Mzumbe University. I am conducting a study entitled: "The Determinants of Stock Market Participation by Individuals" at the Dar-es-Salaam stock exchange (DSE), which according to the FTSE classification falls under the frontier market category.

The aim of this study is to examine various factors affecting the participation by individuals in stock markets in a developing country by focusing on Tanzania. The study includes individuals like you, who have or have not invested in shares of companies trading at the DSE. I would therefore, like to invite you to be part of this study. Your views are highly valuable. They will help to identify the dominant factors, their impact on stock investment behaviour and performance at the DSE. In addition, the study is significant to the government in general and other stakeholders in particular. The information you provide will assist the government regulatory bodies like the DSE, to understand the investment preferences and profiles of the individuals; and the related policy implications. For brokers and financial service providers, the findings will enable them to understand well their clients, and hence be able to provide more personalized advices.

Participation, however, is voluntary, that is, you can at any time, decide not to complete the questionnaire. The questionnaire can take up to 20 minutes of your time to complete. I would like to assure you that you would not be required to incur any expenses by being involved in this study. Either, the information you provide will strictly be kept confidential. The results of the study will be used research purposes and may be reported in scientific and academic journals.

The researcher will be responsible for storage and retention of the original data. The information provided will be processed electronically, preserved in electronic devices such as flash disks and computer in order to provide backups for the

collected data. On the other hand, printed versions of the data will be handled carefully and stored in a safe place. Thank you in anticipation of your involvement.

Yours sincerely,

Noel Marobe

SECTION 1: INVESTOR'S DEMOGRAPHIC CHARACTERISTICS

1. What is your gender? (Please select one) Male ☐ Female ☐

2. What is your marital status? (Please select one)

Married ☐ Single ☐ Separated ☐ Divorced ☐ Widowed ☐

3. What is your age group? (Please select one)

Below 20 ☐ 31 to 40 ☐ 51 to 60 ☐ 20 to 30 ☐ Over 60 ☐ 1 to 50 ☐

4. Please indicate the highest level of education you have successfully completed. (Please select one)

Less than ☐ college (basic) ☐ Matricular ☐ College (e.g. Advance diploma or University degree) ☐ Postgraduate (e.g. MBA, MSc.) ☐

Other (Please specify e.g. vocational)……

5. Please indicate the occupation group that best describes you (Please select one)

Pensioners ☐ Unemployed, students ☐ Academicians ☐ Farmers, Entrepreneurs ☐

Government employee ☐ Business sector employees ☐

6. Please indicate which category best describes your annual income (in Tanzanian Shilling) (Please select one)

Less than 1,000,000 ☐ 4,000,001 – 8,000,000 ☐ More than 12,000,000 ☐

1,000,000 – 4,000,000 ☐ 8,000,001 – 12,000,00 ☐

SECTION 2: STOCK INVESTMENT INFORMATION

1. Do you own stocks (shares) in any company listed at the Dar-es-Salaam Stock

Exchange (DSE)? Yes ☐ No ☐

2. Is/Was there anybody in your family or any close friend of yours owning shares of a firm listed at the DSE before you?

Yes ☐No ☐

3. What is your self-assessment about stock (share) investment matters? (Please select one)

Moderately knowledgeable ☐ Not knowledgeable at all ☐Fairly knowledgeable ☐ Not very knowledgeable ☐Very knowledgeable ☐

4. Have you received any formal training on stock (share) investments? (Please select one)

Yes☐No ☐

If "YES"

a. Please indicate which category best describes when (the time) did you receive the training. (Please select one)

This year☐ 1 to 5 years ago☐ Over the last six years ☐

b. Please indicate which category best describes the type of training you have Obtained. (Please select one)

A topic covered in one of the college/university /professional program module ☐

A session during a seminar/workshop on stock markets ☐

Other (Please specify).....

c. Please indicate which category best describes the duration of the training. (Please select one)

More than six months ☐More than week but less than a month ☐ Less than a week ☐ More than month but less than six months ☐

SECTION 3: ADDITIONAL INFORMATION

1. ". You are given the opportunity to take a new and equally good job, with a 50-50 chance it will double your family) income and a 50-50 chance it will cut your (family) income by a third.

Would you take that new job?"

Yes ☐ No ☐

2. Of your closest neighbours, how many do you know?

All of them ☐Most of them ☐ Some of them ☐None ☐

3. How often do you visit with your neighbours?

Daily ☐ Several times a week ☐ Several times a month ☐ Several times a year ☐

hardly ever ☐

4. How often do you attend religious services?

More than once a week ☐ Once a week ☐ Two or three times a month ☐

One or more times a year ☐ Never ☐

5.Which of the following statements is correct? If somebody buys the stock of firm B in the stock market;

He owns a part of firm B ☐ He has lent money to firm B ☐

He is liable for firm B's debts ☐ None of the above ☐ Do not know ☐

6.Please provide any opinion or recommendation to improve the participation in stock market trading by individuals

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THANKS FOR YOUR PARTICIPATION