"Imp Indian Capital Market on Socio- Economic Development: An Empirical Analysis"

1 Vasanthakumari. B, 2Nalla Ramakrishna, 3dr. Venugopal

₁Research Scholar Tumkur University, Karnataka ₂Business Analyst Research Scholar at Mysore University ₃M.com., MBA., Ph.D. Rt.Principal, GFGC of commerce, Kanakapura, Bangalore, Karnataka Corresponding Author: 3Dr. Venugopal

Abstract: The Indian capital market has witnessed obvious transformation over the years and emerging market and other reforms has also attracted the interest of FII, and other investors, thus increasing capital inflow signifying an increase within the period. The main object of this study is to analyses empirically, the impact of Indian capital market on socio-economic development in terms of GDP level. To investigate this objective Indian capital market incidence of market capitalization of BSE & NSE, FII, capital issues of non GOVT public ltd company, mutual funds investment are taken as explanatory variable, GDP being exogenous variable. Using the ordinary least square (OLS) &Durbin Watson test, it was found that the market capitalization of BSE, and capital issues of non GOVT public ltd company have positive and significant impact on the GDP. The government is therefore advised to put up measures to step up investors' confidence and activities in Market capitalization of NSE, FII, Mutual funds, and Number of issues. So that it could contribute significantly to the Indian socio-economic development.

Key words: Capital market, GDP, Market capitalization, FII

Date of Submission: 09-05-2018 Date of acceptance: 25-05-2018

Bute of Submission. 67 63 2010

I. Introduction

The Indian economy was characterized by extensive regulation, protectionism, and publicownership of large monopolies, pervasive corruption and slow growth. Since 1991, continuing LPG concept in economy has moved the country towards a market based economy. By 2008, India had established itself as one of the world's faster-growing major economies, surpassing china.

The industrial sector underwent significant changes due to the 1991 economic reforms, which removed import restrictions, brought in foreign competition, privatization, liberalized the foreign direct investment (FDI) regime, improved infrastructure and led to an expansion in the production of FMCG, this led to Industry growth accounts for 26% of GDP and employs 22% of the total workforce^(2,3,8). According to the World Bank, India's industrial manufacturing GDP output in 2015 was 6th largest in the world on current US dollar basis (\$559 billion), and 9th largest on inflation-adjusted constant 2005 US dollar basis (\$197.1 billion)^(2,3,8).

The development of Indian capital market started with the launch of the Bombay Stock Exchange (BSE) in July 1875 Asia's first stock exchange and Ahmadabad Stock exchange in 1894. Since then, 22 other exchanges have started trading including India's two major stock exchanges BSE& NSE. In 2014, according to World Federation of Exchanges India's stock exchange market became the 10th largest in the world by market capitalization, just above those of South Korea and Australia. Security laws were reformed to ease overseas listings of already-listed companies, to increase liquidity for private equity, institutional investors, foreign institutional investors (FII), mutual funds in Indian companies; SEBI regulation regarding "ownership structure that maximum percentage of promoters holding will be 75% of the total shareholding, which means public holding's will comprise minimum 25%" and "corporate governance has to appointment of independent director" these regulations impacted on the development of Indian industries and capitalmarket and also contributed for the socio-economic development of the country.

According to Ernst & Young's (EYs) Global Capital Confidence Barometer (CCB) - Technology report, India ranks third among the most attractive investment destinations for technology transactions in the world because of some reforms as follows:

• The Government of India's reforms like demonetization and the Goods and Services Tax (GST) have restored the confidence of investors in the Indian markets

- The Securities and Exchange Board of India (SEBI) has relaxed norms for registered FPIs in India, allowing them to operate through the International Financial Services Centre (IFSC) without any additional documentation or prior approval process.
- Reserve Bank of India (RBI) has made an upward revision in Foreign Portfolio Investors' (FPIs) holdings limits in government securities
- The RBI has also allowed a number of foreign investors to invest, on repatriation basis, in nonconvertible/redeemable preference shares or debentures issued by Indian companies listed on established stock exchanges in India.

According to Al-Faki (2006)⁽¹⁾, the capital market is a "network of specialized financial institutions, series of mechanisms, processes and infrastructure that, in various ways, facilitate the bringing together of suppliers and users of medium to long-term capital for investment in socio-economic developmental projects".

capital market are divided into two types Primary market and secondary market, Secondary capital market activities have more impact on socio-economic development of the country and per capita income by tending to grow stock market earnings through wealth than the primary market.

An IMF publication(Callen tim, "Gross Domestic Product: An economy's All", IMF Retrieved 3June 2016)states that "GDP measures the monetary value of final goods and services—that are bought by the final user—produced in a country in a given period of time (say a quarter or a year)", GDP is normally measured by a national government statistical agency. GDP is considered the world's most powerful statistical indicator of national development and progress.

One interesting metric that investors can use to get some sense of the valuation of an equity market is the ratio of total market capitalization to GDP, expressed as a percentage. The closest equivalent to this in terms of stock valuation is market capitalization to total sales (or revenues), which in per-share terms is the well-known price-to-sales ratio.

II. Review of literature

The relation between capital market and GDP has been an important research topic around from 1990, especially after LPG introduction, and economic reforms, and produced ongoing debating the literature of corporate finance. There were many research and controversies on the role of the Stock markets on economic growth and development Oyejide 1994; Levine and Zervos 1996;Demirgue-kunt and Levine 1996;Nyong 1997;Obadan 1998; Sule and Momoh 2009; Ewah,Esang and Bassey 2009.There have been mixed results; while some are in support of a positive link, some negative link and others do not find any empirical evidence to support such conclusion.

According to Atje and Jovanovic (1993) there was a significant correlation between the average economic growth and stock market capitalization which were found in a cross-country study of stock and economic growth of 40 countries from 1980 to 1988.

Levine and Zervos (1996) found strong correlation between the stock market development and long-run economic growth.

Demiurgic-Kunt and Levine (1996) concluded that countries with well-developed stock markets tend to also have well-developed financial intermediaries by using data from 44 countries for the period 1986 to 1993 found that different measures of stock exchange size are strongly correlated to other indicators of activity levels of financial, banking, non-banking institutions as well as to insurance companies and pension funds.

"Role of Institutional Investors in Indian Stock Market" by S S S Kumar(2005) examines the role of Institutional Investors, both foreign institutional investors and the Indian mutual funds combined together in Indian stockmarkets and finds that the market movement can be explained using the direction of the funds flow from these investors.

Ewan et al. (2009) appraise the impact of the capital market efficiency on the economic growth of Nigeria using time series data from 1961 to 2004.

"An Empirical Analysis of the Impact of the Nigerian Capital Market on Her Socio-economic Development" by Pat Donwa and James Odia(2010) found that the capital market indices have not impact significantly on the GDP.

"An Assessment of FII Investment in Indian Capital Market" by Harendra Kumar Behera Empirically assesses the impact FIIs investments on Indian equity market from 1999 to 2005, and conclude that FII investment in India improves stock market liquidity.

III. Research Methodology

Statement of problem

"Impact of Indian capital market on socio- economic development: An Empirical analysis" is a topic, which has attracted the interest of a large number of scholars, researcher and has been discussed by researchers for a very long period of time. Several studies have examined the relationship between of capital market& GDP and socio-economic development mechanisms, across countries with different characteristics in U.S., the U.K. and Japan, Nigerian. The studies yielded different results; Investigating India's organized capital market could add diversity to the growing body of work that examines this relationship.

As India progresses towards a globalized economy both domestic and foreign investors take a greater interest in our capital market. This is also necessary as our markets are now of interest to a growing number of researchers, analysts and academicians impact of capital market , FII and institutional investment on GDP and socio- economic development have yielded non-conclusive empirical findings. Therefore, study sought to investigate the effect of capital market, FII and institutional investment on GDP and socio- economic development.

From the above review of literature, the following research questions are identified in the form of gap: Is the activity of Indian capital market is positively related to GDP level of country? Is market capitalization is related to GDP level? Is FII is positively related to GDP level of our country, India? Capital issues by Nongovernment Public LTD companies have any effect on GDP and social-economic development? Is Industrial reforms and capital market reforms of country contribute to GDP level and socio-economic development of country?

IV. Objectives of the study

The research questions and gap identified from the review of literature has been converted into objective of the study. The main purpose of this study is to investigate the effect of Indian capital market performance on socio- economic development of the country. Specifically, the study sought to:

- 1. Analysis the Indian capital market performance levels (Bombay stock Exchange & National stock exchange, India).
- 2. Determine the level of GDP in India.
- 3. Ascertain the impact of Indian capital market performance (Bombay stock exchange, India) on the socio economic development of the country.

Research hypothesis

H0: capital market indices have significant impact on GDP of the country Ha: capital market indices have no significant impact on GDP of the country

Scope of the study

The study uses two variables namely: capital market indices and GDP level of India. Capital market indices are extracted from capital market of both Bombay stock Exchange & National stock exchange, India. The study looked only at organized capital market in India, because they have clear and accurate information pertinent to this research. GDP express the progressive level of our country towards development.

Significance of the study

The capital market place a very vital role for the growth, development and strength of any country because it supports government and corporate initiatives, finances the exploitation of new ideas and facilitates the management of financial risk. The rate of economic growth has been linked to the financial market and capital market efficiency, and both markets facilitate the mobilization and channeling of funds into productive constituents and ensuring that the funds are used for the pursuit of socioeconomic growth and development without being idle

- 1. This study contributes by combining Capital market indices as financial indicators to the GDP level of the country.
- 2. The study provides empirical evidence on the effect of Capital market on the socio economic development of the country

Conceptual frame work:

The study Empirical examined the relationship between Indian Capital market indices and Socio-economic Development. In this framework, Indian Capital market indices measures such as Market capitalization of BSE&NSE, FII, mutual funds are used. GDP (Gross Domestic Product) is used as Socio-economic Development measures. This choice is motivated by the fact that these indicators may have different interpretations and the hypothesized relationship is shown.

V. Research Design

Research design begins with selection of the topic and a paradigm. The topic of the study was to investigate "Impact of Indian capital market on socio- economic development: An Empirical analysis". This study utilized a quantitative paradigm; it is termed as the traditional, positivist, experimental, or empiricist paradigm. Descriptive design research was adopted.

Sampling frame& Data collection method

Most of the trading in the Indian stock market takes place on its two stock exchanges: the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). The BSE has been in existence since 1875. The NSE was founded in 1992 and started trading in 1994. However, both exchanges follow the same trading mechanism, trading hours, settlement process, etc. At the last count, the BSE had around about 5500 listed firms, whereas the rival NSE had about 1300 Companies listed. Capital market representing the length, breadth and diversity of the Indian economy including from hi-tech to heavy industry, software, refinery, public sector units, infrastructure, and financial services. It is the preferred designated stock exchange for most large companies in India.

The secondary data are used in this study and collected fromwebsite of Bombay stock Exchange & National stock exchange, India, Fact Books, Security and Exchange Board India (SEBI) Market Bulletins, Handbook of Statistics on Indian Economy, SEBI 2017, and Handbook of Statistics on Indian Economy, RBI 2017. Indian Securities Markets Review 2017, NSE Mumbai. The period of study is from 1994-1995 to 2016-2017.Data were extracted after 1994-95 just because to know actual effect of GDP level after economic reforms and LPG effect, which were took place in 1991.

VI. Data Analysis

Data was analyzed using quantitative approaches notably descriptive statistics, correlation analysis and multiple ordinary least square (OLS) regression analysis and summarizes the information in the data by disclosing the average indicators of the variables used in the study. The multiple regression analysis was used to test whether the capital market indices have impacted on the socioeconomic development of India, proxy by Gross Domestic Product (GDP).

Regression model specification:

Data analyzing has been held using "R studio, SPSS, and Excel" software. Multiple ordinary least square (OLS) Regression equations which are employed to test the hypothesis as follow:

Model which specifies that the socio-economic development (proxy by Gross Domestic Product) is significantly influenced by the capital market indices (Market capitalization of BSE & NSE, New capital issues by Nongovernment Public LTD companies, No. of issues

FII, Mutual funds (UTI, Bank& FI sponsored& Private)) is formulated as follows:

 $Y_i = \alpha + \beta_1 X_{1i} + \beta_2 X_{2i} + u_i$

GDP = F (1MCAP BSE, 2MCAP NSE, 3 NONGOVT, 4NI, 5FII, 6MF)

Econometric specification of the model is:

GDP = $\alpha + \beta 1MCAP$ BSE + $\beta 2MCAP$ NSE + $\beta 3NONGOVT + \beta 4$ NI + $\beta 5FII + \beta 6MF + u_i$

GDP = Gross Domestic Product (GDP is measured at current basic price), MCAP BSE = Market capitalization of BSE, MCAP NSE = Market capitalization of NSE, NONGOVT = New capital issues by Non government Public LTD companies FII= foreign Institutional investors, MF= Mutual funds of UTI, Bank& FI sponsored& Private, **NI**=number of issue of E/Q, P/E, and debenture, $u_{i=}$ Disturbance Term, $\alpha = Intercept/constant$ (alpha), $\beta = is$ the slope (beta coefficient)

Result And Discussions VII.

The Indian capital market performance levels (Bombay stock Exchange & National stock exchange, India):

In order to address the first objective of this paper, it is explained with descriptive statistics of Independent variables for a period 1994-95 to 2016-17 (23 years), and were computed and summarized in Table-1.

Table –	I, Descriptive Stat	1Stics
		Std.

Independent	N	Minimu m	Maxim um	Mean		Std. Deviatio n	Skewi	ness	Kurto	sis
variables	Stati stic	Statistic	Statistic	Statistic	Std. Error	Statistic	Stati stic	Std. Erro r	Stati stic	Std. Erro r

DOI: 10.9790/487X-2005068392 86 | Page www.iosrjournals.org

MCAP BSE	23	4354.81	121545. 25	38127.5 1	7576.7 7	36336.92	0.83	0.48	0.40	0.93
MCAP NSE	23	72777.20	6702616 .00	204708 0.80	484762 .82	2324840. 82	1.06	0.48	0.46	0.93
FII	23	43337.75	114901. 12	20066.7 6	7570.9 7	36309.10	1.45	0.48	2.40	0.93
NI	23	9.00	1678.00	248.87	99.45	476.96	2.68	0.48	6.14	0.93
NONGOVT	23	18.78	636.38	187.16	33.82	162.21	1.66	0.48	2.85	0.93
MF	23	-486.00	3434.18	472.01	175.02	839.34	2.15	0.48	6.34	0.93

Market capitalization of BSE and NSE

This is the most widely used indicator in assessing the size of a capital market to an economy, market capitalization is the value of a company that is traded on the stock market, it is calculated by multiplying the total number of shares by the present share price. The percentage market capitalization compared to the economy's Gross Domestic Product (GDP) helps to assess the size of the stock market. Both BSE market capitalization and NSE market capitalization are considered in this study as independent variable.

From the above Table-1 it is observed that, the minimum market capitalization of BSE 4354.81billion, maximum is 121545.25billion, with average of 38127.51. The minimum market capitalization of NSE 72777.20 billion and maximum is 6702616.00 billion, with average of 2047080.80, with the average of both BSE &NSE , it clearly indicate that BSE being the first stock exchange of India has more trading activities than the NSE. The standard deviation which shows how much variation or dispersion from the average , data indicating that tend to be very close to the mean.

In addition, when referring to the shape of frequency or probability distributions, "Skewness" refers to asymmetry of the distribution. As rule of thumb, the distribution market capitalization of NSE is highly skewed to the right or positively skewed because the Skewness are greater than +1 while the distribution for market capitalization of BSE is moderately skewed to the right or positively skewed as the Skewness for the series is between +1/2 and +1. In measuring the height and sharpness of the peak relative to the rest of the data, kurtosis less than 3i.e. platykurtic, a distribution which is less peaked than normal distribution.

FII: Foreign Institutional investors

Economies like India, which offer relatively higher growth than the developed economies, have gained favors among investors as attractive investment destinations for foreign institutional investors (FIIs). Investors are optimistic on India and sentiments are favorable following government's announcement of a series of reform measures in recent years.

From the above Table-1 it is observed that, FIIfor a period of 1994-95 to 2016-17(23 years) with average of 20066.76 billion, FII is tremendously increasing over a period of time. The standard deviation which shows how much variation or dispersion from the average, Data points are spread out over a large range of values, highly skewed to the right or positively skewed because the Skewness are greater than +1. Kurtosis less than 3 i.e platykurtic, a distribution which is less peaked than normal distribution.

The percentage Foreign Institutional investors compared to the economy's Gross Domestic Product (GDP) helps to assess the size of the stock market

No. of issues

It includes equity capital, preference capital and debenture of Non-government Public LTD companies issues, number of issues are very less initially i.e. only 9, and maximum 1678.00, with average issues of 248.87 from past 23 years. Standard deviation data points are spread out over a large range of values, kurtosis more than 3 i.e. leptokurtic, a distribution which is more peaked than normal distribution.

New capital issues by Non-government Public LTD companies:

Capital issues by non-government public companies include equity capital, preference capital and debenture; it has minimum of 18.78 billion and maximum of 636.38 billion with mean of 187.16 billion. Standard deviation data points are spread out over a large range of values, highly skewed to the right or positively skewed because the Skewness are greater than +1 kurtosis less than 3 i.e. platykurtic, a distribution which is less peaked than normal distribution.

Mutual fund:

Mutual fund is an investment programme funded by shareholders that trades in diversified holdings and is professionally managed. It includes UTI, bank and financial institutional sponsored and private mutual funds together.; It has minimum of -486.00billion and maximum of 3434.18billion with mean of 472.01 billion. Standard deviation data points are spread out over a large range of values, highly skewed to the right or

positively skewed because the Skewness $\,$ are greater than +1, kurtosis more than 3 i.e. leptokurtic, a distribution which is peaked than normal distribution.

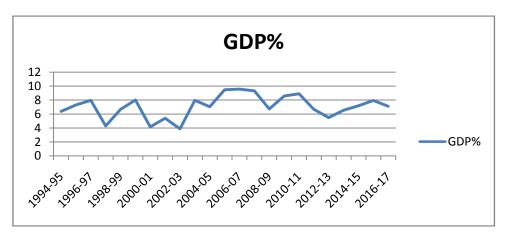
The level of GDP in India:

In order to address the second objective of this paper, it is explained with **Table 2 and chart**; descriptive statistics of GDP level were computed and summarized.

Dependent	N	Minimum	Maximu m	Mean	Mean Std. Deviati Skewness on		ess	Kurtosis		
variable	Statist ic	Statistic	Statistic	Statisti c	Std. Error	Statisti c	Statist ic	Std. Error	Statisti c	Std. Err or
GDP	23	10455.90	151837.09	55031. 57	9144.3 0	43854. 52	0.94	0.48	-0.36	0.93

Table – 2, Descriptive Statistics of GDP

In the Table-2 GDP of the country were summarized from 1994-95 to 2016-17(23 years), and it is observed that, it has minimum of 10455.90 billion, and maximum of 151837.09 billion, with mean of 55031.57billion. Standard deviation data points are spread out over a large range of values, moderately Skewness for the series is between +1/2 and +1, kurtosis less than 3 i.e. platykurtic, a distribution which is less peaked than normal distribution.



The chart showing the trend of GDP level of the country for a period of 1994-95 to 2016-17, and it is showing the almost increasing trend year by year. This increasing trend indicates that the country is moving towards the national development and progress, and also Indian economy has become one of the safe and stable haven for the both domestic & foreign institutional investors,

The Increase in GDP is because of increase in the Industrial Output, due to increase in Demand. The government is giving lots of emphasis on Infrastructure development like housing, roads, train tracks, airports etc., Tax reforms, GST implementation increase the Indian GDP by 2%, and Ease of Doing Business - the Indian businesses are having healthy competition, right from Auto sector to telecom sector. This will create a conducive environment and boost the business and economic activities.

The impact of Indian capital market performance (Bombay stock Exchange & National stock exchange, India) on the socio economic development of the country:

In order to address third objective, correlation analysis and multiple ordinary least square (OLS) regression analysis were done and results are summarized in Table-3(correlation result) and Table 4(Regression result)

Correlation result

Table -3 Correlations

		_	unic c coi	Ciucions			
Variables'	GDP	MCAP BSE	MCAP NSE	FII	NI	NONGOVT	MF
GDP	1	.975**	0.166	-0.050	-0.354	.469*	.612**
MCAP BSE		1	0.250	0.109	-0.323	.600**	.662**
MCAP NSE			1	.562**	-0.268	0.314	-0.123
FII				1	-0.135	0.304	0.011

DOI: 10.9790/487X-2005068392 www.iosrjournals.org 88 | Page

NI				1	0.049	-0.168
NONGOVT					1	.733**
MF						1
**. Correlation is signi	ificant at the 0.0	01 level (2-taile	ed).			
*. Correlation is signif	icant at the 0.05	5 level (2-tailed	1).			

Table -3 reveals the correlation relation between all the variables; GDP has positive relation with the all variable except FII and No. of issues, and it has positive significant relationship at 10% level with market capitalization of BSE, 5% level of significance with NSE, amount of non GOVT public issues and mutual fund.

MCAP BSE has negative relationship only with NI, and has positive significant at 10% level with NONGOVT and mutual fund, and positive relationship with MCAP NSE and FII.

Market capitalization of NSE has negative relationship with NI and MF, positive significant with FII, and positive relationship with all other variables. FII has negative relationship only with NI.

NI has negative relationship with all the variables. NONGOVT has positive relationship with all variables, and positive significant at 10% level with GDP, MCAP BSE and MF.

Mutual fund has positive relationship with all the variables except market capitalization of NSE and No. of issues, and it positive significant at 10 % with GDP, market capitalization of BSE and amount of non GOVT public issues.

Ordinary least square regression result: (OLS regression)

One of the assumptions of the classical regression equation is that, the model is not having Auto correlation and collinearity, should be normality, the coefficient of determination, testing the significance of model and its coefficients.

To check whether the regression error terms are auto correlated or not, Durbin watson statistic was used. The rule of thumb for this test is that if d is found to be 2 in an application, one may assume that there is no first-order autocorrelation, either positive or negative. This also implies that the closer the statistic is to 2, the better. Specifically, the DW statistic will fall below 2 if there is positive serial correlation (in the worst case, it will be near zero) and lie between 2 and 4 if there is negative correlation.

The coefficient of determination is a measure that explains the strength of the relationship between dependent and independent variables. The coefficients indicate that some of the variability in dependent variable is explained by the independent variables. For testing the significance of the model F-statistic was performed. After testing the significance of regression, each of the coefficients was tested for significance. T test was used to test these hypotheses.

Table – 4 Regression Model

Residuals:							
Min		1Q	Median	3Q)	Max	
-15380.1		-2593	368.1	21	22.4	8440.6	
Coefficients	::						
Estimate		Coefficients	Std.Error	T	Value	Pr(> t)	Significance
(Intercept)		15900.00	3283.00	4.8	34	0.00	***
MCAP BS	E	1.26	0.06	19	.53	0.00	***
MCAP NSI	Ε	66.21	241.20	0.2	28	0.79	
FII		-0.16	0.04	-3.	91	0.00	**
NI		-2.42	3.15	-0.	77	0.45	
NONGOV	Γ	-32.68	14.76	-2.	.22 0.04		*
MF		0.38	2.79	0.1	4	0.89	
Signif. code	s: 0 '***' 0.0	0.01 '**' 0.01 '*' 0.0	5 '.' 0.1 ' ' 1				
Residual sta	ndard error: 5	5976 on 16 degrees o	f freedom				
Multiple R-	squared: 0.98	365, Adjusted R-sq	uared: 0.9814				
F-statistic: 1	94.8 on 6 and	l 16 DF, p-value: 4.	854e-14, AIC = 47	72.9	143		
Model Sum	mary						
					Std. Erro	or of the	·
Model	R	R Square	Adjusted R Square		Estimate		Durbin-Watson
1	.993ª	.9865	.9814		5976.350		2.394
a. Predictors	: (Constant), l	MF, FII, NI, NSE, B	SP, NONGOVT				
b. Dependen	t Variable: Gl	DP					

The regression result Table -4 reveals that around about 98.65% of the systematic variation in the GDP is explained by the capital market indices, model is said to be Significant at 1% level because the p-value is less that 0.01 and F value which shows the relationship between dependent and independent variables, if the value is more than 1 indicates that there is relationship so more the F value better the relationship and in our study it is

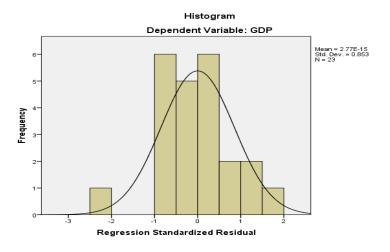
194.8 shows that the activities of capital market are highly influenced on the GDP level of the country and hence, socio-economic development depend on the capital market activities. Hence null hypothesis is accepted.

The t-values of Market capitalization of BSE is statistically positively significant, market capitalization of NSE and MF positive but insignificant. FII and amount of non GOVT public issues has statistically negative significant. No. of issues has no impact on GDP.

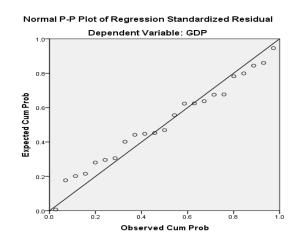
The variables BSE, FII and NONGOVT are significant at 1%, 5%, 10% significance levels respectively and remaining are not significant which means this variables would not impact on the dependent variable. The Significant variables coefficients are positive for the BSE and NSE variables and negative for the FII but it is significant to the model of capital issues of non GOVT public ltd company.

The Akaike information criterion (AIC) is an estimator of the relative quality of statistical model for a given set of data. Given model for the data, AIC estimates the quality of model which was less value.

The Durbin Watson statistic is a number that tests for autocorrelation in the residuals from a statistical regression analysis. The Durbin-Watson statistic is always between 0 and 4. A value of 2.394 means that there is no autocorrelation in the sample



A Histogram of the residuals suggests that they are close to being normally distributed but there are more residuals close to zero than perhaps you would expect. We can see that the residuals are approximately normal indicating the satisfaction of the normality assumption.



The P-P plot compares the observed cumulative distribution function (CDF) of the standardized residual to the expected CDF of the normal distribution. Note that we are testing the normality of the residuals and not predictors. The **P-P plot** is a little more reassuring. There does seem to be fraction of deviation from normality between the observed cumulative probabilities of 0.1 and 0.8 but it appears to be minor. Overall there does not appear to be a severe problem with non-normality of residuals.

DOI: 10.9790/487X-2005068392

Residuals Statistics										
	Minimum	Maximum	Mean	Std. Deviation	N					
Predicted Value	8367.9	150999.6	55031.6	43561.01	23					
Residual	-14533.33	9535.166	0	5065.351	23					
Std. Predicted Value	-1.071	2.203	0	1	23					
Std. Residual	-2.447	1.605	0	0.853	23					

We can verify that all standardized residuals were less than \pm 3.0 by looking the minimum and maximum standardized residuals in the table of Residual Statistics. Both the minimum and maximum fell in the acceptable range so there no outliers in the data.

Collinearity Diagnostics

		Condition							
Dimension	Eigenvalue	Index	(Constant)	BSP	NSE	FII	NI	NONGOVT	MF
1	4.148	1	0.01	0	0.01	0	0	0	0
2	1.033	2.004	0	0	0.04	0.1	0.01	0	0.1
3	1.022	2.014	0.01	0	0.01	0	0.35	0	0
4	0.411	3.175	0.11	0	0.06	0.5	0.04	0.01	0
5	0.202	4.529	0.59	0	0.26	0.2	0.08	0.06	0
6	0.135	5.54	0.27	0.9	0.03	0.1	0.16	0.05	0.1
7	0.048	9.325	0	0	0.58	0	0.36	0.88	0.8

This gives you details of how the variables dependent with each other. If the Condition index value is more than 15 there is problem with correlation between the variables in the regression model and index value should be always more than the 1 and less than the 15. If the index value is more than 15 need be dropped and repeat the analysis but in our analysis all the variables index numbers are more than one and less than 15 it shows that the analysis is need not to be repeated with removing of variables, it means that independent variables are not correlated with each other in the analysis and we can proceed with the regression model.

VIII. Conclusion

This study seek to determine the impact of Indian capital market on the socio- economic development, using Gross Domestic Product (dependent variable) as socio economic measure, Indian capital market incidence of market capitalization of BSE & NSE, FII, capital issues of non GOVT public ltd company, mutual funds investment, and Number of issues are taken as explanatory variable from 1994-95 to 2016-17 almost 23 year data.

It was found that GDP is moderately increasing year by year with little fluctuation; Average market capitalization of BSE is higher than the average market capitalization of NSE, by observing average of FII, capital issues of non GOVT public ltd company, and mutual funds investment, the average investment of FII is more comparatively.

GDP has positive and significant with all variables except FII and no. of issues. All other variables have positive relationship except no. of issues. OLS result 98.65% of the systematic variation in the GDP is explained by the capital market indices found to be good model. The independent variable has impact of the dependent variable GDP one of the socio economic factors.

Our result support the Pius V. C. Okoye, Jane F. N. Okoye, Raymond A. Ezejiofor (2015), capital market has positive and significant impact on economic growth in Nigeria. Hence the investment, credit to private sector, and stock market capitalization on GDP has linear relationship on the Nigerian economic growth, and it is contrary to the literatures that there is positive relationship between stock market and economic growth, and null hypothesis is accepted.

IX. Limitation And Recommendation Of The Study

- Sample size is very less; data are extracted after 1994-95, after liberalization and economic reforms. It is recommended to consider the data before 1994.
- GDP is not only depends on the capital market activities, and other factors are ignored. It is recommend the further research to consider the other factors which influence the GDP level.
- Only two capital market activities are considered i.e. BSE&NSE, they are leading capital market in India.
- Government is advised to take remedial measures as to increase the investment of FII, and MF.

Reference

- [1]. Al-FakI M 2006. "The Nigerian Capital Market and Socioeconomic Development". Paper presented at the 4thDistinguished Faculty of Social Science PublicLecture, University of Benin, 26 July, pp. 9-16
- [2]. Economic Survey 2017, Ministry of Finance Government of India.
- [3]. GDP and its breakdown at current prices in US Dollars United Nations Statistics Division(2013)
- [4]. Handbook of Statistics on Indian Economy, RBI 2015&2017
- [5]. Harendra Kumar Behera, "An Assessment of FII Investment in Indian Capital Market", Indian Institute of Capital Markets (UTIICM)
- [6]. Hutcheson, G. D. (2011). Ordinary Least-Squares Regression. In L. Moutinho &G. D.
- [7]. Hutcheson, The SAGE Dictionary of Quantitative Management Research. Pages 224-228.
- [8]. Ibrahim B. Shaibu, Presley K. Osemwengie& Scholastica A. Oseme(2014), "capital Market activities and economic growth in Nigeria: further evidence from VAR methodology", International Journal of Business and Management Review Vol.2, No.3, pp. 32-47, July 2014
- [9]. "India All Economic Indicators on Quandl". Archived from the original on 7 January 2013. Retrieved 8 October 2013
- [10]. Indian Securities Markets Review 2017, NSE Mumbai
- [11]. Okoh, Johnson Ifeanyi, Eke, Robert Ike(2015), "Capital Market and Economic Growth Nexus: Evidence from Nigeria", IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668.
- [12]. Onalo Ugbede, Mohd Lizam, Ahmad Kaseri and Ojoma Anita Idachaba(2013), "Does Different Country Market Capitalization Impact Similarly on Gdp?", Proceedings of Global Business and Finance Research Conference 28-29 October, 2013, Howard Civil Service International House, Taipei, Taiwan, ISBN: 978-1-922069-34-4
- [13]. Pat Donwa and James Odia (2010), "An Empirical Analysis of the Impact of the Nigerian Capital Market on Her Socio-economic Development", J Soc Sci, 24(2): 135-142 (2010)
- [14]. Pius V. C. Okoye, Jane F. N. Okoye, Raymond A. Ezejiofor(2015), "The Impact of Capital Market Efficiency as a Panacea to the Economic Growth in Nigeria" International Journal of Financial Economics Vol. 4, No. 3
- [15]. S S S Kumar "Role of Institutional Investors in Indian Stock Market" International Journal of Management Practices & Contemporary Thoughts
- [16]. https://www.bseindia.com/
- [17]. https://www.nseindia.com
- [18]. https://www.sebi.gov.in/
- [19]. https://www.rbi.org.in/
- [20]. http://cso.ie/en/index.html

IOSR Journal of Business and Management (IOSR-JBM) is UGC approved Journal with Sl. No. 4481, Journal no. 46879.

Dr. Venugopal "Impact Of Indian Capital Market On Socio- Economic Development: An Empirical Analysis"." IOSR Journal of Business and Management (IOSR-JBM) 20.5 (2018): 83-92.