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ASSESSMENT OF THE PERFORMANCE OF THE GHANA STOCK EXCHANGE (1998-2008)

BY

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DECLARATION

I hereby declare that this submission is my own work towards the MBA and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

This research was conducted to assess the general performance of the Ghana Stock Exchange in the past decade (1998 and 2008) and the challenges militating against its development. The study reviewed the importance of an active stock market. Data on trading activities of the Stock Market was obtained from the research departments of Gold Coast Securities Limited and Databank Brokerage Limited to assess overall performance of the GSE. Questionnaires were distributed to professionals and students in the financial industry particularly the capital market to identify challenges stalling development of the Stock Exchange. The GSE All-Share Index has grown by over 1000 percent over the past decade. Returns have been relatively impressive averaging over 40 percent within the period, outperforming average 91-Day Treasury bill (22.96 percent) for the same period. Market capitalization grew by 5,495.20 percent while the number of listed companies has increased from 21 to 35 within the period under review. The stock market has recorded an impressive performance over the past decade. Nonetheless, several challenges were enumerated by players in industry. Lack of liquidity on the market was identified as the major challenge facing the exchange. Other significant challenges outlined by respondents were; unstable political and macroeconomic environment, underdeveloped trading and settlement structures, limited market information and a limited domestic investor base. The establishment of an automated trading system and a Central Depository System will among other things reduce the liquidity challenges in the stock market. An aggressive educational campaign of potential investors and companies of the benefits of stock market participation was also recommended.

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LIST OF ABBREVIATIONS

ASEA -	African Securities Exchange Association
ASML -	Accra Stock Market Limited
BRVM-	Bourse Regionale de Valeurs Mobiliérs
CAPM-	Capital Asset Pricing Model
CDS -	Central Depository System
FDI -	Foreign Direct Investment
GCSL -	Gold Coast Securities Limited
GDP -	Gross Domestic Product
GSD -	GSE Securities Depository
GSI -	GSE All-share Index
GSE -	Ghana Stock Exchange
IFC -	International Finance Corporation
LDCs -	Least Developed Countries
NTHC -	National Trust Holding Company Limited
OECD -	Organization of Economic and Co-operative Development
OTC -	Over-the-Counter
PPP -	Purchasing Power Parity
SE -	Stock Exchange
SPSS -	Statistical Package for Social Sciences
SWOT -	Strengths Weaknesses Opportunities and Threats
UNCTAD -	United Nations Commission on Trade and Development
WAMU -	West African Monetary Unit

CHAPTER ONE

1.0 THE RESEARCH INTRODUCTION AND CONTENT

1.1 Background of the Study

Although Africa has shown remarkable economic growth since 2001 with continental annual average economic growth in excess of 5 percent for the past 7 years, a lot needs to be done to lift the continent from lingering poverty, unemployment and overall economic underdevelopment. To sustain the current level of economic growth and encourage both domestic and foreign investment in the continent, Africa needs to rapidly expand, develop and modernize its financial markets. Evidence from recent empirical economic studies suggests that deeper, broader, and better functioning financial markets can stimulate economic growth (Ndikumana, 2001).

In spite of the seemingly impressive progress, Africa is the least developed continent in the world. The combined GDP of the continent in 2007 was US$1.15 trillion (US$2.57 trillion based on Purchasing Power Parity (PPP)). This compares with the combined World GDP of US$65.6 trillion (PPP) and that of China US$6.99 trillion (PPP) in 2007 (Kumo, 2008). Over the past few decades, the world stock markets have surged, and emerging markets have accounted for a large amount of this boom. In Africa, new stock markets have been established in Ghana, Malawi, Swaziland, Uganda, and Zambia. Prior to 1989 there were just five stock markets in sub-Saharan Africa and three in North Africa. Currently there are 19 stock exchanges. Stock market development has been central to the domestic financial liberalization programs of most African countries. It seems any program of financial liberalization in Africa is incomplete without the establishment and development of stock markets. Stock exchanges have over the years performed the vital role of helping companies raise equity capital and providing a secondary market for the trading of listed securities. This dual role has provided an access to capital for companies and liquidity for investors (Yartey and Adjasi, 2007). The drive towards the establishment of stock markets in African countries during the last few decades may be linked to other important developments in the global economy. The financial markets of many advanced countries have undergone tremendous changes and become increasingly integrated. These changes have resulted from the operation of a number of interrelated factors (Cosh, Hughes, and Singh, 1992):

- The progressive deregulation of financial markets both internally and externally in leading economies;
- The internationalization of these markets; the introduction of a number of financial products allowing riskier and bigger financial investments; and
- The emergence and the increasing role of new actors in the financial markets particularly, institutional investors.

Active and vibrant capital markets, in which long-term funds are raised, have offered many economies the opportunity to rapidly speed their growth and therefore the need to prioritize their development cannot be over-emphasized. In Ghana, the main capital market is the Ghana Stock Exchange (GSE) which since its establishment in 1990 has attracted thirty five companies.

Capital markets are places where companies which need long-term finance can meet investors who have finance (Watson *et al.*, 2007).

These markets are the main platforms for rapid economic growth in countries over the world. The increase in number of companies issuing shares on both the primary and secondary markets are proof of the fact that capital markets are an integral source of funding and hence the need to develop them in Ghana.

Capital markets play an important role in the economic development of emerging economices. These markets are an important and efficient conduit to channel and mobilize funds to enterprises, and provide an effective source of investment in the economies they serve. Well-functioning markets ensure that both corporations and investors get or receive fair prices for their securities.

There is a growing body of research which points towards capital market development and financial deepening in general and stock markets development in particular making positive contribution to economic growth.

According to Levine (1997) over the past two decades, stock market liquidity has been a catalyst for long-run growth in developing countries. He further argues that without a liquid stock market, many profitable long-term investments would not be undertaken because savers would be reluctant to tie up their investments for long periods of time. In contrast, a liquid equity market allows savers to sell their shares easily, thereby permitting firms to raise equity capital on favourable terms. By facilitating longer-term, more profitable investments, a liquid market improves the allocation of capital and enhances prospects for long-term economic growth.

This dissertation seeks to evaluate the activities of the Ghana Stock Exchange and further establish the role of Ghana's equity market in creating an enabling environment for financial transactions which leads to the promotion of accelerated growth of the economy in general. The research also intends to discuss capital markets and their influence on major economies in the world with emphasis on Ghana. The Ghana Stock Exchange as the main instrument for Ghana's capital market development is examined with respect to its performance and challenges.

1.2 Statement of The Problem

Having emerged from more than two decades of political instability, Ghana seems to have finally managed to achieve relative stability which creates an enabling environment for businesses to grow. In their efforts to achieve accelerated economic growth, governments have formulated various policies to encourage large capital inflows into the country.

Various methods of attracting funds have been pursued almost to the neglect of the development of the country's financial markets, especially the capital market where businesses can access long-term capital to expand their operations and maximize shareholders' fund thereby creating the enabling environment for accelerated economic growth. With the ensuing global economic crisis, it is imperative that the country's financial markets be further developed and regularized into a global investment vehicle that will be competitive enough to attract the needed capital inflows for economic growth, in the absence, a priori, of any further debt or aid funding.

There is evidence of a marked contribution of the stock market in the growth of any economy and the Ghana Stock Exchange is by no means an exception. The Ghana Stock Exchange as the main capital market in the country needs more attention by aggressively mitigating the various challenges it faces with high volatility, liquidity constraints, limited domestic investor base, under-developed trading and settlement structures as well as limited market information among others.

According to Osei (1998), there is enough evidence to suggest that most Ghanaian businesses are in need of long-term capital. Most businesses have depended mainly on short-term financing such as overdrafts to finance even long-term capital. Based on the maturity matching concept, such financing is risky. All such firms need to raise an appropriate mix of short- and long-term capital. There are about 300 state-owned enterprises in diverse business areas to be privatized. The need for a quicker development of a well organized and functioning capital market has become extremely important. It is therefore necessary to identify and analyze all the negative factors that impinge on the development of the capital market in Ghana, especially the stock market, and to make the necessary policy recommendations to rectify the situation.

1.3 Objectives of the Study

The research seeks to achieve the following objectives:

1. To analyze the growth performance of the Ghana Stock Exchange as the country's main capital market by assessing its:
    a. All-share index within the ten-year period (accomplished in pages 44 to 45).
    b. Year-to-date returns over a decade (accomplished in pages 46 to 52).
    c. Market capitalization growth (accomplished in pages 52 to 56).
2. To identify the challenges of the Ghana Stock Exchange (accomplished in pages 56 to 61).
3. To make recommendations on structures to be put in place to mitigate the challenges of the Ghana Stock Exchange (pages 66 to 68).

1.4 Justification for the Study

There is a large volume of theoretical and empirical evidence that development of a country's capital market leads to economic growth. Data from some of the fastest growing emerging markets suggest that most of the successes chalked by economies of these countries are largely as a result of aggressive development of their stock exchanges which provide the platform for both investors and businesses to explore various investment opportunities to maximize wealth which will eventually spiral into economic growth. The importance of Ghana's capital market cannot be over-emphasized and this research will seek to spur further discussions into identifying and militating against the challenges that are encountered in the market and finding ways of creating a much more competitive capital market.

1.5 Scope of Study

This research basically assesses the development of Ghana's capital market with regards to the Ghana Stock Exchange and its contribution to economic growth as well as inherent challenges facing the market. The research will involve major players in the capital market who have been instrumental in its establishment and development thereof.

To this effect, information and data from professionals in the financial industry such as the Ghana Stock Exchange (GSE) and Brokerage firms namely, Gold Coast Securities Limited (GCSL), Databank Brokerage Limited among others. A cross-section of investors (both institutional and individual) will also be contacted to give their assertion on the challenges and future prospects of the Ghana Stock Exchange as a primary instrument for the development of the country's capital market.

1.6 Delimitations of the Study

A number of challenges were encountered while conducting the research but some of the major ones worthy of note are as follows:

1. There was considerable difficulty in getting access to needed data for various reasons mostly bureaucratic.
2. Information available on some of the websites was scant and there was no way of ascertaining their authenticity.
3. It was particularly challenging to administer and receive completed questionnaires from respondents since most of them had extremely busy schedules. Consequently, a number of questionnaires were either unanswered or not completely answered.
4. The time-frame for the research work was another limiting factor. This study had to be conducted simultaneously with the other academic courses for the semester.

1.7 Organization of Study

The first part of this long essay focuses on assessing the development of capital markets in Africa which are the main markets on which long-term funds are bought and sold. The second chapter reviews literature on the development of Africa's stock markets and their inherent challenges. The third chapter outlines the methods and tools used to gather both primary and secondary data while chapter four gives detailed analyses and discussions on the findings. The fourth chapter also discusses views from stakeholders in the country's financial markets (mostly finance professionals and students) on the peculiar challenges facing the stock market. The final chapter offers recommendations on structures that can be put in place to mitigate the challenges of the Ghana Stock Exchange (GSE) and draw conclusions on the future outlook of the market.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Theoretical Analysis of Stock Market and Economic Growth

Recent years have witnessed a vivid interest in empirical research on the relationship between financial sector development and economic growth. The relationship was found to be bi-directional, that is financial development is crucial for economic growth and economic growth can also promote financial development. The evidence deals with this causal relationship along three lines as cited by Naceur et al, (2007):

- Financial development accelerates economic growth or is conducive to growth slowdowns. The financial sector increases savings and allocates them to more productive investments. Thereby financial development can spur economic growth. For instance, recent findings in King and Levine (1993), Rousseau and Wachtel (1998), Levine and Zervos (1998), Levine et al. (2000), and Rousseau and Sylla (2001) support this school of thought. Conversely, the banking and currency crisis literature find that monetary aggregates, such as domestic credit, are among the best predictors for crises (e.g. Demirguc-Kunt and Degatriache, 1998, 2000). Since banking crises usually lead to recessions, an expansion of domestic credit would then be associated to growth slowdowns.

- Economic growth promotes financial development; According to this hypothesis, financial development appears as a consequence of the overall economic expansion. It has a passive role and adapts itself to the financing needs of the real sector (Gurley and Shaw, 1967).

- The reciprocal relationship; Economic growth makes the development of financial system profitable and the establishment of an efficient financial sector contributes to stimulate economic development. Luintel and Khan (1999) reveal evidence for bi-directional causality from a sample of ten developing countries. Shan et al. (2001) confirm this finding from a sample of nine OECD countries.

Evidence from recent empirical studies suggests that deeper, broader, and better functioning financial markets can stimulate higher economic growth (Levine, *et al.*, 2000; Beck, Levine, and Loayza 1999; King and Levine 1993a; King and Levine, 1993b). Although evidence on Africa is still limited, the results from existing empirical work supports the view that financial development has a positive effect on economic growth in African countries (Ndikumana 2000; Allen and Ndikumana 2000; Gelbard and Leite 1999; Odedokun 1996; Spears 1992). Schumpeter (1934) observed that financial markets play an important role in the growth process by channeling funds to the most efficient investors and by fostering entrepreneurial innovation. Schumpeter's view was that financial development leads economic growth.

Robinson cited by Ndikumana (2001) however, argued that financial development passively follows economic growth by responding to the increasing demand for funds due to economic prosperity. While the debate on causality is still unsettled, existing historical and econometric evidence suggests that better functioning financial markets, i.e., markets that are able to meet the needs of savers and investors efficiently, have a positive effect on future economic growth (Levine, 1997).

Well-working financial intermediaries may affect positively the economic development through four main channels which consist in reducing information and transactions costs, improving the allocation of resources (through fund pooling, risk diversification, liquidity management, screening and monitoring), increasing saving rates and promoting the development of markets and instruments that enable risk sharing organic relationships between stock market development and economic growth are identified (Naceur *et al*, 2007). Engberg (1975) acknowledges the need for capital markets even for less-developed economies. He argues that capital markets can significantly raise the level of domestic savings and contribute to a more efficient allocation of such savings among competing uses. Through the capital market, a variety of financial assets, carrying different risks, yields and liquidity, is added to the traditional types of financial assets such as demand and savings deposits.

Engberg further observes that the availability of this wider range of financial assets will induce people to increase their rate of current savings. The reason is that the capital market enables savers to achieve a better wealth composition and also permits adjustments to be made in the wealth composition with speed and at low cost whenever circumstances change. Moreover, competition among the users of capital market funds, including business, government and individuals, will tend to increase the efficiency with which capital is used, with direct effect on the growth rate of the economy.

The general finding is that, financial markets tend to develop as income per capita grows and financial reform progresses. Stock market development specifically has been shown to depend on a good legal system, particularly minority rights that are being enforced. Stock market development also appears to complement the development of other parts of the financial system and be complementary to the other forms of finance in affecting growth both at the aggregate level as well as at the individual firm level (Claessens *et al*, 2002). The establishment of a strong regulatory framework therefore, is a pre-requisite for the development of a stock market.

The economic history literature has documented cross-country and country specific evidence that illustrates the importance of financial systems in early industrial development. Using data from 1790 to 1850, Rousseau and Wachtel (1998) find quantitative evidence that supports the hypothesis that early industrial growth in the United States was primarily finance-led. These authors conclude that by providing debt and equity finance to the corporate and government sectors, the financial system was critical to the modernization process, which it predated. Using data on the United States, United Kingdom, Canada, Norway and Sweden, Rousseau and Wachtel (1998) conclude that financial intermediation was an important factor in the industrial transformation of these countries.

Financial institutions play an important role in easing the tension between savers' preference for liquidity and entrepreneurs' need for long-term finance. Therefore, at any given level of saving, an efficient financial system will allow for a higher level of investment by maximizing the proportion of saving that actually finances investment (Pagano 1993).

An efficient financial system is one which can utilize resources more efficiently due to the ability of financial intermediaries to identify the most productive investment opportunities.

In a market plagued by information imperfections, the equilibrium quantity and quality of investment will fall short of the economy's potential.(Ndikumana, 2001).

It is worth noting however, that financial intermediaries do not completely alleviate information imperfections. Ndikumana (2001) citing Grossman and Stiglitz, points out that it is indeed impossible for financial markets to be informationally efficient and that the problems of imperfect information are likely to be more pronounced in developing countries.

Most savers in the less developed countries are risk averse due to capital market imperfections that demand for fixed yield claims with high liquidity. The scarcity of the information is one of the features, which affect the investor's decision, and further to the demand of the equity. Other reasons for the aversion to investment in equity market involve taxation policies, inflation and devaluation. High unstable and unanticipated inflation rate induces investors to move out of financial assets (Wai and Patrick, 1973).

Efficient stock markets may also reduce the costs of information. They may do so through the generation and dissemination of firm specific information that efficient stock prices reveal. Stock markets are efficient if prices incorporate all available information. Reducing the costs of acquiring information is expected to facilitate and improve the acquisition of information about investment opportunities and thereby improves resource allocation. Stock prices determined in exchanges and other publicly available information may help investor make better investment decisions and thereby ensure better allocation of funds among corporations and as a result a higher rate of economic growth (Yartey and Adjasi, 2007). Yartey believes that an efficient stock market is an important agent for corporate financing and consequently, economic growth.

The measurement of stock market development is important because it is the precept for predicting economic growth and therefore, the principle for country selection by foreign investors.

Corporate financing patterns in certain African countries suggest that stock markets are an important source of finance. In Ghana, the stock market financed about 12 percent of total asset growth of listed companies between 1995 and 2002. In South Africa, liabilities accounted for 61 percent of total financing and retained earnings and external equity financed 21 and 18 percent respectively of total assets growth between 1996 and 2000 (Glen and Singh, 2003). In Zimbabwe, external finance contributed 75.4 percent of total funds and internal finance provided the remaining 25 percent between 1990 and 1999. Equity financing was the most important source of long term finance at 7.8 percent. Long term bank loans and bonds were each a very minor component of total external financing (Mutenheri and Green, 2003).

In Mauritius, the stock market financed about 9 percent of total asset growth with retained earnings and external debt contributing 30 and 61 percent respectively to the financing of total asset growth between 1992 and 1999 (Lallchand, 2001). In all four countries, the stock markets were for these companies the single most important source of long term external finance.

New equity issues are surprisingly a significant source of finance for quoted African corporations. It ranges from 7.8 percent in Zimbabwe to about 19 percent in South Africa. The median value for Ghanaian corporations is 12 percent. The contribution of equity finance to total asset growth is broadly similar to the pattern we observe for other emerging markets. The corresponding figures for other emerging markets are 31.2 percent in Korea, 14.6 percent in India, 9.6 percent in Malaysia, and 16.1 percent in Thailand (Osei, 1998).

In principle, the stock market is expected to accelerate economic growth by providing a boost to domestic savings and increasing the quantity and the quality of investment (Singh, 1997). The stock market is expected to encourage savings by providing individuals with an additional financial instrument that may better meet their risk preferences and liquidity needs. Better savings mobilization may increase the savings rate (Levine and Zervos, 1998).

Stock markets also provide an avenue for growing companies to raise capital at lower cost. In addition, companies in countries with developed stock markets are not completely dependent on bank financing, unlike those with less advanced markets, which can reduce the risk of a credit crunch. Stock markets therefore are able to positively influence economic growth through encouraging savings amongst individuals and providing avenues for firm financing.

Critics also point out that the actual operation of the pricing and takeover mechanism in well functioning stock markets lead to short term and lower rates of long term investment. It also generates perverse incentives, rewarding managers for their success in financial engineering rather than creating new wealth through organic growth (Singh, 1997). This is mainly because prices react very quickly to a variety of information influencing expectations on financial markets.

Therefore, prices on the stock market tend to be highly volatile and enable profits within short periods. Moreover, because the stock market undervalues long-term investment, managers are not encouraged to undertake long-term investments since their activities are judged by the performance of a company's financial assets, which may harm long run prospects of companies (Binswanger, 1999). In addition, empirical evidence shows that the takeover mechanism does not perform a disciplinary function and that competitive selection in the market for corporate control takes place much more on the basis of size rather than performance (Singh, 1997). Therefore, a large inefficient firm is likely to have a higher chance of survival than a small relatively efficient firm.

These problems are further magnified in developing countries especially sub-Saharan African economies with their weaker regulatory institutions and greater macroeconomic volatility.

The higher degree of price volatility on stock markets in developing countries reduces the efficiency of the price signals in allocating investment resources. These serious limitations of the stock market have led many analysts to question the importance of the system in promoting economic growth in African countries. Although stock market volatility tends to rise for a few years after financial liberalization, greater openness to international capital has been associated with lower stock return volatility in the long run.

Moreover, stock return volatility does not appear detrimental to long-run growth. Thus, if policymakers have the patience to weather some short-run volatility, liberalizing restrictions on international portfolio flows offers expanded opportunities for economic development (Levine, 1997).

2.1.1 Effect of Stock Market liquidity on Economic Growth

Recent evidence suggests that well-functioning equity markets accelerate economic growth. This evidence is based upon the relationship between indicators of stock market liquidity and economic growth. Consider, for example, the total value of the trading volume of a country's stock exchanges expressed as a share of the country's gross domestic product (GDP). This value-traded ratio does not directly measure the costs of buying and selling securities at posted prices. Yet, averaged over a long time, the value-traded ratio is likely to vary with market liquidity, that is, with the ease of trading. If it is costly and risky to trade, there will tend to be less trading (Levine, 1997).

According to Levine (1997), empirical studies found that countries with relatively liquid stock markets in 1976 accumulated more capital and enjoyed faster productivity growth over the next 18 years than countries with illiquid markets, even after adjusting for differences in other factors that influence growth, such as education levels, inflation rates, and openness to trade.

The studies also indicate that, in promoting economic growth, a liquid stock market complements a strong banking system, suggesting that banks and stock markets provide different bundles of financial services to the economy. Financial markets are, therefore, the life blood of the economy.

Stock market liquidity is expected to reduce the downside risk and costs of investing in projects that do not pay off for a long time. With a liquid market, the initial investors do not lose access to their savings for the duration of the investment project because they can easily, quickly, and cheaply, sell their stake in the company.

In a global environment characterized by high risk aversion, even the attraction of Sub-saharan African markets, high yield count for little. Investors concerned primarily with capital preservation, have a preference for more liquid investments only. Thus, more liquid stock markets could ease investment in long term, potentially more profitable projects, thereby improving the allocation of capital and enhancing prospects for long-term growth. It is important to point out, however, that, theory is ambiguous about the exact impacts of greater stock market liquidity on economic growth (Yartey, 2007).

Critics argue that stock market liquidity may negatively influence corporate governance because very liquid stock market may encourage investor myopia. Since investors can easily sell their shares, more liquid stock markets may weaken investors' commitment and incentive to exert corporate control. In other words, instant stock market liquidity may discourage investors from having long-term commitment with firms whose shares they own and therefore create potential corporate governance problem with serious ramifications for economic growth (Bhide, 1994).

Economists argue that very liquid markets hurt economic development. By allowing investors to sell stocks quickly, liquid markets may reduce investor commitment and reduce incentives of stock owners to exert corporate control by monitoring the performance of managers and firms (Levine, 1997). It implies that dissatisfied owners sell their shares instead of working to make the firm operate better. According to this view, greater stock market liquidity may impede economic growth by hindering corporate governance.

Other measures of stock market development appear not to account for economic growth as well as liquidity. There is no evidence that higher stock market volatility adversely affects growth nor does there seem to be a strong link between the size of the stock market in a country, as measured by market capitalization divided by GDP, and economic growth. Liquidity—the ability to buy and sell equities easily—exhibits the strongest connection to long-run growth (Levine, 1997).

2.2 Financial Development and Economic Growth in Africa

In measuring financial development, it would be instructive to obtain detailed data that enables a vivid assessment of how the financial system fulfills its roles of facilitating exchange, mobilizing savings, managing risk, identifying productive investment projects, among other functions. Such detailed information is still sparse especially in the case of developing countries.

The indicators of financial development used in empirical studies can be classified generally in three broad categories (Ndikumana, 2001): stock market indicators, monetary aggregates, and structural and institutional indicators.

2.2.1 Stock Market Measures

Stock market measures include indicators of the size of the market which is measured by the number of listed companies and the capitalization of listed companies (total volume or as ratio of GDP) and indicators of liquidity is measured by the value of shares traded (volume or ratio of GDP) and the turnover ratio.

African stock markets are highly illiquid, with very low trading and turnover ratios. Low liquidity of stock markets has important implications for real economic activity. High stock market liquidity reduces risk through risk sharing, which encourages saving and investment. It is stock market liquidity, more than the size of the market that plays an important role in facilitating long-term (illiquid) investment (Levine and Zervos, 1998). Low liquidity hence provides limited opportunities for the transformation of illiquid assets into liquid assets, with consequent constraints on economic activity.

Indicators of stock market development show that African markets are small with few listed companies and low market capitalization. Egypt, Nigeria, South Africa and Zimbabwe are the exceptions with listed companies of 792, 207, 403 and 79 respectively. The average number of listed companies on sub-Saharan African markets excluding South Africa is 39 compared to 113, with the inclusion of Egypt and South Africa.

Market capitalization as a percentage of GDP is as low as 1.4 in Uganda. The Johannesburg Securities Exchange in South Africa has about 90 percent of the combined market capitalization of the entire continent. Excluding South Africa and Zimbabwe the average market capitalization is about 27 percent of GDP. This is in contrast with other emerging markets like Malaysia with a capitalization ratio of about 161 percent.

African stock markets are highly volatile, both in their growth rates and their rates of return. For example, after an increase by 261 percent from 1996 to 1997, market capitalization in Zambia declined by 58 percent from 1997 to 1998. The rate of return in this market dropped from 103 percent in 1997 to negative 58 percent in 1998.

High stock market volatility has important adverse effects on the financial system as a whole and real economic activity (Singh 1997; Pagano 1993).

Some African stock markets are very profitable and often rank among the most lucrative markets in the world, albeit the various structural problems faced by quite a number of stock markets within the continent. This illustrates the generally high returns to foreign capital in African economies. The rates of return to foreign investment in Africa are often higher than those in other developing regions. For example, in 1997, the average rate of return to US foreign direct investment (FDI) was 25 percent in Africa compared to 16 percent in Asia, 12 percent in Latin America, and 14 percent in all developing countries (UNCTAD 1998).

Despite the problems of small size and low liquidity, African stock markets continue to perform remarkably well in terms of return on investment. The Ghana Stock Exchange was adjudged the world's best-performing market at end of 2004 with a year return of 144 percent in US dollar terms compared with 30 percent return by Morgan Stanley Capital International Global Index (Databank Group, 2004).

	No. of listed companies	Market cap. (%GDP)	ValueTraded (%GDP)	Turnover
Botswana	18	29.4	0.6	2.1
Coted'Ivoire	39	13.6	0.3	2.5
Egypt	792	51.3	7.5	17.1
Ghana	29	30.7	0.8	3.2
Malawi	47	24.9	2.1	8.0
Kenya	8	9	1.0	11.1
Mauritius	4	39.3	1.6	4.4
Namibia	13	8.1	0.3	4.7
Nigeria	207	20.1	2.3	13.9
South Africa	403	214.1	76.5	45.0
Swaziland	6	9.3	0.0	0.0
Tanzania	6	6.2	0.2	2.5
Uganda	5	1.4	0.0	0.2
Zambia	11	8.0	0.1	1.1
Zimbabwe	79	87.9	14.0	3.9
Avg. Africa	113.6	36.9	7.2	8.0
Avg. SSA	39.2	22.1	1.8	4.4
Malaysia	962	161.3	50.8	33.4
Mexico	152	25.4	6.3	29.1
Thailand	465	70.5	66.7	93.8

Table 2.1 Indicators of Stock Market Development in Africa, 2004 (World Bank)

2.2.2 Monetary Aggregates

These are the most widely used indicators because they are the most widely published in national and international data sets. The main sources of these data are the World Bank's *World Development Indicators* and the IMF's *International Financial Statistics*. The indicators used include:

Conventional measures of money supply; Measures of the supply of credit by banks as a share of total domestic credit or as a ratio of GDP and; Measures of the supply of credit to the private sector as a share of total domestic credit or as a ratio of GDP.

For sub-Saharan Africa, excluding South Africa, the average size of the financial system (as measured by total liquid liabilities of financial intermediaries) and credit supply were lower in the 1990s compared to the 1980s.

If South Africa or North African countries (Egypt, Morocco and Tunisia) are included, however, the statistics show an increase in the volume of credit supply from the 1970s to the 1990s (Ndikumana, 2001).

Demirgùc-Kunt (1992) observes that in the poorest developing countries, firms rely mostly on internal resources and informal credit markets for financing.

Commercial banks are the main financial institutions. He contends that the loan contracts of commercial banks are generally short term, and that formal direct credit markets for long-term debt or equity do not exist, thereby constraining both corporate and economic growth.

Through the supply of credit financial intermediation, real economic activity is adequately stimulated. Therefore the decline in credit supply in sub-Saharan Africa may be a factor for the poor economic performance of the subcontinent over the past two decades.

2.2.3 Structural and Institutional Indicators

These indicators provide information that enables a direct (or indirect) assessment of the efficiency and sophistication of the financial systems. These indicators include:

- Indicators of financial structure that distinguish between bank-based and stock market-based financial systems (Demirgüç-Kunt and Levine 1999; and Beck, Demirgüç-Kunt, and Levine 1999).
- Indicators of banking regulation, banking ownership structure, and banking concentration, which provide information on the degree of concentration in the banking sector, the share of state-owned vs. privately owned banks, and the level of regulatory restrictions in the business of banking (Levine 2000; Demirgüç-Kunt and Levine 1999).
- Indicators of financial liberalization, which include the degree of control of the interest rate and the degree of intervention of the state in credit allocation.

According to World Bank's *World Development Indicators (2000)*, average real income, investment, and saving have declined in the 1990s compared to the 1980s. In the sub-Saharan African sample, average real income, investment, and saving have declined systematically in every decade since the 1970s.

Studies show that, only twelve of the 42 countries experienced an increase in real income from the 1970s to the 1990s. For as many as 16 countries in the sample, per capita real income in the 1990s was lower than in the 1970s illustrating what some researchers have referred to as "growth tragedy" or "development disasters" (Easterly and Levine 1998).

While the continent has success stories like Botswana, Mauritius, and Seychelles, whose income levels are high and rising, it also includes a number of disappointing cases. Even countries with huge resources like the Democratic Republic of Congo (former Zaïre) and Nigeria have been unable to meet expectations due to many factors, including poor macroeconomic management and political corruption.

The diversity in financial development across the African continent is illustrated also in a high concentration of the largest banks in just a few countries. Existing evidence shows that North African countries and South Africa have larger banks than other countries, with Nigerian banks making significant progress over the past years (especially since the recapitalization of banks to N25bn shareholders' fund by December 31, 2005 by Central Bank of Nigeria). The banks from three countries, Egypt, Morocco, and South Africa account for about 75 percent of the assets held by the 150 largest banks.

According to the *African Business' October report (2008)*, the total asset of the 100 top banks in their rankings reached $856 billion –a rise of 36 percent over the last year while aggregate Tier 1 capital rose by 47 percent to $60.6 billion. However, the continent's 25 top banks hold almost 85 percent of the region's banking assets with the 'big five' South African banks alone accounting for 42 percent of the total continental asset.

The above indicators show that the main institutional and infrastructural bottleneck on African stock markets is the use of slow manual systems. Even though markets are gradually adopting electronic systems, there are still substantial African stock markets which trade manually and use manual clearing and settlement. Similarly, most markets do not have central depository systems, whilst some markets still have restricted foreign participation. Such bottlenecks slow down trading and induce inactivity (Yartey and Adjasi, 2007).

2.3. Development of African Stock Markets

Financial sector development and reforms in many Sub-Saharan Africa (SSA) countries aimed at shifting their financial systems from one of bank-based to security market-based has orchestrated the establishment of many stock markets over the last two decades (Frimpong and Oteng- Abayie, 2006).

Stock markets in developing countries account for a disproportionately large share of the boom in global stock market activity. While the total value of outstanding publicly traded stocks worldwide surged from about \$6 trillion in 1986 to more than \$20 trillion in 1996, the proportion of worldwide stock market capitalization represented by emerging markets jumped more than threefold. Furthermore, the total value of stock transactions in emerging economies soared from about 2 percent of the world total in 1986 to 12 percent in 1996 (Levine, 1997).

Since 1990, there has been a significant development in the African securities markets. Prior to 1989, there were only 8 stock markets in the entire continent, 3 of which were in North Africa and 5 in sub Saharan Africa. Currently, however, there are over 22 stock exchanges in the continent.

According to Kumo (2008), the market capitalization for the entire continent was only about US\$569 billion in mid 2005. However, the market capitalization of the Johannesburg Stock Exchange (JSE) of South Africa, the biggest stock exchange in the continent, alone grew to over US\$886 billion during the fourth quarter of 2007. The market capitalization of Egyptian stock exchange, the second largest in the continent, and the Nigerian Stock Exchange (NSE), the third largest, was respectively US\$150 billion in February 2008 and US\$82 billion at the end of 2007. Together, the three biggest stock exchanges in the continent have a combined market capitalization of over US\$1.118 trillion in early 2008. The combined number of listed companies for all stock exchanges in the continent grew from about 1786 in 2005 to over 2000 in 2008.

In an effort to promote regional cooperation, individual African securities exchanges established an African Securities Exchange Association (ASEA) in 1993. The ASEA was incorporated in Kenya in the same year. The basic objective of the ASEA is to provide a formal framework for the mutual cooperation of stock exchanges in the African continent. Currently, there are 19 member stock exchanges of ASEA belonging to 26 countries: Botswana (BSE); Egypt (EGE-based in Alexandra and Cairo); Ghana (Ghana SE); BRVM countries (Regional Stock Exchanges of 8 countries); Kenya (Nairobi SE); Malawi (Malawi SE); Mauritius (SE of Mauritius); Morocco (Casablanca SE); Mozambique (Mozambique SE); Namibia (Namibia SE); Nigeria (Nigerian SE); South Africa (JSE Ltd and BESA); Swaziland (Swaziland SE); Libya (Libya Stock Market) ; Tanzania (Dar-Es Salaam SE); Uganda (Uganda SE) ; Zambia (Lusaka SE); Zimbabwe (Zimbabwe SE); Sudan (Khartoum SE).

2.4 Challenges of African Stock Markets

The main challenges stalling the development of most stock exchanges in Africa are political instability and internal strife within countries, high volatility in GDP growth, macroeconomic uncertainties and the lack of medium-term visibility on the macroeconomic front (Benimadhu, 2003).

The results from work done by Yartey and Adjasi (2007) show that African stock markets are small with very low capitalization as compared to those in the more developed markets, illiquid and fraught with infrastructural bottlenecks and weak regulatory institutions. There are also several issues with automation and availability of real-time market information.

2.5 Development of the Ghana Stock Exchange

The development of the capital markets is termed as necessary condition for the sustainable growth of the economy. But this growth itself depends upon the legislative and fiscal framework of the country, demand and supply patterns of the securities.

Ghana's capital market has not significantly played its role in capital mobilization though if properly organized it could be a major source of the much needed capital necessary for economic growth. The main sources of capital for the country's economic development are donors, and these have leveled off at about 9 percent of GDP over the last several years.

Central to the efficient functioning of a capital market is the development of the stock market. The emerging capital markets of Southeast Asia have successfully used the stock market to mobilize huge savings and channeled such savings to appropriate investments (Table 1).

	Market Capitalization (Billion US$)	Number of listed firms
India	39	2435
Indonesia	7	116
Korea	111	669
Malaysia	49	282
Philippines	12	163
Thailand	24	214

Table 2.1 Capital Mobilization by Emerging Markets of Asia

Source: IFC's Emerging Markets Data Base 1990.

Additional supply of capital is urgently required to maintain the momentum of the growth in GDP.

Also in Ghana, an organized capital market can serve as a medium for transferring part of the business ownership of foreign corporations to the citizens. The market could, moreover, be used to transfer the ownership of about 300 state owned enterprises through the government's privatization exercise and thereby improve efficiency as well as increase public ownership in them (Osei, 1998).

Central to the efficient functioning of a capital market is the development of the stock market.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This section of the research describes detail procedures the researcher followed in conducting the study. It constitutes research design, research approach, sample size determination, data collection and methods of data processing and analysis adopted.

3.2 Research Design

Research design describes the logical processes of carrying out the research from problem definition and objectives formulation stages to data collection, analysis and interpretation of observed phenomena stage. The purpose is to enable other researchers to replicate the process to confirm results or otherwise. As regards this research, the conceptual design is that research problem and research questions inform the formulation of research objectives which guided literature review. Trends identified from literature review inform research methodology and field data collection methods which identifies units of analysis. Data collected from units of analysis were analyzed and inferences drawn based on phenomena observed (Descriptive studies).

This research design also adopted the explanatory studies model that establishes causal relationships between the given parameters.

3.3 Research Approach

The research employed the deductive approach in which a theory and hypothesis (or hypotheses) is developed and a research strategy, designed to test the hypothesis.

With regards to this research, the hypothesis that the Ghana Stock Exchange as a tool for capital market development and, consequently, economic growth has seen some significant improvement since its establishment is tested by analyzing the indicators of stock market development. The results obtained after the research were then analyzed to determine whether the hypothesis developed must be accepted or rejected.

3.4 Sampling Design

The research departments of the Gold Coast Securities Limited, Databank Brokerage Limited and the Ghana Stock Exchange, Accra and finance managers, analysts and students of finance in Accra and Kumasi were selected as units of enquiry for the study. The research employed both non-probability and probability sampling methods to collect primary data.

The probability method, which ensures that each member of the population has equal chance of being selected for the study, was applied to sample individuals and professionals within the industry. However, the brokerage services sector includes the two major dealers named above.

In order to ensure fair representation of all individuals in the capital markets sector, proportional stratified sampling technique was applied to ensure that each stratum of the population was fairly represented in the survey.

The research also employed purposive sampling procedure in selecting the sampling area, which is Accra where most capital market activities occur and where the trading floor of the Ghana Stock Exchange is located. Gold Coast Securities Limited, Databank Brokerage Limited and the Ghana Stock Exchange were also selected purposively because they were deemed the major stakeholders in the development of capital market in the country, hence their selection for the research. Students of finance and related subjects were also sampled.

3.5 Sampling Frame and Sample Size Determination

The sampling frame for financial institutions which offer stock brokerage services (Licensed Dealing Members) on the Accra bourse was derived from register of Brokerage houses located in Accra at the year end 2008. There are two categories of members: - Licensed Dealing Members and Associate Members. A Licensed Dealing Member is a corporate body licensed by the Exchange to deal in listed securities. An Associate Member is an individual or corporate body, which has satisfied the Exchange's membership requirements, but is not licensed to act as a stockbroker on the Exchange. There are sixteen registered brokers at the year end 2008 out of which a sample of approximately forty professionals were drawn to answer questionnaires for the study.

3.6 Units of Enquiry

Empirical units of enquiry refer to objects, occurrences which can be observed and measured in order to study a particular phenomenon. With regard to this research, Gold Coast Securities Limited, Databank Brokerage Limited and the Ghana Stock Exchange as well as finance managers, analysts and students in Accra and Kumasi were the units of enquiry. A total of 30 questionnaires of which 22 were completely filled, 3 were partly filled and 5 were unanswered.

3.7 Data Collection Instruments

Semi structured questionnaires and personal interview procedures were employed to collect primary data from units of analysis, namely brokerage firms, professionals from financial institutions and students of finance. The performance of the Ghana Stock Exchange was measured by analyses of stock market indicators (GSE All-Share Index, Market Returns, Market Capitalization). Appropriate secondary data were also utilized and analyzed with the aid of Microsoft excel and SPSS software.

3.8 Data Processing, Editing and Analysis

Data obtained from survey were edited, coded and tabulated. Further editing was carried out with the aim of detecting and eliminating error to ensure accurate and reliable data. Coding was done by classifying questions into meaningful categories in order to bring out essential patterns to inform and clarify the research questions posed. Data were then presented in the form of tables and diagrams (descriptive statistics) to facilitate the analysis.

As regards data analysis, both the quantitative and qualitative techniques were employed to describe and identify trends that are emerging to enable inferences to be made. Quantitative measures such as numbers, percentages and ratios were used to describe patterns whereas qualitative inferences were drawn based on respondents' response within the framework of Strength Weakness Opportunity and Threats (SWOT) analysis.

3.9 Organizational Profile: The Ghana Stock Exchange

The idea of establishing a stock exchange in Ghana, which led to the promulgation of the Stock Market Act of 1971 to lay the foundation for the establishment of the Accra Stock Market Limited (ASML) in the same year, dates back to 1968. Unfavourable macroeconomic environment, political instability and lack of government support undermined the take off of the market. However, under the surveillance of the International Monetary Fund and the World Bank, Ghana underwent structural reforms in 1983 to deal with distortions in the economy together with other financial reforms. This led to the deregulation of interest rates, removal of credit controls, floating of exchange rates and many others. After the financial liberalization and the divestiture of a host of state-owned enterprise the need for stock market in Ghana became unavoidable.

The Ghana Stock Exchange (GSE) was incorporated in July 1989 as a company limited by guarantee with trading commencing on November 12, 1990 with eleven listed companies. Criteria for listing include capital adequacy, profitability, spread of shares, years of existence and management efficiency. The Ghana Stock Exchange was incorporated in July 1989 as a private company under the Ghana companies' code 1963 (Act 179). The exchange was given recognition as an authorized stock exchange under the Stock Exchange Act of 1971. Trading on the floor of the exchange commenced on November 12, 1990. In spite of the early set backs, two stock brokerage firms-the National Trust Holding Company Ltd (NTHC) and National Stockbrokers Ltd now Merban Stockbrokers-did over-the-counter (OTC) trading in shares of some foreign-owned companies prior to the establishment in 1990. However, the status of the company was changed to a public company under the Company's Code in April 1994. With regards to the number of listed companies, it increased to 13 in 1991, 19 in 1995 and currently stands at 34 (GSE, June 2007). The increase in the number of listings has also reflected on market capitalization. The GSE capital appreciated by 116 percent in 1993 and gained 124.3 percent in its index level in 1994 (GSE, March 1995). As a result, the Ghana stock market was voted the sixth market in 1993 as well as the best performing emerging market in 1994. Surprisingly, however, the market performed disappointingly between 1995 and 2000 when interest rate and inflation were both soaring. This abysmal performance was partly attributed to the high inflation and interest rates at that time. At the end of 2004, market capitalization stood at US$2,644 million while annual turnover ratio just remained at about 3.2 percent in 2004, from an all-time high of 6.5 percent in 1998. As of October 2006 the market capitalization of the GSE stood at about US$11,500 million.

Since its inception, the GSE's performance has varied considerably. All listings are included in the main index, the GSE All-Share Index. In 1993, the GSE was the 6th best index performing emerging stock market, with a capital appreciation of 116 percent. In 1994 it was the best index performing stock market among all the emerging markets, gaining 124.3 percent in its index level. 1995's index growth was a disappointing 6.3 percent, partly because of high inflation and interest rates. Growth of the Index for 1997 was 42 percent, and at the end of 1998 it was 868.35percent (Adam and Tweneboah, 2008).

The manufacturing and brewing sectors dominate the exchange. A distant third is the banking sector while other listed companies fall into the insurance, mining and oil sectors. Most of the listed companies on the GSE are Ghanaian but there are some multinationals.

Although non-resident investors can deal in securities listed on the exchange without obtaining prior exchange control permission, there are some restrictions on portfolio investors not resident in Ghana. The current limits on all types of non-resident investor holdings (be they institutional or individual) are as follows:

- A single foreign investor (i.e. one who is not a Ghanaian and who lives outside the country) is allowed to hold up to 10 percent of every equity.
- Secondly, for every equity, foreign investors may hold up to a cumulative total of 74 percent (in special circumstances, this limit may be waived). The limits also exclude trade in Ashanti Goldfields shares.

There is an eight percent withholding tax on dividend income for all investors. Capital gains on securities listed on the exchange will remain exempt from tax until 2015. The exemption of capital gains applies to all investors on the Exchange. There are no exchange control regulations on the remittance of original investment capital, capital gains, dividends, interest payments, returns and other related earnings. Potential changes at the exchange include the introduction of automated trading and the listing of some of the state banks. The Bank of Ghana plans the development of mutual funds, unit trusts and municipal bonds later.

These changes are aimed at making the exchange more relevant, more efficient and more effective. The Exchange was also involved in the preparation of the draft law on collective investment vehicles.

As of October 2006 the market capitalization of the Ghana Stock Exchange was about 111,500 billion cedis and by year-end December 31 2007, the GSE's market capitalization was 131,633.22 billion cedis. In 2007 the index appreciated by 31.84 percent.

CHAPTER FOUR

4.0 PRESENTATION OF FINDINGS AND ANALYSIS

Year	No.of listed companies	Year-to-date Change (%)	Market Capitalisation (million cedis)	GSEAll-Share Index (points)	91-DayT-Bill Interest Rate (%)	Year-on-Year Inflation (%)
1998	21	63.72	319.83	837.81	28.7	40.5
1999	21	-15.22	320.54	736.16	34.19	21.3
2000	21	16.55	365.50	857.98	41.99	15.2
2001	21	11.42	390.40	955.95	28.94	23.6
2002	23	45.96	618.38	1,395.31	26.63	11.8
2003	26	154.67	1261.68	3,553.42	18.66	14.8
2004	30	91.32	9761.45	6,798.46	17.08	10.8
2005	29	-29.85	9185.73	4,769.02	11.45	12.7
2006	32	4.97	11249.60	5,006.02	9.64	10.5
2007	32	31.84	12368.60	6,599.77	10.62	12.7
2008	35	58.06	17895.12	10,431.64	24.66	18.13

Table 4.0 Summary of the Growth performance of the GSE from 1998 to 2008

Source: Gold Coast Securities Research and Databank Research.

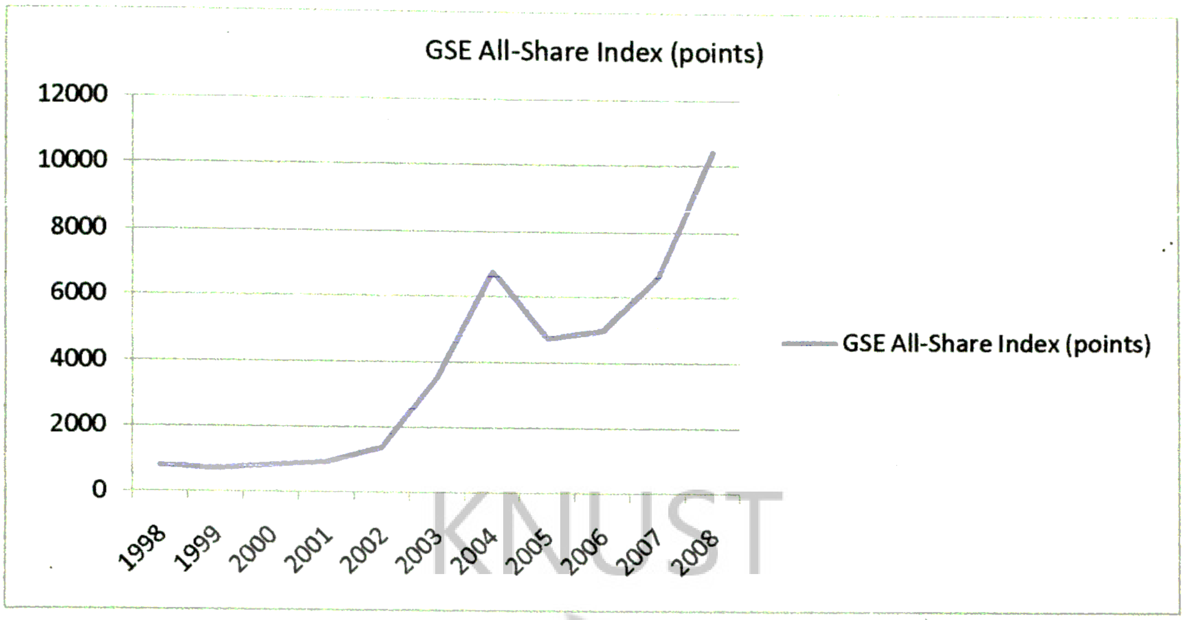

Figure 4.0 Growth Performance of the GSE All-Share Index.

4.1 The GSE All-Share Index

The Ghana Stock Exchange performance is mainly monitored by the GSE all-share-index (GSI) which is a weighted index. The index is a market capitalization index of all the shares listed on the Ghana Stock Exchange. All shares listed on the Ghana Stock Exchange with the exception of AngloGold Ashanti in the international register are included in the index based on total market capitalization. The initial value of the index was obtained by dividing the total market capitalization by a base period market capitalization and multiplying the result by 100.

Initial GSE All-Share index = [(Total Market Capitalization) / (Base Period Total Mkt. Cap.)] x 100

The base period market capitalization was the average capitalization of the market from November 12, 1990 to December 30, 1993 obtained by averaging the market capitalization for all the trading sessions for this period. This gave a base period total market capitalization of ¢43,990.85 million.

The value of the index for the base period was set to 100. This value as reported after each trading session indicates the current level of the market compared to the base period. The change in the value of the index reflects the change in overall market capitalization from the previous trading session.

The GSE All-share index has seen significant overall growth over the past ten years from 837.81 points in 1998 to 10,431.64 points in 2008 (a 1145.11 percent increase). Within the period under discussion (1998-2008), the Accra bourse has experienced a steady increase in its index up to year-end 2004. After year-end 2005, the Ghana Stock Exchange recorded a 29.85 percent decline from a high of 6798.46 points in 2004 to 4769.02 points in 2005 as a result of a bearish period in which the bourse saw its steepest fall in market return of 29.85 percent. The All-share index has however experienced an impressive growth of over 100 percent from 2006 to year-end 2008 when it rose from 5,006.02 points to 10,431.64 points in spite of the declining effects of the global economic crisis.

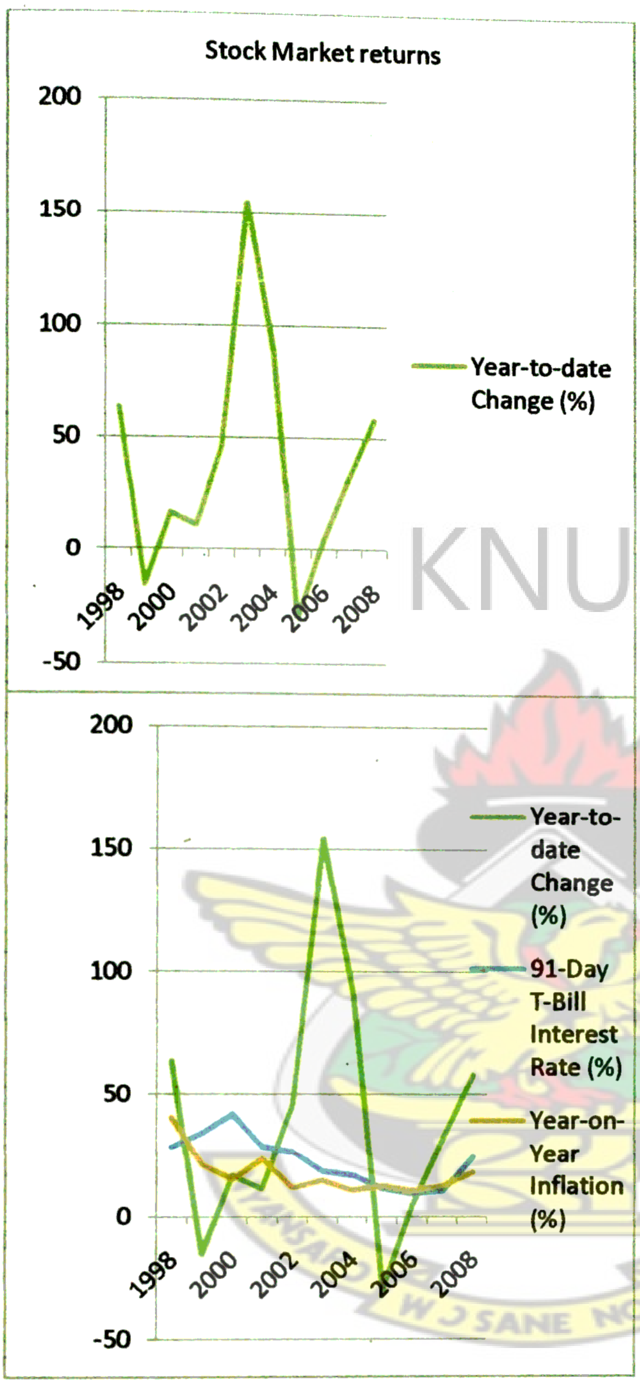

Figure 4.2 Stock Market returns as compared to returns on Treasury Bills.

4.2 Stock Market Returns

4.2.1 Capital Asset Pricing Model (CAPM)

The return on an equity or security may be described as:

Expected Return = Risk-free Rate + Risk Premium

For the average share;

Risk Premium = Average Return on the Market – Risk free Rate

However, some securities listed on the Ghana Stock Exchange are more risky than others and hence more volatile than other shares. If by observation, a company's share price falls significantly more than that of the average share listed on the GSE, the share price of that company is more volatile than other shares on the market. For example, when the average share falls in price by 10 percent, the company's share falls by 20 percent. Conversely when the average share rises by 10 percent, that of the company's rises by 20 percent. This implies that the share of company is twice as volatile as the average market share and hence investors will demand a higher risk premium on this share than the average share.

Expected Return =

Risk free rate + {Risk Premium on Average share x a factor for the risk of the share relative to that of the average share on the GSE}

For any given security, the expected return is given by:

$$R = Rf + [Rm - Rf] \times \beta \qquad (1)$$

Where;

R = the expected return on the share.

Rf = the risk-free of return.

Rm = the average return of all shares traded.

β = the factor that measures the degree to which a share is more volatile than the market average.

The above model is the Capital Asset Pricing model (CAPM). The factor β is the beta of the share and reflects the relative volatility of a share in comparison with that of the market as a whole. If the beta of a share is 2, then the share is twice as volatile as the average share. For the average share on the GSE, beta has a value of one. A value greater than 1 indicates a more risky share while a value less than 1 means a less risky share. Aggressive shares have a beta greater than 1 while defensive shares have beta less than 1.

In practice, the CAPM is applied given the following assumptions:

1. The risk-free rate of return is approximated by the rate of interest on the Government Treasury Bill.
2. There is a stable historical market risk premium.

In more advanced capital markets, betas are estimated through various statistical techniques and are widely published. In Ghana, betas are not readily available.

However, they can be estimated with simple statistical routines available in spreadsheets such as Microsoft excel (Mensah, 2008).

4.2.2 The Generalized Dividend Valuation Model

The value of a given stock today is the present value of all future cashflows. The only cashflows that investors receive are dividends and a final sales price when the stock is ultimately sold in period *n*. Hence the generalized multi-period formula for stock valuation can be expressed as:

$$\boldsymbol{P_0} = \frac{D_1}{(1+k_e)} + \frac{D_2}{(1+k_e)^2} + \cdots + \frac{D_n}{(1+k_e)^n} + \frac{P_n}{(1+k_e)^n} \qquad (2)$$

Where;

P_o = the current price of the stock

D = the dividend paid at the end of the year (1, 2…*n*)

k_e = the required rate of return on investments in equity

P_n = the expected future price of the stock in year *n*

If the above equation is to be used to find the present value of a stock (P_o), then the value of the stock at a given point in the future (i.e. P_n) must first be estimated. However, if P_n is far in the future, it will not affect P_o. This implies that the current value of a share can be calculated simply as the present value of the future dividend stream. Hence the generalized dividend model can be rewritten without the final sales price as:

$$P_0 = \sum_{t=1}^{\infty} \frac{D_t}{(1+k_e)^t} \tag{3}$$

Most firms on the Ghana Stock Exchange institute dividend payout as soon as they have completed the rapid growth phase of its life cycle as elaborated by Mishkin (2007). The Generalized dividend valuation model says that the price of stock is determined only by the present value of dividends and nothing else matters.

The generalized dividend valuation model requires a computation of the present value of an infinite stream of dividends – an extremely tedious process, hence the development of more simplified models such as the *Gordon Growth Model,* which assumes constant dividend growth.

Although the *Zero Growth Model* (which assumes a constant payout of dividend into the indefinite future) is applicable to a few companies on the stock exchange, earnings and dividends of most companies are generally expected to increase over time. Many firms (including CAL Bank, Ecobank Ghana ltd, Standard Chartered Bank among others) therefore strive to increase their dividends at a constant rate each year. Equation 3 rewrites Equation 2 to reflect this constant growth in dividends:

$$P_0 = \frac{D_0 \times (1+g)^1}{(1+k_e)^1} + \frac{D_0 \times (1+g)^2}{(1+k_e)^2} + \cdots + \frac{D_0 \times (1+g)^{\infty}}{(1+k_e)^{\infty}} \tag{4}$$

Where;

D_o = the most recent dividend paid

k_e = the required rate of return on investments in equity

g = the expected constant growth rate in dividends

Equation 4 can further be simplified to obtain Equation 5;

$$P_0 = \frac{D_0 \times (1+g)}{(k_e - g)} = \frac{D_1}{(k_e - g)} \tag{5}$$

This model is used to estimate the *intrinsic* value of shares on the stock market, given the following assumptions;

1. Dividends will continue to grow at a constant rate forever.
2. The growth rate is less than the required rate of return on equity, k_e.

The Ghana Stock Exchange has seen significant volatility in returns since its inception. Over the past decade (period under review), returns have been relatively impressive averaging over 40 percent within the period. High volatility is evidenced by a ten-year low of negative 29.85 percent in 2005.

This phenomenon was anticipated considering large profit-taking activities after a bull run the previous couple of years when the exchange recorded a ten-year high at 154.76 percent in 2003. The average return on the stock market over the past decade has been higher than that on the 91-Day Treasury bill over the same period (22.96 percent) and was much higher than the average inflation rate for the ten-year period (17.46 percent).

The stock market returns over the past decade has proven to be much more attractive than the risk-free returns on the 91-Day Treasury Bills, outperforming the latter by more than 80 percent, while beating inflation by over 140 percent. The Exchange has therefore been a much better vehicle for long-term investment and has provided a better return-on-investment for investors.

Quite evidently, the performance of the stock market in terms of returns has contributed to the increase in the market capitalization. A steady increase in the year-to-date returns on the market portfolio over the past decade is a reflection of the attractiveness of the exchange causing a number of unlisted companies to work hard to meet the GSE's listing requirements for public listing in order to benefit from funds that will be obtained from the issue of shares on either the primary or secondary markets. Investors are also encouraged to buy more equities so as to receive long term capital gain and/or dividend yield.

4.3 Market Capitalization

Market capitalization or stock market valuation is the number of issued ordinary shares of the target company multiplied by their market price. Whether or not the stock market value is a fair value is dependent on the efficiency of the stock market.

As with most African countries, the market size of the GSE is small, at 12 percent of the country's GDP, with a market capitalization of 6,183.84 billion cedis (US$740 million) at the end of 2002. Market capitalization had risen to 9,272.72

billion cedis (US$1.07 billion) by July 30, 2003 and to a further 17,895.12 billion cedis (i.e. GH¢17,895.12million) by year-end 2008. An important characteristic of the GSE is the degree of concentration. The four largest companies listed on the exchange made up 77.95 percent of the total market capitalization at the end of 2002, with the largest company making up to 55.54 percent of market capitalization. The majority of the companies were listed through the privatization process, with the government of Ghana selling a proportion or all of its interests in the said companies to other investors (both individuals and institutions) in line with the GSE listing rule, which requires more than 25 percent of a company's shareholding to be in public hands prior to listing.

The participation of foreign investors has contributed significantly to the increase in market capitalization of the stock exchange. For instance, when Ashanti Goldfields Company Limited (now AngloGold Ashanti) was first listed on GSE in 1994 it accounted for about 90 percent of the total market capitalization. This changed the face of the exchange and attracted many foreign investors (Adam and Tweneboah, 2007). Since the listing of AGC on the Accra bourse, many other companies (such as Golden Star Resources, Guinness Ghana Brewery and Ecobank Transnational Inc. among others) which have a considerable number of shares owned by foreign investors have followed suit resulting in the steady increase in the market capitalization growth.

Privatization also aided the existence of block control, as the sale of the government's interests was done in blocks rather than on a dispersed basis. However, efforts were made to list some privatized institutions to provide smaller shareholders with the opportunity to buy shares and diversify investment options, although overall country incomes levels are relatively low and tend to exclude a large number of people from participating in investment and diversifying share ownership (Tsamenyi *et al*, 2007).

In 2004, the market capitalization of the Ghana Stock Exchange as a percentage of Ghana's Gross Domestic Product was 30.7 percent (Table 1.0). This was comparable to 9 percent, 20.1 percent and 6.2 percent in Kenya, Nigeria and Tanzania respectively.

While the market capitalization growth of the Accra bourse may be regarded as impressive within sub-Saharan Africa, it is informative to note that a lot more progress is required in order for it to compete with other stock markets such as those in South Africa, Thailand and Egypt among others.

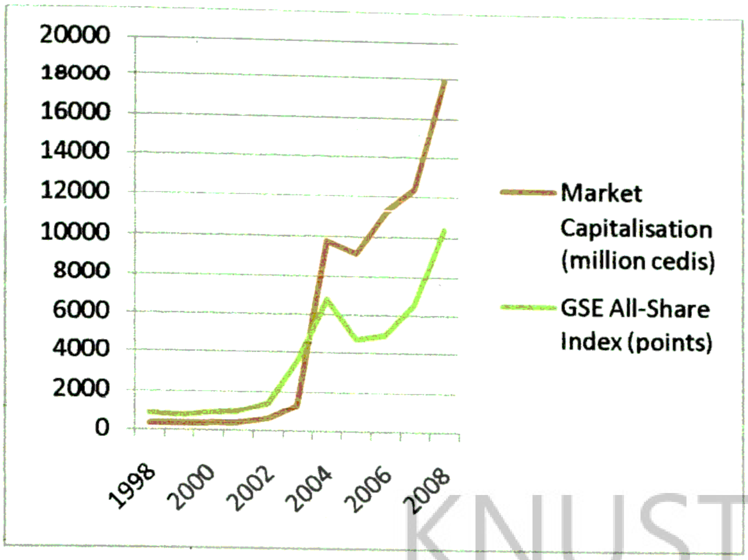

Figure 4.3 Trend in Market capitalization and All-share index of the GSE.

The above chart shows a positive correlation between market capitalization and the GSE All-Share index over the last decade. While the Accra bourse has seen a 5,495.20 percent increase in its market capitalization from GH¢319.83million in 1998 to GH¢17,895.12million in 2008, the GSE All-Share index also grew by 1145.11 percent from 837.81points to 10,431.64points for the same period.

4.3.1 Number of listed Companies

Publicly listed companies are significantly in the minority, as a large number of companies registered and operating in Ghana are privately or state owned. For example, the Association of Ghana Industries has over 300 registered members. The 35 companies registered on the GSE form part of the top 100 companies in the country, referred to as the "Club 100" (based on size and performance). This suggests that the number of companies listed on the GSE is relatively small. These companies made up only up to 1.35 percent of listed companies in stock markets within Africa (except South Africa) in 2002. While the exchange has improved on most of its performance indicators in the last decade, it has seen only a marginal increase in the number of listings from twenty one in 1998 to thirty five by year-end 2008.

4.4 Challenges of the Ghana Stock Exchange

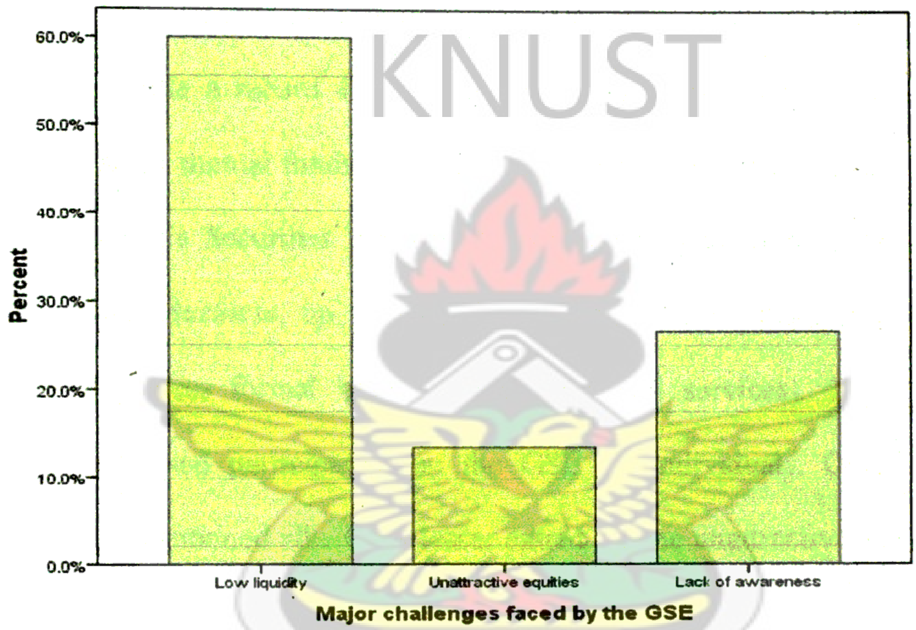

Figure 4.3 Respondents' perception of the major challenges of the GSE.

Most respondents (about 60 percent) shared the common observation that liquidity is the most significant challenge stifling the development of the Ghana Stock Exchange. They also agreed that the recent introduction of the automated trading system and a central depository system will significantly reduce the problem associated with liquidity on the market albeit not completely solve it.

Another major challenge mentioned was the lack of education (or awareness) on the importance of the stock market and the potential rewards not only to institutional investors but also retail investors most of whom do not seem to consider the capital market as a major investment vehicle in Ghana. This may be attributed to the fact that many local individual investors think they need large sums of capital to invest on the stock market or that they are not adequately furnished with information needed to make investment decision as regards equities. While a record 49.5 percent of all U.S. households own individual stocks or stock mutual funds, according to a survey by the Investment Company Institute and the Securities Industry Association (2002) cited on *St. Petersburg Times Online-Business*, up to about 80 percent of the Ghanaian population is unbanked (access formal banking products and services). This implies an extremely limited participation on the GSE by individuals. Other challenges which were mentioned albeit to a lesser extent are the unattractiveness of equities on the market in terms of capital gains and dividend payment; the unavailability of capital for long-term investment (especially in the face of the current global financial crisis).

Contrary to views in literature to suggest that one of the major challenges Stock Exchanges across the African continent as being related to legal framework, none of the respondents attributed the challenges faced by the stock market to the absence of a solid legal and regulatory framework that among others, protect the right of investors. This seems to suggest that there are little gaps if any, to be filled as regards regulations on the GSE in comparison to the problems associated with liquidity issues. Many of the respondents agreed that the key to adequately tackling the challenges that militate against the development of the GSE is to facilitate the prompt and timely sale and purchase of stocks on the exchange. This will increase levels of activity on the bourse making the exchange an attractive investment vehicle. Some of the issues relating to lack of liquidity which must be prioritized are among others, the introduction of Central Depository System (CDS), the automation of trading and development of settlement structures. It must be noted that a number of the challenges impeding development on the stock market are currently being addressed key among which is the recent automation of trading and the establishment of the GSE Securities Depository (GSD).

Most of the respondents (more than 70 percent) hold the view that the Ghana Stock Exchange reacts moderately to information on company, industry and general market activities. Their assertion may be supported by the general movement in stock prices after financial results are released during mid-year and end end-of-year periods. Market reaction will also be boosted by the introduction of the 'facts behind the figures' sessions organized by the Ghana Stock Exchange to afford listed companies the opportunity to explain their current financial position and other relevant information to the public. This will likely solve the challenges relating to issues of efficiency and real-time availability of market information.

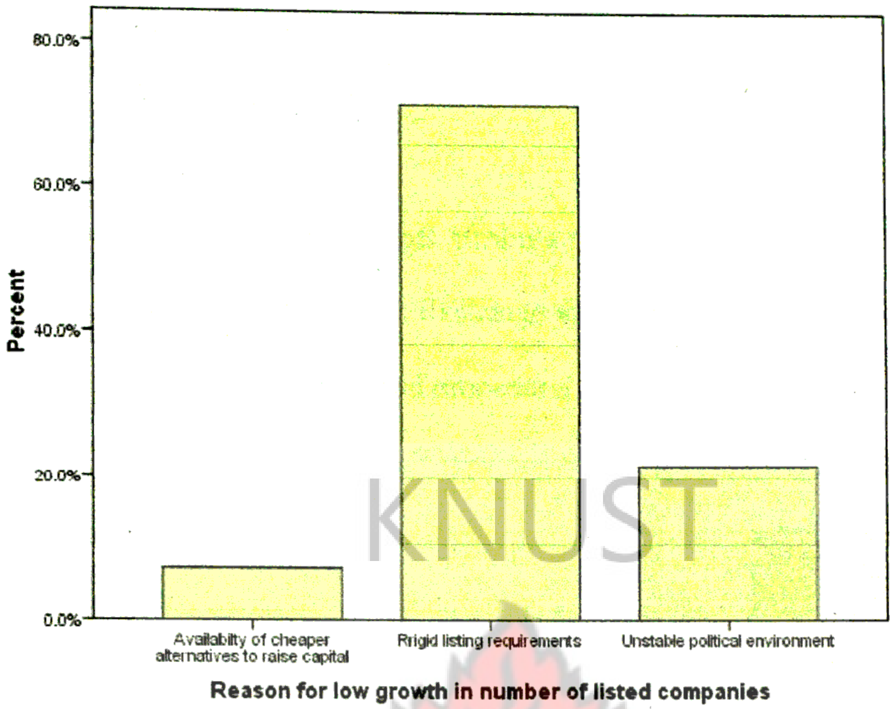

Figure 4.5 Respondents' reasons for the low rate of growth in number of equities.

Since growth in market capitalization is a function of the number of companies listed on the stock market, it is clear that an increase in listings will boost market capitalization while providing increased levels of activity. The low percentage of listed Ghanaian companies in relation to those on the African continent (except South Africa) is proof of the low levels of participation of companies within the Ghanaian capital market. While a few of the respondents (about 30 percent) attributed the above challenge to the unstable political environment and to a lesser extend the availability of cheaper alternatives sources of capital, a much larger group agree that rigid listing requirements are the major deterrent to going public by companies. Many Ghanaian companies typically follow the pecking order theory of a firm's capital structure and will therefore consider retained earnings or internal financing as the first option for raising capital, debt as the second option (when retained earnings is depleted) and equity as their last resort. By reason of this logic many firms will not consider listing on the GSE unless they find it absolutely necessary.

Over 80 percent of the respondents attribute the relatively growth in the number of companies on the Ghana Stock Exchange to the rigid requirements set for them key among which are financial and procedural.

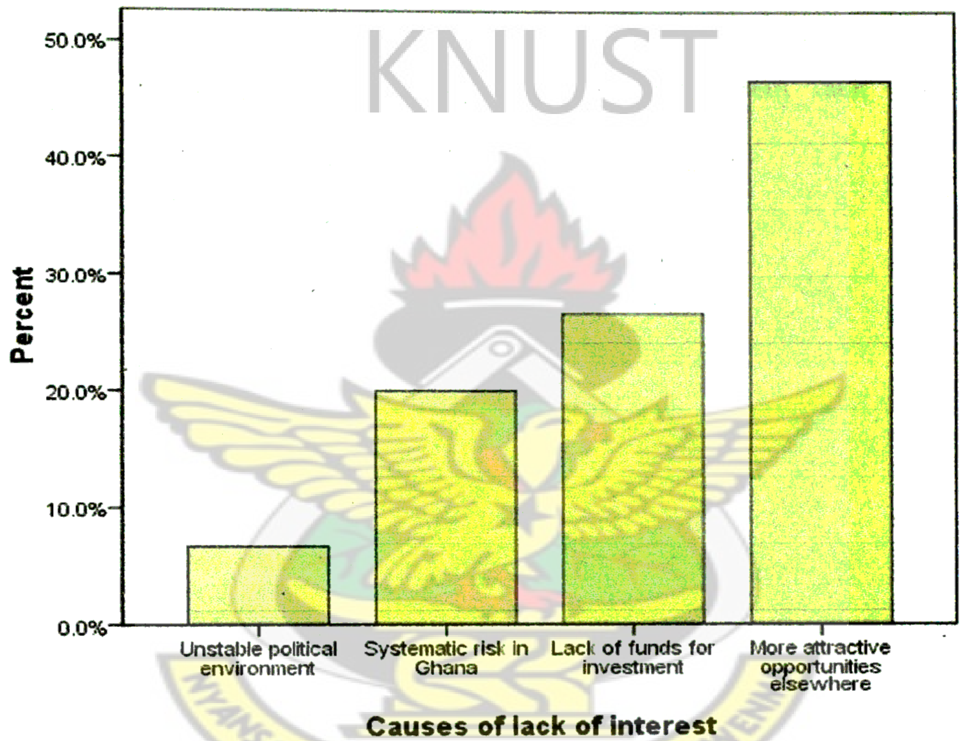

Figure 4.5 Reasons for low levels of investor interest/participation on the GSE.

Respondents gave various reasons for investors' apparent lack of interest in long-term securities investments. Most respondents believe that other investment vehicles especially 91- Day Treasury bill (or short-term securities in general) offer greater returns in Ghana. This assertion contrasts the superior average return recorded on the stock market over the period under review over that of the 91-Day Treasury bill.

A significant percentage of the respondents attributed the apparent lack of interest in the stock market to basically the lack of funds (mostly excess capital) available for such long-term investments, the relatively high non-diversifiable (systematic) risk associated with investing in Ghana. A small group was of the opinion an unstable political environment accounts for the apparent lack of investor-confidence and consequently, interest in the stock market.

CHAPTER FIVE

5.0 SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This section presents a summary of the findings of the research conducted and the analyses of the results obtained. The general performance trends of the Ghana Stock Exchange over a ten–year period (1998 to 2008) in terms of the growth of the All-Share index, market capitalization, and year-to-date market returns as well as the number of listed companies are summarized.

Further, the challenges militating against the smooth growth of the GSE as elaborated by professionals within the Ghanaian financial industry are briefly discussed.

5.2 Performance of the Ghana Stock Exchange

The main performance indicator of the Ghana Stock Exchange (the GSE All-Share index) has recorded a steady growth of 1145.11 percent from 1998 to 2008. This impressive run compares favourably with many of the stock exchanges in Africa and other emerging markets. In spite of the current global economic crisis the growth performance of the Ghana Stock Exchange has been largely satisfactory. The All-Share index is a function of market capitalization and hence number of listed companies. Therefore, it is imperative to create an enabling environment that will attract a larger number of companies to enlist on the GSE.

Though the market capitalization on the Ghana Stock Exchange has grown at a steady rate of 5495.20 percent it is instructive to note that only a handful of equities account for a large proportion of the total market. For instance, Ashanti Goldfields Ltd (now AngloGold Ashanti) the largest company on the Ghana Stock market up for over 50 percent of the total market capitalization by year end 2002).

Year-to-date market returns on the Ghana Stock Exchange have recorded significant growth since its inception. Over the past decade (period under review), returns have been relatively high averaging over 40 percent within the period outperforming returns on the 91-day treasury bill and average inflation over the same period. High volatility is evidenced by a ten-year low of negative 29.85 percent in 2005 which followed an all-time high of 154.67 percent in 2003.

Notwithstanding the phenomenal increase in market capitalization and significant in the growth performance of the GSE All-Share index thereof, the challenge associated with low levels of listings on the Accra bourse must be tackled while addressing the issue of low contributions to market capitalization by existing equities.

5.3 Summary of Challenges Facing the GSE

Empirical results obtained from respondents within the Ghanaian financial market indicate that some of the major challenges that militate against the rapid development of the Ghana Stock Exchange are as follows:

1. Liquidity constraints
2. Absence of an active and well developed domestic investor base
3. Uncertainty of macroeconomic environment
4. Underdeveloped trading and settlement structures
5. Issues of efficiency and real-time availability of market information

The relative increases in inflation and interest rates coupled with the declining value of the cedi against its major trading currencies have collectively contributed to an overall uncertainty in the macroeconomic environment. The uncertainty or instability of the macroeconomic environment relative to those of other countries contributes to the general lack of interest in the Ghana Stock Exchange by many foreign retail and institutional investors. However, the increasingly strong political environment in the country is likely to provide the needed platform to improve the macroeconomic indicators in the medium to long term. This will attract investors and a significant level of foreign investment.

Empirical evidence suggests that the ease with which investors are able to buy and sell their stocks (liquidity) is a major challenge faced by investors on the Ghana the stock market and this is also the key challenge for African stock markets. Part of the liquidity problem is attributable to the absence of an active and well-developed domestic investor base. Most financial analysts were of the view that unless the liquidity problem is solved, investors will continue to look for more attractive investment avenues especially in the short-term money market at the expense of the stock market and that the introduction of the automated trading system will be a key success factor in the development of the GSE.

Another important factor which militates against stock market development is the absence of a strong and active domestic investor base, led by institutional investors such as pension funds and insurance companies. The study agrees with the assertion by Benimadhu (2003) that instead of taking a leadership role in the development of stock market activities and in fostering the implementation of good corporate governance practices by listed companies, institutional investors, have rather taken a back-seat role and have not quite acted as the drivers of the market. Local institutional investors tend to act as followers, whose investment decisions are often based on foreign investors' decisions.

Investment advisors and financial analysts complained of long periods (in some cases, years) it takes before stocks are bought or sold on the floor of the GSE. With the recent introduction of the automated trading system on the stock market, sale and purchase of shares should be significantly easier (although some of the brokers concede that automation will not completely solve the problem of liquidity). Closely linked to the problem of liquidity is the largely underdeveloped trading and settlement structures of the GSE.

Out of the nineteen Stock Exchanges, only six ensured automated clearing and settlement of transactions and strict delivery versus payment by 2003. Until recently (2008), trading on the floor of the Ghana Stock Exchange had mainly been done manually while most exchanges within Africa have adopted the electronic trading system which eases transactions and enables increased participation from investors.

While more participation is encouraged from foreign investors, it is instructive to note however that the GSE is also faced with the challenge of a limited local investor base. The Securities and Exchange Commission in its 2005 annual report indicated that non-resident foreign investors owned up to 75 percent of all shares issued on the Ghana Stock Exchange. The development of the financial markets in general and the stock market in particular should primarily be the responsibility of local investors and subsequently supported by foreign investors.

5.4 Recommendations

The importance of an active and well developed capital market to an economy cannot be over-emphasized. Most local companies would have been better off with long-term funds but may be obliged to borrow from the short-term money market mostly at their own disadvantage due to the absence of such (long-term) funds. Literature is replete with evidence of active stock markets playing the key role of stimulating economic growth and Ghana's stock market is no exception. Hence in the current global economic order the stock market should be given the necessary attention by stakeholders to become a more vibrant player within the economy. The major challenge of liquidity on the exchange must be addressed as a matter of urgency. This can be achieved by the implementation of a modern Central Depository System (CDS) and trading systems and increased efforts to foster dynamic trading by providing real-time and interactive market information flows. In addition to these measures listing requirements (especially cost and time) should be reduced to encourage an increased number of companies (most of which are already members of the prestigious Ghana's club 100) to go public.

Efforts should also be made to demutualise the stock exchange which will ensure the segregation of ownership, trading rights and management of the exchange to avoid possible conflicts of interest.

Stock Exchanges in Africa particularly the Ghana Stock Exchange have made very significant strides over the past decade but are still yet to reach the real take-off stage. The future of the GSE and those of other exchanges in Africa in an environment characterized by intense competition from well-established financial centres will depend on their ability to mitigate the constraints discussed above. This can be achieved through the implementation of appropriate market-specific measures while establishing a stock exchange infrastructure conducive to the cross-linking or integration of stock markets.

The apparent lack of interest in the activities of the Ghana Stock Exchange is largely as a result of limited knowledge of potential investors. The rate of savings (and by extension investments) in Ghana is generally extremely compared to that of many other countries in various emerging economies and though this may be attributed to a plethora of reasons, a large domestic investor base is key to the development of the stock market. It is therefore imperative that any form of education to the public on the dynamics of the stock market and benefits to potential investors thereof should be focused on aggressively increasing the number of investors on the Exchange.

A concerted effort is required from stakeholders of Ghana's capital market to improve to further improve the growth performance of the GSE to compare favourably with the more developed African Stock Exchanges (Egypt, Nigeria, South Africa) while encouraging further research into ways by which the capital market in Ghana can be expanded.

5.5 Recommendation for further Studies

This long essay made a study into the overall growth performance of the Ghana Stock Exchange. The findings as well as suggestions for the establishment of structures to improve the development of the exchange have been discussed. An important proposition is the implementation of an efficient automatic trading and settlement system to increase liquidity in the market.

The apparent lack of awareness (and knowledge) of the activities of the stock market by a large population of Ghanaians should be addressed by the adoption of more aggressive educational campaign strategies by both academic and financial institutions. It is recommended that further studies be conducted into the dynamics of the GSE to enable the development of a more efficient stock market.

5.6 Conclusion

The performance of the Ghana Stock Exchange has been largely impressive with significant improvement in all its major indicators over the past decade. However, for the stock market to compare favourably with the larger Exchanges on the continent (South Africa, Nigeria, Egypt), a number of structures should be put in place to engender a more rapid growth in the future. The establishment of structures to enhance trading on the floor, among other measures will make Ghana's stock market one of the very best on the African continent.

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APPENDIX

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College of Arts and Social Sciences
KNUST School of Business
Department of Accounting and Finance

Research Questionnaire:
This questionnaire is designed to collect data for academic research being conducted on "an Assessment of the Performance and Challenges of the Ghana Stock Exchange" as part of the requirement in the fulfilment of a Postgraduate Degree in Business Administration (Finance).
I therefore appeal to you to answer the following questions as frankly as possible. The researcher assures confidentiality of any information provided by respondents.

Guide to answering the questionnaire:
Please check or respond to the questions appropriately. Counting on your cooperation.

Firm details:
Institution..

Position ....

1. How long have you worked in the financial industry?
   1-5years [ ] 6-10years [ ] more than 10years [ ]

2. To what extent does the Stock Market in Ghana react to information?
   Highly reactive [ ] Moderately reactive [ ] Unreactive [ ]

3. How would you rate the general performance of the Ghana Stock Exchange relative to those of other African countries?
   Excellent [ ]
   Very Good [ ]
   Satisfactory [ ]
   Poor [ ]

4. What is the major challenge that hinders the rapid development of the GSE? (Please rank the most serious challenge in your opinion).
   Low liquidity [ ]
   Lack of investment into the capital market [ ]
   Weak legal/regulatory framework [ ]
   Unattractiveness of equities [ ]
   Lack of Education/Awareness [ ]
   Specify
   others..

5. Which one of the challenges in 3 above, if tackled in the short term, would most significantly contribute to the development of the stock market in Ghana?
   Low liquidity [ ]
   Lack of investment into the capital market [ ]
   Weak legal/regulatory framework [ ]
   Unattractiveness of equities [ ]
   Lack of Education/Awareness [ ]
   Other(s); specify...

6. What accounts for the apparent lack of interest by both individual and institutional investors in the Ghana Stock Exchange relative to other African markets?
   Uncertainty of Political Environment [ ]
   Systematic Risk associated with businesses operating in Ghana [ ]
   Lack of funds for investment [ ]
   More attractive investment avenues elsewhere [ ]
   Others..

7. What accounts for the relatively low growth rate of companies listed the GSE?
   Availability of cheaper alternatives to raising capital [ ]
   Rigid listing requirements [ ]
   Problems with ownership/control [ ]
   Uncertainty of Political environment [ ]
   Others specify..

8. Will the recent automation of trade solve the liquidity challenges of the

Stock Exchange?

Yes [ ]   Partly [ ]   No [ ]

Comment (if any)..

9. Do the competitive rates on relatively risk-free Government issued fixed income securities (e.g. the 91-Day Treasury bill) provide a better investment platform for investors than rates offered by equities on the GSE?

   Yes   [ ]

   No   [ ]

   Not entirely; but it contributes to the low levels of activity on the GSE [ ]

   Comment (if any)..

10. Should the development of an active bonds market (especially corporate bonds) be pursued as a priority in order to enhance the prospects of Ghana's capital market?

    Yes, as an alternative to the equities market [ ]

    No, The Stock Exchange has to be developed further, before the bonds market [ ]

    Comment (if any)..

11. What is your general opinion on the future prospects of Ghana's capital market in the global economic environment?

    ....

    ....