A STUDY ON RELATIONSHIP BETWEEN STOCK

MARKET AND ECONOMIC GROWTH IN NEPAL

A Thesis

By

GANESH PRASAD REGMI

Central Department of Management

Roll No.: 692/16

Registration No. 7-2-326-42-2008

Submitted in partial fulfillment of the requirements for the degree of

Master of Business Studies (MBS)

in the

Faculty of Management

Tribhuvan University

Kritipur, Kathmandu

October, 2018

Certification of Authorship

I certify that the work in this thesis has not previously been submitted for a degree nor it has been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the thesis.

_____

Ganesh Prasad Regmi

October, 2018

RECOMMENDATION LETTER

It is certified that thesis entitled **A study on relationship between stock market and economic growth in Nepal.** Ganesh Prasad Regmi is an original piece of research work carried out by the candidate under my supervision. Literary presentation is satisfactory and the thesis is in a form suitable for publication. Work evinces the capacity of the candidate for critical examination and independent judgment. The thesis is forwarded for examination.

_____

Asso. Prof. Gyan Mani Adhikari

Supervisor,

Central Department of Management

Tribhuvan University, Kirtipur, Kathmandu

October, 2018

APPROVAL SHEET

We, the undersigned, have examined the thesis entitled **A study on relationship between stock market and economic growth in Nepal** presented by Ganesh Prasad Regmi, a candidate for the degree of **Master of Business Studies** (MBS) and conducted the viva voce examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

—————————————————

Asso. Prof. Gyan Mani Adhikari

Thesis Supervisor

—————————————————————

Internal Examiner

—————————————————————

External Examiner

—————————————————————————

Prof. Bhawani Shankar Acharya

Chairperson, Research Committee

Central Department of Management, Tribhuvan University

———————————————

Prof. Dr. Puspa Raj Sharma

Acting Head of Department

Central Department of Management, Tribhuvan University

October, 2018

Acknowledgement

It is a pleasure to experience own creation that adds value to others. Actually this thesis is the partial fulfillment of requirements for Masters Degree of Business Studies (MBS) and I gained a lot of knowledge while doing it. Every project whether big or small is successful largely due to the effort of a number of wonderful people who have always given their valuable advice or lent a helping hand. I sincerely appreciate the inspiration; support and guidance of all those people who have been instrumental in making this study a success.

My foremost appreciation and thanks goes to my honorable supervisor, Asso. Prof. Gyan Mani Adhikari, Central Department of Management, Tribhuvan University for his close supervision and professional advice and encouragement during the research work. I am highly indebted and very thankful for his continuous support and constructive suggestions that have enabled this research project to achieve its present form. Moreover, I am also indebted and thankful to him for his patience, motivation, support, instruction and immense knowledge in completing my overall MBS degree. I could not have imagined having a better advisor and mentor for my thesis.

I would like to express cordial gratitude to Prof. Bhawani Shankar Acharya (Chairperson, research committee) for his timely and continuous guidance throughout the study. Likewise, I am grateful to Prof. Dr. Bhoj Raj Aryal, the head of Central Department of Management (CDM) and also highly appreciate the efforts of all teacher and other members of central department of management, libraries staffs who inspired and provided the needed materials to complete this thesis.

Last but not least, I would like to thank my family members and friends for their affection and emotional support that has inspired me to achieve every success including this study. I would also like to take full responsibility of any kind of deficiency presented in this thesis.

Ganesh Prasad Regmi

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

C.V   =   Coefficient of Variation

FY   =   Fiscal Year

Log   =   Logarithms

MC   =   Market Capitalization

NI   =   NEPSE Index

NOLS   =   No. of listed Securities

NP   =   Net Profit

NRB   =   Nepal Rastra Bank

RGDP   =   Real Gross Domestic Product

S.E   =   Standard Error

SPSS   =   Software Program for Social Sciences

TT   =   Trading Turnover

ABSTRACT

This study aimed to examine the relationship between stock market and economic growth in Nepal. The research an analyed of stock market factors like; stock market capitalization (MC), trading turnover (TT), number of listed securities (NOLS) and market index (MI) against the real gross domestic product (RGDP) which was used as a proxy for economic growth. Secondary data were used for the study collected from the Economic Bulletin of Nepal Rastra Bank and Economic Survey of the Ministry of Finance for 24 years from 1994/95 – 2017/18(Mid July). Data were analyzed by using appropriate the descriptive research design was used. The regression models were used to test significance of stock market performance and macroeconomic variable i.e. Real GDP.

From the results, it was revealed that there was a positive relationship between stock market indicators and economic growth in Nepal. Thus, the study lends support both to the financial intermediation literature as well as to the traditional growth literature. This study concludes that capital market development affects the growth of the financial sector. This study also revealed that market capitalization, change in stock market price and trading volume affect economic growth. The NEPSE plays an important role in the economic growth of Nepal and the study therefore recommends that the government needs to do much to attract and encourage active participation of stock markets sector. The study recommends that NEPSE needs to be developed further to enhance domestic resource mobilization. Policymakers should encourage stock market development. The study also recommends that various policies and programs that affect stock markets such as tax, legal, and regulatory barriers need to be addressed.

CHAPTER - I
INTRODUCTION

1.1 Background of the Study

The performance of the stock market is of immense significance for economic growth and development. "Stock market is a place for trading stocks, debentures, and bonds, where firms can raise funds for expansion. It's aim is to achieve allocative efficiency of available funds to be used in various sectors of the economy through extreme sensitive pricing instrument, make sure that available funds are availed to firms with high profitability" (Osamwony, 2013) .It can be said that stocks are apparatus used to boost the performance of the local financial institutions as well as the whole economy (Kenny & moss, 1998).The foundation of the securities market in developing nations like Nepal is anticipated to increase savings in the local markets and boost the amount and superiority of savings in general (Yartey & Adjasi, 2007).

These further observed that the size of stock markets are the excellent forecaster of accumulation of funds, level of output, and GDP growth (Yartey & Adjasi, 2007) Recognized occurrence of a link between GDP and performance of stocks (carlin & Mayer, 2003). Financial institutions provide a stage in exchange for financial tools like debentures. It assists to mobilize the capital from areas with excess capital to areas with deficient capital and is employed in profitable investment. It assists in the public segment and private sector to enlarge output by boosting investments and eventually boosting economy (Kumo, 2009).

Relationship between growth of GDP and performance of stocks has received a huge attention by various scholars, they conclude that the function played by the performance of stocks should in boosting the GDP cannot go unnoticed. Performance of stocks is critical in performance of GDP as it has a crucial component in the theory put forward to increased output (Nazir, Nawaz, & Gilani, 2010) .Stock market is believed to be a key area whereby accumulation of funds can ease performance of GDP. Stocks in countries with low levels of income experts say, they are increasing at an increasing rate (Bhoyu, 2011). Nepal stock exchange (NPSE) is an institution regulation stock market in Nepal. It is normally believed that huge decrease in stock prices reflects recession in the future and rising securities prices are foremost factors for boosting the GDP (Siong & Thing, 2008). The improbability rooted especially during the 2009 economic recession was hugely

prompted by a huge slump in the prices of stocks as it was evident in the various securities markets across the world (Fuentes & Pereira, 2010).The stock markets are usually linked to the growth of economy via their function as the resource for capital formation. Further, the growth of an economy is the medium for growth of securities market (Osamwony & Abudu, 2013).

The stock market is viewed as institution which offers a platform for efficient allocation of capital (Howells, P; keith, B;, 2000).They further observed that borrower' access to funds which they in turn use to finance long term projects, while the savers utilize the stock markets to invest their surplus funds. Stock market offers both private firms and the public owned ones, the opportunity for raising funds which are used to finance long-term investments in the country. The economic performance as measured by GDP increases when sufficient capital is available in the market which in turn can be borrowed by both private corporations and the government for investment hence boosting economic growth and development (Vakidais, 2009).

Giitobu (2000) observed that the stock market is the intermediary between borrowers and savers for economic growth and development. They further encouraged those with surplus funds to invest their funds in the stock market which provide a better rate of return compared to the commercial banks. The stock market also provides an attractive capital to borrowers as equity is preferred to loans which are repaid with higher interests. Donwa & Odia (2010) argues that well developed stock markets boosts savings from a theoretical perspective. Savings have been established to be positively related to the growth of GDP (Mnuro, 2000), he reveals that stock market form a foundation for investment through savings. Savings are equal to investments, which leads to change in capital stock hence economic growth. Sustaining a stock market which is performing well drives growth in the economy by easing flow of finances from savers to borrowers. This however, comes after addressing various issues which hinder stock market performance especially in developing countries like Nepal. Some of these challenges include; political instability, economic recession and frail corporate governance practices in some of the market intermediaries and outdated policies which hinder stock market performance.

The need to determine the relationship between growth in the economy and stock market performance in Nepal is addressed by this research. Reason behind this was that, to have a well performing stock market, there must be economic growth and thus, investors must

be undertaking expansionary strategies requiring extra financing from the stock market whereas savers are believed to be having surplus capital for investment. Strong stock market performance especially in the periods of high economic growth is crucial in mending the allocation problem which ensures that borrowers access the available surplus funds from savers. The relationship between performance of stock market and growth in the economy in Nepal forms heart for this research.

1.2 Statement of the Problems

The long-term sustainability of economic growth of a country depends on the ability to raise the rates of accumulation of physical and human capital, to use the resulting productive assets more efficiently, and to ensure the access of the whole population to financial assets. Various researches & policy makers have focused a high rate of economic growth leads to a high demand for particular financial agreement or arrangement, and the well-developed financial sector will automatically respond to these types of demand. Since the introduction of both finance-led growth and growth-led finance hypothesis, the relationship between financial development and economic growth has been subject to the considerable debate in the literature of development and growth. Therefore, there exists a gap which this research study will address especially on how financial development relates on economic growth in Nepal. Due to lack of appropriate government policy & political uncertainty the Nepalese Stock Market has gone through fluctuating condition. During this research study period, there is lack of enough institutional investors in the market & more individuals investors are found in the Market; this is major drawback of the Nepalese Stock Market. This study is taken to examine the contribution of the Stock Market in the Nepalese economic growth. The previous studies have not viewed the stock's performance as the engine for the growth of GDP which would cause policy makers to turn their focus on the stock market performance as many past studies have mainly concentrated on the banking sector. There has been little study on the subject to specifically underpin the relationship thus; this study sought to fill that literature gap; Relationship between stock market performance and GDP performance in Nepal

This present study is carried out to answer the following research questions:

1. How can stock market influence the rate of economic growth in nepal?
2. What is the trend of stock market variables and economic growth in nepal?
3. What is the relationship between stock market and economic growth in nepal?

1.3 Purposes of the Study

The main purposes of the study are:

1. To analyze the stocks market's influence on the rate of Real GDP in nepal.
2. To study the trend of stock market variables and Real GDP in nepal.
3. To examine the relationship between stock market and Real GDP in nepal.

These objectives are tested with the following alternative hypotheses:

1.   H1: There is positive relationship between MC and Real GDP in nepal.
2.   H2: There is positive relationship between TT and Real GDP in nepal.
3.   H3: There is positive relationship between NOLC and Real GDP in nepal.
4.   H4: There is positive relationship between NI and Real GDP in nepal.

1.4 Significance of the Study

Stock market recognizes the situation of economy. When stock market is booming the economy is good and when stock market is declining the economy is bad. Stock markets have direct relation with the economic growth. Economic growths come with more earning capacity, opportunities to save and also the opportunity to invest. It must be noted that economic growth is, to a great extent, dependent on the industrialization in a country. It represents the need of study to find out the problem, prospects and growth in the near future. What policies can be formulated, what regulatory acts are needed and necessity of amendments regarding the rules and regulation to develop it and make the market perfect functioning.

This study is also of great significance to economists who can use this to forecast economic

performance by looking at the performance of the NEPSE index with an intention of determining the per capita income of Nepal in the future which can be used as proxy to a level of living standards of the citizens. Finally, the Study will be of huge importance to empirical work on the topic as not many scholars have concentrated on the relation between stocks performance and growth in GDP in Nepal. Financial statement should be maintained accordingly to fulfill the requirement of related partie's needed information.

This study will be useful to the university students who are curious to know about the current status of Nepalese stock market, its growth, issues and challenges for the development of stock market. Similarly, the recommendations that this study intends to propose on the basis of its findings are expected to be useful for the policy makers associated with the development of capital markets.

1.5 Limitations of the Study

The main limitations of the study:-

1. This study is fully based on the secondary data. Reliability of the finding depends upon the trustworthiness of the sources of data.
2. Only market capitalization, trading turnover, number of listed securities, NEPSE index variable are taken as independent variable and only real GDP is taken as dependent variable.
3. The study only covers the period of 1994/195 to 2017/2018(mid july)
4. This study is limited only to the determinants, trends, & situation of Stock Market in Nepal.
5. Only selected statistical tools are used.

1.6 Organization of the Study

This study will been comprised of five chapters, each devoted to some aspects of financial performance. The title of each of these chapters are summarized and the contents of each of these chapters of this study are briefly mentioned here.

Chapter-I: Introduction

This chapter will consist the study about introduction of the subject matter which include the basic information of the research area, various problems, objectives, limitations and organization of the study consisting of historical development of stock market in Nepal, a brief profile of the cited stock market is also included in this chapter.

Chapter-II: Review of Literature

This chapter deals with the review of available literature. It Includes review of previous unpublished master degree thesis, books, journal and articles etc.

Chapter-III: Research Methodology

The third chapter describes the research methodology adopted in carrying out the present research. It deals with research design, sources of data, data processing procedures, population and sample, period of the study, method of analysis and financial and statistical tools.

Chapter-IV: Results

The fourth chapter is concerned with presentation, analysis and interpretation of data. The segment where the data required for the study are presented analyzed and interpreted by using the tools and technique of financial management such as statistical tools i.e. coefficient of variation, correlation coefficient and regression analysis in specified form to meet the stated objectives of the study.

Chapter-V: Conclusion

The last chapter summarizes the main conclusion that flows from the Study and offers suggestion for further improvement and conclusion of the study. At the end of the chapters reference and appendix has been incorporated.

CHAPTER - II
REVIEW OF LITERATURE

2.1 Introduction

Review of literature means reviewing research studies or other relevant prepositions in the related area of the study so that all the past studies, their conclusions and deficiencies may be known and further research can be conducted. The main reason for a full review of research in the past is to know the outcomes of those investigations in area where similar concepts and methodologies have been used successfully. This chapter consists theoretical review and empirical review that forms the conceptual framework used by this study.

2.2 Theoretical Review

There are a number of theories explaining the stock market performance, its role as financial intermediation, stock market liquidity, capital formation, price stability, economic growth and creation of employment.

2.2.1. Finance and Growth: Schumpeter's View

The traditional growth models were concerned only with real variables such as capital, labor and investment. The role of finance in economic growth was first recognized by Schumpeter who viewed the credit creation function of banks as "the monetary complement of innovation" (Schumpeter, 1912). He stressed two important functions that financial sector performs in modern economies. Firstly, the development of financial sector enhances the efficiency of the process of financial intermediation between ultimate lenders and borrowers, by mobilizing savings, managing risk, screening and monitoring investment projects and reducing transaction costs. Secondly, financial sector acts as a provider of credit by which money is injected into the economy. According to him banks are more than just financial intermediaries; they are also producers of credit. Unless there is creation of new purchasing power by credits, financing of industrial development in modern economies would not have been possible. Therefore, the ability of the financial sector to create credit is also essential and in fact it becomes a pre-requisite for growth in modern credit money economies.

2.2.2. The Neo-Classical Perspectives

In the neo-Classical theory, Says' Law prevails and money is neutral in the long run. Real saving is the key variable determining investment and interest rate is the basic variable co-ordinating supply and demand for monetary funds. The nominal amount of investible funds is of minor importance as it is determined by the price level and it has no influence on the real economy in the long run. Thus, money creation by credit expansion of the financial sector is not a prerequisite for economic growth. However, within the neoclassical framework the existence of banks and other financial institutions is justified by the fulfillment of functions like transformation of primary securities issued by firms into secondary securities, screening and monitoring of investment projects, and providing of payment systems. The role financial institutions as providers of credit by which money is injected into the economy, is rejected in the neo-classical framework. Finance is not a constraint to investment, only real savings constrain real investment. But this constraint is fully warranted as it guarantees that only the most productive investment projects will be financed. There is no constraint, neither real nor monetary, to projects that are deemed to have higher returns as long as there are no market imperfections.

Therefore, the main function of financial institutions is to remove market imperfections like information asymmetries and to reduce transaction costs. Thus in spite of the minor role which money plays in the long-run analysis, financial activities might matter as they increase the efficiency of other economic transactions. Since the 1970s, the neo-Classical macroeconomics became heavily influenced by the rational expectations hypothesis of (Lucas, 1972). As a result the new Classical perspective emerged by incorporating the rational expectation hypothesis2 to the traditional macroeconomic theory. This perspective again trivialized the impact of monetary variables on the macro economy. Economic growth was analyzed in terms of real variables for which the financial sector is supposed to play a secondary role and can be neglected with out losing much explanatory power. (Modigliani & Miller, 1958) justified this view on a microeconomic level, concluding that firm's investment decisions are independent from their finance process. There are some major exceptions of neglecting finance in the analysis of growth in the new Classical framework itself, pioneered by (Gurley & Edward, Money in a Theory of Finance, 1960) , and later extended by (Goldsmith, 1996), (McKinnon, 1973) and (Shaw, 1973).However, these theories emphasized the financial intermediation function of

financial markets rather than the credit creation aspect, which was advocated by Schumpeter and later by the Keynesians.

2.2.2.1. The Modigliani-Miller Irrelevance Theory

Modigliani-Miller theorems justified the neo-Classical perspective of triviality of finance to real growth on a microeconomic level, which led to the conclusion that firm's investment decisions are independent from the finance process. Modigliani and Miller put forward two central propositions about the theory of finance. They showed that in fully developed capital markets under neo-Classical assumptions of perfect competition, absence of transaction costs and taxation, with full and symmetric information among all investors, the stock market valuation of the firm is independent of its financing decisions. The market value of a firm will be determined by earnings prospects and risk of its underlying real assets and would be invariant to its capital structure or the division between internal or external sources for financing its investment plans. It was also established that corporate growth and investment decisions are dictated completely by real variables such as productivity, demand for output, technical progress and relative factor prices of capital and labor. Finance in this framework simply facilitates the investment process and financial sector development simply enhances the efficiency of the intermediation process by removing imperfections, if any. The M-M theorem represents the neo-classical version of investment theory of corporate finance.

The M-M theorem also contrasted with the pecking order theorem or hierarchy hypothesis (Mayers & Majluf, 1984),one of the most prominent theorems of corporate finance. It suggested that firms always prefer internal to external finance, and if they had to use external finance, they would start with debt, then possibly hybrid securities like convertible debentures, and then equity as a last resort. The firm's capital structure and its dividend payout decisions, in this analysis are important variables, which has an independent influence on its share price.

New theoretical developments has been supported the pecking order view and invalidated the M-M theorems. When the restrictive assumptions like absence of taxation and financial distress are relaxed, it has been shown that, firm's capital structure becomes relevant. When corporate tax incentives that allow interest to be deducted as costs, firms seem to prefer debt finance. However, a high level of debt finance may increase

bankruptcy and financial distress during recession. This trade off leads to the necessity of an optimal debt-equity ratio to maximize a firms' stock market valuation. More complex considerations and new theoretical developments involving asymmetric information between insiders (managers) and outsiders (creditors or shareholders), problems of adverse selection, moral hazard, agency costs, signaling and transaction costs point to the significance of corporate capital structures and financial decisions for the real economy.

2.2.2.2. The Gurley and Shaw Propositions

Gurley & Shaw,(1960) analyzed the relation between growth of financial market activities and real economic growth and concluded that financial innovation is a dynamic process which causes, and being caused by, the development of the real sector. They observed that in poor and primitive environment, capital formation is accomplished primarily with entrepreneurs' savings. As economy develops, self-financed capital investment first gives way to bank-intermediated debt finance and later to the emergence of equity markets as an additional instrument for raising external funds. Thus at low levels of development, commercial banks are the dominant financial institutions. As the economy grows, specialized financial intermediaries and equity markets develop and prosper, contributing to higher industrial and economic growth. Gurley and Shaw Proposition state the co-movement of financial market development and economic development.

2.2.2.3. The McKinnon-Shaw Hypothesis

McKinnon (1973) and Shaw (1973) in separate but identical works, developed a theory of finance in the context of developing countries within the neo-Classical framework. They advanced three major propositions regarding finance and long-term growth. First, financial deepening, through growing financial intermediation and monetization of the economy, aids economic development. Second, financial repression, whereby in many third world countries the governments hold the interest rates in the organized banking sector artificially low and provide subsidized credits either to favored sectors or to themselves, is inimical to long-term economic growth. Third, liberalization of these repressed credit markets will foster development, since raising interest rates to their equilibrium levels leads not only to higher savings but also to more efficient use of

investment resources. According to (McKinnon, 1973) in repressed economies, bank credit becomes a financial appendage of certain enclaves- exclusively licensed import activities, specialized large scale mineral exports, highly protected manufacturing, large international co-operation and various government organizations or publicly controlled utilities. Even ordinary government deficits on current account frequently preempt the limited resources of the deposit banks. Financing of the rest of the economy must be met from the meager resources of moneylenders, and cooperatives. This phenomenon is termed as 'financial repression' by McKinnon. Financial repression restrains domestic savings within LDCs and generates pressure for reliance on foreign capital to supplement domestic savings and to provide intermediation services capable of identifying high return investment opportunities.

McKinnon-Shaw propositions are based on the underlying classical assumptions that savings determine investment and that a full utilization of resources is always guaranteed, and hence subjected to severe criticism from the Keynesian economists. They also point out that higher interest rates following liberalization may not always increase aggregate savings. Later empirical studies also show that in many countries which have liberalized their credit markets and increased real interest rates, does not registered a systematic rise in aggregate savings as indicated in the M-S propositions.

2.2.3. The Keynesian Perspectives on Finance and Growth

In current macroeconomics, there exist different versions of Keynesian tradition, ranging from post-Keynesians to more mainstream oriented new Keynesians. Keynes himself was ambiguous as far as the influence of financial development on the real economy is concerned. On the one hand he stressed the importance of finance process in enhancing the level of development and on the other hand he was worried about the malign influence of speculative activities in the financial markets on enterprise.

2.2.3.1. New Keynesian Perspective

Keynes, in his General Theory, rejected the neo-Classical view that saving determines investment. According to him investment is essentially determined by businessmen's profit expectations and by expected demand. Interest rate does not possess the fundamental power of efficiently coordinating decisions to invest and to save for the

whole economy as in the neo-Classical theory. Hence, increasing the level of investment requires increasing the availability of finance in the Keynesian perspective. The availability of finance influences the course of investment because many investors face a finance constraint, which can only be relaxed by credit from financial institutions, especially banks. Such institutions hold the key position in the transition from a lower to a higher scale of activity. This monetary aspect of production has been further elaborated by the new Keynesians. They rejected the Modigiliani-Miller proposition that the capital structure of a firm is irrelevant to its real growth. The new Keynesians showed that the availability of appropriate kind of finance could constrain a firm's growth or investment plans. Therefore, the finance process also matters to real economic activity and cannot be neglected if investment in real capital and consequently, the growth process is to be explained satisfactorily. However, the development of financial activities is not interpreted as an unmixed blessing in the keynesian perspective. The economy is prone to volatility and speculative bubbles as profit expectations become overly optimistic or pessimistic. "Speculators do not harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done." (Keyness, 1996).

2.2.3.2. Post-Keynesian Perspective

The pessimistic aspect of the Keynesian analysis became popular among the post Keynesians, especially since the 1980s when the financial markets showed signs of speculative practices. The 'crowding out hypothesis' framed by (Tobin, 1965), stated that at times when financial assets offer higher returns than real investment projects more money will be invested in financial capital, which will reduce the money available for real investment in plant and equipment. This will hurt the real economy by negative multiplier effects. Yet another possibility of negative impact of financial market (mainly stock market) is presented in the 'casino' hypotheses. When speculative bubbles emerge on stock markets, the prices fail to accurately reflect the underlying real variables. In such cases, speculative growth dynamics guided by irrational behavior develops, which may harm the real economy, as it is in danger of becoming the by-product of a casino.

Keynes himself was worried about the short-termism of financial markets. Financial market often attracts short-horizon speculative traders as these markets allow for sequential trading. Prices react very quickly to a variety of information influencing expectations on financial markets. Therefore, prices on financial markets tend to be volatile and enable profits or losses within very short time periods. Due to the increasing importance of financial markets, managers also take the short horizon of financial markets as their guideline for decision making, because financial markets only value short- term success. If financial markets undervalue long-term investments, managers will undervalue them too, which may harm the long-term perspectives of companies (Biswanger, 1999) .

A more carefully formulated argument regarding the source of financial instability was given by (Minsky, 1986). According to him during economic booms, as full employment is approached, debt commitments start to outstrip the income flows necessary to service them. This happens because expectations become too euphoric in terms of real profit opportunities, which are constrained by the growth of productivity, while the extension of credit is not. Therefore, credits are increasingly used for speculative and compensatory spending and not for financing real investment projects. The financial structure hence becomes increasingly fragile and the business cycle culminates in a debt deflation that induces a downturn. All these hypotheses tend to establish a negative correlation between financial sector development and real economic growth. However, this negative correlation is not supposed to hold under all economic conditions, but they describe a period in economic development when the financial sector is supposed to grow at the cost of the real sector.

2.2.4. New Growth Theory and Finance
The co-movement of real and financial sectors has been recently stressed by the new growth theories. These models recognized the role of financial markets as intermediaries that channel savings towards investment, rather than their role as providers of credit envisaged in the Keynesian perspective. Development of the financial sector is supposed to increase the efficiency of this intermediation process. The exact link between financial development and economic growth varies among different new growth models as these models allow financial markets to solve a variety of informational and risk problems, the

final result being an increase in real productivity and long-term economic growth. Existing theoretical work has identified various mechanisms to explain the positive incidence of financial intermediation on economic growth, such as loosening of liquidity constraints, risk diversification and risk amelioration, project monitoring and exertion of corporate control.

2.2.5. Endogenous Growth Framework and Finance

The emergence of the endogenous growth literature in the nineties further buttressed the finance-growth nexus. The endogenous growth theories allowed for various policy influences on economic growth such as human capital and education (Lucas,1988), (Schultz, 1991),international trade (Romar & Rivera, 1989),and financial markets (Greenwood & Boyan, 1990). Empirical works in the endogenous growth framework emphasized the influence of financial markets in promoting economic growth by raising the productivity of capital, lowering of intermediation cost and by enhancing the saving rate. However, all these studies focused on the role of banking system in the intermediation process. The focus shifted to capital markets, especially stock markets, thanks to the universal enthusiasm for stock markets in the 1990s. The failure of the existing style of financial intermediation through Development Finance Institutions (DFIs) and the bank-based interventionist systems in many developing countries, resulted in a restructuring of these systems in favor of capital market based financial intermediation. Also the urge of countries to attract foreign capital in non-debt creating forms provided an extra impetus to the development equity markets worldwide. All these inspired academic interest in the various aspects of stock market development. Serious empirical investigations in this line have begun only in 1995, with the efforts of the World Bank3 to study of the linkages between the functioning of stock market and economic development in detail.

2.2.6. New Functional Approach to Stock Market and Growth

The functional approach suggests that stock markets and such financial institutions emerge to ameliorate the problems created by information and transaction frictions in the market. Stock markets ease these problems through the provision of four functions: facilitating risk melioration, acquiring information about investment and allocating

resources, monitoring managers and exerting corporate credit control, and mobilizing savings. Provision of these functions affects economic growth through two channels: capital accumulation and technological innovation. Stock markets affect capital accumulation either by altering the saving rate or by reallocating savings among different capital producing technologies (Levine, 1997).Various functions performed by stock markets also alter the rate of technological innovation. Four main channels through which stock market affect long run economic growth according to this school are discussed below.

Facilitating risk amelioration: Stock markets ease the trading, hedging and pooling of liquidity and idiosyncratic risk associated with investment. Liquidity risks that arise due to the uncertainties associated with converting assets into a medium exchange can be eliminated through liquid capital markets4. With liquid capital markets, savers can hold assets that they can sell quickly and easily if they need access to their savings. Simultaneously, capital markets transform these liquid financial instruments into long term capital investments in illiquid production process. Besides reducing liquidity risk stock markets also mitigate the risks associated with individual projects, firms, industries and countries. Stock markets serve as vehicles for trading, pooling and diversifying risk (Devereux & smith, 1994) Greater risk sharing facilitates more efficient capital allocation. Acquiring Information about Investments and Allocating Resources: Large and liquid stock markets induce investors to acquire information about firms which will help them identifying the best projects. The ability to profit from information will stimulate investors to research and monitor firms. Better information about firms will improve resource allocation and spur economic growth (Merton, 1987). Opinions differ however, over the importance of stock market in stimulating information. (Stiglitz, 1985) argues that well-functioning stock markets quickly reveal information through price changes. This quick public revelation will reduce incentives for expending private sources to obtain information.

Diamond & Verrecchia(1982) and Jenson & Kevin (1990) show that efficient stock markets help mitigate the principal-agent problem. Efficient stock markets make it easier to tie manager compensation to stock performance. This helps align the interests of managers and owners. Also takeover threats induce managers to maximize the firm's equity price. Thus well-functioning stock markets that ease corporate takeovers can

mitigate the principal agent problem and promote efficient resource allocation and growth.

Mobilization of Savings: Large, liquid and efficient stock markets can ease savings mobilization. By agglomerating savings, stock markets enlarge the set of feasible investment projects. Since some worthy projects require large capital injections and some enjoy economies of scale, stock markets that ease resource mobilization can boost economic efficiency and accelerate long run economic growth (Goldsmith, 1996). However, studies also show that new equity issues account for a very small fraction of corporate investment (Mayer, 1988)

2.2.7. Stock Market and Macro Economic Variable

The link between stock market and macro economy is far from being straightforward. Traditional models focused on correlation studies to find the nature of relationship between stock prices and macro economic variables. Studies aimed to find out the direction of causal relationships between stock prices and macro variables emerged recently with the emergence of econometric tools like co-integration, causality and error correction models.

2.2.7.1. Stock Prices and Money Supply

There are two theoretical explanations on the relationship between stock prices and changes in money supply: The Central Bank Intervention Hypothesis and The Portfolio Disequilibrium Hypothesis. Central Bank Intervention Hypothesis (Pearce & Roley, 1983) states that central bank often react to unexpected increases in money supply to suck the excess liquidity from the market. This anticipated intervention of the central bank, which results in higher expected short term interest rates in the future, cause longer term yields to rise immediately with a subsequent negative impact on stock prices. This is generally due to the increase in discount rates as a result of the rise in interest rates, Since, stock prices are assumed as the discounted present value of future benefits which accrue to the stockholders. Hence, share prices decline in response to the rise in discount rates and in the absence of corresponding rise in future earnings of the firm. A positive relationship between stock prices and money supply is stated by the Portfolio Disequilibrium Hypothesis (Cooper, 1983).Stock prices will rise due to disequilibrium in

the public's portfolio of cash, financial and other assets triggered by unexpected increase in money supply. This portfolio disequilibrium causes investors to shift out of money holdings to financial and other assets thus pushing up their prices in the process.

2.2.7.2. Stock Price and Inflation

The Classical economic theory regarded the real value of equity as being invariant to inflationary or deflationary changes in the price level, so that in principle its current money value changes in proportion to relative changes in the general price level of the economy. This conclusion rested essentially on three basic proportions- first, the real returns from ownership of capital goods will be invariant to general price level, since these returns depend fundamentally on production functions or input-output relations and factor proportions that are invariant to the general level of prices, Second, the real market value of these ownership claims would be equal to these real returns on capital goods capitalized at the real rate of interest. Third, the real rate of interest is invariant to the price level. The basic conclusion of the Classical position that the nominal prices of common stocks will vary directly with changes in the index of general price level is retained and found in many studies. However theoretical changes occurred in the 1980's after the seminal work of (Linter, 1978).Many empirical studied revealed a negative association between stock prices and both expected and unexpected components of inflation. One of the explanations for this negative relationship is the information effect (Jaffe & Mandelker). Unexpected increase in inflation often provoke government or central bank reaction in the form of changes in fiscal or monetary policy or both. For instance, the central bank may resort to open market operations to contain the expansion of money supply, pushing up the interest rate in the process. The rise in interest rates may increase the interest cost of capital in the short run and adversely affect the cash flows in the long run as firms resort to cuts in interest sensitive capital expenditures.

Portfolio Adjustment Hypothesis of (Summers, 1981) states that increased inflation raises the expected return on alternative assets such as real physical assets. Investors, therefore, make changes in their portfolios by shifting out of equity holdings and investing the funds released in the process in other assets. This portfolio adjustment results in a decline in share prices. The proxy hypothesis of (Fama, 1970)states that the negative relation

between stock returns and inflation proxy for the positive relation between stock returns and real variables, which are more fundamental determinants of equity values.

2.2.7.3. Stock Prices and Exchange Rate

There are two important theoretical explanations regarding the possible inter linkages between stock prices and exchange rates –The Flow Oriented or Goods Market model (Dornbusch, 1980), explaining the likely impact of exchange rate on stock prices and Stock Oriented or Portfolio Balance Model (Branson & Henderson, 1985), and justifying the impact in reverse direction.

The Goods Market Model argues that as many companies borrow in foreign currencies to fund their operations, a change in exchange rate affects the cost of funds and value of earnings of many firms, which in turn affect the competitiveness of a firm and its stock prices. A depreciation (appreciation) of local currency makes exporting goods more (less) attractive to foreigners. The resultant increase (decrease) of foreign demand of goods raises the revenue of firms, value of firm appreciates and thus stock prices increase. The sensitivity of an importing firm to a change in exchange rate is just opposite to that of an exporting firm, Therefore, on a macro basis, the impact of exchange rate fluctuations on stock market depends on both the importance of a country's international trade and the degree of its trade imbalance.

The Portfolio Balance Model assumes the existence of an exchange rate regime that allows exchange rate to be determined by market mechanism. Under such free demand and supply condition, a blooming stock market would attract capital flows from foreign investors, which may cause an increase in the demand for a country's currency, resulting in an appreciation of the currency. The reverse would happen in case of falling stock prices where the investors would try to sell their stocks to avoid losses and would convert their money into foreign currency to move out of the country, leading to a depreciation of the currency.

2.2.7.4 Efficient Market Hypothesis

More recently, stock market reactions to macro economic variables are studied in the framework of the Efficient Market Hypothesis (EMH) developed by (Fama E. F., 1991). EMH is primarily developed in the context of stock market-money nexus. It ruled out any

overriding negative influence of money supply on stock prices. An efficient stock market, according to EMH, expected to reflect the readily available information on monetary growth rates, interest rates and the expectations formed from them. Only the unanticipated changes in these variables are likely to generate observable changes in the stock prices. If the stock market is informationally efficient with respect to macroeconomic policies, then stock prices will quickly incorporate any change in the macroeconomic variables, once the information regarding it becomes publicly available. Past information about these variables is of no use in explaining current fluctuations in stock prices in an efficient market since this information is already included in past prices. On the other hand in an informationally inefficient market past information is useful in predicting current movements in stock prices since there exists a lag in the adjustment of stock prices to new information. Three different forms of efficiency are currently defined- weak form, semi-strong form and strong form (Peevey, 1993). A market is said to be weak form efficient if current prices fully incorporate the information contained in the past price history. A market is said to be semi-strong form efficient if prices fully reflect publicly available information such as macroeconomic performance related information, fiscal and monetary policy pronouncements, industry-specific information, etc. A market is said to be strong form efficient if investors cannot earn excess returns using information which they have exclusive access to. In such a situation past price history of independent variables will not affect the stock prices.

Theoretical perspectives on stock market and economic factors thus present multitude of versions incorporating various dimensions such as corporate investment decisions, risk amelioration, savings mobilization, asymmetrical information, speculation, and market efficiency. Though the importance of finance in economic activities has been increasingly recognized in modern theories in contrast to the traditional view of triviality of finance, there is ambiguity regarding way in which finance influence decisions by economic units.

The global financial integration wave of the day makes this relationship more critical and complex. The present study is made in the framework of the new functional approach to stock market. It also uses the endogenous growth framework to test the independent contribution of stock market development to economic growth. The causal link between

stock prices and macro economic variables are studied in the efficient market framework, specifically in the semi-strong form.

Determinants of Economic Growth

According to (Rodrik, 2003) the neoclassical model is often preferred by many scholars because of its ease in finding the key factors for growth in GDP. Moreover, those advocating for the endogenous growth models commend them for their ability to incorporate policy, institutional factors and technological progress as the main determinants of economic growth (Barrow, 1996).

The classical economists also insist on the importance of savings to the country according to (Levine & Renelt, 1992) and (Sala-i-Martin, 1997) recognize savings and investment as major factors. Private venture is often seen as the driver of economic progress, while public investment provides the required infrastructure for the economy to grow. (Howells & Keith2000) noted both private and public investment have are close relationship, as public venture may case provision of infrastructure for the private sector or crowd out by increasing capital cost to the private investors. Public investment has either positive or negative affects private investment (Sala-i-Martin, 2003). Communal savings in human capital lead to formation of positive spill overs which develop the performance of individual firms. As a result, it clearly reveals that there exists a positive correlation linking savings and growth in GDP (Barro, 1991, 1996, 2003; Artadi and Sala-i-Martin, 2003).

Foreign aid is also an aspect believed to have a positive relation with economic growth. It relaxes any constraint that may arise on the economy (Bachha, 1990). The limitation on savings occur as is the probable scenario in countries with low GDP per capita, these countries have low savings which deficient to congregate investments in the public sector; it plays a significant role as it relaxes the domestic savings constraint. (Kathurimn, 2010) revealed that constraints arising from the foreign exchange due to the need for imported capital goods or services and earnings from foreign exchange may be too low; aid falls in this category of foreign exchange whereby high levels of imports are allowed into the country. The constraints arising from fiscal decisions have impact on savings; foreign aid helps in financing public investment thus discouraging the government from raising revenue to finance a deficit budget thus aid comes in handy to relax this constraint. However, (Chenery & Strout, 1966)point out that in less developed

countries, foreign aid of technological support can calm down this limitation and boost economic performance. Thus from the above discussion, we can conclude that aid has a direct relation to investment which leads to economic growth (Hjertholm, P., Laursen, J., and White, H, 2000). (Gomanee, Morrisey, Mosley, & Verschoor, 2005) in their study revealed foreign aid has positive impact on GDP growth especially in developing countries through providing funds to public investments. (Elbadawi, 1999) argues that foreign aid in East African countries has a negative effect on exchange rate as it leads to its appreciation making the exports more expensive and thus hampering growth of GDP. Export is also a factor that has impact private investment hence growth in GDP. Endogeneous theory, countries with open trade experience many advantages compared to closed trade in terms of efficiency gains due to labor specialization and increased competition from international companies; there is also technological transfer; economies of scale also due to business expansion, and also gain of knowledge through globalization (Piazolo, 1995; Zhang and Zou, 1995; Harrison, 1996; Frankel and Romer, 1999). Furthermore, increased competitiveness which occurs due to this openness may negatively affect performance of domestic companies or even kill them ((Harrison, 1996).A lot of research has been done on this field tends to concentrate on exports, imports represent imported technology and acts as an intermediary goods and even at times used for investment purposes thus boosting economic growth.

2.3 Review of Empirical Works
2.3.1 International Context
Levine and Zervos (1996) examined empirical association between stock market development and long-run economic growth, using pooled cross country time-series regression of forty-one countries from the period of 1976 to 1993. The finding revealed a strong correlation between overall stock market development and long-run economic growth, implying a positive relationship between stock market development and economic growth. The results suggest a comparatively strong link between the functioning of stock markets and economic growth.

(Demirgue-Kunt & Vojislar, 1996) investigated the relationship between stock market development and financing choices of firms, using data from forty-four developing and

industrial countries during the period from the time period of 1986 to 1993.using Correlation coefficients analysis are used analyze between various indicators of financial intermediary Development. The study discovered that initial improvements in the functioning of a developing stock market produce a higher debt-equity ratio for firms and thus more business for banks, while for stock market that are already developed, further development leads to a substitution of equity for debt financing. It recommended that produces a set of stylized facts that facilitates and stimulates research into the links among stock markets, economic development, and corporate financing decisions.

Agarwal (2001) examined the relationship between stock market development and economic growth using a time series cross-section data for nine African countries from 1992-1997.The study used a simple correlation test on stock market indicators (market capitalization/GDP, total value traded/GDP, and turnover ratio), and macroeconomic variable; economic growth and control variables (investment as a proportion of GDP, FDI and primary school enrolment). The correlation results find that the stock market capitalization/GDP and value traded/GDP are correlated to investment. Due to the direct correlation between investment and economic growth, stock market development is correlated with investment and in turn with economic growth. It recommended that the government should play a more positive role in order to foster stock markets. Even though, having recognized the importance of financial markets for economic growth many developing countries have increased their efforts towards improving the financial systems of their countries to stimulate economic growth, they have mainly focused on banking systems reforms -removing interest rate controls, reducing government involvement in credit allocation, minimizing taxation of financial intermediaries, managing bank insolvency, now they need to focus on stock markets. Policymakers should encourage stock market development.

Caporale et al (2004) investigated the causal relation between domestic capital, commercial bank performance and economic growth. The study used an econometric technique to test for the causality linkage between stock markets and economic growth even in the presence of unit roots. The finding inference that financial liberalization causes savings or investment or growth, or that financial intermediation causes growth,

drawn from bivariate causality tests may be invalid, as invalid causality inferences can result from omitting an important variable. It recommendation to which well-functioning stock markets can promote economic development by fuelling the engine of growth through faster capital accumulation, and by tuning it through better resource allocation.

Gevit (2007) examined the unidirectional causality between GDP and stock prices implies that the level of economic activity in a country, can potentially depend on the stock market amongst other variables. Two variables are considered in this study, namely nominal GDP and stock market indices, with the relationship between them being tested by the Granger Causality test. The findings therefore call for an effective and efficient regulatory framework that prevents the occurrence of runaway prices in domestic stock markets. Given that stock prices appear to Granger cause GDP, the occurrence of bubbles and busts in financial markets is likely to exacerbate volatility in economic activity. It recommended that have a number of policy implications for both the monetary authorities and the national governments. The fact that stock prices Granger cause GDP can be due to two underlying reasons. The first reason may be that the stock market is a good predictor of GDP emanating from the fact that, in line with Equity Valuation Models, stock price valuation depends on expected future dividends. Hence, such causality may possibly result from the fact that expected future dividends are a good proxy of future economic activity as measured by GDP. Different stock market analysts use a myriad of different techniques in order to project the future trading prices of specific stocks. Some involve complex algorithms while others are based on intuition and market experience.

Mohtadi & Agarwal (2004) examined the capital market & economic growth in developing countries using a panel data approach that covers 21 emerging markets 21 years (1977-1997). The study found that turnover ratios is an important & statistically insignificant determinant of investment by turn are significant determinant of greater growth. Foreign direct investment is also found to have a strong positive influence an aggregate growth. The result of their study indicates that both turnover ratio & foreign direct investment are important variables as determinants of economic growth. It recommended to the policy maker to intervene the related policy with investment and

financial design. It is because both variables are interrelated each other and give impact to the growth of economy in a country.

Deb & Mukherjee (2008) examined the relationship between stock market development & economic growth for the Indian economy using quarterly data for the period 1996 to 2007, used real GDP growth rate as a proxy for economic growth & real market capitalization ratio, real total value traded ratio & stock market volatility as stock market indicators. Applying Granger non-causality test proposed by (Toda & Yamamoto, 1995)to determine the direction of causality, the results suggested a bi-directional causation between real stock market capitalization ratio & economic growth at 1% significance level. The implication of both studies is that economic growth & stock market development are mutually dependent. Moreover, both studies shows that economic growth leads to stock market development measured by stock index & value traded ratio at 5% level of significance in Pakistan & India, respectively.

Nowbutsing and Odit (2009) examined the impact of stock market development on growth in Mauritius utilizing a time series econometric investigation over the period of 1989 -20067,used regression model for analysis .They analyzed both the short run and long run relationship by constructing an Error Correction Model. They found that stock market development positively affected economic growth in Mauritius both in the short run and long run.

Mishra et al (2010) examined the impact of Capital Market Efficiency on economic growth of India using the time series data on market capitalization, total market turnover & stock price index over the period spanning from the first quarter of 1991 to the first quarter of 2010. Used multiple regression model Shows that the capital market in India has the potential of contributing to the economic growth of the country. The finding of high market capitalization and relatively high market liquidity. Thus, the market organizations and regulations should be such that large number of domestic as well as foreign investors enters the market with huge listings, investments, and trading so that the very objective of optimal allocation of economic resources for the sustainable growth of the country can be ensured. The study recommendation that the policy implication may

be that the market regulators, credit rating agencies, and policy makers should ensure the formulation and execution of prudential norms so that the capital market efficiency would contribute to the sustainable economic growth.

Odhiambo (2010) investigated the direction of causality between the stock market development & economic growth in South Africa. using autoregressive distributed lag model(ARDL) for analysis time series data from the time period 1971 to 2007.The findings of this study are consistent with the conventional supply leading response in which the financial sector is expected to precede & induce the real sector development. The results apply irrespective of whether the regression analysis is conducted over the short or long run. Its recommendations aim at prudential monetary policy, taxation policy having great influence on investors' participation in stock market and the policy regulating the institutional investor's activities.

Mohammed (2010) examined an empirical analysis of the relationship between economic growth and its determinants, with special focus on stock market development in Pakistan. Using data for the period from the time period of 1971 to 2006, employ FMOLS and ARDL bounds-testing for the long run relationship and ECM for the short run dynamics. This finding suggests that there exist significant positive relationship between Stock Market Development & Economic Growth. The empirical result Stock Market liquidity has positive effect on economic growth. Its recommendation that the findings indicate that a proper policy of financial reforms likely to accelerate economic growth. Policy makers in other developing countries. which have a similar economic structure, pursue suitable financial reforms to improve economic growth in their respective countries.

Sahu & Dhiman (2011) examined the causal relationship between stock market indicators and macro economic variables of India by using both correlation and Ganger Causality regression techniques for the period 1981 to 2006. The findings of this study reveal that there is no causal relationship between stock market indicator i.e. SENSEX of Bombay stock exchange and real gross domestic product of India despite they being highly correlated. Therefore it is concluded that BSE SENSEX cannot yet be called as an "indicator" of India's growth and development

Kolapo & Adaramola (2012) investigated the capital market on economic growth relationship in Nigeria from 1990 to 2012 using time series analysis. Used to measure the capital market variables namely, Market Capitalization (MCAP), Total New Issue (TNI), Value of Transactions (VLT), Total Listed equities (TLE), & Government Stocks (LEGS). The Economic Growth proxied by Gross Domestic product (GDP). They used the Johansen co-integration & Granger Causality Tests in the analysis. The result showed that the Nigerian capital market & economic growth are co-integrated. This finding also showed that positive impact; the capital market plays on the economic growth of the country.

Bernard & Austin (2012) examined the Role of Stock Market Development on Economic Growth in Nigeria with the objective to measure the relationship between Stock Market Development indices & Economic Growth. The method of analysis used is Ordinary Least Square (OLS) technique. Using the variables Stock Market Capitalization Ratio, Value Traded Ratio, Turnover Ratio & Growth variable used Gross Domestic Product. This empirical results indicates that Market Capitalization & Value Traded Ratio have very weak negative correlation with economic growth. Also, Stock Market Capitalization has a strong positive correlation with Stock Turnover Ratio. This result implies that liquidity has propensity to spur economic growth in Nigeria & that market capitalization influences market liquidity.

Achugbu & Austin (2012) investigated the role of stock market development on economic growth of Nigeria using a 15-year time series data from 1994 - 2008. The method of analysis used is Ordinary Least Square (OLS) techniques. The study measures the relationship between stock market development indices and economic growth. The stock market capitalization ratio was used as a proxy for market size while value traded ratio and turnover ratio were used as proxy for market liquidity. The results show that market capitalization and value traded ratios have a very weak negative correlation with economic growth while turnover ratio has a very strong positive correlation with economic growth. Also, stock market capitalization has a strong positive correlation with stock turnover ratio. This result implies that liquidity has propensity to spur economic

growth in Nigeria and that market capitalization influences market liquidity. We should view with caution the notion that stock market size is not significant for economic growth since multi-co linearity exists in the data used for this analysis.

Bayar,etal (2014) examined the relationship between Stock Market Development & Economic Growth in Turkey during the period 1999-2013, by using Johansen Juselius Co integration Test & Granger Causality Test. They used to measure the Growth variable namely, Real Gross Domestic Product (RGDP) & Stock Market Development variables namely, Stock Market Capitalization, Total value of Stock Traded & Turnover Ratio. These empirical results indicate that there is a long run relationship between economic growth & stock market capitalization, total value of stock traded, turnover ratio of stocks traded & also there is unidirectional causality from stock market capitalization, total value of stocks traded & turnover ratio of stock traded to Economic Growth.

Nguyen & Pham (2014) examined the causality relationship between stock market development and economic growth in Canada and Australia based on the time series data for the period of 1981 Q3 to 2012 Q3. The results of Granger causality test suggest the causality between stock market development and economic growth in Canada but it is not the case in Australia. The results indicate that stock market and economic growth has long-run relationship and that the stock market development does help improve the future growth in some developed countries.

Silva,etal(2017) identified the relationship between stock market performance and economic growth and to analyze how stock market performance affect to the economic growth. Econometric technique of simple regression model and correlation analysis was used to analyze the data using SPSS software with companies listed in the Colombo stock exchange for a period of sixteen years from year 2000 to 2015. Findings of the study are parallel with the previous literature that discloses a strong positive relationship between stock market performance and economic growth of Sri Lanka. This study lengthens the literature, providing valued information to economists in developing countries and to the academia.

Osakwe and Ananwude (2017) examined the long run relationship between stock market development and economic growth over a period of thirty five (35) years was explored in this study. Secondary data were sourced from Nigerian Stock Exchange (NSE) and National Bureau of Statistics (NBS) were analyzed using Autoregressive Distributive Lag (ARDL) model. From the analysis performed, the depth of development in Nigeria's stock market has positive but insignificant relationship with economic growth both in short and long run.

2.3.2 National Context

Paneru (2003) examined about stock market and economic growth. He focused the study on the importance of development stock market in overall economic growth. They found that the size of primary as well secondary market has the positive, influence on the overall size of the economic. This further states that increasing issue of equity by firms indicates that the investors are willing to take part in the investment process and thus drive the economic force and strongly performing stock market helps prevail the optimism in the overall economy.

Sindurkar (2004) investigated the relationship between stock market and economic growth, particularly at the role of stock market in economic growth. He used only correlation analysis and time series analysis in the study. It concludes that the significant relationship does not exist between GDP and NEPSE index. However, the relationship of GDP with market capitalization and number of listed companies is significant. The correlation between economic growth rate and turnover velocity is unexpected and insignificant.

G.C. & Neupane (2006) examined the existence of causality relationship between stock market and economic growth in Nepal based on the time series data for the year 1988 to 2005, employing Granger causality test and using an equally weighted single indicator of three stock market development indicators; the average of ratios of market capitalization to GDP, annual turnover to GDP and the annual turnover to market capitalization. The study finds the long-run integration and causality of macroeconomic variables and stock

market indicators even in a small capital market of Nepal, implying that the stock market plays significant role in determining economic growth and vice versa.

Regmi(2012) examined causal relationship between stock market development and economic growth in Nepal for the period 1994-2011, using unit root test, co-integration, and vector error correction models and developing NEPSE composite index as an indicator of stock market development. The finding suggests that stock market development has significantly contributed to the economic growth in Nepal. In this perspective, a refined policy measures should be adopted to strengthen and improve the role of stock market in order to expedite and maintain the strong growth of the economy.

Shrestha & Subedi (2014) examined the determinants of the stock index (NEPSE) in Nepal using monthly data for the period of mid August 2000 to mid-July 2014. In order to incorporate the major changes in politics and NRB's policy on lending against collateral of shares, two dummy variables have also been used. The correlation analysis shows the existence of the significant relationship between the NEPSE index and macro variables chosen for the study such as Consumer Price Index, Broad Money and Treasury Bill Rate. Time series properties of selected variables have been examined. Moreover, empirical results obtained from OLS estimations of behavioral equations reveal that the NEPSE index is found to respond positively to inflation and broad money growth, and negatively to treasury bills rate. This suggests that, in Nepal, share investors seem to take equities as a hedge against inflation and consider stock as an alternative financial instrument. More importantly, stock market has been found to respond significantly to changes in political environment and the policy of NRB.

Rana(2014) examined the long-run co-integrating relationship between stock market development and economic growth in Nepal. Using 26 annual observations on the time series of real GDP, market capitalization, annual turnover from Mid-July 1988 to Mid-July 2013, the results of co-integrated regression showed that both stock market size and liquidity can predict the economic growth of Nepal over the sample period. Employing Engle-Granger procedures, the study also concluded that stock market size and liquidity are co-integrated with economic growth of Nepal and hence they are interrelated with
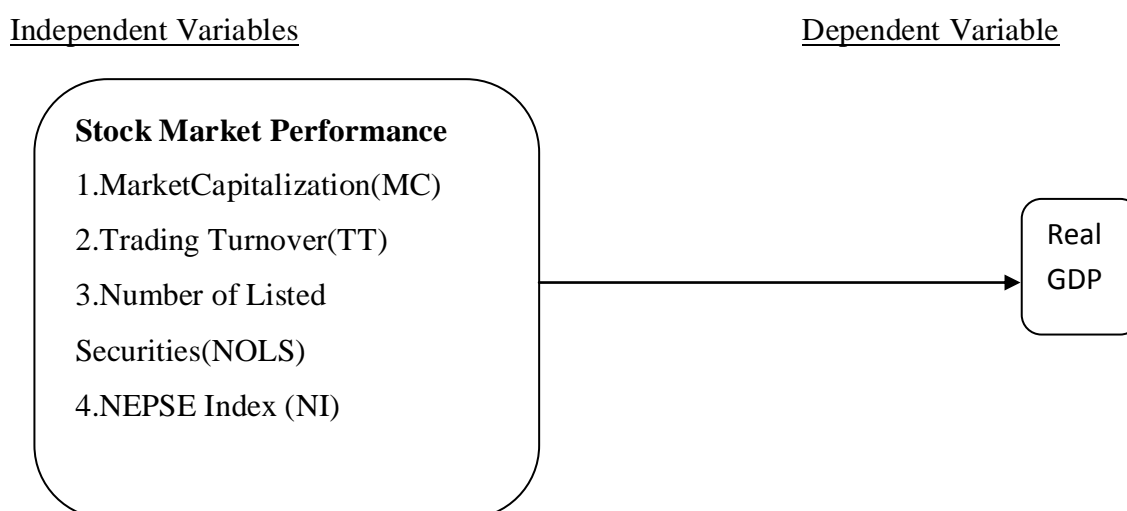
each other in the long run. Besides, the Johansen's method of co-integration test also confirmed the stable long-run equilibrium.

2.4 Research Gap

Despite some valuable studies on stock market and economic growth of Nepal, there remains a large scope for research on various areas related to the Nepalese stock market and economic growth in Nepal. Especially regarding the movements in the stock market with economic variables, very few studies have been done in the past. There is a gap of time period which is fulfilled by this study. The economic scenario is also changes through time. The using tools of this study are also different from other previous studies. The study incorporates the relationship between stock market and economic growth in Nepal. Also Nepal's stock market has been undergoing significant changes in the last few years with the introduction of new rules and bylaws, improvement in the infrastructure of trading and entry of mutual funds and market makers. This research will attempt to fill the research gap by exploring the relationship of the NEPSE index with economic variable using the updated stock market data of Nepal.

2.5 Theoretical Framework
Fig 2.1: Theoretical Framework

Independent Variables   Dependent Variable

Stock Market Performance
1.MarketCapitalization(MC)
2.Trading Turnover(TT)
3.Number of Listed
Securities(NOLS)
4.NEPSE Index (NI)

Real
GDP

Source: Machuki, D.M. (2016)

The study proposed that economic growth in Nepal is determined by stock market performance; market capitalization (X1), Trading turnover (X2), number of listed

securities (X3) and NEPSE index (X4). Market capitalization (MC) is the product of the stock price and the total number of outstanding shares. Gross Domestic Product (GDP) is the total valuation of goods produced or services provided in a certain country, whereby, the real growth rate being used as a measure of the economic growth. Trading turnover (TT) measures the value of total shares traded in the securities market as a percentage of stock market capitalization. Number of listed securities (N0LS) total number of companies listed in stock market. NEPSE index (NI) is Prices of selected stocks usually a weighted average.

CHAPTER - III
RESEARCH METHODOLOGY

Research methodology is a process of arriving to the solution of problem through planned and systematic dealing with the collection, analysis and interpretation of the facts and figures. This chapter contains the research design, empirical model, and measurement of variables, study population, data collection instruments, data analysis techniques and presentation.

3.1 Research Design

Research design refers to the entire process of planning and carrying out a research study. To carry out the study descriptive, co-relational and analytical research design has been employed. For the purpose of description and conceptualization descriptive and analytical research design is used. However, for the purpose of analyzing the relationship between the variables of stock market development and economic growth, co-relational research design is used. It is also chosen to investigate the causality between stock market indicators and growth indicators.

The study adopted a test of cause in order to analyze the existence of the relationship between Stock market performance and economic growth in Nepal over a twenty three year period from the year 1994-2017. The reason for this method is that in business, the relationship is often ambiguous and there is therefore,a need to develop some understanding on the relationship under the study so as to better explain, predict and control the variables under study (Cooper & Pamela, 2003)The significance of the study is to assist investors, government and all other stakeholders involved in making decisions on policy directions and predictions on both the stock market and economy using the variables under study.

3.2 Population and Sample

The study mainly based on the secondary data. The transaction of the stock in the Nepalese stock market started form the fiscal year 1994. As this study is about the contribution made by the stock market in the economy, time period of the study will be from the 1994 to 2017. As the study will be related to the aggregate values of the economy as well as the aggregate values of stock market activities. The required data are collected on the variables such as GDP, capitalization, turnover ratio stock, no of listed

securities and market index. The data on the variables such as stock market volatility has been derived by using appropriate relationship. The supplementary data and information have been acquired from various sources like;

• Trading reports of NEPSE.

• Annual reports of SEBO/N.

• Economic survey 2017, Fiscal Year 2016/17(Government of Nepal, Ministry of Finance)

• Nepal Rastra Bank's Economic Report.

• Previous research studies and dissertations. • Articles and journals available in different library.

• Central bureaus of statistics.

• Different Websites.

3.3 Source of Data

The study is based on the secondary data only. As the study is related to the aggregate values of the economy as well as the aggregate values of stock market activities,there is no need for primary data. The required data are collected on the variables such as Real GDP, market capitalization, turnover stock ratio, Per capita Income, no of listed securities and NEPSE index. The data on the variables such as stock market volatility has been derived by using appropriate relationship.

3.4 Method of Analysis

In order to analyze the correlations between GDP performance and stock performance, we used SPSS software. Quantitative data analysis methods were used in the analysis of this study which included descriptive statistics and inferential statistics. Descriptive statistics included frequencies, measures of central tendencies (mean, medium or mode) and measures of dispersion (standard deviation, range and variance. Inferential statistics included correlation, regression and analysis of variance to find out the relationship of the variables. The data was presented by utilizing pie-charts, figures and tables which were not only useful but also effective in exhibiting the results of the research. Graphs and tables were utilized to present the data analyzed.

3.4.1 Conceptual model

Econometrics is a discipline of statistics, specialized for using and developing mathematical and statistical tools for empirical estimation of economic relationships, testing economic theories, making economic predictions, and evaluating government and business policy. The first known use of the term "econometrics" (in cognate form) was by Polish economist Paweł Ciompa in 1910. Jan Tinbergen is considered by many to be one of the founding fathers of econometrics.

The general econometric model used in the study is as follows: $Y = f(x)$

Where:

$Y = f(X_1, X_2, X_3, X_4)$

Y - Gross Domestic Product

X_1 - Market capitalization

X_2 - Trading turnover

X_3 - Number of Listed Securities

X_4 - NEPSE index

3.4.2 Empirical model

Thus the general econometric model:

$y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$

Where:

Y – Real Gross Domestic Product

α_0 - constant

β_1 - β_4 - Co-efficient

X_1 - Market capitalization

X_2 - Trading turnover

X_3 - Number of Listed Securities

X_4 - NEPSE index

CHAPTER – IV
RESULTS

The main objective of the study is to determine whether stock market performance leads to economic growth in Nepal. To respond to this objective, the study makes the analysis of market capitalization, trading turnover, number of listed securities and NEPSE index with Real Gross domestic product (Real GDP). The collected data are presented in systematic manner and analyzed by using different appropriate tools and techniques.

4.1 Trend Analysis

Trend analysis is the method of collecting data and attempting to spot a pattern in the data for future predictions. Analysis is generally used for predicting future events but can also be used to estimate past data of two dates under king's regime. Therefore, to examine the relations between Real GDP and stock market indicators (market capitalization, trading turnover, no. of listed companies and NEPSE Index). While measuring trend analysis, simple line trend analysis is performed as below.

4.1.1 Trend Analysis of Real GDP

Figure 4.1: Trend of Real GDP
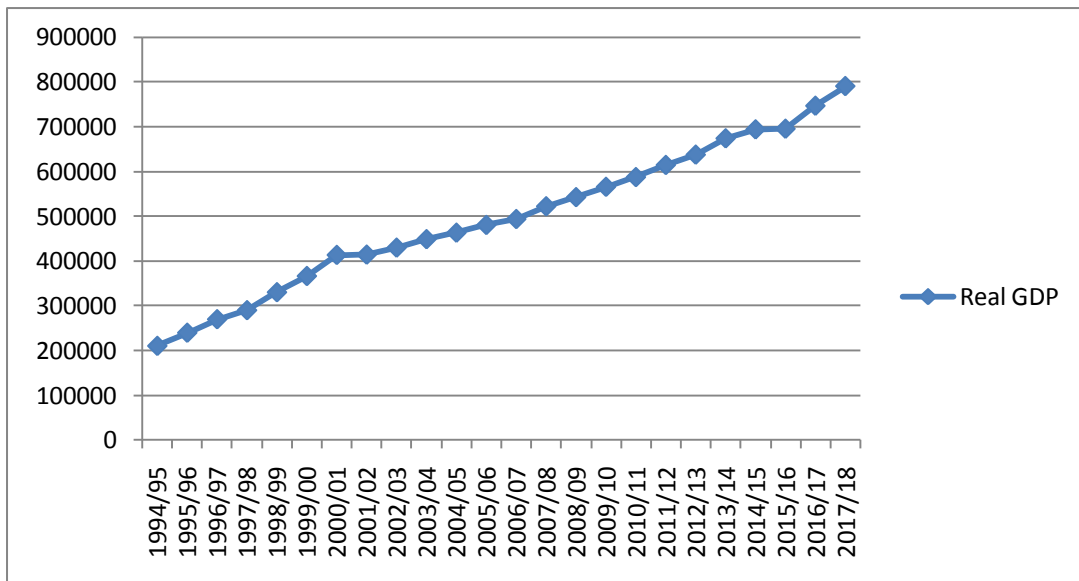
Source: Appendix I & II

Figure 4.1 shows that GDP was increased from starting period to ending period of study i.e. GDP with 209,974 in 1994/95 to 2017/18 is 791,144. In 2000/01 and 2001/02 GDP remained constant and than after it smoothly increased. So the trend of GDP in Nepal is growing at satisfactory level.

4.1.2 Trend Analysis of Market Capitalization

Figure 4.2: Trend of Market Capitalization
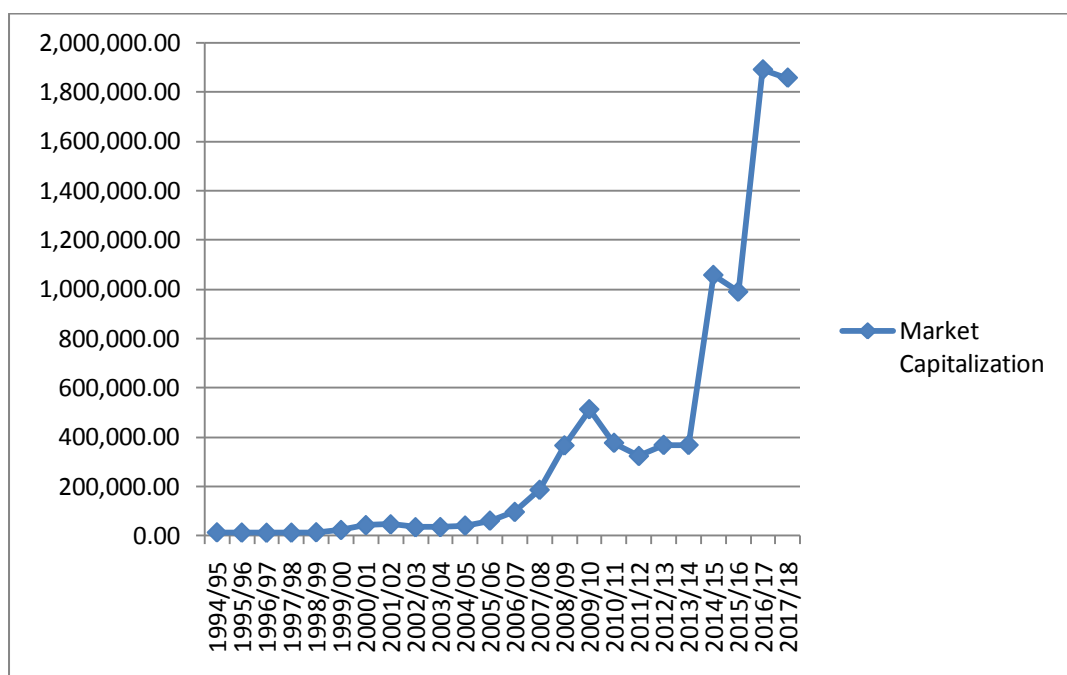
Source: - Appendix I & II

Figure 4.2 shows that the market capitalization (MC) is constant throughout 1994/95 to 2005/06 then it slightly increased from the fiscal year 2006/07. MC reached at level of 512,939.10 on 2009/10 then declined for some fiscal years. Again from 2014/15, MC increased in increasing rate and reached at highest point of MC 1,890,130 in 2016/17 with some static position on year 2014/15 to 2015/16. It shows MC is in increasing trend in recent year but remain constant on year 2017/18. So it presents a positive sign during study period through the stock market in Nepal.

4.1.3 Trend Analysis of Trading Turnover

Figure 4.3 Trend of Trading Turnover
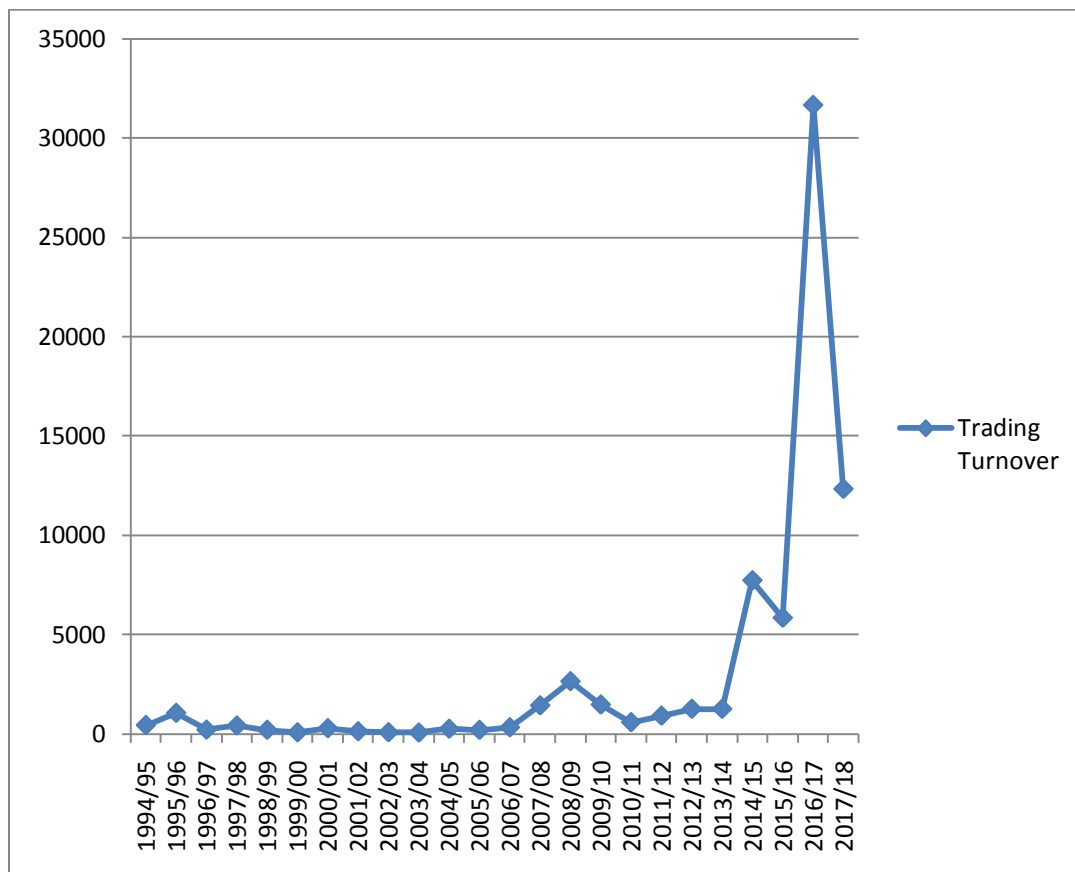
Source: - Appendix I & II

Figure 4.3 shows that the Trading Turnover Ratio (TT) remains constant throughout 1994/95 to 2007/08 then it is slightly increased from the fiscal year 2008/09. There are some fluctuations on TT until 2016/17. In 2016/17 TT reached at highest point of graph with TT 31,656 but it drastically decreased in 2017/18 with 12,331.40.So it presents a positive sign during study period through the stock market in Nepal except in the year 2017/18.

4.1.4 Trend Analysis of No. of Listed Companies

Figure 4.4 Trend of No. of Listed Companies
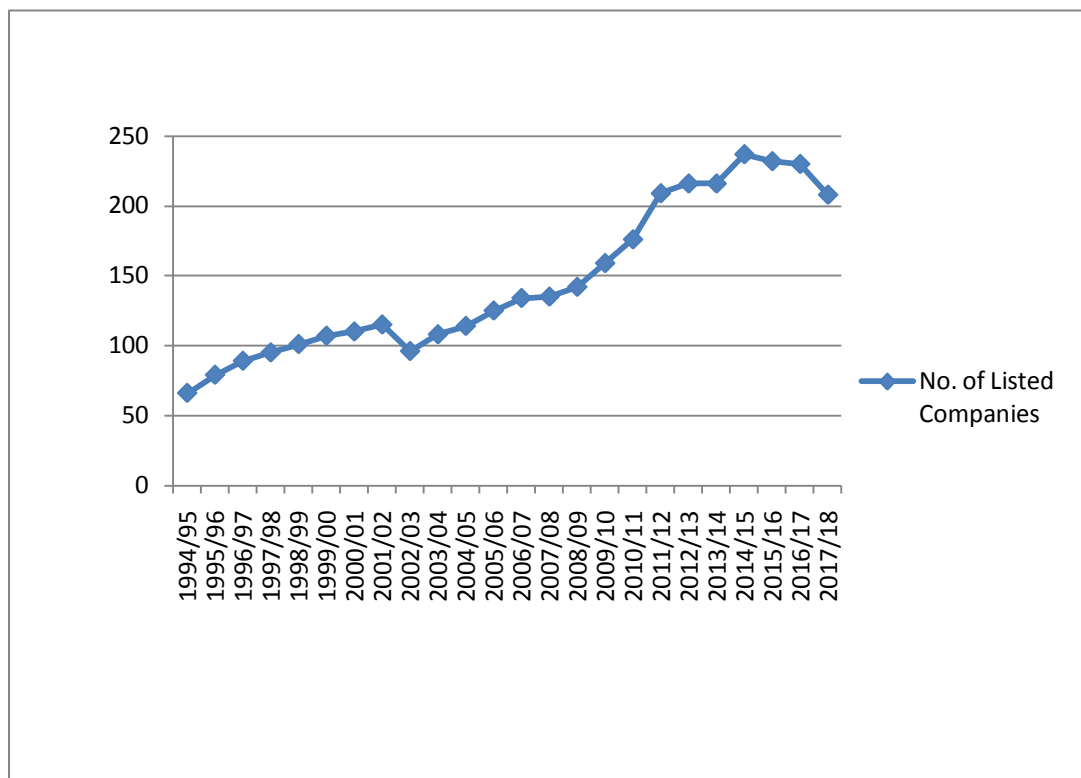
Source: - Appendix I & II

Figure 4.4 shows that the No. of Listed companies (NOLC) is slowly increasing regularly from the starting point of the study over the study period. But from 2001/02 to 2002/03, it is decreasing and thereafter it is slightly increasing in increasing rate until 2014/15 reaching highest point of 237. After that it is slightly decreasing in increasing trend. So NOLC presents that the no of companies listed in NEPSE are in increasing rate except from the year 2015/16 to 2017/18.

4.5 Trend Analysis of NEPSE Index

Figure 4.5 Trend of NEPSE Index
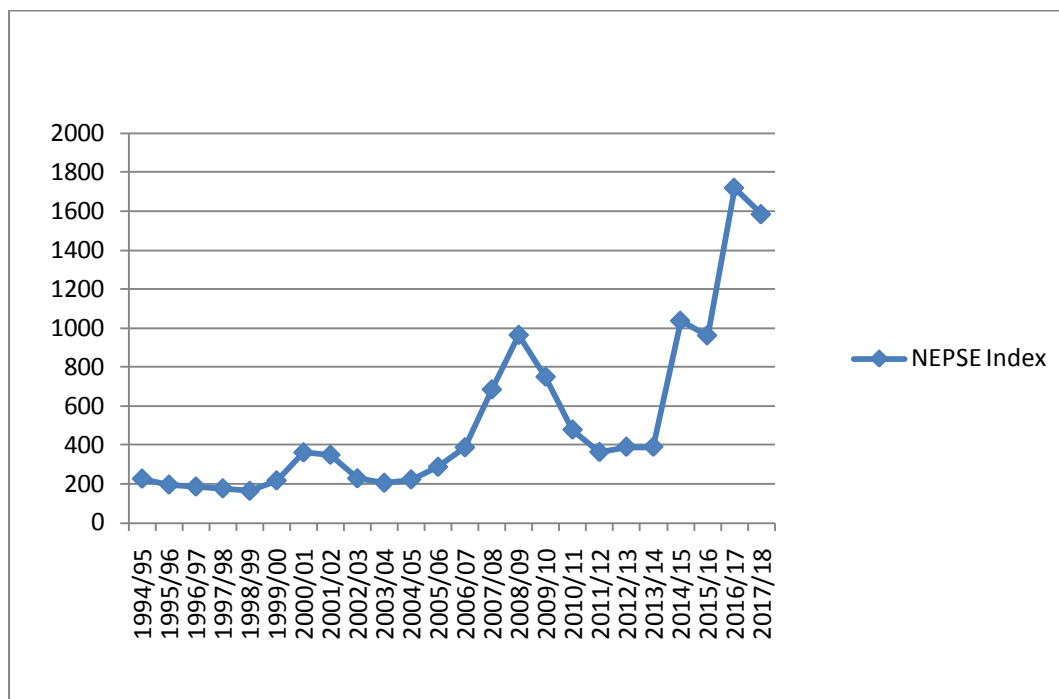
Source: - Appendix I & II

Figure 4.5 shows that the NEPSE Index (NI) is slightly decreasing from the year 1994/95 through 1998/99. After that, it is slowly increasing over the study period with some fluctuation in between. From 2001/02 to 2003/04 it is decreasing and thereafter it is slightly increasing until 2008/09. After that it is decreasing in increasing trend until 2011/12. Again after that, it is constant in the period 2012/13 to 2014/15. NEPSE index increased and reached the highest point to 1800 in 2016/17. In the ending period it is slightly decreased. So NI presents a positive sign for the stock market.

4.2 Descriptive Statistics

Descriptive statistics are brief descriptive coefficients that summarize a given data set, which can be either a representation of the entire or a sample of a population. Descriptive statistics are broken down into measures of central tendency and measures of variability (spread). Measures of central tendency include the mean, median, and mode, while measures of variability include the standard deviation, variance, and the minimum and maximum variables.

Presentation of Minimum value, Maximum Value, mean, Standard Deviation and Coefficient of Variation of the selected indicators of stock market development and economic growth are presented on table 4.1.

Table 4.1 Descriptive Statistics.

	N	Minimum	Maximum	Mean	Std. Deviation	Coefficient of Variation(CV)
Real GDP	24	5.32	5.90	5.67	0.16	2.80
MC	24	4.09	6.28	5.05	0.74	14.60
TT	24	1.81	4.50	2.84	0.72	25.19
NOLS	24	1.82	2.37	2.13	0.16	7.73
NI	24	2.21	3.24	2.60	0.31	11.92

Source : - Appendix III

Table 4.1 shows the clear picture of the statistics of the economic growth indicator and selected stock market indicators. The data include the period from 1994 to 2017 of Nepal. The table shows that minimum of GDP, MC, TT, NOLC and NI are 5.32, 4.09, 1.81, 1.82 and 2.21 respectively and maximum of GDP, MC, TT, NOLC and NI are 5.90, 6.28, 4.50, 2.37 and 3.24 respectively.

Arithmetic mean is average of random variable which can be used for further analysis. The arithmetic mean of gross domestic product, Market capitalization, Trading Turnover, No. of listed companies, and NEPSE index are 5.67, 5.05,

2.84, 2.13 and 2.60 respectively. All the data are presented in rupees, NEPSE index in points and NOLC is in number.

Standard deviation measures the variability of the observations around the mean value. The standard deviation of gross domestic product, Market capitalization, Trading Turnover, No. of listed companies, and NEPSE index are 0.16, .74, 0.72, 0.16 and 0.31 respectively, which is also used for further analysis. The coefficient of variation (CV) is the relative measure of dispersion. The CV of gross domestic product, Market capitalization, Trading Turnover, No. of listed companies, and NEPSE index are 2.80, 14.60, 25.19, 7.73 and 11.19 respectively.

Hence the table 4.1 shows substantial variance among the growth and stock market development indicators. The trading turnover has the highest CV of 25.19 %, which represents there is high fluctuation of the trading turnover among the study period. In another words, there is 25.19% variation of the amount of trading turnover among study period. Similarly the GDP has the lowest CV of 2.80%, which represents there is less fluctuation of No. of Listed Companies among study period. In another words there is 2.80% variation in amount of GDP among study period.

4.3 Correlation Analysis

Correlation coefficients between each of the variables are computed to determine any kind of association. The dependent variable is real gross domestic product and independent variables are market capitalization, trading turnover, no of listed companies and NEPSE index for the period of twenty four years from 1994/1995 to 2017/18.

Table 4.3.shows correlation coefficients between the various variables of the study. The coefficients give estimates of the intercepts and the slope coefficients. The standard error column gives the standard error (the standard deviation) of the estimated regression coefficients.

The correlation results are presented in the matrix form in Table 4.3.

Table 4.2 : Correlation Matrix

		Real GDP	MC	TT	NOLC	NI
Real GDP	Correlation	1	0.930[**]	0.609[**]	0.945[**]	0.790[**]
	Sig. (2-tailed)		0.000	0.002	0.000	0.000
	N	24	24	24	24	24
MC	Correlation	0.930[**]	1	0.821[**]	0.938[**]	0.927[**]
	Sig. (2-tailed)	0.000		0.000	0.000	0.000
	N	24	24	24	24	24
Trading Turnover	Correlation	0.609[**]	0.821[**]	1	0.712[**]	0.870[**]
	Sig. (2-tailed)	0.002	0.000		0.000	0.000
	N	24	24	24	24	24
No. of Listed Companies	Correlation	0.945[**]	0.938[**]	0.712[**]	1	.774[**]
	Sig. (2-tailed)	0.000	0.000	0.000		0.000
	N	24	24	24	24	24
NEPSE Index	Correlation	0.790[**]	.0927[**]	0.870[**]	0.774[**]	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	24	24	24	24	24

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

Table 4.2 presents the correlation among the dependent and independent variables. Obviously, this table shows correlations between the economic indicator GDP with selected stock market indicators: Market Capitalization, Trading Turnover, No. of Listed Companies and NEPSE Index. The interesting correlation prevail between market capitalization (MC) and Real GDP.

The correlation coefficient between MC and GDP is 0.930. The correlation of MC with GDP is meaningful. In the context of this significant relationship, few inferences can be made. First, as the MC is the product of market prices of shares multiplied by the outstanding number of shares and if the firms are performing strongly in a bull market, it passes an optimistic message to the general investors who tend to invest more in the stock market firms. Though the correlations of

stock market indicator MC with the GDP is high degree of positive correlation. The result of this is that market capitalization is significantly and positively correlated with gross domestic product.

Another indicator of stock market development is trading turnover (TT) which equals to the trading value of the stocks in domestic share market divided by market capitalization. It measures trading relative to the size of the market. A high turnover is the indicator of the more liquid market. The correlation coefficient between TT and GDP is 0.609,though the correlations of stock market liquidity indicator TT with GDP is positive correlated. Which shows both variable changes in same direction an over the period.

Some other indicators of stock market are also related to the economic growth indicator. The No of Listed Companies (NOLC), which is equal to the number of companies listing into the stock market (NEPSE) for trading their securities through the market, has significant correlations with GDP. The correlation coefficient between NOLC and GDP is 0.945. This relation shows higher NOLC is regarded as the good indicator of stock market that contributes positively towards the economy. If more companies are involved in the stock market then GDP will also increase. Therefore, there is high degree of positive correlation. The relationship between the NEPSE Index (NI) and GDP is positive and significant which indicates towards the high positive relation between stock market index and growth. For instance, the coefficient of correlation between NI and GDP is 0.790. This relation shows that higher NI is regarded as the good indicator of stock market that contributes positively towards the economy. So, higher the NI in the stock market, higher will be the GDP. Therefore, high positive correlation is certain.

So stock market efficiency is closely related to the efficiency of the economy. Therefore, the strong and positive relationship exist between the stock market indicators and the indicators of economic growth is just as respectable and acceptable because they are all positively related with GDP.

4.4 Analysis of the Regression Results:

Regression results are found through the Ordinary Least Square (OLS) technique. Results presented regression analysis of economic growth on stock market performance in Nepal.

Table 4.3: Analysis of Regression

Model		Coefficients	Standard Error	t stat	P-value
1	(Constant)	3.88	0.27	14.46	0.00
	MC	0.12	0.07	1.70	0.11
	TT	-0.10	0.02	-9.42	0.00
	NOLC	0.54	0.19	2.84	0.01
	NI	0.11	0.10	1.08	0.29

It shows the coefficients of the independent variables. The regression model can be written mathematically as:

$GDP = 3.88 + 0.12X_1 + (-0.10X_2) + 0.54X_3 + 0.11X_4$

Coefficient of regression of GDP on MC is positive i.e. 0.12. While determining GDP, the impact of MC is positive that shows increase in MC leads to increase in GDP. This regression of coefficient has 0.07 as SE, which measures the variability of the observed values around the fitted line of regression. This coefficient's t-statistic is 1.7 and p-value is 0.11. So, t-statistic is significant and p-value is not significant at 5% significance level.

Coefficient of regression GDP on TT is negative with -0.10. While determining GDP, the impact of TT is negative that shows that the increase in TT leads to decrease in GDP. This regression coefficient has 0.02 as SE, which measures the variability of the observed values around the fitted line of regression. This coefficient's t-statistic is -9.42 and p-value is 00. So, t-statistic is not significant and p-value is significant at 5% significance level.

Coefficient of regression GDP on NOLC is positive i.e. 0,54.while determining GDP its impact is positive that shows increase in NOLC leads to increase in GDP. This regression of coefficient has 0.19 as SE, which measures the variability of the observed

values around the fitted line of regression. This coefficient's t-statistic is 2.84 and p-value is 0.01. So, t-statistic is not significant and p-value is significant at 5% significance level.

Coefficient of regression GDP on NI is positive i.e. 0.11. NI has positive impact on GDP that shows increase in NOLC leads to increase in GDP. This regression of Coefficient has 0.10 as SE, which measures the variability of the observed values around the fitted line of regression. This coefficient's t-statistic is 1.08 and p-value is 0.29. So, t-statistic is significant and p-value is not significant at 5% significance level.

Table 4.4: Significance of the model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.979	0.96	0.95	0.04

Table 4.4 shows R^2: = 0.979. This means that the model using stock market variable could be used to explain 97% of the variability of economic growth. We can therefore say that Stock market variable has a large bearing on economic growth.

Table 4.5: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.56	4.00	0.14	111.92	0.000[b]
	Residual	0.02	19.00	0.00		
	Total	0.58	23.00			

a. Dependent Variable: Real GDP
b. b. Predictors: (Constant), NEPSE Index, No. of Listed Companies , Trading Turnover , Market Capitalization

ANOVA (analysis of variance) is used to report quantities related to the overall explanatory power and significance of the regression model. Since p-value is less than 0.05 (critical level of significance) it is concluded that there is significant relationship between economic growth and stock market.

Table 4.5 shows F- value of 111.9, with a corresponding p-value of 0.000, which means that the overall fitness of the model is well justified .This means that the model using stock markets to measure economic growth can be relied on to explain the variability in economic growth. This drives to the call on the stakeholders to increase their attempts to develop the stock market performance. In general, the regression analysis results revealed that the stock market performance have relation to economic growth.

4.5 Major Findings of the Study

1) It can be said that increasing in stock market can significantly influence the RGDP. That mean,if the stock market grows,real GDP also grows.

2) The trend of GDP in Nepal is growing at satisfactory level in period of study. MC and TT remain constant and some fluctuation seen starting period of study. Then MC and TT both are on increasing trend in recent years.

3) The correlation coefficient of market capitalization (MC) with GDP is 0.930. The coefficient is positive and significant.

4) The correlation coefficient of Trading Turnover (TT) with GDP is 0.609. The coefficient is positive and significant.

5) The correlation coefficient of No. of Listed Companies (NOLC), the major indicator of stock market with GDP is 0.945. The coefficient is positive and significant.

6) The correlation coefficient of NEPSE Index (NI), the composite indicator of secondary stock market with GDP is 0.790. The coefficient is positive and significant.

7) The estimated coefficients of GDP on TT have negative and unexpected signs. This is -0.10. The value of t-statistics for MC is insignificant at 5% level of significance which is unexpected part of the study.

8) The estimated coefficients of MC, NOLC and NI on GDP have positive and expected signs. Which are 0.12, 0.54 and 0.11 respectively. The values of t-statistics of MC and NI are significant at 5% level of significance. While NOLC is insignificant.

4.6 Discussion

In Nepalese's economy, there is significant relation between performance of GDP and the stock market indicators with existing relation between GDP growth and performance of the stock market. This drives to the call on the stakeholders to increase their attempts to develop the stock market performance. In general, the regression analysis results revealed that the stock market performance have significant relation with economic growth as measured by Real GDP.

1) The estimated coefficient of GDP on MC has positive with expected signs. The casual relation tells us that, with the increase in the size of the market as measured by MC, the size of the economy as measured by GDP also increases. This result supports theoretical assumption of (Bayar, Kaya, & Yildrlm, 2014) .These results are consistent with his assumption.

2) The estimated coefficient of GDP on TT also has negative with unexpected signs. The casual relation tells that with the increase in the size of the market as measured by TT, the size of the economy as measured by GDP also decreases. This result is supported by the study of (Sindurakar, 2004) which concluded correlation between economic growth and trading turnover is unexpected and insignificant.

3) The estimated coefficient of GDP on NOLC has positive sign. The casual relation tells that with the increase in the size of the market as measured by NOLC, the size of the economy as measured by GDP also increases. This result supported by study of (Kolapo & Adaramola, 2012) which showed us that the positive impact; the capital market plays on the economic growth of the country.

4) The estimated coefficients of GDP on NI have positive and expected signs. The casual relation tells that with the increase in the size of the market as measured by NI, the size of the economy as measured by GDP, also increases. This result supports by study of (Levine & Zervos, 1996). The result suggests a comparatively strong link between the functioning of share index and economic growth.

CHAPTER – V
CONCLUSION

This chapter will handle the summary, conclusion and recommendations of the study.

5.1 Summary

The study aimed to determine relationship between performance of stock market and growth of the economy in Nepal as measured by the Real GDP. Out of stock market variables, the selected variables are Market capitalization, Trading turnover, No. of listed securities and NEPSE are used for the study. The trading of shares of stocks take places in the stock market, on one hand, it directly provides liquidity to the investors who provide funds for the establishment of the productive enterprises, and on the other hand, encourage savers to save more and enterprise economic units to start productive ventures. To carry out the study descriptive and co-relational research design has been employed. Only Secondary data are used for the study as a period of 1994/95 to 2017/18 (Mid July). The study was carried out using the regression analysis technique.

The correlation coefficient of all explanatory variables: market capitalization (MC) ,Trading Turnover(TT), No. of Listed Companies (NOLC) and NEPSE Index (NI) are all significant and positive with 0.930,0.609, 0.945,0.790 respectively on Dependent variable –Real GDP. The findings from the OLS regression, one variable TT was negatively signed with -0.10 respectively. This proves that there is negative impact on the growth of the economy with TT. Conversely, the variables MC, NOLC & NI were positively signed with 0.12, 0.54 and 0.11 respectively. Implying positive effects & statistically significant at 5% level with the growth of the economy.

5.2 Conclusion

The study findings from the research reveal a link exists between performance of stock market and GDP performance economic growth. From the statement above it can be clearly seen that stock market indicators can be used to predict the economic growth. As such, this means that stock market can be applied in predicting GDP performance.

Results from this study concur with other studies as revealed in chapter 4.Though issues of GDP are vital in the prospects and judgment of savers, the stock market play a major

role in boosting the GDP hence more attention should be channeled towards its improvement. The results from the study also concur with existing theories discussed earlier as revealed by the endogenous growth theory and as well as Gurley and Shaw Hypothesis. The findings above reveals huge prospective that the NEPSE play in economic development thus the nation should encourage a tradition of saving among its citizens and as a result improving investments as savings are directly proportional to investments. Despite, that the banking industry is superior among the financial institutions, the results from this research highlight the role played by the performance of the stocks in boosting economic growth.

5.3 Implications

On the basis of above analysis and findings of the study, following implication can be drawn out.

I. Stock market ought to be improved through encouraging more private limited liability companies, informal sectors operators & more foreign investors to participate in the market, maintain state of the art technology like automated trading & settlement practice, electronic fund clearance & eliminate physical transfer of shares. It helps to increase the number of listed companies and hence increases the GDP.

II. In Nepal there is only one secondary market; that is Nepal Stock Exchange, which is centralized in Kathmandu and few other cities. Thousands of investors outside these selective cities are suffering due to not having an easy excess to secondary market. All investors outside these selective cities should be accessible to invest in securities transaction. There is no another way for them to participate in the secondary market. This will increase the trading turnover of the stock market. It is costly as well as risky too. Therefore secondary market should be expected at least in each province to expand its services.

III. Trading obstacles such as high transaction costs should be reviewed to encourage more active trading in stocks. Providing maximum possible information, transparency and corporate governance should be made available to the investors at minimum possible costs. Timely and regular discourse of the information

should be made necessary for the participating firms. Provisions should be made so as to necessitate the organizations to disclose their financial data at least quarterly. All the necessary organisms should be set up for the efficient functioning of the market and prospective and incumbent investors should be made more aware about the functioning mechanism of the market. It will enhance the effective functioning of Nepal Stock Market and its index.

IV. The stability on the Nepalese political and economic system enhanced the investment environment for public sectors, private sector and multinational companies to invest in Nepal. This will definitely increase the market capitalization and in-turn it increases the GDP.

V. Further study can be conducted in this area to explore more about the relationship between stock market and economic growth in Nepal, by adding more variables like rate of inflation and fixed capital formation, by employing other statistical tools and by increasing the period of the study.

APPENDIX – I

Indicators of Stock Market Fiscal year 1994 to 2017

In Million Rupees

Year (Mid July)	No. of Listed Companies	Paid-up Value of Listed Shares	Market Capitalization	Trading Turnover	NEPSE Index*
1994/95	66	2,182.20	13,872.00	441.6	226
1995/96	79	2,961.80	12,963.00	1,054.30	195.5
1996/97	89	3,358.50	12,295.00	209.9	185.6
1997/98	95	4,476.50	12,698.00	416.2	176.3
1998/99	101	4,959.80	14,289.00	202.6	163.4
1999/00	107	6,487.40	23,508.00	73.8	216.9
2000/01	110	7,347.40	43,123.30	283.7	360.7
2001/02	115	7,939.00	46,349.40	128	348.4
2002/03	96	8,680.20	34,704.00	80.9	227.5
2003/04	108	11,898.00	35,240.00	64.7	204.9
2004/05	114	12,016.00	41,425.00	255.5	222
2005/06	125	16,776.00	61,365.90	198	286.7
2006/07	134	19,958.00	96,763.80	327.9	386.8
2007/08	135	21,746.00	186,301.30	1,432.10	683.9
2008/09	142	29,465.00	366,247.60	2,648.20	963.4
2009/10	159	61,140.00	512,939.10	1,475.20	749.1
2010/11	176	79,786.00	376,871.40	586.4	477.7
2011/12	209	100,238.00	323,484.30	913	362.9
2012/13	216	110,610.00	368,262.10	1,258.50	389.7
2013/14	216	126,064.00	368,262.10	1,258.50	389.7
2014/15	237	146,519.70	1,057,165.80	7,729.20	1,036.10
2015/16	232	179,689.70	989,404.00	5,845.10	961.2
2016/17	230	204,019.60	1,890,130.00	31,655.80	1,718.20
2017/18	208	289,590.40	1,856,829.40	12,331.40	1,582.70

Source: Nepal stock exchange

APPENDIX – II

Indicators of Stock Market & Economic Growth

In Million Rupees

Year (Mid July)	Real GDP	Market Capitalization	Trading Turnover	NEPSE Index*	No. of Listed Companies
1994/95	209974	13,872.00	441.6	226	66
1995/96	239388	12,963.00	1,054.30	195.5	79
1996/97	269570	12,295.00	209.9	185.6	89
1997/98	289798	12,698.00	416.2	176.3	95
1998/99	330018	14,289.00	202.6	163.4	101
1999/00	366251	23,508.00	73.8	216.9	107
2000/01	413428	43,123.30	283.7	360.7	110
2001/02	414092	46,349.40	128	348.4	115
2002/03	429699	34,704.00	80.9	227.5	96
2003/04	448654	35,240.00	64.7	204.9	108
2004/05	463165	41,425.00	255.5	222	114
2005/06	480435	61,365.90	198	286.7	125
2006/07	493651	96,763.80	327.9	386.8	134
2007/08	522260	186,301.30	1,432.10	683.9	135
2008/09	542652	366,247.60	2,648.20	963.4	142
2009/10	565759	512,939.10	1,475.20	749.1	159
2010/11	587534	376,871.40	586.4	477.7	176
2011/12	614637	323,484.30	913	362.9	209
2012/13	637771	368,262.10	1,258.50	389.7	216
2013/14	674227	368,262.10	1,258.50	389.7	216
2014/15	694269	1,057,165.80	7,729.20	1,036.10	237
2015/16	695688	989,404.00	5,845.10	961.2	232
2016/17	747107	1,890,130.00	31,655.80	1,718.20	230
2017/18	791144	1,856,829.40	12,331.40	1,582.70	208

Source : NEPSE, Nepal Rasta bank, Macroeconomic Indicators Of Nepal

APPENDIX – III

Log Values of Real GDP and Stock Market Indicators

Year (Mid July)	Real GDP	Market Capitalization	Trading Turnover	No. of listed Companies	NEPSE Index
1994/95	5.32	4.14	2.65	1.82	2.35
1995/96	5.38	4.11	3.02	1.9	2.29
1996/97	5.43	4.09	2.32	1.95	2.27
1997/98	5.46	4.1	2.62	1.98	2.25
1998/99	5.52	4.16	2.31	2	2.21
1999/00	5.56	4.37	1.87	2.03	2.34
2000/01	5.62	4.63	2.45	2.04	2.56
2001/02	5.62	4.67	2.11	2.06	2.54
2002/03	5.63	4.54	1.91	1.98	2.36
2003/04	5.65	4.55	1.81	2.03	2.31
2004/05	5.67	4.62	2.41	2.06	2.35
2005/06	5.68	4.79	2.3	2.1	2.46
2006/07	5.69	4.99	2.52	2.13	2.59
2007/08	5.72	5.27	3.16	2.13	2.84
2008/09	5.73	5.56	3.42	2.15	2.98
2009/10	5.75	5.71	3.17	2.2	2.87
2010/11	5.77	5.58	2.77	2.25	2.68
2011/12	5.79	5.51	2.96	2.32	2.56
2012/13	5.8	5.57	3.1	2.33	2.59
2013/14	5.83	5.57	3.1	2.33	2.59
2014/15	5.84	6.02	3.89	2.37	3.02
2015/16	5.84	6	3.77	2.37	2.98
2016/17	5.87	6.28	4.5	2.36	3.24
2017/18	5.9	6.27	4.09	2.32	3.2

REFERENCES

Achugbu, U. B., & Austin, A. A. (2012). The role of stock market development on economic growth in NIgeria:A TIme Serices Analysis. *An International Multidisciplinary Journal,EHtiopia Vol.6(1),Serial No.24* .

Agarwal, S. (2001). Stock market Ddevelopment and economic growth. *Preliminary Evidance From African Countires* .

Ananwude, A. C., & Osakwe, C. I. (2017). Stock market development and economic growth in Nigeria: A Camaraderie Reconnaissance. *Research Journal of Economics,I(3)* , 1-6.

Bachha, E. L. (1990). A Three-gap model of foreign transfers and the GDP growth rate in developing countries. *Journal of Development Economics,32* , 279-296.

Barrow, R. J. (1996). Democracy and growth. *Journal of Economic Growth* .

Bayar, Y., Kaya, A., & Yildrlm, M. (2014). Effect of stock market development on economic Growth:Evidence from Turkey. *International Journal of Financial Reserach Vol.5, No.1* .

Bernard, A. U., & Austin, A. (2012). The role of stock market development on economic growth in Nigeria: A time series analysis. An International Multidisciplinary. *Journal,Ehtiopia Vol.6(1),No.24,* , 51-70.

Bhoyu, P. (2011). Macroeconomic relationship in indonesia stock market. *Georgia State university* .

Biswanger, M. (1999). *Stock markets, speculative Bbubble and economic growth.* London: The MIT Press.

Branson, W. H., & Henderson, D. W. (1985). The speciification and influence of assets markets. In R. W. Jones, & P. B. Kenen, *In Handbook of International Economics* (pp. 749–805). Amsterdam: Elsevier.

carlin, w., & Mayer, C. (2003). Finance,investment and growth of economics. *Journal of financial Ecomonics,69* , 191-226.

Chenery, H. B., & Strout, A. M. (1966). Foreign assistance and economic development'. *American Economic Review, 56 (4)* , 679-731.

Cimpa,Pawel.(1910) Grundrisse einer Oekonometrie und die auf der Nationaloekonomie aufgebaute natiurliche Theorie derBuchhaltung*: ein auf Grund neuer ökonometrischer Gleichungen erbrachter Beweis, dass alle heutigen Bilanzen falsch dargestellt werden*. Lviv (Lemberg): Artur Goldman.

Cooper, D. R., & Pamela, S. S. (2003). *Business research methods* (8 ed.). New Delhi: Tata MCGaraw-Hill.

Cooper, R. v. (1983). Efficient capital markets and the quantity theory of money. *Journal of Finance , 29* (3), 887-908.

Deb, S. G., & Mukherjee, j. (2008). Does stock market development cause economic growth? *A time series analysis for indian economy* .

Demirgue-Kunt, A., & Vojislar, M. (1996). Stock market development and financing choices of firms. *World Bank Economic* , 291-321.

Devereux, M. B., & smith, g. (1994). International risk sharing and economic growth. *International Economic Review,Vol.35* .

Diamond, D. W., & Verrecchia, R. E. (1982). Optimal managerial contracts and equilibrium Security Prices. *The Journal of Finance , XXXVII*.

Donwa, P., & Odia, J. (2010). An Empirical Analysis of the impact of the Nigerian capital Market on her socio-econimic development. *Journal of Social Scrience,24(2)* , 135-142.

Dornbusch, R. a. (1980). Exchange rates and the current account. *American Economic Review, Vol.70.-, No. 5* , 3-20.

Elbadawi, I. A. (1999). External aid:help or hindrance to expert orientation in Africa. *Journal of African Economies,8(4)* , 576-616.

Fama, E. F. (1970). Efficient Capital Markets: A review of theory and empirical work. *Journal of Finance, Vol.25, No. 2* , 383-417.

Fama, E. F. (1991). Efficient capital markets: II. *Journal of Finance, XLVI (5)* , 1575-1617.

Fuentes, N. R., & Pereira, I. (2010). The disconnect between indicators of sustainability and human develpoment. *Human Development reseach paper,34*

G.C, S. B., & Neupane, S. (2006). Stock market and economic development: A Causality Test. *Journal of Nepalese Business Studies,Vol. III No. 1* , 365-44.

Gevit, D. (2007). The relationship between the stock market and theeconomy. *Bank of Valletta Review,No.36, Autumn* .

Giitobu, M. (2000). Determining the influence of macro economic indicatiors on stock market indicators. *Unpublished MBA dissertation. University of Nairobi*

Goldsmith, R. W. (1996). *Finacnail structure and ecomomic Development.* New Haven: University Press.

Gomanee, K., Morrisey, O., Mosley, P., & Verschoor, A. (2005). *Aid, pro-poor government Spending and Welfare.*

Greenwood, J., & Boyan, J. (1990). Financial development,growth and the distribution of Income. *Journal of Political Economy,Vol.98,No.5* , 1076-1107.

Gurley, J. G., & Edward, S. S. (1960). *Money in a theory of finance.* Washington D.C.: Brookings Institution.

Harrison, A. (1996). Openness and growth: A time series, cross-country analysis for developing countries. *Journal of Development Economics 48* , 419-447.

Hjertholm, P., Laursen, J., and White, H. (2000). Foreign aid and the macro economy. *Foreign Aid and Development, London* , 351-371.

Howells, P; keith, B;. (2000). *Financial markets and institutions,3rd Edition.* Prentice Hall.

Jaffe, J. F., & Mandelker, G. The fisher effect for risky assets; An empirical envestigation. *Journal of Finance , 31*, 447-458.

Jenson, M., & Kevin, M. (1990). Performance pay and top management incentives. *Journal of Political Economy, No. 98 ,* 225-263.

Kathurimn, C. K. (2010). *The perceived benefits and challenges o f demutualisation o f the NSE.* University of Nairobi.

Kenny, C. J., & moss, T. J. (1998). Stock markets in africa:Emerging lions or white elephant, *world Development ,* 829-843.

Keyness, G. M. (1996). *The General Theory of Emplopyment,Interest and Money.* Macmillan, London.

Kolapo, F. T., & Adaramola, A. O. (2012). The impact of the Nigerian capital market on economic growth (1990-2010). *International Journal of Developing Societies Vol.1, No.1 .*

Kumo, L. W. (2009). Stock exchange in Africa: Prospects and challenges. *Americian chromicle .*

Levine, R. (1997). Financial development and economic growth: Views and agenda. *Journal of Economic Literature,No.35 ,* 688-726.

Levine, R., & Renelt, D. (1992). A Sensitivity analysis of cross-country growth regressions. *American Economic Review 82(4) ,* 942-963.

Levine, R., & Zervos, S. (1996). Stock market development and long-run growth. *World Bank Economic Review,10(2) ,* 323-339.

Linter, J. (1978). Distribution of incomes of corporations among dividends, retained earnings and taxes. *American Economic Review , 46*, 97-113.

Lucas, R. (1972). Expecatation and the neutrality of money. *Journal of economic theory, No.4* , 103-124.

Machuki, D.M(2016).Relationship between stock market and economic growth in Kenya. An unpublished Master degree thesis, Nairobi University, Kenya.

Mayer, C. (1988). New Issues in corporate finance. e*uropean economic* , 1167-1188.

Mayers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms Have information that investors do not have. *Journal of fincancial Economics,No 13 (2,june)* , 187-221.

McKinnon, R. (1973). *Money and capital in economic develpment.* Washington D.C: Brookings Institution.

Merton, R. c. (1987). *On Current State of the stock market Rationality Hypothesis:.* Cambride: MIT Press.

Minsky, H. P. (1986). *Stabilizing an unstable economy.* New Haven and Londo: Yale University Press.

Mishra, P. K., Mishra, U. S., Mishra, B. R., & Mishra, P. (2010). Capital market efficinecy & economic growth: The case of india. *European Journal of Economics,Finance & Administrative Science* , 130-138.

Mnuro, P. (2000). Stock returns and output growth in emerging and advanced econimies. *IMF Working Paper,89* .

Modigliani, F., & Miller, M. (1958). The cost of capital, corporation finance and the theroy of investment. *American Economic Review,Vol.48* , 261-297.

Mohammed, S. (2010). The determinants of economic growth in Pakistan: Does Stock Market Development plays a Major role. *International conference on applied economics-ICOAE.*

Mohtadi, H., & Agarwal, S. (2004). Financial market and the financing choice of firms, evidence from developing countries. *Global Financial Journal,15(2)* , 52-70.

Neupane, .A. "Relation between stock market and economic growth ", *An unpublished Masters Level Thesis,* Shanker Dev Campus, Tribhuvan University, Kathmandu, 2008.

Nazir, M. S., Nawaz, M. M., & Gilani, U. J. (2010). Relationship between economic growth and stock market development. *African Journal of Business Mangement 4(16) 3473* .

Ngugen, H. T., & Pham, H. D. (2014). Relationship between Stock Market development and Economic Growth: Evidences from Canada and Australia. *International Journal of Economic and Finance,Vol.6,No.7.*

Nowbutsing, B. M., & Odit, M. P. (2009). Stock market development and economic growth: The case of Mauritius. *International Business & Economics Research Journal,8(2)* , 77-88.

Odhiambo, N. M. (2010). Stock market development & economic Growth in South Africa : An ARDL Bounds Testing Approach. *Annual American Business Research Conference.* Lasvegas,Nevada USA.

Osamwony, I. 0. (2013, November). Capital market imperfection and community Ecomnomic Development in Nigeria. *Academy of Management* .

Osamwony, I. O., & Abudu, K. (2013). Stock market dand economic growth in ghana kenya and nigeria. *International Journal of Financal Research (2),83.*

Paneru, L. R. (2003). Stock market & economic growth. *An Unpublished Master Degree Thesis,TU,* . Kirtipur.

Pearce, D. K., & Roley, V. V. (1983). The reaction of stock prices to unanticipated Changes in Money: A Note. *Journal of Finance Vol.38, No. 4* , 1323-1333.

Peevey, R. U. (1993). The individual investor in the market: Forming a Belief Regarding Market Efficiency. *Financial Services Review Vol.2, No.2* , 87-96.

Rana, S. B. (2014). Stock market size, liquidity and economic growth in Nepal,Kathmandu. *The KIC Journal of Management and Economic Review,Vol.1,No.2* .

Regmi, U. R. (2012). Stock market development and economic growth:Empirical Evidane From Nepal,Kathmandu. *Administration and Management Review,Vol.24,No.1* .

Rodrik, D. (2003). Growth strategies. *Centre for economic policy research* .

Romar, P., & Rivera, B. (1989). *international trade with endogenous technical change.* Chicago: University of Chicago.

Sahu, N. R., & Dhiman, D. H. (2011). Correlation and causality between stock market and macro economic variable in India : an Empirical Study. *International conferrence on E-business, management and economics IPEDR vol.3* .

Sala-i-Martin, X. (1997). Regional Cohesion: Evidence and theories of regional growth and convergence. *Europen Economic Review, Vol.40* , 1325-1352.

Schultz, T. P. (1991). *Education, investment and return,in H.chenery and T, srinivasan(eds).* Handbook of Development Economics.

Schumpeter, J. (1912). *The theory of economic development.* Harvard University Press.

Shaw, E. C. (1973). *Financial deepening in economic development.* New York: Oxford University Press.

Shrestha, P. K., & Subedi, B. R. (2014). Empirical examination of determinants of stock index in Nepal, Kathmandu. *NRB Working Paper No.24* .

Silva, N. K., Perera, P. M., & Silva, N. L. (2017). Relationship between stock market performance & economic Growth: Empirical evidence from srilanka.

Sindurakar, J. (2004). Relationship between stock market and economic growth. *Unpublished Master Thesis,Public Youth Campus, Tribhuvan University* . Kathmandu.

Siong, & Thing, A. (2008). Stock market, financial liberalization and economic development. *Ecomonic journal,107* , 771-782.

Stiglitz, J. E. (1985). Credit markets and the control of capital. *Journal of Money, Credit and Banking,Vol.17* , 133-152.

Summers, L. H. (1981). Inflation, the stock market and owner-occupied Housing. *American Economic Review, Vol. 71, No.2* , 429-434.

Tobin, J. (1965). Money and economic growth. *Econometrica,Vol.33,No.4* , 671-684.

Toda, H. Y., & Yamamoto, T. (1995). Statistical inference in vector autoregressions with possibly integrated processes. *Journal of Economics , 66.*

Vakidais, A. (2009). Stock market development and economic growth. *American Journal of Applied Sciences.Vol.6.No.11* , 1932-40.

Yartey, C. A., & Adjasi, C. K. (2007). Stock market development in sub saharan Africa:critical issues and challendes. *International monetory Fund* .