An investigation into the factors determining the participation of individuals on the stock market:
Evidence from individual investors in Zimbabwe.

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A dissertation submitted in partial fulfilment of the requirements for the degree of Master of
Business Administration
2015

Graduate School of Management
University of Zimbabwe

Supervisor: Dr Maxwell Sandada
DEDICATION

To my mother and father (Martina and Lovemore Gumbo), my wife Nicolla Makwamure, McD’lan Gumbo and Delight Tanatswa Gumbo. My brothers and sisters, this is for you.
DECLARATION

I, McDonald Gumbo, do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the Acknowledgements, References and by comments included in the body of the report, and that it has not been submitted in part or in full for any other degree to any other university.

Student signature  _____________  Date  ________________

Supervisor signature  _____________  Date  ________________
ACKNOWLEDGEMENTS

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Above all, I give praise to the almighty.
ABSTRACT

The purpose of this study is to identify the factors that determine participation on the stock market by individual investors and also to establish which of the identified determinants has the strongest influence on individual client’s decision to participate or not to participate on the stock market. It has been established that participation of individuals investors in Zimbabwe is terminally low. A hypothesis was therefore developed and literature was reviewed to find some of the factors revealed by various authors. Through stratified sampling, a survey was used to infer from the authorities to solicit their understandings and opinions on the degree to which the identified factors can be determinants of participation of individuals on the stock market. Findings were coded and loaded into SPSS to analyze the results. A synthesis from the Chi square test and regression showed that liquidity constraints, life satisfaction, perceptions and awareness were statistically significant to explain reasons why some individual participate on the stock market and why some individuals shy away from participating. With the findings in hand, the paper went on to provide policy recommendations and managerial implications to address this problem of lack of participation by individual investors on the stock market. This paper can be of usefulness to stock market participants in augmenting their brokerage streams and in lubricating the financial systems through savings by household in stocks and equities.
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<table>
<thead>
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<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ABC HOLDINGS</td>
<td>African Banking Corporation Holdings</td>
</tr>
<tr>
<td>ATS</td>
<td>Automated Trading System</td>
</tr>
<tr>
<td>BAT</td>
<td>British American Tobacco</td>
</tr>
<tr>
<td>CSD</td>
<td>Centralised Securities Depository</td>
</tr>
<tr>
<td>HRS</td>
<td>Health and Retirement Survey</td>
</tr>
<tr>
<td>KMO</td>
<td>Kaiser Mayer Olkin</td>
</tr>
<tr>
<td>RBZ</td>
<td>Reserve Bank of Zimbabwe</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
</tr>
<tr>
<td>SIFAM</td>
<td>South African Institute for Financial Markets</td>
</tr>
<tr>
<td>ZIMSTAT</td>
<td>Zimbabwe Statistics Agency</td>
</tr>
<tr>
<td>ZSE</td>
<td>Zimbabwe Stock Exchange</td>
</tr>
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</table>
CHAPTER 1
INTRODUCTION AND BACKGROUND

1. Introduction

Each year equities exchange hands, billions of dollars move across the Zimbabwe stock market yet the participation of individuals’ clients remains on the low due to a myriad of constraints. This study seeks to assess the factors determining the participation of individuals’ investors on the stock market. By and large the participation of individual investors on Zimbabwe Stock Exchange (ZSE) is terminally low. For instance, according to ZIMSTAT, in Zimbabwe 40% are financially excluded, 22% rely only on informal financial products or services. While 38% of Zimbabweans are formally served, 24% have or use bank products or services such as the stock market and 14% have or use non-bank formal products or services but not commercial banking products (FinScope Consumer Survey 2011).

The reasons for the low participation by individual clients at the stock market are not known. The rationale of this study is to advance stock market participation among individuals investors and to fill the gap on knowledge with regards to reasons why individuals’ clients shun activity on the stock market. This dissertation is of importance since it seeks to give insights as to why individual investors do not partake into a major economic driver, and it’s of importance in that it seeks to create and understanding of how individuals perceive the stock market and giving stakeholders room to come up with mechanism that would see the inclusion of individuals clients on the local bourse. The research seek to get clear understanding as to why individuals investors shun the stock market and help financial institutions craft effective avenues to involve individual’s investors.

1.1. Background to the study

In an economy like Zimbabwe, financial institutions can provide the avenue by which long-term savings are mobilized and channeled into investments. From 2009 to 2013, ZSE has been hit by a series of booms and busts because of erratic fluctuation of stock prices. The banking sector is facing liquidity challenges and it is failing to provide long-term credit to private sector. This creates a need for the development of ZSE to mobilize and allocate long-term capital to the private sector
for growth and poverty alleviation. According to the ZSE Handbook (2013), the Zimbabwe Stock Exchange has grown immensely to become one of Africa’s leading equity exchanges and a leading provider of services that facilitates the raising of capital and trading of shares. During the hyperinflation period individuals investors’ participation on the Zimbabwe stock market was very evident. Investors ordinarily enjoyed speculative buying of equities to capitalize on the volatile currency. Nevertheless in November 2008, the ZSE temporarily stopped trading following intervention by the Reserve Bank of Zimbabwe and was reopened on in February 2009. The Zimbabwean economy adopted a multi-currency system and the US dollar as its prime trading currency. Indices for both industrial and mining were rebased to 100. The market capitalization of ZSE opened at US$1.4 billion in 2009 and closed with US$3.8billion (ZSE,Handbook, 2013).

During 2009 alone, the market capitalization increased by 172% in US dollar terms. Year 2010 opened with US$3.97 billion and closed with US$3.39 billion in market capitalization. 2011 opened with US$4.13 billion and closed with US$3.63 billion. As according to the ZSE Handbook, (2013) participation of foreign investors has been increasing since 2010, from 23% to 36% in 2011 then to 41% in 2012 whilst Individuals participation is gradually decreasing to very low levels.

The table below shows the shareholding of Individuals investors from randomly selected counters since 2009.

Table 1. 1: Shareholding of Individuals Investors

<table>
<thead>
<tr>
<th>COUNTER</th>
<th>INDIVIDUALS SHAREHOLDING AS AT 31 DECEMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2009</td>
</tr>
<tr>
<td>ABC HOLDINGS</td>
<td>2.54%</td>
</tr>
<tr>
<td>BAT</td>
<td>1.88%</td>
</tr>
<tr>
<td>ECONET</td>
<td>5.45%</td>
</tr>
<tr>
<td>HIPPO VALLEY</td>
<td>2.61%</td>
</tr>
</tbody>
</table>

Source: First Transfer Secretaries (2014)
1.2. Research Problem

Growth theorists agree that there is a significant and positive correlation between stock market development and economic growth. Well-developed stock markets mobilize savings and boost investments. In Zimbabwe few individuals’ clients are participating on the stock market leading to a subdued stock market performance. However, the determinants for the low participation are not well known. The lack of participation on the stock market discourages a culture of savings and investment amount individuals’ clients. With this in mind this leads to need to investigate on the determinants of stock market participation by individuals’ clients on the local bourse.

1.3. Research Objectives

1.3.1. To identify factors that determine stock market participation among individual investors on the Zimbabwe stock market.

1.3.2. To identify the extent to which the identified factors influence the participation of individuals on the stock market

1.3.3. To determine if there are statistical differences on the identified factors with regards to the stock market participation pattern by individuals.

1.3.4. To recommend stock market players especially brokers and fund managers on models that they can use to encourage individual clients participation on the stock market.

1.4. Research Questions

1.4.1. What are the factors that determine stock market participation among individual investors on the Zimbabwe stock market?

1.4.2. To what extent do the identified factors influence the participation levels of individuals on the stock market in Zimbabwe?

1.4.3. Are there any statistical differences in the perceptions of the respondents of different gender, level of education and occupation with regards to the causes of non-participation on the stock market?
1.5. Research Hypothesis

The participation of individual customers on the stock market in Zimbabwe is determined by several factors.

1.6. Research Justification

Most studies about participation and non-participation of individual clients were done in developed countries, this phenomena in Zimbabwe has not been thoroughly researched hence giving the need to research on this phenomena and attempting to reduce the research gap knowledge. For example surveys conducted by UBS and Gullup from 1996 to 2002 on investors participation beliefs has been confined to United States ,findings from such research cannot be generalized to Zimbabwean set up.

This research have an academic contribution on issues to do with mainly causes of non-participation of individual clients on the stock market. Much research has previously focused on corporate investors and institutional investors opposed to the individual investors. If one can have an understanding of issues that keeps people out of the stock market, we can expand the customer base by designing financial models that appeal to the average household and hence encourage savings in the nation.

Issuers: with well-known products and services can leverage their name recognition to promote their stock to brand-loyal consumers. Firms have also an incentive to broaden the investor’s base because this lowers their cost of raising external capital (Merton, 1969).

Population/Investors: The research will assist in bridging the information gap to the investing public thus improving their alertness and nurturing interest. There is a huge gap between the elite and the poor. This paper will give light to the poor and expose them some of the instruments that can improve their finances through participation on the stock market.

Portfolio managers and stock brokers: This paper will assist fund managers to come up with ways to tap into individual’s client’s base. Such approaches will help to increase stock market participation and in the long run improve commissions.
**Banks:** If there is way to get individuals on the stock market, it naturally translates into more business for banks since all transactions done on the stock market are processed through bank transfers and RTGs.

**Other stakeholders:** Government, Central bank and the ZSE could find benefits from this paper since it can become a seedbed of policy making and an opportunity to relook at other trading procedures and practices. Expose the problems that are hindering stock market participation, which once addressed will benefit the Banks, ZSE and the government and the Zimbabwean economy at large.

1.7. **Scope of Research**

The research focused on the period between 2009 to 2014. This is a period of relative economic stability in the Zimbabwean economy compared to prior periods of hyperinflation. It will be limited to the Zimbabwe Stock market and sampling frame will be drawn from the 13 Stockbrokers that are active on the local bourse, 5 Asset Managers and 5 Investment Advisors.

1.8. **Dissertation Outline**

**Chapter 1**- This chapter covers the introduction, background of study, problem statement, research objectives, research questions, hypotheses and study scope.

**Chapter 2**- Literature Review, this part of the research covers the literature review. This is a review of relevant literature pertaining to the theoretical framework on participation of individual clients on the stock market. All pertinent sources are cited and an exhaustive critique of the models and theories will be done.

**Chapter 3**- Methodology

This section basically focused on the tools and methods that were adopted in carry out the study, issues such as the research design, research strategy employed, sample size, data presentation method, credibility of the study, ethical issues of the study, data analysis and data collection methods were covered.
**Chapter 4- Results and Discussion**

Data is collected, analyzed and the results presented graphically and tabulated to give a visual impression. This section also covered the interpretation and discussion of results.

**Chapter 5- Conclusion and Recommendations**

This last chapter of the study focused on making conclusions and recommendations based on the research findings. The last part touches on the weaknesses of the study and suggestions for further study.

1.9. **Chapter Summary**

This Chapter introduced the research, it brought into account the background of the phenomena of the lack of participation by individual investors in Zimbabwe. The chapter also covered the research objectives, research questions hypothesis giving also the justification or the significance of the research.
CHAPTER 2
LITERATURE REVIEW

2.1. Introduction

This chapter covers literature relating to the determinants of participation by individuals on the stock market. It also helps to answer some of the research questions and meet some objectives of the study by reviewing literature and researches done by other authors and researchers. Stock market non participation in some literature is considered a puzzle since it is not easy to explain the reason why individuals in spite of high returns on the stock market do not own shares on the stock market. This literature review seeks to infer into some the determinants of this phenomena relating to relevant studies done by other authors giving their views on the same issue.

2.2. Determinants of participation on the stock market

2.2.1. Financial education and stock market participation

According to the OECD (2005), financial education is the ability to understand financial products and concepts and appreciate the financial risks inherent and the opportunity to make informed decisions to improve one’s financial well-being. In a study of a representative sample of the Dutch population, Rooij, Lusardi and Alessie (2011) founds that many families are nervous to participate on the stock market because they have little appreciation of stocks and the stock market services. A society with high level of financial education is in a better position to appreciate, understand and participate in financial markets hence it provides a backbone for wealth creation and economic development (Atia, 2012). According to Rooij et al. (2011), some individuals can become more accustomed to financial markets and stock market complexities if they have the basic financial education which helps them to better understand stocks movements and stocks language.

Financially unsophisticated individuals fail to grasp stock market nitty-gritties that are essential to stock market participation (Rooij et al, 2011). A study carried out by OECD (2005), shows that financial illiteracy is a common feature among most developed nations attributable to the low participation by individual investors on the stock market. An environment of illiteracy potentially increases the risk for the individual to make a poor investment decision (Atia, 2012). To reduce
the risk of poor decision making financial education and awareness becomes pivotal (Widdowson and Hailwood, 2007).

According to Bernheim (2011), financially illiterate individuals cannot perform calculations due to lack of basic financial understanding, their savings behavior is generally characterized by rules of thumb. Bernheim and Garret (2003), postulates that those individuals who are exposed to education have a high tendency to save and invest on financial products such as the stock market. According to Agarwal et al. (2009) financial mistakes and miscalculations are more common among the people who display low education, the author argues further that people with lower financial education tend not to plan for their short to long term finances, they also have a habit of borrowing at high rates and exhibit a behavior of spending rather than saving hence explaining their low participation levels on the stock market. A study by Lusardi (2009), shows that with improved financial knowledge comes a higher possibility that individuals will participate in the stock market through their ability to accumulate wealth, formulate retirement plans, as well as navigate the stock market data and reports than as compared to those individuals with low financial education.

However, studies by some authors tend to incline to the notion that financial education has no significant connection with stock market participation. For example, Cole and Shastry (2010), argue that financial education does not affect an individual’s propensity to save or participate on the stock market. Arguing on the same, Guiso and Japelli (2005), contend that, fundamentally it is not a question of education or literacy that drives individuals away from the stock markets, rather most individuals fear that ill-advised stock purchasing significantly reduces realized returns and it can create major financial distress and hence the reason why individuals shun the stock markets. Kumar (2009), went further to suggests that it is the financially uneducated individuals who tend to display lottery behavior and are more likely to participate on the stock market because essentially they do not procrastinate due to some calculations before taking and investment decisions.

Mandell (2006), argues that if financial education is so important in terms of making complex financial decisions such as investing on the stock market then why it is not improving the stock market participation levels of individuals. Hence from literature the argument for financial
education as a significant variable contributing to lack of participation by individuals on the stock market is neither here nor there, some tend to have divergent views. Nonetheless it is not yet established how education influences individuals’ participation on the stock market decisions. Education can indeed change individuals and in decision making in many ways such as increasing financial education and cognitive skills, by affecting social webs, employment opportunities as well as beliefs and attitudes (Cole and Shastry, 2009).

It can be argued therefore that education reduces the costs of participation since it is much easier educated individuals to appreciate the risk reward tradeoffs of stock markets leading them to actual deal execution (Campbell, 2006). However the nature of such transactional and information costs is not fully agreed and various factors that prevent stock market participation still remains a challenge.

2.2.2. Gender and stock market participation

Kumar (2009), agrees with Markowitz (1952), that some investors might prefer to take large chances of a small loss for a small chance of larger gain. According to Kumar (2009), relative to women, men are more likely to participate and spend disproportionately on lotteries and may gamble with the stock market. Bonin et al. (2007) empirically demonstrate that individuals that are less willing to take risks tend to look for jobs with more stable earnings and this also applies the same in stock market participation. Sewell (2010) argues that research has indicted that decision making patterns in males and females are expressively different. Men are more susceptible to overconfidence than women, overconfident investors’ trade excessively and those that are moderately confident. Prince (1993) cited in Sewell (2010) argues that men tend to be more confident than women and trade more frequently, they rely less on brokers and investment analyst in order to purchase stocks, and anticipate more returns than women.

Dreber et al. (2010) from his findings holds that the aggregate amount of funds invested by on financials instruments such as stock market highly differ. On average, 105 males invested 198.8 (standard deviation = 79.7), or 79.5% of the endowment. In contrast, 81 females invested only 120.1 (standard deviation = 88.8), or 48.0% of the endowment. Dreber et al. (2010) find this difference in investment rates is strongly significant. This simple risk-elicitation mechanism provides strong evidence that, in the field, females are substantially more financially risk-averse
than males, suffice to bring out the fact that women participate less on the stock market as compared to their male counterparts. Charness and Gneezy (2011), identifies a strong difference in investment behaviour across gender with males investing more than females. Charness and Gneezy (2011), applied a binomial test, comparing the average investment for males and females in each of the eight conditions. The likelihood that either gender would invest more than the other in all eight treatments is $p = 0.008$, indicating a significant difference. Findings from Charness and Gneezy (2011), showed that women are less likely to hold risky assets and more likely to allocate assets towards fixed income alternatives.

Table 2.2.2 Investment with ambiguity aversion and illusion of control.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Avg. male investment (N)</th>
<th>Avg. female investment (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illusion – free choice</td>
<td>76.11 (18)</td>
<td>57.22 (9)</td>
</tr>
<tr>
<td>Illusion – investor rolls</td>
<td>79.69 (16)</td>
<td>49.29 (7)</td>
</tr>
<tr>
<td>Illusion – experimenter rolls</td>
<td>71.20 (20)</td>
<td>69.83 (6)</td>
</tr>
<tr>
<td>Illusion – costly choice</td>
<td>83.21 (14)</td>
<td>58.33 (9)</td>
</tr>
<tr>
<td>All illusion choices</td>
<td>76.97 (68)</td>
<td>58.19 (31)</td>
</tr>
<tr>
<td>Ambiguity – free choice</td>
<td>75.26 (19)</td>
<td>61.43 (7)</td>
</tr>
<tr>
<td>Ambiguity – known only</td>
<td>64.69 (16)</td>
<td>62.75 (8)</td>
</tr>
<tr>
<td>Ambiguity – unknown only</td>
<td>70.81 (16)</td>
<td>67.50 (10)</td>
</tr>
<tr>
<td>Ambiguity – costly choice</td>
<td>82.22 (18)</td>
<td>55.63 (8)</td>
</tr>
<tr>
<td>All ambiguity choices</td>
<td>74.68 (68)</td>
<td>62.18 (33)</td>
</tr>
<tr>
<td>All choices</td>
<td><strong>75.82 (136)</strong></td>
<td><strong>60.25 (64)</strong></td>
</tr>
</tbody>
</table>

Source: Charness and Gneezy (2011)

From the table above, Charness and Gneezy, (2011) concludes that women make smaller investment in the risky asset such as equities on the stock market than men do, women appear to be financial more risk averse, from the few studies carried out this seemed to be the general
findings. Collating with other researchers’ findings it can be understood that gender is significantly related to asset allocation, let alone stock market participation.

Women are found to be more risk averse, therefore, the stock market participation of women is more conservative in comparison with men (Bernasek and Shwiff, 2001; Felton et al., 2006; Barber and Odean, 2001). Even professional female investors are more risk averse than professional men. They weight more in the downside measure of risk and are more uncertain about the future outcomes (Olsen and Cox; 2001)

2.2.3. Social Interaction and stock market participation

According to Banerjee (1992), there are at least two broad channels through which social interaction might influence participation in the stock market. The first is word of mouth or observational learning potential individual investors may learn from one another either about the high returns that the market has historically offered or about how to pick stocks. Stock market participation may be incited by the general talks of the ups and downs of the market with friends and peers as people socialize (Becker, 1991).

In support of the above, Li (2006) argues that individuals may simply enjoy discussing market investments with their friends, neighbors and family thus may be more willing to participate in the stock market if participation among their friends is high. Further studies by Brown et al, (2008) found a contributory behavior factor between individuals’ decision to own stock and the average stock market participation of individuals in the same community. According to Campell (2006), individuals who interact more with other individuals in the community are more likely to participate on the stock market and own stocks. Individuals are more comfortable following financial practices which are shared by their colleagues. Hong, Kubik and Stein (2004), for example, find that households that network more with other households in their community are more likely to participate on the stock market this is so if the participation rate is high in the same area, proposing that individuals are comfortable to follow financial practices shared with others (Campbell, 2006).

Georgharakos and Pasini (2011), argues that social interaction effect has strong presence in areas were overall market participation is significantly higher. Several studies note a positive effect of sociability on stock market participation. (Hong, Kubik, and Stein, 2004; Georgharakos and Pasini,
These studies show that one reason for this positive correlation could be attributed to social interaction. By interacting with multiple and diverse friends increases chances of coming into contact with others that have abundant knowledge about the stock market complexities. Through these “loose-ties” individuals can learn by “word of mouth” about investment opportunities that are available on the stock market. (Hong et al., 2004; Brown et al. 2008).

Moreover, individuals can gain a deeper interest and understanding of the investment process, it can be argued that social interaction may also reduce the burden and psychological fixed costs of doing the research prior to investing on the stock market (Vissing-Jorgensen, 1999). In support to this argument, Kaustia and Knupfer (2008), postulates that decisions to participate on the stock market are affected by the stock market performance of their local friends in the previous month. The authors find that the peer performance effect is only limited only to peers positive financial outcomes rather than negative outcomes.

2.2.4. Awareness and stock market participation

The degree to which individuals are aware of available financial assets depends on the aggressiveness of asset suppliers to spread the information about the instruments they issue. (Guiso and Jappelli, 2005). Guiso and Jappelli, (2005) argue that lack of awareness affect stock market participation amongst individual clients. Research done by Merton (1987) pointed out that one of the barrier to invest in available financial assets such as stocks and mutual funds is lack of awareness. However the fundamental question posed by Merton (1987) is that why do some individuals know about the stock market whilst others are not aware at all?

In response to the aforementioned literature question, Guiso and Jappelli (2005) argues that investors can learn about assets from distributors or through social interaction. They pointed out that, the probability of becoming aware depends on the will of distributors to inform all types’ investors and that potential investors buy assets when they are aware of it. Guiso and Jappelli (2005) further observed that besides individual investors influenced by signals and contacts from issuers and distributors, they often learn that their decisions are triggered by peers and are most likely to invest due to peer effects.
Social learning is when one potential investor interacts sequentially with another investor and as such raises awareness of the other part (Guiso and Jappelli 2005). This is further supported by Hong, Kubik and Stein (2000) who find out that individuals often learn about investments opportunities from peers. Guiso and Jappelli (2005) establishes that individuals often learn about investment opportunities from peers who are already informed about equities. Merton (1987) cited in Rooij (2007), argues that apart from social interaction issuers and distributors of financial assets have strong incentives to inform the pool of potential investors about the financial instruments such as the stock market.

Grossman and Stiglitz (1980) and Verrecchia (1980) examined how individuals chose their portfolios in the event that they are aware of the stock market it is apparent to notice that information on asset return strongly affects portfolio choice. Verrecchia (1980) argues that financial information reduces subjective uncertainty on returns. Wealthier investors benefit more from financial information and are therefore better informed about the stock market.

From the arguments above, awareness encourages participation because the probability of becoming informed is an increasing function of the probability of buying stock. Therefore it can be argued that awareness is a strong determinant of individual’s investor’s stock market participation.

2.2.5. Trust and stock market participation

Trust in the context of stock market participation is the subjective probability that individuals attribute to the possibility of being cheated in executing a transaction (Guiso and Sapienza, 2005). Trust plays a vital role in the way in which financial institution present themselves to potential clients, according to Ennew (2008), this is particularly evident in the stock market. Guiso and Japelli (2005), suggests that true insights into the root causes of a nation’s financial strengths or weakness lies in trust. The above literature seems to concur that trust increases the probability of direct participation in the stock market.

Trust induces investors to participate in the stock market by profligate expectation of returns. It also explains why rich people may decide to stay out of the market even though they can afford to pay participation cost. There is a distinction between two different types of trust. There is generalized trust and personalized trust. Generalized trust is about the fixed ideas people of one
group have for people from another group while the later concerns the evolving relationship between two specific agents (Christine and Ennew, 2008) In business much of discussion is about the meaning of trust have its origins in literature relating to organization and organizational analysis (Christine and Ennew, 2008).

There are different approaches to understanding the concept of trust and a variety of definitions (Sheppard and Sherman, 1998). What is evident from different definitions and approaches to trust is that there are certain critical themes that emerge and appear to be recognized as integral to the concept of trust (Sheppard and Sherman 1998). Trust depends on the level of risk imbedded. If the outcomes of particular actions are certain, there is no need to trust.

Trust also depends on interdependence between actors. If actors not somehow dependent on each other, there is no need to trust. Trust is associated with vulnerability. Risk and interdependence creates vulnerability. Trust involves confident expectations about future behaviors. According to Christine and Ennew (2008), a client will only accept vulnerabilities associated with stock market in the presence of strong expectations of the positive future. Some of trust is likely to be inherent in most relationships. Few relationships are or can be characterized by complete certainty of complete contracting. It is apparent that a common view of trust would suggest that it is concerned with an individual’s willingness to accept vulnerability on the grounds of positive expectations about the intentions or behavior of another in a situation characterized by interdependence and risks associated with investing in the stock market can be complex because of the variety of investment products.

The difficulty associated with investing in the stock market are compounded by the inability to evaluate how well the stock will perform in the future, investors can only assess the outcome at once. The term trust and confidence are often used as substitutes though are distinct differences. Confidence is the overriding objective for investors, and investors can attain sufficient level of confidence in an investment by either trusting the issuer’s management to optimize performance or by controlling management actions (Todd, 2007). Stock market frauds have also played a major role in discouraging the individual investors from participating in the stock market. A stock market fraud basically occurs through unlawful and fraudulent manipulation of stock trading (Doward, 2006). Ordinarily this can involve stock brokers, brokerage firms and investment or financial planners. Levels of fraud can vary from misrepresentation of a stock to the stock advisor's
intentional disregard for his/her clients’ interests in order to serve his own financial gain. (Sankar & Maran, 2013)

Guiso et al. (2008) argue that individuals’ trust of others is positively related to their willingness to hold stocks, however according to Giannetti and Koskinen (2005) when the average level of trust is low, for any given level of return, investors are more reluctant to invest and let alone to attract them to invest. Puri and Robinson (2005), establishes that trust, rather than reflecting an individual fear of being cheated, captures investor’s optimism. Optimistic investors may be induced to participate by their inflated expectations of returns. The decision to participate on the stock market or not is dependent on how much do you trust your bank official or broker as financial advisor for your investment decisions (Guiso and Japelli 2005).

2. 2.6. **Transaction costs and stock market participation**

Vissing-Jørgensen (2002) arranges participation costs as fixed costs, fixed and variable transaction costs and per period trading costs. Stock market participation is most likely to be constrained by participation costs. Allen and Gale (1994) inferred that individual investors must first sacrifice their resources to learning about the basic features of the stock market. Guiso and Japelli (2005) conclude that country-wide differences in participation rates can be better justified by different institutional and informational barriers to entry in different countries than differences in stock returns.

Costs that deter entry in the stock market may take several forms. Vissing-Jørgensen (2002) categorizes participation costs as fixed entry costs, fixed and variable transaction costs and per period trading costs. Using panel data on family indirect stockholding the study finds that transactional costs associated with stock market participation is a very significant determinant of current participation levels by individuals. Another related study by Guiso et al. (2002) presents cross-country evidence on the presence of participation costs. The study conclude that the cross-country differences in participation rates can be better justified by different institutional and informational barriers to entry across countries than differences in stock returns per se.

Faria (2000) argues that the transaction costs are not necessarily costs in monetary value, however Simply, it can be thought of as the value of time spent by the potential investor to understand the basic functioning of stock markets, the time costs to learn how to follow price movements, how to
trade, how to assess risk and return relationship for an optimal portfolio choice among other activities. According to Alan (2005) such consideration alone have a direct negative relationship with individual’s stock market participation patterns.

Even though educated and the wealthier are more likely to participate in the stock market but information and transaction costs remain the most important variable quantitatively (Vissing-Jørgensen, 2002; Haliassons and Michaelides, 2003). However, research by Favilukis (2007) differs from the findings above suggesting that the reduction of participation costs increases the stock market participation rate but it reduces the equity premium due to higher demand for equity.

2.2.7. Access to internet and stock market participation

Technology has always had an impact on financial markets and the advent of internet has transformed the financial markets participation drastically (Economides, 2001). History reviews that New York Stock Exchange gained its supremacy state over Philadelphia Stock Exchange because of the liquidity it attracted from orders collected online.

Although there is lack of literature regarding the use of internet and stock market participation, internet has already has an impact and is expected to have an enormous effect in transforming stock market participation patterns. The research by Barber and Odean (2002) found that people of young ages who are active traders with high incomes are more likely to trade online. They have an appetite for small growth stocks with high market risk this ordinarily increases the stock market participation levels.

The internet facilitates multi-point information flows and all the processes that are based on information flows. Financial intermediation and financial exchanges are purely based on the exchange of information electronically (Economides, 2001). As a result switching to online trading results in strong individuals stock market participation as compared to the period before online trading (Bogan, 2008).

It can be argued however that trading online makes participants trade more and actively embarking mainly in speculative deals which were less profitable than before. An investigation by Economides (2001) reviews that internet firstly, it facilitates the exchange of information which includes information that is used to analyses reports and software and interfaces that are used to
facilitate distribution and evaluation of information of the stock exchanges. Secondly, internet enables communication among economic agents which includes exchange of financial instruments, multi-party live discussion of financial markets. According to Glaser and Klos (2012), internet allows more direct access of economic agents to stock markets. Internet also has the ability to collect pricing information and dramatically reduces search costs drastically and eliminates geographical base. (Economides, 2001)

It is therefore worth mentioning that the increased availability of rapid action trading technology has increased stock market participation volatility and trading (Economides, 2001). On one hand and the decision to invest in the stock market based on the 2002 Health and Retirement Study (HRS) wave.

In consistence with the above argument, Bogan (2008), shows those individuals who regularly use internet have a higher probability of investing in stocks. In line with research by Barber and Odean, (2002) similar results are reviewed by Choi (2002) that young, male, wealthy participants were more likely to try the internet channel. Antweiler and Frank (2004), report that trading volume is determined by the information on internet stock message board especially the volume of small-sized trades, meaning that the usage of internet leads to increased trading activity among individual investors. Bogan (2008), argues that individual’s faces reduction in information costs when using the internet, this is also supported by Glaser and Klos, (2012) who postulates that internet allows most individuals find it more realistic to research about stocks and eventually participation would become imminent.

2.2.8. Cognitive Skills and stock market participation

Making financial decisions is complicated let alone managing equities portfolios and it involves a specific human investment in time and effort from the individual investor thus to familiarise in stocks concepts to make justifiable decisions. Low cognitive skills are likely to increase participation cost (Fredrick, 2005). Through his finding Fredrick, (2005) studies of the relationship between cognitive reflection and time and risk preferences. From his studies individuals with high scores in the Cognitive Reflection Test (CRT) are on average more patient and appear to have lower discount rates based on questions asked on delayed monetary rewards. Individuals with high
CRT scores are more willing to take risks in the domain of gains but less willing to take risks in the domain of losses compared to their peers with lower CRT score. (Fredrick, 2005).

Financial decisions are often complicated. According to Bogan (2008), managing a portfolio involves a specific human capital investment in terms of effort and time from the investor to first familiarize himself or herself with the concepts involved in investing and later on to follow the market development to make justifiable financial decisions. As mentioned above, information costs can be a significant barrier of entry in the stock markets and low cognitive abilities are likely to further increase these costs. Benjamin et al. (2006) find using US Longitudinal Survey of Youth that more cognitively able individuals are more risk neutral over small stakes and more patient over short time horizons. Accordingly, cognitively gifted individuals are less likely to display behaviors associated with high risk aversion or impatience, such as low levels of asset accumulation, obesity, smoking and low levels of financial market participation (Benjamin et al. 2006). Dohmen et al. (2010) study a random sample of 1,000 German adults and report that lower cognitive abilities are associated with greater risk aversion and impatience even controlling for education, income and credit constraints. From this dimension, cognitive abilities affect individual decision making through changes in time and risk preferences in addition to higher information costs.

Counter arguing the fact that greater cognitive skills lead to improved reasoned financial choices and higher likelihood of stock market participation, it may be also conceivable that low cognitive skills increase stock market participation (Barber and Odean, 2001). Oechssler et al. (2009) find a correlation between low cognitive ability and overconfidence in a web-based survey of 1,250 respondents in Germany. The authors use CRT to measure respondents’ cognitive abilities and find that respondents with low CRT scores were meaningfully more likely to be subject to the conjunction misconception, to conservatism with respect to probability updating, and to overconfidence. Several studies show that overconfidence increases individuals trading activity (Barber and Odean, 2001; Grinblatt and Keloharju, 2009; Statman et al., 2006). Moreover, arrogance is likely to manifest itself when individuals face relatively testing tasks, such as investment decisions. Individuals with low cognitive abilities may therefore underestimate financial risks and be in fact more prone to invest in stocks and participate more on the stock market than compared to those with cognitive skills.
2.2.9. Perception of Investors and stock market participation

Investors who perceive high levels of uncertainty are more likely not to participate on the stock market, this uncertainty is brewed from negative perceptions (Makarov and Schornick, 2010). Manjula (2013), argues that individuals are not isolated entities in social settings, in fact individuals are members of society are either deliberately or unconsciously being influenced by many other social actors whom we come across in our daily lives. The stock market in itself is a social construction built upon the grounds of trust over the ages. Manjula (2013), argues that as individuals making a transaction or placing a stock market order various influences are being weighed in the mind. These are not just mere motives of profit maximization, but transcend beyond the profit motive to include various other social dimensions like peer approval, social acceptance, conformity to the prevalent norms.

Stock market participation is an important economic outcome. There can be a substantial welfare loss from not participating in the stock market, as exposure to equities, and hence to the equity premium, may be an important determinant of the long-run return to individual savings (Cocco et al. 2005). According to Koesterich (2015), the dip in stock ownership can be explained by changes in acuity of investors. Behavioral finance studies have found that investors are roughly twice as sensitive to losses as they are to gains (Koesterich 2015). People tend to evaluate gains and losses over a relatively short time horizon that may not be in sync with the longer horizon over which investment goals are expected to be realized. Koesterich (2015), argues that this extreme fear of losses in the near term, combined with people’s tendency to look at each investment in isolation, helps to explain low stock market participation rates.

Merikas et al. (2000), undertook an empirical study survey of the factors, which mostly influenced individual investor behavior in the Greek stock exchange. From the study the general conclusion were that individual’s perceptions are a strong determinant of stock market participation. According to Tripathi (2008), investors use both fundamental as well as technical analysis while investing in the stock market but mostly it is the perception that investors have about the stock market returns in general that significantly affects participation.
2.2.10. Health and stock market participation

According to Rosen and Wu (2004), there is a significant relationship between financial decisions and one’s health. They discovered that households in poor health condition are less likely to own financial assets compared to healthy households. Rosen and Wu (2004) establish a relationship between health status and portfolio choice but the channels through which it operates are not clarified. Edwards (2008), tries to link health and aging and argues that retired individuals view their health status to be risky and try to hedge against it by decreasing their exposure to financial risk. However, Rosen and Wu (2004), argues that married people having bequest motives seem to reduce the effect poor health on financial decisions and risk taking by partially offsetting the risk of impaired home production. According to Edwards (2008), Poor health may influence an individual’s marginal one’s labor income, all of which could affect portfolio composition.

The aforementioned findings are consistent with the recent empirical findings of Attella, Brunetti and Maesats (2011), postulates that individuals with health insurance are more likely to participate on the stock market and tend to invest a larger proportion of their financial assets in stocks than uninsured households do, and of Goldman and Maestas (2007), who find that better health insurance is associated with greater investments in risky assets. Suffice to say that a good health status of a participant or investor is a catalyst to increase stock market participation. Attella, et al. (2011) argues that whenever health status risk lead to higher out of pocket expenditure, there are likely to be two scenarios, first being increase in savings and second being investment in less risky asset visa-a-vis shunning investment vehicles such as the stock market.

In support of the above Rosen and Wu, (2004) in their study of Health and Retirement Survey (HRS) they seem to argue that being in poor health reduces the probability of risky investment. In the same realm Feinstein and Lin, (2006) argues that household in poor health who are predominantly exposed to health expenditure risk place less weight in investing on the stock market as compared to those in good health with no health risk expenditure exposure. Arguing in the same direction as above, Edwards, (2008) came up with a model of portfolio choice in which expectations regarding health risk determine portfolio shares. According to this model, an increase
in health risk for example due to the ageing process or any other ailment reduces the optimal propensity to invest on the stock market and let alone risky assets.

In contrary Smith, (1999) find it puzzling to have a compelling reason to believe that health status has any influence to an individual portfolio choice or for decisions to or not to participate on the stock market. Rather the author finds the relationship spurious. There is evidence that health affects total wealth accumulation but there is however no literature to categorically specify that health has correlation (regardless of the direction) with individual’s stock market participation patterns or asset allocation (Smith, 1999).

2.2.11. Life satisfaction and stock market participation

Optimism is likely to increase effort, commitment and persistence during actions towards a chosen goal and the ability to cope with uncontrollable circumstances. Life satisfaction and optimism is often linked to various positive effects, such as better physical and mental well-being which, in turn, increase life satisfaction (Scheier and Carver, 1992). Optimistic investors are more likely to search information on risky investment opportunities and such thought would likely make one invest in risky assets such as stock. Puri and Robinson, (2007) study the importance of optimism on individual economic decision making and use individual’s subjective life expectancy as a measure of optimism.

The authors find that reasonable levels of hopefulness are related with practical economic decisions, whereas extreme levels of hopefulness are associated with unreasonable decision making. According to Rao, Mei and Zhi (2015), investors with a positive life gratification incline to have high level of life optimism equated to investors with a negative levels of life contentment. This optimism is resultant from life anticipation (Rao et al,2015). Modest optimists’ individuals are more likely to protect money, and with increasing level of hopefulness individuals become “stock-pickers” and tend to participate more on the stock market.
Like optimism, Scheier and Carver, (1992) highlights that life satisfaction breed overconfidence. Overconfidence is defined as the overestimation of the probability of an event’s occurrence (Liechenstein and Fischoff, 1977). Studies shows that overconfidence or bullishness associates resolutely with everyday investor trading activity, portfolio underperformance and greater risky asset holding (Barber and Odean, 2002: Xiong, 2006).

Makarov and Schornick (2010) postulates that a rich investor with greater life satisfaction seems more optimistic about investing on the stock market and making other financial investment decision compared to poor one. As a result it is difficult to contemplate a situation where a poor investor investing and a rich investor not participating. Stillman et al. (2012) argues that the financial behaviour of happier people with life fulfilment tend to differ to those on the opposite side of the story. Therefore level of happiness indeed can present some differences in terms of investment decisions and particularly in terms of stock market participation (Stillman et al, 2012).

However, At-Sahalia et al, (2004) proposes that different investors may have prior means around which their ambiguity intervals are centred without regard of the levels of life satisfaction. Under this assumption it can be deemed possible to have a wealth investor full of life satisfaction being more pessimistic about the stock market participation than the poor investor with low life satisfaction i.e. in the worst case scenario. Given this the investor with life satisfaction and wealth may have zero holdings on the stock market while poorer participate vigorously on the stock market. Cryder, Lerner, Gross and Dahl (2008), tend to go divergent with the above literature arguing that unhappy people tend to spend more than happy people, this unhappy people can participate more that those with good life satisfaction.

2.2.12. Liquidity constraints and stock market participation

Deaton, (1991) cited in Kremp, (2007) argues that due to the fact that individuals with low levels of income or wealth cannot save or buy equity, can explain part of the observed low stock-ownership rates in the lower half of the income and wealth distribution suffice to argue that a minimum level of income and net worth is required to be able to invest in the stock market.
Participation in the stock-market increases with household income and wealth. (Haliassos and Michaelides 2003). Haliassos and Michaelides (1999) argues that there a positive correlation between household liquidity and stock market participation, as one household become more liquidity and there are openings of financials flows there is an increaser tendency to hold stocks. The danger of loss is traded off with the income that the household would have accumulated.

The finances of individuals are naturally an important factor in household decision to participate or not to participate on the stock market. Liquidity may come in the form of labor market income. (Leung, 2013). Studies by Vissing-Jorgenson (2002) and Hong, Kubik and Stein (2004) argues unanimously that liquidity holds a positive and significant correlation with the stockholding decision for households.

2.2.13. Age and stock market participation

Kumar (2009) argues that the attractiveness of gambling decreases with age and same goes to the levers of stock market participation, younger and middle-aged people are more likely to take part in stock market investments and they are also more likely to spend a greater proportion of their income on lotteries as well. This reflect on direct effect on the composite effect of risk aversion, wealth and aspirations levels.

Younger people are more likely to have lower risk aversion lower wealth levels and higher life aspirations (Kumar 2009). More often than not older people are more risk averse and would have accumulated their wealth and their aspirations would have been adjusted accordingly. Hence therefore older people are more likely to invest less on the stock market than younger people. According to Baker and Nofsinger, (2010), psychological evidence indicate that people are likely to experience a decline in level of general intelligence and they grow older. This steeper cognitive decline may be associated with drop in investment performance around the age of 70. Negative effects of aging have a dramatic effect on older investors and can deter them to participate on the stock market. This financial skill regression more often than not affect participation decision. (Baker and Nofsinger, 2010)
2.3. Conceptual Framework

- Gender
- Social Interaction
- Awareness
- Trust
- Costs
- Internet
- Cognitive Skills
- Perceptions
- Health
- Life Satisfaction
- Liquidity
- Age

Participation of Individuals on the Stock Market
2.4 Chapter Summary

The chapter covered various arguments from several authors on the possible causes of lack of participation by individual’s clients on the stock market. From in-depth review of literature, it outlined how other authors agree and disagree on some of the identified variables affecting stock market participation among individual investors a conceptual framework was formulated outlining possible independent variables affecting the dependent variable.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

The purpose of this chapter is to describe and explain the methodology adopted in undertaking the research. Chapter three will discuss the research methodology and explains how data was analyzed. This chapter discusses the following sections of the research methodology used: research design (research philosophy, research approach, and research strategy), population and sampling techniques, data sources, research instruments, data analysis, research limitations and, research ethics and data credibility.

3.2. Research Design

Creswell (2012) defines a research design as a comprehensive outline of how an investigation will take place on the other hand, Yin, (2011) defines research design as logical blueprints and serves as guidelines in conducting research. Research design essentially covers the research philosophy, research approaches and methods suffice to say that a research design is a plan or proposal to conduct research which involves an intersection of research philosophy strategies of inquiry and specific methods (Creswell, 2012).

3.2.1 Research Philosophy

Saunders, Lewis and Thornhill (2009), defines research philosophy as the researcher’s beliefs and assumptions that affect the way in which he/she views the world. There are three main philosophies positivist, interpretivist and realism with the positivist taking a quantitative orientation and the interpretivist being a qualitative orientation and realism being a combination of both. According to Saunders et al. (2009) positivist is when you take the stance of a natural scientist, it assumes that social reality is external to the individual and it can be observed. The positivist approach is deductive and seeks to explain causal relationship between variables whilst, on the other hand, interpretivist position refer to epistemological view that advocates necessity to understand differences between humans in their role as social actors, suffice to say social actions are
contextual. The interpretivist is inductive and seeks to understand human experience with a research context. (Denzin & Lincoln, 2000)

This research took the epistemological view from a positivist dimension. The positivist approach was adopted to this research as this research sought to evaluate the determinants of participation by individuals on the stock market. The positivist approach was employed because it is more objective than qualitative methods, quantitative data is replicable and it be repeated and generalized over large samples unlike qualitative data which is contextual and generalizations are difficult to make due to the size of the population samples. Moreover, positivism philosophy allows the researcher to establish the cause and effect relationships between variables (Saunders et al., 2009). The study seeks to establish determinants of participation by individuals on the stock market making it ideal to adopt the cause effect between independent variables and dependent variable.

3.2.2 Research approach

Saunders et al. (2009) defines research strategy as plan used by the researcher in answering research questions suffice to argue that choice of strategy is guided by research questions, objectives, extent of existing knowledge amount of time available and importantly resources available. Usually, there are two kinds of research approaches used in research namely inductive approach concerned with qualitative methods and deductive approach that is concerned with quantitative methods of research (Fisher, 2007).

This research took a deductive approach which progresses from theory to hypothesis, from hypothesis to observation and finally from observation to confirmation. (Salter and Mason, 2007). That is it maintains that from theory there are several determinants of participation by individual clients such as education, gender, awareness and other factors as cognitive abilities, to observation and finally accepting or rejecting the theory. In using deductive approach, Yin (2011) identifies several strategies that can be employed such as experiment, survey, case study, action research, grounded theory, ethnography and archival research. The research can either be qualitative or quantitative.
3.2.2.1. Qualitative Research

Qualitative research is aimed at presenting a detailed description, the research design emerges as the study unfolds. The researcher in this type of study is the data gathering instrument. Data is in the form of words, pictures, and objects. In qualitative research individual interpretation of events is important making it highly subjective. According to Saunders et al. (2009), although it may be time consuming and lack power to generalize, this type of research generates more rich information which is specific in a given context.

3.2.2.2. Quantitative Research

In contrast, quantitative research, the aim is to classify features, count them, and construct statistical models in an attempt to explain what is observed. More often, the researcher knows in advance what they are looking for. Researcher uses tools such as questionnaires or equipment to collect numerical data, data is in the form of numbers and statistics. Researcher tends to remain objectively separated from the subject matter.

For the purpose of this research, the research adopted a quantitative research approach. This was done due to several reasons. Quantitative research was selected because it is more reliable and objective when compared with qualitative research. Quantitative research also allows for hypothesis testing to be performed and can easily use statistics to generalize on findings. Moreover, quantitative research would allow large samples to be inferred and firmly speaking it can improve population representativeness and findings authenticity.

3.2.3. Research Purpose

The purpose of this study was of a descriptive nature. Robson (2002) cited in Saunders et al. (2009) defined a descriptive study as one that is carried out in order to have a clear picture of persons, events or situations. Variables are known beforehand in descriptive study and the research is done mainly to address research questions and not to test hypothesis. Since the research was a descriptive research the research used survey as a research strategy to gather the data.
3.2.4. Research Strategy

A survey were employed because it allowed collection of large data from the individual clients approaching stock brokers and asset managers. Due to the limited time available surveys proved to be the most economical to this kind of study. The data collected using a survey strategy can be used to suggest possible reasons for particular relationships between variables and to produce models of these relationships. For example the relationships between education, awareness, trust and gender to individuals stock market participation. The research used a survey across licensed stock brokers, regulators and asset managers enabling the researcher to generate findings that are more representative unlike collecting data from the whole population.

3.2.5. Research Horizon

Research time horizon according to Saunders, (2009) is the period under which the research is carried out differentiating the two horizons i.e. cross sectional studies and longitudinal studies. Cross sectional study according to Denscombe, (2007) is the study of a particular phenomenon (or phenomena) at a particular time. Whereas longitudinal study is the study of a phenomena over a long period of time and it has a strength of its capacity to study and capture change. This study employed a cross sectional stance in line with survey strategy selected this because cross sectional studies allows the researcher to compare many different variables at the same time also as according to Easterby-Smith et al. (2008) cross-sectional study becomes more appropriate in scenarios where there is limited time and resources.

3.3. Population and Sampling Techniques

Lippincott and Wilkins (2006) refers to the population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications. Saunders et al. (2009) defines a sample as full set of cases from which a sample is drawn. Target population could be individuals or objects depending on the nature of the study being carried out (Saunders et al.2009).For the purpose of the study the target population were the authorities that is the stock brokering firms, asset managers and fund managers, regulators and other stakeholders that deal with stock market participants.
The target population consisted of individuals with varying characteristics which closely fit aim of the research objectives.

In this research the target population was the Zimbabwean Stock Exchange participants. As indicated above these comprised stock broking firms, asset managers, fund/ investment managers, regulators, investment/research analysts and other stakeholders. These professionals act on behalf of their principals on the ZSE. They are the market agents of the knowledgeable and unknowledgeable populace. A number of studies carried out in the field of behavioral finance tend focus on individuals with the conclusions that individuals are rational traders on the market. Limited research has been done to interrogate the views of professionals to behavioral biases in stock market participation by individual investors.

In coming up with a sample size, three measures were used that is margin of error and confidence interval and standard deviation. The following formula adapted from Smith (2015) puts the above determinants of the minimum sample size into a formula with Z-score corresponding to the confidence level, Std Dev being the standard deviation representing the response distribution, and N representing the target population. The recommended standard deviation is 0.5. The researcher applied this formula in order to determine the sample size.

Table 3. 3.1 Formulae to Determine Sample Size:

Necessary Sample Size = (Z-score)^2 * StdDev*(1-StdDev) / (margin of error)^2

Source: (Smith S. , 2015)

Margin of error 0.08
Std Deviation 0.5
Confidence interval 90% (90% – Z score = 1.645)

Sample Size = 106
Table 3. 3.2 Sample composition

<table>
<thead>
<tr>
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<th>Number</th>
<th>Expected No Of Respondents</th>
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<tbody>
<tr>
<td>Stockbroking Firms</td>
<td>13</td>
<td>45</td>
</tr>
<tr>
<td>Asset Managers</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Regulators</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Pension Funds</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Other Stakeholders</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total Sample Size</strong></td>
<td></td>
<td><strong>120</strong></td>
</tr>
</tbody>
</table>

**Source: SPSS Findings**

3.3.3 Sampling methods

There are two main types of sampling, probability sampling and non-probability sampling. With probability sampling, the chance or likelihood of each case being selected from the population is known and is usually equal for all cases. Examples of probability sampling techniques includes simple random sampling, systematic sampling and cluster sampling. Whereas with non-probability the possibility of each case being selected from the total population is not known. Such techniques include quota sampling, purposive sampling, snowballing and convenience sampling among others. Saunders et al. (2009) argues that with probability sampling it is possible to answer research questions and to achieve objectives that require you to estimate statistically the characteristics of the population from the sample. To this end the study used stratified random sampling technique.

For the purpose of this study, stratified random sampling was employed by dividing the population into three strata’s that is stockbrokers, asset managers, and investment advisors. Random sampling will be performed within each on the three strata’s. According to Pride et al, (2015) stratified sampling is when population of interest is divided into groups according to a common attribute and random sampling is performed within each group i.e. heterogeneity across and homogeneity within stratum. Each stratum was deliberately accored a proportionate representation depending with the population in that category with the individual investors because of their numbers constituting the largest sample. Moreover another advantage is that stratified sampling can reduce
sampling errors that can occur in random sampling by ensuring that each major group major segment of population receives its equal representation. Stratified sampling because it was not practical to collect the data from the total population therefore this significantly reduced the data, however there is risk of sampling error in stratified sampling.

3.4 Sources of Data

There are two main sources of data for research, primary data and secondary data. Primary data according to Denscombe (2010), are data collected for the specific research problem on the ground. When primary data are collected new data can be added to the existing store of knowledge. Primary data strategies include questionnaires, interviews, focus group discussions, Observation both participative and non-participative and experiments. Gupta and Gupta (2011) defines secondary data as those which have already been gathered by someone else and would have already been exposed to statistical processes.

These data can be obtained in journals, periodicals, reports, government publications, research organizations, newspapers, books, magazines among other sources. This research used primary sources of data as the main source of data through the use of questionnaires. Although it is time consuming primary data is capable of addressing research questions and it is relevant to the study unlike secondary sources.

Some studies done on the causes of lack of participation by individual’s client’s lacks relevance in the African and Zimbabwean stock market context. Questionnaires captured the actual context of the study. With primary sources there is alignment of study and purpose and the age of data gathered in inferring into the possible causes of lack of participation by individual clients on the stock market. Yet another advantages of primary data are that it is reliable, specific and relevant since it is meant only for the purpose for which it is collected. This source has however its drawbacks which are, the method is expensive and time-consuming but this limitation does not completely disqualify the method hence it was the backbone of this research.
3.5 Data Collection Procedure

The research used a survey and information was collected using a questionnaire. Self-administered questionnaires were administered to the potential investors and investors approaching the stockbrokers, asset managers and investment advisors. Such questionnaire used both open and closed ended questions to accumulate both qualitative and quantitative output. Questionnaire is a standardizing method hence it results in uniformity since all respondents were asked the same set of questions, moreover interpretation of data was easy since the questionnaire is standardized hence it increased the reliability of the method.

The questionnaire covered the following sections, administrative, demographic and main body. The administrative section was mostly the cover letter which had a brief introduction of the research to the respondents, it also showed the questionnaire number and instruction to the respondents in answering the questionnaire. The demographic section of the questionnaire basically sought to capture the age of the respondents, income and gender.

The main body section of the questionnaire was characterized with questions which sought to answer the research objectives in Chapter 1. This was reached through the use of a likert scale on each of the research objectives. In this case the questionnaire asked questions in respect of the causes of the lack of participation by individual clients on the stock market and also if there are statistical differences on variables such as age, gender and occupation in relation to stock market participation. According to Paurav (2010) a likert scales make it easier to answer questions and it can also help in developing comparisons of respondents results. Responses achieved through a likert scale are easily quantifiable and are easy to subject to rigorous statistical tools.

This mode of preference/agreement indication was deemed most preferable compared to other modes of attitude scales such as the Thurstone scale or the Sematic Differential Scale. The Likert scale was easy to construct and could be easily understood by the respondents. It allowed the respondents a wider range of choices as compared to the Thurstone scale, thus enabling the collection of more information. Moreover, it was easier to contemplate than the Sematic Differential Scale when answering the questions (Berdie et al., 1986)
3.6. Pilot Testing

A pilot testing is usually carried out among a small sample before a full-scale survey is implemented. Walker (1997) pointed out that pilot studies help to clarify research question boundaries and make the research more focused. In collecting data on the determinants of stock market participation among individual investors on the stock market in Zimbabwe, the researcher developed and pilot tested a questionnaire on 15 trial participants in the across the 13 registered stock broking firms, 5 Asset managers and 5 Investment advisors. The objective of the preliminary systematic small survey was to check the level of understanding by respondents as well as checking if the questionnaire is well presentable.

This procedure was critical since it sought to identify questionnaire problems and wipe out confusion to the overall meaning of the questions. The other rationale for conducting a pilot test of the questionnaire was to establish if respondents interpreted the questions in the questionnaire in the same manner and as intended by the researcher. The information gathered from this exercise was valuable as it led to review of the questionnaire by changing the wording in the questionnaire so that respondents would easily understand the questions. In light of this, below was the reliability outcome of the instrument on a pilot of 36 respondents.

Table 3.6.1 Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.827</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: SPSS Findings

The overall Cronbach’s alpha for the test of reliability of the pilot instrument with 36 variables was 0.827. Being greater than the normative minimum of 0.7, the instrument was, therefore, reliable and the researcher proceeded to use it for the main study after having corrected a few grammatical issues which had been identified after the pilot study had been done.
3.7. Data Analysis

Data was analyzed using SPSS (Statistical Package for Social Sciences). According to Landau and Everitt (2004), SPSS is a package of programs for manipulating, analyzing and presenting data. The package was used to establish the correlation and revealing the relationship between the identified causes of lack of participation by individual clients on the stock market and stock market participation. When all the questionnaires were received back, they were edited to check completeness and consistency before processing.

The data was then categorized. All the identified variables were ranked according to how frequently they were placed in each category using descriptive statistics tools. Normality tests proved that the data was non-parametric therefore Chi Square tests were performed on each factor as well as regression to establish statistical significance of the various factors that influence stock market participation decisions in equity stocks among individuals. The researcher used the statistical package for social sciences (SPSS) V.23.0 to analyze the data.

3.8. Research Limitations

In carrying out this research, the time that was available to investigate the research problem and to measure change or stability over time was pretty much constrained by the due date of the program, had it been a longitudinal study some factors which determine stock market participation by individuals could have been accurately captured. Therefore, future such studies of behavioral nature should be done at PHD level where there is enough time to undertake a longitudinal study and make more detailed inferences.

During data collection, some respondents were not comfortable to disclose information to the researcher for they were skeptical of the purpose of the study especially stock brokers since their market is cluttered with fierce rivalry. However, this was overcome by attaching a letter from the GSM and student Id registration number which clearly assured respondents that this was naturally an academic research. Hence information was availed with minimum fear.

Since the analysis is based on survey responses collected from investors and potential investors, the study relied on the answers provided by the respondents and have confidence in their
credibility. Given the behavioral/psychological nature of our independent variables, there were some concerns that the responses could be sensitive to an individual “mood” a respondent was at the time of responding to the questionnaire. Nevertheless, we anticipate that the patterns that emerge from the analysis are not influenced by this intrinsic limitation.

3.9. Research Ethics and Data Credibility

Saunders et al (2009; 183-184) defines research ethics as “appropriateness of your behavior in relation to rights of those who become subject to your work and those who are affected by it”. To ensure that the research follows an appropriate design several initiatives were carried out to comply with the best practices in research ethics. Initiatives such as gaining access, organization concerns, privacy, confidentiality, plagiarism, among other facets.

To gain good access the researcher used existing and developing new contacts in the stock market fraternity. The researcher is in the stock broking industry, relationships with transfer secretaries, custodies and fund manager were essential in gaining access. Organisational concerns are normally a barrier to most research studies, organisations in the market such as the Zimbabwe Stock Exchange and Securities Commission process highly confidential information.

To overcome organisational concerns the researcher requested for a formal letter for the Graduate School of Management to seek organisational consent of the research to be allowed formally. To assure confidentiality, in distributing questionnaires to all the respondents, it was clearly articulated that the information being solicited is for academic purpose and it will be private and confidential. Researchers must define themselves what is ethical research (Berg, 2010).

Data reliability, reliability refers to the extent to which your data collection techniques or analysis procedures will yield consistent findings (Easterby-Smith et al.2008). Essential questions would be asked such as Will the measures yield the same results on other occasions? Will similar observations be reached by other observers? The reliability of the items for this research was checked using Cronbach Alpha to ensure that the items were consistently measuring the same constructs. Hair et al,(2007) and maintains that reliability is the consistency or repeatability of a measurement and that for reliability to be acceptable it must have a Cronbach’s Alpha coefficient greater than 0.6.
Data validity, according to Saunders (2009) data validity is concerned with whether findings are really what they appear to represent. The research used a questionnaire for the survey that was carried out. To ensure validity the questionnaire was derived from previously used and validated items derived from the literature. Rigorous pilot study was conducted to ensure that the respondents fully understood the questionnaire and accurately completed it to the best of their ability. This also ensured correct wording and arrangement of questions. On generalizability, by picking a sample for all the stock brokers and fund managers it ensured that the research findings can be generalised in the Zimbabwe context with any concerns.

3.10 Chapter Summary

This chapter gave detailed the research methodology that was applied in this research, unfolding from the research design, research philosophy, research strategy, population involved, sources of data to the data collection procedure and analysis techniques. The chapter went on to look at issues pertaining to research ethics as well as covering aspects of data credibility. The succeeding chapter will look at findings and data interpretation of the data collected.
CHAPTER 4
DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The focus of this chapter is to present the results of the research, to analyze the results and discuss the findings in an effort to determine how such findings address the research objectives using the data emanating from questionnaires that were administered to the respondents in this research. The results will be analyzed based on concepts discussed in the literature review. The statistical analysis of the perceptions of respondents will be provided through the use of narrative interpretations, statistical tables, and graphical illustrations.

4.2 Response Rate

A total of 120 questionnaires were administered to the employees of stockbrokers, asset managers, pension funds and the regulatory authorities. From the total of 120, 108 were responded to as illustrated in the Table 4.2. Below.

Table 4.2: Response Rate

<table>
<thead>
<tr>
<th></th>
<th>Administered</th>
<th>Returned</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brokers</td>
<td>45</td>
<td>44</td>
<td>97.8%</td>
</tr>
<tr>
<td>Regulator</td>
<td>10</td>
<td>6</td>
<td>60.0%</td>
</tr>
<tr>
<td>Asset Managers</td>
<td>30</td>
<td>26</td>
<td>86.7%</td>
</tr>
<tr>
<td>Pension Fund</td>
<td>20</td>
<td>19</td>
<td>95.0%</td>
</tr>
<tr>
<td>Other Stakeholders</td>
<td>15</td>
<td>13</td>
<td>86.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>108</strong></td>
<td><strong>90%</strong></td>
</tr>
</tbody>
</table>

From the above analysis, the greatest response rate was observed for the brokers, which was 97.8%, followed by the pension funds, with a frequency of 95% and this shows that they were very much interested in the area of study and were eager to identify possible gaps. However, the least response rate was noted for the regulators, with a response rate of 60%. The overall response rate was found to be 90%. According to Zikmund et al. (2014), for small-population studies, a response rate of 70% is viewed to be ideal, which qualifies the observed response rate in this study.
4.3 Demographic Data

With a view to establishing socio-economic factors that may influence the outcome of the research, Bryman and Bell (2007) emphasizes on the importance of assessing the background information of the participants. In pursuance of this, the core background attributes that were assessed in this study were gender of respondents, their age ranges, highest level of education, level in organisation, years in the stock market industry and type of organisation.

4.2.1 Gender Distribution of Respondents

With regards to the gender of respondents, the greatest majority (89%) were male respondents while merely 11% were females, as shown in Figure 4.2.1. below.

Figure 4.2.1.: Gender of Respondents

![Gender Distribution of Respondents](image)

Source: SPSS Findings

The gender balance presented above bear’s testimony to the general structure of the investment profession, which is male dominated (Kudryavtsev & Cohen, 2013). According to Pryce and Sealy
(2013), it can be argued that in many circumstances women are underrepresented in senior levels in global investment banks and more specifically in the investment discourse thus agreeing with the findings from this study.

4.2.2 Age Range of Respondents

The Figure 4.4 below presents the analysis of the age ranges of the respondents. From the analysis, the greatest frequency comprised of the 31-40 year age group, while the 21-20 years age group was the second dominant category. The least significant category comprised of those respondents who were only 9%.

Figure 4.2.2: Age Range

Source: SPSS Findings

The age range of 31-40 was the most dominant in responses to the study. According to Axelson and Bond, (2011), the age between 31 to mid-40s is the age when most people are at the pick of their career path and this naturally explains why the research respondents was dominated by the middle aged people. Axelson and Bond (2011), argues that from the age of 50 going up, most
people would be on their retirement path or seeking other challenges away from the fast and explosive stock market environment.

### 4.2.3 Highest Level of Education of Respondents

DeGus and Arie (1988) noted that the level of in-depth analysis in organisations with a high level of holders of Masters and Doctorate degrees is higher than in organisations where the level of holders of Master and Doctorate degrees is low. The level of understanding of the importance of individuals stock market participation in an organisation can be correlated to the level of the education attained by the respondents. With regards to the highest level of education, the greater majority (47%) had a Masters level degree, while those with undergraduates were 41%. The least significant were 12% of the respondents who had diplomas.

**Figure 4.2.3: Highest Level of Education**

Source: SPSS Findings
4.2.4 Level in Organization

The level of the respondents in the organizations is presented in the Figure 4.2.4 below. From the figure, the greatest frequency of the respondents who were 40.7% were middle management staff, while 29.6% were non-managerial staff. On the other hand, 18.5% were senior management, with 11.1% being other respondents. Possibly there were many response from the middle management since most organization in the equities have a heavy middle management structure and less people on the top positions and lower positions, for examples in broking firms have a Managing Director , at least two licensed stock brokers and research analyst which are all middle managers and one scrip clerk.

Figure 4.2.4: Level in Organization

Source: SPSS Findings

4.2.5 Extent of interaction with individual investors

The respondents were also asked to identify themselves with the level of interaction with individual investors. From the findings, presented in Figure 4.2.5, 53% of the respondents said that they had a high level of interaction, while 47% said that their interaction levels were low.
The level of interaction with investors was somewhat balanced however with those with high level of interaction with individual investors being the greater one with 53% compared to 47% who had little interaction with individual investors. This is so mostly because stockbroking industry and the investment banking environment at large has a balanced composition of people who interact more with individual investors such as relationship officers and scrip clerks and investment analyst as well as certified equities traders who are predominantly occupied with high net worth investors and largely institutional investors such as foreign brokers and fund managers opposed to individual investors alone.

4.2.6 Years in the Stock market industry

The respective number of years in the stock market by the respondents is presented in Figure 4.2.6. The greatest frequency of the responses, 52.8%, had 5-10 years, followed by 29.6% who had less
than 5% experience. On the other hand, 12% of the respondents had 10-15 years of experience, while 5.6% had more than 20 years of experience.

This high percentage of the respondents, who had worked at the company for more than 5 years, meant that the responses gave a fair representation that would make the responses valid to and fairly relevant to the study.

Figure 4.2.6: Years in the Stock market industry

Source: SPSS Findings

Stock market is a generally secluded industry and once one enter into this industry they are most likely to stay in that industry explaining higher percentage or response from people with 5 to 10 years in the industry. In the case for Zimbabwe for example, for one to become a licensed broker, ZSE strictly say that one has to have at least 5 years in the back office set up and also sit for (South African Institute of Financial Markets) SIFAM examinations which are ordinarily funded by the broking firm. This possibly explains more on the reason why there is a high percentage of respondents in the range of 5-10 years working experience.
4.2.7 Type of organisation

The final important demographic characteristic to evaluate was the type of the organisation. The distribution of the outcomes are presented in Figure 4.2.7 below.

**Figure 4.2.7 Type of Organisation**

![Bar chart showing the distribution of respondents by type of organisation. The greatest number of respondents, 40.7% were from brokers, while 24.1% were from asset management companies. On the other hand, 12.6% were from pension funds, and 12.0% being from other allied institutions. In Zimbabwe perhaps the reason for a high response rate is that there are relatively more stock broking firms in comparison to the other organizations targeted in this study. Currently in Zimbabwe are 13 licensed stock brokers.]

**Source: SPSS Findings**

The greatest number of respondents, 40.7% were from brokers, while 24.1% were from asset management companies. On the other hand, 12.6% were from pension funds, and 12.0% being from other allied institutions. In Zimbabwe perhaps the reason for a high response rate is that there are relatively more stock broking firms in comparison to the other organizations targeted in this study. Currently in Zimbabwe are 13 licensed stock brokers.

4.3 Reliability Analysis

With a view to establishing the reliability of the research instrument, and each of the constructs, the Cronbach’s Alpha was computed for the 37 questionnaire items en bloc and for each of the factors that was studied in this research. The results are presented in the Table 4.3 below.
Table 4.3: Reliability Analysis

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>0.876</td>
<td>37</td>
</tr>
<tr>
<td>Financial Education</td>
<td>0.858</td>
<td>37</td>
</tr>
<tr>
<td>Gender</td>
<td>0.862</td>
<td>37</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>0.836</td>
<td>37</td>
</tr>
<tr>
<td>Awareness</td>
<td>0.865</td>
<td>37</td>
</tr>
<tr>
<td>Trust</td>
<td>0.898</td>
<td>37</td>
</tr>
<tr>
<td>Transaction Costs</td>
<td>0.845</td>
<td>37</td>
</tr>
<tr>
<td>Access to Internet</td>
<td>0.883</td>
<td>37</td>
</tr>
<tr>
<td>Cognitive Skills</td>
<td>0.869</td>
<td>37</td>
</tr>
<tr>
<td>Perceptions</td>
<td>0.893</td>
<td>37</td>
</tr>
<tr>
<td>Health Status</td>
<td>0.849</td>
<td>37</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>0.853</td>
<td>37</td>
</tr>
<tr>
<td>Liquidity Constraints</td>
<td>0.869</td>
<td>37</td>
</tr>
<tr>
<td>Age</td>
<td>0.804</td>
<td>37</td>
</tr>
</tbody>
</table>

Source: SPSS Findings

The overall alpha statistic was 0.876, while the alpha for each of the other items was also greater than 0.8. From first principles, the minimum acceptable alpha statistic is expected to be 0.7. (Nunally, 1978). Hence from the foregoing, the research instrument, along with the constructs were reliable.

4.4 Normality Tests

With a view to qualifying whether parametric or non-parametric tests would suffice to establish the relationship between the independent variables and the dependent variables (Zikmund, 2014), the Normality tests were done for each of the factors presumed to influence on the participation of individual investors on the stock market, by means of the Kolmogorov-Smirnov test. The results from the analysis done in SPSS are presented in Table 4.4 below.
Table 4.4: Normality Tests

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov(a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Is there a significant disparity between the participation of individuals and corporates on the stock market?</td>
<td>.416</td>
<td>108</td>
</tr>
<tr>
<td>Financial Education</td>
<td>.164</td>
<td>108</td>
</tr>
<tr>
<td>Gender</td>
<td>.199</td>
<td>108</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>.291</td>
<td>108</td>
</tr>
<tr>
<td>Awareness</td>
<td>.208</td>
<td>108</td>
</tr>
<tr>
<td>Trust</td>
<td>.286</td>
<td>108</td>
</tr>
<tr>
<td>Transaction Costs</td>
<td>.120</td>
<td>108</td>
</tr>
<tr>
<td>Access to Internet</td>
<td>.215</td>
<td>108</td>
</tr>
<tr>
<td>Cognitive Skills</td>
<td>.201</td>
<td>108</td>
</tr>
<tr>
<td>Perceptions</td>
<td>.234</td>
<td>108</td>
</tr>
<tr>
<td>Health Status</td>
<td>.181</td>
<td>108</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>.232</td>
<td>108</td>
</tr>
<tr>
<td>Liquidity Constraints</td>
<td>.250</td>
<td>108</td>
</tr>
<tr>
<td>Age</td>
<td>.220</td>
<td>108</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction

Source: SPSS Findings

From the above analysis, the null hypothesis that the distributions of the determinants of the participation of individuals on the stock market were normally distributed was rejected, implying that the distributions were significantly skewed, and not normal. From the foregoing, the data being not normally distributed, non-parametric measures were chosen in lieu of the parametric measures. In this regard, the non-parametric Chi-Square analysis was chosen in lieu of regression analysis, a parametric analysis.
4.4.1 Factors influencing participation of Individuals on the Stock market

This section, which explores the factors that influence the participation of individual investors on the stock market. To establish whether Factor analysis would suffice for the dataset used, the Bartlett's sphericity test and the Kaiser-Mayer-Olkin (KMO) index was computed to test whether the data originated from a multivariate normal distribution with zero covariance’s (Field, 2009; Bartlett, 1950). The results are presented in Table 4.4.1 below.

Table 4.4.1: KMO and Bartlett's Test

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</th>
<th>.156</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td></td>
<td>1387.774</td>
</tr>
<tr>
<td>df</td>
<td>91</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: SPSS Findings

A KMO index less than 0.50 indicates the data set is not suitable for factor analysis (Zillmer & Vuz, 1995; Field, 2009). In our case, the KMO index was 0.156, a statistic less than 0.156. It follows therefore that in as much as the current study was concerned, Factor analysis would not be adequate. To counter this impediment, the theoretically defined factors were used. In this regard, the factors to be explored include:

- Financial Education
- Gender
- Social Interaction
- Awareness
- Trust
- Transaction Costs
- Access to Internet
- Cognitive Skills
- Perceptions
- Health Status
- Life Satisfaction
- Liquidity Constraints
- Age
4.4.2 Impact of Financial Education

With regards to qualifying whether there was a need for financial education, the respondents were asked whether an individual requires high level education to have an appreciation of the stock market and to participate in the stock market. From Figure 4.4, it can be seen that 35.2% of the respondents agreed, while 28.7% strongly agreed. In summary, a cumulative frequency of 64.9% agreed to the above statement. On the other hand, it turned out that it did not necessarily follow that educated individual clients understand the stock market jargon enough to compel them to participate on the stock market and realize above average returns. This is evidenced from the 36.1% of the respondents who disagreed, despite there being 35.2% of the respondents who agreed.

**Figure 4.4.2: Impact of Financial Education**

![Bar chart showing the percentage of respondents' attitudes towards financial education.]

**Source: SPSS Findings**

To qualify whether financial education was important as a predictor variable, the not parametric analysis was computed and the results are presented in Table 4.4.2
Table 4.4.2: Chi-Square Test - Impact of Financial Education

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>102.361(^a)</td>
<td>21</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>108.908</td>
<td>21</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.944</td>
<td>1</td>
<td>.047</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) 27 cells (84.4\%) have expected count less than 5. The minimum expected count is .67.

Source: SPSS Findings

The p-value was 0.000, and being less than 0.05, we reject the null hypothesis and conclude that there was a great need for the individuals to be financially insightful for them to competitively participate on the stock market.

4.4.3 Impact of Gender

Gender was presumed by the research to be the other factor influencing the participation of individuals on the stock market. The empirical findings from the current research are presented in Figure 4.4.3 below.

Figure 4.4.3: Impact of Gender

Source: SPSS Findings
From the analysis in Figure 4.4.3 above, the modal perceptions on gender were rather centered about the neutral viewpoint. This can be substantiated by the 30.56% of the respondents who were neutral on the gender issue affecting individual participation on the stock market. However, 28.70% agreed, as compared to 27.78% who disagreed. To ascertain whether gender had an influence on the individual participants, the Chi-square analysis was computed and are presented in Table 4.4.3.

Table 4.4.3: Chi-Square Test - Impact of Gender

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.228a</td>
<td>18</td>
<td>.074</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.250</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>10.097</td>
<td>1</td>
<td>.001</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 21 cells (75.0%) have expected count less than 5. The minimum expected count is .67.

Source: SPSS Findings

From the foregoing, the p-value was established to have a p-value greater than 0.05. We therefore accept the null hypothesis that the participation of individuals on the stock market was independent of the gender.

4.4.4 Impact of Social Interaction

It was also theorized that social interaction has an influence towards the participation of individuals on the stock market. To affirm this, the respondents were asked whether social interaction was relevant in transmitting relevant information to potential investors, information enough to enable one to participate on the stock market. From the Figure 4.4.4, 82.41% of the respondents were neutral. However, it was established that individuals with high social skills are more likely to invest in stocks, as 45.37% agreed, and 18.52% strongly agreed.
To determine whether social skills were statistically significant in the determination of the participation of individuals on the stock market, the Chi-square analysis was computed and the results are presented in Table 4.4.4 below.

### Table 4.4.4: Chi-Square Test - Impact of Social Interaction

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>50.089(^a)</td>
<td>9</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>62.044</td>
<td>9</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>7.114</td>
<td>1</td>
<td>.008</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 8 cells (50.0%) have expected count less than 5. The minimum expected count is 1.44.

**Source: SPSS Findings**
With a p-value of 0.000 less than 0.005, we reject the null hypothesis and conclude that social skills have a significant influence on the participation of individuals on the stock market.

**4.4.5 Impact of Awareness**

It was presumed that in general awareness of the benefits of the stock market would positively influence the participation of individuals on the stock market. To validate this, the respondents were asked whether investors are likely to participate more if they are well informed about stock market existences and benefits. The results from the analysis are presented in Figure 4.4.5 below. From the analysis, 59.26% of the respondents agreed while, 6.48% strongly agreed.

**Figure 4.4.5: Impact of Awareness**

![Bar chart showing the impact of awareness on stock market participation.](source: SPSS Findings)

To cross validate the above findings, it was presumed that brokerage firms are not doing enough to inform potential investors on the benefits of investing on the stock market. From The Figure 4.4, 59.26% of the respondents strongly agreed, while 35.19 agreed. The overall outcome was rather suggestive of the positive influence of awareness on the extent of participation by individuals. The chi-square analysis was further computed to qualify the above findings. The results are presented in Table 4.4.5 below.
Table 4.4.5: Chi-Square Test - Impact of Awareness

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>75.497a</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>85.421</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>14.496</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .67.

Source: SPSS Findings

From the foregoing, the p-value being less than 0.005, we reject the null hypotheses and conclude that awareness did have a significant positive influence on the participation of individuals on the stock market.

4.4.6 Impact of Trust

Another aspect whose impact on the participation of individuals on the stock market was the issue of trust. Respondents were asked whether the stock market has a high fraudulent rate which deter individuals’ participation on the stock market, 52.78% disagreed while 11.11% strongly disagreed.

To cross validate the above findings the respondents were asked whether the stock market has a high fraudulent rate that deters individuals’ participation on the stock market. Again, from Figure 4.4.6 the majority of the respondents (46.30%) disagreed.
To qualify whether trust was a significant determinant of the participation of individuals in stock markets, Chi-square analysis was done and the outcome is presented in the Table below.

### Table 4.4.6: Chi-Square Test - Impact of Trust

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>12.226</td>
<td>18</td>
<td>.614</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>15.029</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>2.544</td>
<td>1</td>
<td>.111</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Findings

From the above analysis, with a p-value of 0.614, we accept the null hypothesis and conclude that trust was not a significant determination of the participation of individuals.
4.4.7 Impact of Transaction Costs

The other factor to be explored was the issue of transaction costs. It was believed that high transaction costs would deter individual participation on the stock market. The results are presented in Figure 4.4. 7

Figure 4.4.7: Impact of Transaction Costs

![Graph showing the impact of transaction costs on stock market participation]

Source: SPSS Findings

From the analysis above, it was established by 66.67% of the respondents that that the costs of entering into the stock market were too high to deter individual participation on the stock market.

The corresponding Chi-square analysis which was done is presented in Table 4.4.7

Table 4.4.7: Chi-Square Test - Impact of Transaction Costs

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>180.946a</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>162.497</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.003</td>
<td>1</td>
<td>.957</td>
</tr>
<tr>
<td>Association</td>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
</tr>
</tbody>
</table>
a. 21 cells (75.0%) have expected count less than 5. The minimum expected count is .67.

Source: SPSS Findings
From the analysis, the p value was established to be 0.00, we therefore reject the null hypothesis and conclude that transaction costs had a significant influence on the participation of individuals on the stock market.

4.4.8 Impact of Access to Internet

With regard to the issue of internet connection, the respondents were asked whether access to internet was a significant factor influencing stock market participation by individual’s clients.

**Figure 4.4.8: Impact of Access to Internet**

![Bar chart showing the percentage of respondents' agreement with internet access being a significant factor affecting stock market participation.]

*Source: SPSS Findings*

From the findings, 53.7% of the respondents agreed, while 12.04% strongly agreed. In total, accumulative of 66.1% agreed to the importance of internet connectivity. On the other hand, the findings indicated that internet gives investors more financial horizon and encourages individuals to participate on the stock market, and this was supported by 40.74% of the respondents who strongly agreed, while 48.15% agreed, as shown in the Figure 4.4.8 below. However, to test whether internet connectivity was a significant factor, as with the other factors, the chi-square analysis was used and the results are presented in Table 4.4.8 below.
Table 4.4.8 Chi-Square Test - Impact of Access to Internet

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>91.237a</td>
<td>15</td>
<td>0.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>95.382</td>
<td>15</td>
<td>0.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.269</td>
<td>1</td>
<td>0.132</td>
</tr>
</tbody>
</table>

N of Valid Cases 108

a. 16 cells (66.7%) have expected count less than 5. The minimum expected count is 0.67.

Source: SPSS Findings

The p-value for the significance was 0.000, and being less than 0.05, we reject the null hypothesis and conclude that access to the internet was a significant factor.

4.4.9 Impact of Cognitive Skills

From the literature, cognitive skills were considered to be essential skills that may as well influence the participation of individuals on the stock market. To establish whether this was still significant in the context of this study, the respondents were asked whether one’s mental strength determines one’s participation patterns on the stock market.

Figure 4.4.9: Impact of Cognitive Skills

- Financial decisions as stock market participations are too complicated and requires high levels of cognitive abilities for one to participate.
- One’s mental strength determines his/her participation patterns on the stock market.
Source: SPSS Findings
From the above findings, 50.92% of the respondents agreed to the statement, while 17.59% strongly agreed. This translates to a cumulative frequency of 68.52% of respondents who were in the nod. To cross validate this finding, it was asked whether financial decisions are too complicated and requires high levels of cognitive abilities to participate on the stock market. Again, this was positively reviewed with 12.04% of the respondents strongly agreeing and 39.81% agreeing. Only 18.52% disagreed, with 29.63% remaining neutral. The corresponding results from chi square analysis are presented in Table 4.4.9

Table 4.4.9: Chi-Square Test - Impact of Cognitive Skills

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>111.933</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>118.053</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>14.068</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 21 cells (75.0%) have expected count less than 5. The minimum expected count is .67.

Source: SPSS Findings

From the foregoing, the significance of the factor was rated at 0.000, and being less than 0.05, we reject the null hypothesis and conclude that there was a very significant outcome to conclude that cognitive skills were an essential skill.

4.4.10 Impact of Perceptions

Perceptions among respondents have been identified to be having an influence on the decision making process, whether to participate or not to by befitting individual investors. To explore the significance of the factor, it was asked whether poor perceptions about the stock market would lead to reduced levels of stock market participation by individual investors. The summary of the findings is presented in Figure 4.4.10.
From the above findings, 63.89% of the respondents agreed and 36.11% strongly agreed. None of the respondents disagreed. To cross-validate the above finding, the respondents were asked if perceptions play a big role in stock market decision by individuals investors. It can be seen from the above figure that 59.26% strongly agreed, with 35.19% agreeing. However, only 5.56% were neutral. Having descriptively identified the issue of perceptions as being significant, the researcher proceeded to statistically test the distribution. Being a non-parametric distribution, the Chi-square test was done and the corresponding results are presented in Table 4.4.10 below.

### Table 4.4.10: Chi-Square Test - Impact of Perceptions

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>93.756a</td>
<td>9</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>92.068</td>
<td>9</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.088</td>
<td>1</td>
<td>.767</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 8 cells (50.0%) have expected count less than 5. The minimum expected count is .67.

**Source: SPSS Findings**
It follows therefore from the above outcome that the influence of perceptions had a statistically significant effect, with a p-value of 0.000.

4.4.11 Influence of Health Status

With regard to health status, it was envisaged that an individual’s health status is important in deciding to participate on the stock market. Having asked the respondents, the findings are presented in Figure 4.4.11

**Figure 4.4.11: Impact of Health Status**

From the above findings, 30.56% of the respondents agreed. However, 27.78% were neutral, while 29.63% disagreed, with 12.04% strongly disagreeing. In summary, a cumulative of 41.67% disagreed, compared with 30.56% who were agreeing. To further add clarity to the question, the respondents were asked whether poor health discourages one to participate on the stock market.
From the above figure, 17.59% strongly disagreed, while 35.19 disagreed. In other words, a total 52.78% disagreed, as compared to the 18.52% who agreed, save for 28.70% who were neutral.

The corresponding chi-square analysis is presented in Table 4.4.11

Table 4.4.11: Chi-Square Test - Impact of Health Status

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.217a</td>
<td>18</td>
<td>.090</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>13.090</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.992</td>
<td>1</td>
<td>.084</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 21 cells (75.0%) have expected count less than 5. The minimum expected count is .67.

Source: SPSS Findings

From the above findings, the significance level of the influence of health on participation was 0.90, and being greater than 0.05, we accept the null hypothesis that health status does not influence the participation of one on the stock market.

4.4.12 Impact of Life Satisfaction

Generally, earlier findings established that one’s level of life satisfaction helps in improved participation by the individual on the stock market. With regards to this study, the outcome of the research is presented in the Figure 4.4.12 below.
From the above analysis, 64.81% of the respondents agreed, while 12.04% strongly agreed. This equates to a total of 76.85% of respondents who were agreeing, in contrast to 5.56% of the respondents who were disagreeing, with the residual being neutral (17.59%). To add clarity and triangulate the above finding, the respondents were asked whether high levels of optimism leads to one to investment in the stock market. Again, the greater majority, 48.15% strongly agreed, with 46.30% simply agreeing. Effectively, 94.45% agreed, the rest, 5.56% being neutral. Likewise, the corresponding inferential test for the significance is presented in Table 4.4.12 below.

Source: SPSS Findings

<table>
<thead>
<tr>
<th>Table 4.4.12: Chi-Square Test - Impact of Life Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson Chi-Square</strong></td>
</tr>
<tr>
<td><strong>Likelihood Ratio</strong></td>
</tr>
<tr>
<td><strong>Linear-by-Linear Association</strong></td>
</tr>
<tr>
<td><strong>N of Valid Cases</strong></td>
</tr>
</tbody>
</table>

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .78.

Source: SPSS Findings
From the foregoing inferential analysis, the p-value of 0.000 is indicative of the significance of the influence of Life satisfaction on the participation on stock market. In other words, life satisfaction was qualified to be a driver of the participation by individuals on the stock market.

4.4.13 Impact of Liquidity Constraints

Aside of the other personal and environmental factors which may influence one’s participation on the stock market, empirical findings highlight the importance of financial factors as being one of the most significant drivers. To qualify this as a factor, the respondents were asked whether individuals with high levels of liquidity participate more on the stock market. The outcome is presented in Figure 4.4.13 below.

**Figure 4.4.13: Impact of Liquidity Constraints**

From the analysis above, 50.93% agreed while 37.04% strongly agreed. In other words, a total of 87.97% of the respondents agreed in contrast to 6.48% who disagreed. It was also validated that high liquidity leads to more experimentation in investment vehicles such as stock market by individuals investors.
individual investors, and this was supported by 53.70% of the respondents who strongly agreed, with 34.26 simply agreeing. Thus, 87.96% of the respondents agreed, with 6.48% disagreeing.

The corresponding inferential qualification is presented in Table 4.4.13 below,

**Table 4.4.13: Chi-Square Test - Impact of Liquidity Constraints**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>104.551</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>117.111</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>19.619</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*13 cells (65.0%) have expected count less than 5. The minimum expected count is .67.*

**Source: SPSS Findings**

The issue of liquidity constraints was established to have a p-value of 0.000, significant at the 95% confidence level, with. Thus in summary, liquidity constraints are a significant factor that can drive or hamper the participation of individuals on the stock market.

**4.4.14 Impact of Age**

The last factor that this research sought to explore was the issue of age. Principally, the respondents were asked whether one’s age determines stock market participation decisions.
Source: SPSS Findings

From the findings, the majority of the respondents (46.30%) agreed, while 17.59% were neutral. On the other hand, 23.15% disagreed, with the residual 12.96% strongly disagreeing, and thus a total of 36.11% who were disagreeing. However, to add clarity to the questioning, the respondents were further asked if financial investments choices vary with one’s age, 16.6% strongly agreed, while 52.78% agreed. Effectively, 69.38% of the respondents agreed. Only 6.8% strongly disagreed and disagreed respectively, while 17.59% remained neutral.

To test whether the high proportions of positive influences of age on stock market participation, the chi-square analysis was computed and the results are summarized in the Table 4.4.14 below.
Table 4.4.14: Chi-Square Test - Impact of Age

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>176.146ª</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>170.159</td>
<td>18</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.004</td>
<td>1</td>
<td>.947</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 21 cells (75.0%) have expected count less than 5. The minimum expected count is .67.

Source: SPSS Findings

From the foregoing, the p-value for the influence of age on stock market participation was 0.000. Being less than 0.05, we reject the null hypothesis and conclude that age had an influence on the participation on the stock market by individuals.

4.5 Regression Analysis - Factors influencing the participation on the stock market

Having considered the effect of each variable on the participation of individuals on the stock market, below is the aggregate influence of all the variables, whose mean was rated based on a 5-point Likert scale. In other words, those variables with mean ratings greater than the median 3, would reflect a positive influence, while those with mean ratings less than 3, would reflect non-significant factors.
Table 4.5: Mean Ratings – Factors Influencing Participation on Stock Market

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>Std. Error</td>
<td>Statistic</td>
</tr>
<tr>
<td>Financial Education</td>
<td>108</td>
<td>3.3704</td>
<td>.09380</td>
<td>.97485</td>
</tr>
<tr>
<td>Gender</td>
<td>108</td>
<td>2.7963</td>
<td>.09442</td>
<td>.98122</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>108</td>
<td>3.6991</td>
<td>.08550</td>
<td>.88850</td>
</tr>
<tr>
<td>Awareness</td>
<td>108</td>
<td>4.0463</td>
<td>.05602</td>
<td>.58220</td>
</tr>
<tr>
<td>Trust</td>
<td>108</td>
<td>2.4326</td>
<td>.07426</td>
<td>.77175</td>
</tr>
<tr>
<td>Transaction Costs</td>
<td>108</td>
<td>3.2130</td>
<td>.07981</td>
<td>.82938</td>
</tr>
<tr>
<td>Access to Internet</td>
<td>108</td>
<td>3.8935</td>
<td>.07086</td>
<td>.73641</td>
</tr>
<tr>
<td>Cognitive Skills</td>
<td>108</td>
<td>3.5972</td>
<td>.08175</td>
<td>.84957</td>
</tr>
<tr>
<td>Perceptions</td>
<td>108</td>
<td>4.4491</td>
<td>.04648</td>
<td>.48308</td>
</tr>
<tr>
<td>Health Status</td>
<td>108</td>
<td>2.0259</td>
<td>.09141</td>
<td>.94998</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>108</td>
<td>4.1296</td>
<td>.05359</td>
<td>.55690</td>
</tr>
<tr>
<td>Liquidity Constraints</td>
<td>108</td>
<td>4.2685</td>
<td>.07823</td>
<td>.81294</td>
</tr>
<tr>
<td>Age</td>
<td>108</td>
<td>3.3194</td>
<td>.09406</td>
<td>.97745</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Findings

From the Table 4.5 above, all other factors save for only three, that is, gender, trust and health status were ascertained as being the non-significant factors. These factors are better illustrated in the Figure 4.5 below.
The most significant factors, with the highest mean ratings included:

- Liquidity constraints
- Life satisfaction
- Perceptions
- Awareness

Since in Zimbabwe liquidity is something global perhaps this explains why from the findings it exhibits the highest mean compared to other factors considered in the study. Life satisfaction is normally correlated to liquidity and this could imaginably this could be the reason of the high mean rating as well. Perceptions were noted to be the most significant possibly because some authors as Vissing-Jørgen, (2002) claims that’s some investors are roughly twice as sensitive to losses as they are to gains making them more cautious with stock market participation. Negative perceptions breed conservatism in the process.
To ascertain the extent of impact of each of the above factors, stepwise regression analysis was done and the results are presented in the Table 4.4 below.

### Table 4.5.1: Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.993*a</td>
<td>.986</td>
<td>.984</td>
<td>.060</td>
</tr>
</tbody>
</table>


**Source: SPSS Findings**

The regression coefficient that was computed was 0.993 signifying that there was a very strong correlation between the studied factors and the participation of individuals on the stock market. With an R-square of 0.986, it follows then that with regards to the factors considered to influence on the participation of individuals on the stock market, they were attributable to 98.6% of the variation. The other 1.4% was unexplained by the measures in this study, and in this respect, would be explained by other factors not covered by this research.

The validity of the regression analysis above, and the regression coefficients was confirmed through the use of the ANOVA analysis and the results are presented in the Table 4.5.2 below.

### Table 4.5.2: Regression Model Validity

<table>
<thead>
<tr>
<th>ANOVA*a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Individual participation


**Source: SPSS Findings**
From the analysis, the p-value was 0.000; and this being less than the critical 0.05, we reject the conclude that there exists sufficient evidence at the 95% confidence level to conclude that the model comprising of financial education, gender, social interaction, awareness, trust, transaction costs, access to internet, cognitive skills, perceptions, health status, life satisfaction, liquidity constraints and age is significant/fit to estimate individual customers’ participation on the stock market with an F-value of 513.809 and p-value of 0.000.

The corresponding regression coefficients from the analysis are presented in the Table 4.5.3 below.

**Table 4.5.3 Regression Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>4.774</td>
<td>.093</td>
<td>51.253</td>
<td>.000</td>
</tr>
<tr>
<td>Financial Education</td>
<td>-.075</td>
<td>.013</td>
<td>-.153</td>
<td>-.748</td>
</tr>
<tr>
<td>Gender</td>
<td>-.092</td>
<td>.017</td>
<td>-.010</td>
<td>-5.984</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>.685</td>
<td>.027</td>
<td>1.268</td>
<td>25.541</td>
</tr>
<tr>
<td>Awareness</td>
<td>.686</td>
<td>.022</td>
<td>.832</td>
<td>31.638</td>
</tr>
<tr>
<td>Trust</td>
<td>-.135</td>
<td>.014</td>
<td>-.038</td>
<td>-2.739</td>
</tr>
<tr>
<td>Transaction Costs</td>
<td>.242</td>
<td>.017</td>
<td>.418</td>
<td>14.079</td>
</tr>
<tr>
<td>Access to Internet</td>
<td>.176</td>
<td>.018</td>
<td>.270</td>
<td>9.651</td>
</tr>
<tr>
<td>Cognitive Skills</td>
<td>.053</td>
<td>.013</td>
<td>.94</td>
<td>4.209</td>
</tr>
<tr>
<td>Perceptions</td>
<td>-.535</td>
<td>.021</td>
<td>-.538</td>
<td>-24.901</td>
</tr>
<tr>
<td>Health Status</td>
<td>.076</td>
<td>.017</td>
<td>.348</td>
<td>1.571</td>
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<tr>
<td>Life Satisfaction</td>
<td>-1.033</td>
<td>.032</td>
<td>-1.199</td>
<td>-32.724</td>
</tr>
<tr>
<td>Liquidity Constraints</td>
<td>-.075</td>
<td>.018</td>
<td>-1.28</td>
<td>-4.118</td>
</tr>
<tr>
<td>Age</td>
<td>-.348</td>
<td>.008</td>
<td>-.710</td>
<td>-41.010</td>
</tr>
</tbody>
</table>

Source: SPSS Findings

From the analysis, financial education, gender, social interaction, awareness, trust, transaction costs, access to internet, cognitive skills, perceptions, health status, life satisfaction, liquidity constraints and age had significant coefficients, with p-values less than 0.05. However, gender, trust and health status had rather insignificant coefficients, with insignificant p-values. It follows therefore that the significant factors influencing the participation of individuals on the stock market
were financial education, social interaction, and awareness, and transaction costs, access to internet, cognitive skills, perceptions, life satisfaction and liquidity constraints.

4.6 Findings and Discussions

From the Chi Square tests performed on financial education there is sufficient reason to agree with this literature that education is indeed a predictor variable of individual stock market participation patterns. Rooij et al. (2011) and Atia, (2012) tend to incline to the notion that education is a significant factor determining participation of individuals on the stock market. The p-value was 0.000, and being less than 0.05 thereby we rejecting the null hypothesis and concluding that there was a great need for the individuals to have financial education for them to be able to meaningfully participate on the stock market. The findings dispute the studies by Cole and Shastry, (2010) which refutes that education is not an important factor influencing individual’s participation on the stock market.

The research findings also supports the findings by Lusardi et al. (2007) that increased financial education comes with high chances that individuals participate on the stock market through increased understanding of the basic financial jargon and financial models in order to predict stocks trends and movements. It could however suffice to suggest that further research focusing on financial education alone would be essential since there are some conflicting theories from the findings for example, (2006) firmly refutes that education is a relevant determinant of individual stock market participation. Perhaps this could be argued in the Zimbabwean context were most people are considered to be educated yet participation on the stock market is still at its lowest. According to ZIM STAT 80% of the population in Zimbabwe is educated yet individual’s contributions on the daily stock market turnover is somewhat mediocre.

The findings of study could not bear any testimony of the literature, rather findings of the study settle that gender is not an important predictor variable of stock market participation patterns amongst individuals. The Chi Square test performed proved that gender failed to be strong determinant that can lead one to participate or not to participate on the stock market. From the literature Kumar, (2009) argues that men are more likely to participate on the stock market unlike
women because women are more risk averse than men. Sewell (2010) argues that men are more confident than women in making investment choices. Therefore the findings seem to go in contrast with literature possibly leaving a gap for future studies on the impact of gender.

Another predictive factor that was tested was social interaction. The study findings from the Chi Square test performed are in agreement with literature. The p-value of 0.000 less than 0.005 on social interaction, we reject the null hypothesis and conclude that social skills have a significant influence on the participation of individuals on the stock market. Hong et al. (2004) argues that there two types of investors,” social investors” and “non-social investors”. The social investors tend to participate more on the stock market and hold stocks as compared to non-social investors. Brown et al, (2008) finds contributory behavior within individuals decision making in as far as owning stocks is concerned to people in the same community than those in different community. This was also confirmed from the regression which was also done which also found social interaction to be relevant in explaining why some individuals participate and why some do not participate on the stock market.

The findings from the study both sing Chi Square test and regression seem to suggest that awareness is profoundly important as a stock market participation by individuals determinant. The findings have clearly reinforced what is generally known in the area that stock market awareness indeed is a reliable factor in predicting participation by individuals on the stock market. Guiso and Jappelli, (2005) argues that stock market awareness is paramount in explaining and determining individual’s participation on the stock market. Merton (1987) finds it as puzzle why some individuals investors knows about the stocks and other are not aware. That his puzzle has been agreed in literature that it is a relevant variable in explaining participation.

Trust was yet another variable identified, from the findings it appears that the Chi Square test results went in opposite direction from the general literature findings .Interestingly the study findings indicated that trust is not a significant and reliable determinant of individual stock market participation. In literature most authors such as Christine and Ennew, (2008) and Guiso and Sapienza , (2005) seem all to strongly incline to the notion that trust indeed is paramount if not critical in determining stock market participation among individuals. It could be argued that since
the study respondents were from the supply side and not the investor themselves elements of bias in ranking how the authorities are perceived by the investors could have been a strong barrier thus explaining the deviation from the literature.

Transaction Costs and stock market participation, from this study from the Chi Square test it was established that the p value was proven to be 0.00, we therefore reject the null hypothesis and conclude that transaction costs had a significant influence on the participation of individuals on the stock market. This reinforce the existing work of others, thereby extending knowledge of the area in that this study analyzed the variable from the supply side i.e. brokers and other authorities compared to most studies which gathered information from the actual investors, thus the study gave a cross confirmation of the variable’s influence. Prolific authors like Vissing-Jorgensen (2002) also established the same findings that participation costs deter individuals from participation on the stock market but however his studies were noticed from the investors perspective ,hence this research acts as a cross validation.

Access to internet and stock market participation is another factor that was measured. From the findings, 53.7% of the respondents agreed, while 12.04% strongly agreed. In total, accumulative of 66.1% agreed to the importance of internet connectivity in determining individual’s stock market participation. Barber and Odean, (2002) notes that active individual traders are more likely to be trading online. Economides (2001) conjectures that internet creates speculative trading thereby inciting more trades from the individual investors. The Chi Square test performed in the data sample reinforced the same. Given this it can be noted that internet has a role to play in nurturing stock market participation by individuals.

Cognitive Skills and stock market participation has been found to have a strong influence on stock market participation among individual investors. Fredrick (2005) establishes that people with high cognitive skills are better positioned to make investment choices. The research finds similarities in that the Chi Square test find cognitive skills statistically significant in explaining stock market participation patterns by individuals. Makarov and Schornick, (2010) argues that perceptions have a significant impact on the participation of individuals on the stock market. In agreement with this assertion Manjula, (2013) illustrates that before making a stock market decisions, individuals
investors’ perceptions are at inconsistency to decide whether or not to participate. The chi square test performed confirmed the general thinking that perception is statistically significant in explaining individuals’ participation on the stock market. Possibly the issue of perception is something that individuals investors naturally express when interacting with stock market players such as broking firms. More often than not individuals explicitly air our perceptions of the local bourse and in many instances wrong perceptions and is probably why literature and research findings are in congruency.

Research found that health status has statistically weak explanatory power one’ to influence stock market participation by individuals. Contrary, most literature reviewed seem to disagree and concluding health status can drive or stall individual’s participation on the market. Rosen and Wu (2004) and Edwards (2008) both argue that one’s health determines whether one can participate on the stock market or not. The discrepancy could be possibly explained by issues of context. The studies from literature were mostly from developed countries which ordinarily have more emphasis on health plans at individual levels, however the study was for a different set up which could explain the gap in thinking of the respondents.

Life satisfaction was yet another factor that was tested from the study. Literature available is all in agreement that life satisfaction has a close connection with over confidence amongst investors and overconfidence leads to optimism which consequently leads stock market participation. The study findings from the Chi square test qualifies life satisfaction to be a driver of stock market participation. Strictly speaking these findings go hand in hand with general thinking that good life spurns optimism and leads to taking chances by investors since there would be less pressure in the event that once experiences losses when stocks loses on the day to day trading.

The study shows liquidity constraints that are a significant factor that can drive or hamper the participation of individuals on the stock market. In Zimbabwe the issue of liquidity is at the heart of the demise in the operations of many firms. Thus in for the individual investors as well, some households would logical give the stock market the last of their priorities .In Zimbabwe very few individuals have disposal income since the adopting of the US dollar, possibly this could be reason why liquidity can in as a driver of stock market participation.
The last variable conceptualized was age to establish if age was a significant variable driving stock market participation was age. From the Chi square test it was deduced that age had no statistical power to explain stock market participation by individuals on the stock market. Contrary to general literature around investment decision as captured in the review of literature, Baker and Nosfinger, (2010) established psychological evidence that supports the notion that as one grows old, there is a drop in investment activity and performance on the stock market. The respondents from the study shows that respondents were neutral on age, somewhat giving an impression that there were not exactly sure the impact of age on stock market participation. This creates a gap into other areas that needs to be looked at for future studies of this nature.

By and large the aforementioned variables discussed their significance were ascertained from Chi Square test performed on each identified variable. The research wen further to use mean ratings from regression analysis to come up with a revised model with few variables that have high significance in explaining participation patterns of individual. Notwithstanding the other identified variables, the one with high mean rates were found to be liquidity constraints, life satisfaction, perceptions and awareness.

4.7 Chapter Summary

This chapter provided the results of the findings on the factors influencing the participation of individual investors on the stock market. This chapter was mainly centred on the presentation and analysis of the gathered data from the questionnaires. The response rate of questionnaires and interview were looked into and the data therefore was presented in the form of tables, charts and graphs. The next chapter will give the summary of the whole research study, conclusion also will be drawn, recommendations will be stated and lastly the suggestions for the future research will be made.
CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter presented the results and discussions of the empirical findings of the study. The factors that determine participation of individuals on the stock market were extracted. Chi Square tests and regression analysis were conducted to establish the significance of the factors in explaining stock market participation by individuals. This chapter presents an evaluation of the research objectives and the hypotheses of the study. The conclusions, recommendations, value, implications and limitations of the study are also provided. The chapter concludes with the proposals for further study.

5.2. Summary Findings

The principal objective of the study was to identify factors that determine participation of individual investors on the Zimbabwe stock market. The participation of individual investors is terminally low in the ZSE, it is from this background that this study seeks to understand the major drivers of individual participation in an attempt to improve participation levels on the stock market. To our knowledge the study is one of the first study seeking to infer on stock market participation determinants from the supply side i.e. the authorities’ dimension. Most studies of this behavioral nature focused mainly on the individual investors not the authorities who interacts with the investors largely on a daily basis. This research is of great significance since it seeks to find participation determinants in so doing proffering ways which individual participation can be augmented. Participation essentially is paramount since it facilitates asset accumulation and consumption smoothing and potentially important influence on welfare and creating a health and sustainable economic development for the nation.
5.2.1. Summary of results in relationship to objectives

The following are the research objectives that were formulated as indicated in Chapter 1 (section 1.3).

5.2.1.1. To identify factors that determine stock market participation among individual investors on the Zimbabwe stock market.

5.2.1.2. To identify the extent to which the identified factors influence the participation of individuals on the stock market.

5.2.1.3. To determine if there are any statistical differences on the identified factors with regards to stock market participation patterns by individuals.

5.2.1.4. To recommend stock market players especially brokers and fund managers on models that they can use to encourage individual clients participation on the stock market.

5.2.2. Objective 1

To identify factors that determine stock market participation among individual investors on the Zimbabwe stock market.

The objective of the study was to identify factors that determine stock market participation among individual investors on the Zimbabwe stock market. To this end several sources in literature were used and these included electronic journals, government publications and textbooks. These were fundamental in identification of some of the determinants of stock market participation by individuals. A variety of determinants were found to influence stock market participation by individuals and these included financial education, gender, social interaction, awareness, trust, transaction costs, access to internet, cognitive skills, perceptions, health status, life satisfaction, liquidity constraints, and age. The results from the study seem to agree with the research hypothesis which state there are several determinants of individual participation on the stock market confirming the hypothesis though however the significance of the determinants in influencing participation were later established to be not the same.
5.2.3. Objective 2

To identify the extent to which the identified factors influence the participation of individuals on the stock market

The other objective was to identify the influence of the identified factors on the participation of individuals on the stock market in Zimbabwe. The study was skewed hence it used non-parametric test to establish the influence of the identified factors using a Chi Square test on each factor. From the Chi square test performed the table below shows summary the strength of each of the identified factor in determining stock market participation by individuals.

Table 5.1.
Chi Square test summary of significance

<table>
<thead>
<tr>
<th></th>
<th>Significant</th>
<th>Not Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Education</td>
<td></td>
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<tr>
<td>Gender</td>
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<tr>
<td>Social Interaction</td>
<td></td>
<td></td>
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<tr>
<td>Awareness</td>
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<tr>
<td>Trust</td>
<td></td>
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<tr>
<td>Transaction Costs</td>
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<tr>
<td>Access to Internet</td>
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<tr>
<td>Cognitive Skills</td>
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<td></td>
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<tr>
<td>Perceptions</td>
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<tr>
<td>Health Status</td>
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<tr>
<td>Life Satisfaction</td>
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<td></td>
</tr>
<tr>
<td>Liquidity Constraints</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Findings
When using Chi Square test the table above summarizes the findings with Gender, Health Status and Age found as weak factors to be a determinants of individual’s participation on the stock market. Financial education in agreement with literature reviewed was found to have significant power to determine participation of individuals on the stock market. This is in line with Bernheim and Garret (2003), who agrees that individuals who are exposed to financial education have high propensity to invest and buy stocks than those with low education. Social interaction was also confirmed by the findings that it is a determinant of stock market participation reinforcing works of Campbell (2006) who argues that individuals who interact more with other individuals in the community are more likely to participate on the stock market and own stocks.

In line with findings by Vissing-Jorgen (2002) and Lusardi (2009), awareness, trust, transaction costs, life satisfaction and liquidity were found by the research findings as well to be good determinants of individual’s participation on the stock market.

Based on the primary data collected from the sample, the researcher found that literature went contrary with the findings of the study in assess the power of gender, health status and age as determinants of individual participation on the stock market, for example the studies done by Leung (2013) and Lusardi, (2011) appears to suggest that these factors are relevant determinants. In Zimbabwean context however in the case of age the available literature could be off context, people do not necessarily follow the life style patterns like those in developed nations which are greatly structured. In Zimbabwe there is no defined age when one can buy stocks. People can buy shares at any age taking the example of the increased stock market participation recorded during the hyperinflation 2005 to 2008 era and the sudden discovery of Diamond in Chiadzwa and other informal business which people of different age groups are involved in.
5.2.4. Objective 3

To determine if there are any statistical differences on the identified factors with regards to stock market participation patterns by individuals.

In comparison to the finding from the Chi Square test to establish statistical differences, the finding regression analysis was later performed and showed the variables below having high statistical differences from the identified factors determining stock market participation by individuals.

- Liquidity constraints
- Life satisfaction
- Perceptions
- Awareness

5.3 Contributions of the study

The study will be of value to broking houses and asset managers to come up with strategies to tap into individual’s client’s base and diversify the brokerage base. Knowing what drives participation will go long way is assisting individuals to participate on the stock market through coming up a combination of effective initiatives and in the long run improve commissions. The paper may thus allow broking firm to utilize a blend of the generic institutional investors as well as individual’s investors to increase their bottom line.

This research will have an academic contribution on issues to do with mainly causes of non-participation of individual clients on the stock market. Most scholarly worked which has been done concentrated must on corporate investors and if done for retail investors most of these studies interrogated the investors themselves. For academic purposes this study expands to question the supply side i.e. the authorities which ordinarily interact with walk in individual’s clients bringing another dimension which previous studies might have failed to capture in so doing expanding and adding to existing knowledge base.

To this end, the research accept the hypothesis stated in chapter 2 that the participation of individuals on the stock market is well determined by several factors.
5.4 Managerial Implications

Management of stock market firms should come up with investment vehicles which cater for the small shareholders portfolios to enable those with low liquidity to participate on the stock market for example unit trusts facilities for those small investors who are not able to meet the general stock market thresholds which is normally pegged at $1000 USD.

Managers in the stock broking industry should persistently come up with strategic initiations aimed at improving the general perceptions embraced by individual investors about the stock market. Stockbroking entities should provide in their budgets for rigorous rod shows aimed at educating potential investors on the stock market information and in so doing de mystifying the stock market.

5.5 Policy Implications

Government of Zimbabwe through the Ministry of Finance should constantly come up with policies that promote better standards of living in order to slowly increase life satisfaction of the general populace. Since the findings clearly shows there is a greater correlation between life satisfaction and positive investment decisions. The government fiscal policies should generally be expansionary through tax reductions and cut down on interest rates as well as general strengthening of social safety nets.

Policy Recommendations

The research makes the following policy recommendations:

5.6.1. Improving liquidity concerns:

The government should on a regular basis come up with policy mechanisms that are aimed at increasing savings and easing liquidity, instead of focusing on tight fiscal policy the government should focus on an expansionary fiscal policy where by taxes are cut and lower interest rates in order to leave households with reasonably high levels on liquid income. With massive campaigns by the ZSE of the product offerings of the stock market, in the long run individuals would be better positioned to understand stock market basics and possibly participate on the stock market.
5.6.2. Perception concerns

Government through the ministry finance should arrange for investor education symposiums to demystify wrong perceptions about the stock market and to educate people on how holding stocks can be beneficial to household and to the nation at large.

5.6.3. Awareness concerns

One of the significant findings in the study was that of lack of awareness by individuals of the stock market. The Government of Zimbabwe should cultivate awareness from the grassroots levels through institutions like state colleges and universities by introduce compulsory modules which focus on improving awareness as well as basic financial education. State colleges and universities must also take a leading role in integrating financial education into their campus community. It includes students, faculty staff and members of the surrounding community.

5.7. Managerial Recommendations

The ZSE need to implement operative marketing apparatuses that account for awareness, interest, desire and action (A.I.D.A) model. The model must raise awareness of stocks, incite interest in stocks, create a desire for stocks and encourage action to meaningfully participate on the stock market.

With the advent of Automated Trading Systems and Centralized Securities Depository system on the Zimbabwe stock market stockbroking firms and asset managers must use the online trading portals as a basis for integrating with mobile platforms. The mobile facilities should have a interface facility that directly send real time updates for market developments in simple terms as well as giving the public daily stock market price sheets and price movements.
5.8. Limitations and directions for future research

The fact that the research focused on the authorities’ side alone somehow may perhaps be a limiting factor. The researcher undertook this research in one context of the supply side without the individuals investors themselves. In the Zimbabwean context this implies that there is scope for further research on behavioral finance patterns to incorporate both individual’s investors and potential investors who do not hold stocks. Future research along this direction should improve this model.

The use of survey and questionnaires to the research is another possible limitation to this study though it was however appropriate given the limited time. Surveys with closed-ended questions may have a lower validity rate than other question types such as interviews. A possible improvement for future studies could be interviewing participants in order to solicit more contextualized information.

The purpose of this study was to collect a wide range of potential drivers of stock market participation by individuals, and to analyse and compare the explanatory strength of these variables. Many proponents of economic development incline to the notion that the financial systems in a country are drivers of economic growth. Stock market is one of these financial system among other several of systems. If households can meaningful participate in such platforms it creates a seed bed of economic strength and sustainable economic prosperity for our nation.
REFERENCES


APPENDIX: RESEARCH QUESTIONIRE
FACTORS DETERMINING THE PARTICIPATION OF INDIVIDUAL CLIENTS ON THE STOCK MARKET

My name is McDonald Gumbo (R048286R), and I am a student from the University of Zimbabwe, Graduate School of Management pursuing a Master’s in Business Administration (MBA) degree program. In partial fulfilment to the programme, I’m carrying out a research study on the factors determining the participation of individual clients on the stock market. I kindly ask for your assistance with the information required to make the research a success, by ticking the appropriate answer or by writing in provided space. Any information you provide as well as your personal view will be treated with strict confidentiality and used for academic purposes. Thank you.

SECTION A: DEMOGRAPHIC DATA

1. Gender
   - Male
   - Female

2. Age Range
   - Less than 20 Years
   - 21-30 Years
   - 31-40 Years
   - 41-50 Years
   - 51-60 Years
   - More than 60 Years

3. Highest Level of Education
   - High School Education
   - Certificate
   - Diploma
   - Undergraduate
   - Master’s Degree
   - Doctorate Degree

4. Level in Organisation
   - Non-Managerial Staff
   - Middle Management Staff
   - Senior Management Staff
   - CEO/Director
   - Other

5. Extent of interact with individual investors
   - No interaction
   - Low Interaction
   - High Interaction

6. Years in the Stock market industry
   - Less than 5 Years
   - 5-10 Years
   - 10-15 Years
   - More than 15 Years

7. Type of organisation
   - Broker
   - Regulator
   - Asset Manager
   - Investment Advisor
   - Pension Fund
   - Other
## SECTION B: FACTORS DETERMINING THE PARTICIPATION OF INDIVIDUAL CLIENTS

### 1. FINANCIAL EDUCATION

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
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<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</thead>
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<td>An individual requires high level education to have an appreciation of the stock market and to participate in the stock market</td>
<td></td>
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<tr>
<td>Educated individual clients understand the stock market jargon enough to compel them to realise above average returns on the stock market</td>
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</tr>
</tbody>
</table>

### 2. GENDER

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<tr>
<th>Statement</th>
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<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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<td>Gender can determine one's interest in investing on the stock market</td>
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<tr>
<td>Gender gaps have a direct impact on how one can participate on stock market and how one make investment financial choices</td>
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</tbody>
</table>

### 3. SOCIAL INTERACTION

<table>
<thead>
<tr>
<th>Statement</th>
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<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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<td>Social interaction is relevant in transmitting relevant information to potential investors, that is enough to participate on the stock market</td>
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<tr>
<td>Individuals with high social skills are more likely to invest in stocks.</td>
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</tbody>
</table>
4. AWARENESS

<table>
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<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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<td>Brokerage firms are not doing enough to inform potential investors on the benefits of investing on the stock market</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investors are likely to participate more if they are well informed about stock market existences and benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. TRUST

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock market has a high fraudulent rate and this deters individuals participation on the stock market</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brokers are not very trustworthy and they lack good financial knowledge and can affect one's stock market participation decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. TRANSACTION COSTS

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs of entering into the stock market are too high to deter individual participation on the stock market</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information costs deter individuals from participating on the stock market</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. ACCESS TO INTERNET

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to internet is a significant factor influencing stock market participation by individual’s clients.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Internet gives investors more financial horizon and encourages individuals to participate on the stock market</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. COGNITIVE SKILLS

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>One’s mental strength determines his/her participation patterns on the stock market.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial decisions as stock market participations are too complicated and requires high levels of cognitive abilities for one to participate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 9. PERCEPTIONS

| Poor perceptions about the stock market would lead to reduced levels of stock market participation by individual investors | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| Perceptions play a big role in stock market decision by individuals investors | | | | | |

### 10. HEALTH STATUS

| Poor health discourages one to participate on the stock market. | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| Individual health status is important in making stock market participation on the stock market. | | | | | |

### 11. LIFE SATISFACTION

| One’s level of life satisfaction helps in improved participation by the individual on the stock market | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| High levels of optimism influences investment in the stock market | | | | | |

### 10. LIQUIDITY CONSTRAINTS

| Individuals with high liquidity participate more on the stock market | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| High liquidity leads to more experimentation in investment vehicles such as stock market by individuals investors | | | | | |

### 11. AGE

| One’s age determines stock market decisions to or not to participate | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| Financial investments vehicles choices vary with one’s age | | | | | |
12. What other factors do you think also influence the participation of individuals on the stock market?

SECTION C: INDIVIDUALS STOCK MARKET PARTICIPATION

1. Below are statements about the influence of the above factors on participation of individuals on the stock market in Zimbabwe, you are required to indicate the extent to which you agree or disagree with the statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>There will be increased number of equities accounts opened by individuals to participate on the stock market</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There will be improved contribution by individuals on total market turnover</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>There will be more individuals holding stocks on the shares register in Zimbabwe translating to increase participation by individuals</td>
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</tr>
</tbody>
</table>

2. Is there a significant disparity between the participation of individuals and corporates on the stock market? Yes  
No   

97
3. If yes, how do you think the disparity in proportions of corporate investors and individual investors can be resolved?

END OF QUESTIONNAIRE: THANK YOU