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Research Article

Effects of Economic Growth Rate on Financial Performance of Indian Companies

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Abstract

Aim of this study is to investigate the impact of economic growth rate on financial performance of Indian companies. Secondary data of 15 years from 2004 to 2018 has been collected of various large capital companies of India listed in stock exchange. In this study in regard to financial performance, NPR, CR, DE, ROCE and ROA and the data of GDP growth (%) in regard to economic growth. Panel regression method has been used with the help of Eviews to check the impact of economic growth rate on financial performance of Indian companies. Results of the study indicates economic growth rate have positive and significant impact on financial performance of large capital companies of India. Indicators of financial performance, ROA, DE, CR, ROCE and NPR positively and significantly determined economic growth (GDP). Growth of Indian economy can be increased by improving financial performance.

Keywords: Economic Growth, Financial Performance, GDP, Panel Regression

JEL: E, E2, E23

Introduction

There is numerous factor which may affect financial performance of the companies in any industry. Macro and microeconomic factors are very considerable factors which influences the financial performance of the large capital companies in India. Internal or microeconomic factors are those factor which exist within the company and controllable in nature; production factors, design of product, production level, strategies, culture, leadership, and quality (Broadstock et al., 2011; Adidu and Olanye, 2006). External factors or macroeconomic factors are those factors which are out of the control of management; social factors, political factors, economic factors, legal regulations and other government policies (Adidu and Olanye, 2006). Rate of GDP, consumer price index, rate of employment, taxation are some the key economic factors (Broadstock et al., 2011). As macroeconomic factors are beyond the control of management can create threat to the

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financial performance of any company (Dioha et al., 2018). Researchers around the world have offered variety of model to investigate financial performance of companies. They are not agreeing upon single opinion that what is the common model to investigate the financial performance (Ostroff and Schmidt, 1993). On the other hand, growth in economy can be measured through the rate of GDP (Gross Domestic Product). Increase in GDP can be defined as the increase in total production by the country. Increase in GDP also be measured through the increase in production of goods and services in particular period in comparison to another time period. Growth in economy can only be measured in monetary term (Ayres, Robert, Warr, and Benjamin 2006). Good financial performance or earning for the companies is very essential to survive in competitive environment and to grow (Golin 2001). Financial performance of the companies may be affected by many ways i.e. monetary policy of a country may influence debt cost and money supply in market thereby availability of credit or money and company's ability to access external fund. On the other hand, net cash flow after tax and cost of capital is influenced by the fiscal policy (Zeitun et al., 2007). Also increase in exchange rate, interest rate and other economic factor can influence the performance of companies (Owolabi, 2017).

However, according to resource-based view (RBV) company's financial performance is not influenced by macroeconomic factor. Internal factors to the company are responsible for the financial performance of any company (Denizel and Özdemir, 2006).

Structure of this paper include: Section 2 includes brief review of the related research work followed by hypothesis, Section 3 contain methodology adopted for the examination of relationship between economic growth and financial performance, Section 4 represent finding and Section 5 conclude the study.

Review of Literature

Understanding relationship between financial performance and economic growth is very important for researcher to identify various factors effecting financial performance so that profitability of companies can be improving. On the other hand, it is also important to academicians to develop various model and theories related with. External environment or macro factors are those factors which are beyond the control of company but has operate within (Taher et al.,2010) Guru et al. (2002) examined various factors influencing financial performance of the banks. He identified two kind of factors affecting financial performance one is internal factor and other one is external factors. Out of external factors rate of inflation has positive relationship while high rate of interest has negative impact on financial performance. Various studies indicated that external factors such as rate of inflation, GDP rate, Interest rate influence the value of financial assets of the company (Fosu et al., 2014). GDP is the most important and commonly used economic indicator to measure the growth in economy which is resultant of all economic activity of the nation (Mwangi 2013). Researchers have different opinion regarding the influence of GDP on the financial performance or profitability of the companies. Tan and Floros (2012) found negative relationship while Sinha and Sharma (2016) & Trujillo-Ponce (2013) found positive relationship between financial performance and GDP. Profitability of banks is strongly effected by per capita income (Neely and Wheelock (1997). Ćurak et al. (2011) applied panel method to examine the impact of various factor on financial performance of the insurance companies in Croatia. Shiu (2004) conducted a study to examine the financial performance of general insurance companies of UK. He found negative raltionship between financial performance and inflation. Perry (1992) conducted study to understand the effect of macroeconomic factors on financial performance. He suggested that

financial performance depend upon anticipated and unanticipated rate of inflation. Based on the above review of literature following hypothesis have been formed:

Hypothesis

H01: GDP do not significantly influence ROA
H02: GDP do not significantly influence ROCE
H03: GDP do not significantly influence CR
H04: GDP do not significantly influence NPR
H05: GDP do not significantly influence DE
Data and Methodology:

Research design

It refers to the procedure and organization of collection of data, analysis of data for the purpose of research (Claire et al., 1962). The research design is ex post facto which seeks to identify possible relationship between the variables by observation of existing condition. This design is suitable for those studies which are non-experimental in nature and investigate the causal relationship between the DV and IDV (Owolabi, 2017).

Sample size and Source of data

This study aims to examine the causality between financial performance of large capital companies and GDP of India. Secondary data of 15 years from 2004 to 2018 have been collected depending on available of data. ROA, ROCE, NPR, CR and DE used to measure the financial performance while GDP taken as the indicator of economic growth. IOCL, BPCL, HPCL, GAIL and ONGC are the companies of Oil and Gas sector, TCS, INFY, WIPRO, HCL, and MPHASIS belongs to IT sector, MARUTI, TATA MOTORS, MAHINDRA, SWARJ and HERO MOTOR belongs to Automobile sector. All the 15 companies are large capital companies listed in Indian stock market and plays vital role in the advancement or growth of economy.

Data Analysis

Preliminarily, with the help of Eviews unit root test and descriptive statistics have been calculated. Regression analysis carried out to check the impact of IDV (independent variable) on DV (dependent variable) (Oyedeko and Adeneye 2017; Agrawal et al. 2019) while correlation applied to check the association between the variables.

$$GDP_{it} = \alpha+\beta_1 NPRit + \beta_2 CRit + \beta_3 ROAit + \beta_4 ROCEit + \beta_5 DEit + \epsilon_{it} \quad \textbf{(1)}$$

Where,

GDP_{it}	=	Gross Domestic Product.
$\beta_1 NPRit$	=	Ratio of Net Profit obtained through net profit divided by sales.
$\beta_2 CRit$	=	Current Ratio.
$\beta_3 ROAit$	=	Return on Assets
$\beta_4 ROCEit$	=	Return on capital employed.
$\beta_5 DEit$	=	Debt equity ratio

$€_{it}$ = Error term

α, is used as intercept and β_1, β_2, β_3, β_4, β_5, and β_6, are used as coefficient.

Above equation has been used to check the impact of IDV (independent variable) on DV (dependent variable). As the indicator of economic growth rate GDP is the independent variable and various financial ratios are the dependent variable. Through the above equation ordinary least square method has been applied.

Descriptive analysis

table 1 shows the analysis of descriptive statistics of all the observations. NPR variates between 7.67 to .009 with mean value of 1.85 due to the facts that profitability of companies' dependent upon the economic growth rate i.e. GDP. GDP lies between 8.5 to 3.09 with mean value of 6.99. NPR have deviation from the mean value with approx. 29%.

Table 1. Descriptive Analysis of Data

	Avg.	**Std. Dev.**	**Maximum**	**Minimum**
DE	0.580725	0.11447	0.810331	0.417909
CR	0.932032	0.098667	1.05	0.725608
NPR	1.855942	2.966729	7.67	0.009604
ROA	5.043333	2.221154	7.6	1.88
ROCE	11.03867	6.372639	24.86	4.27
GDP	6.995333	1.485703	8.5	3.09

(Source: Author's Compilation)

Test of stationarity

In this part stationarity of all the variable tested using Levin, Lin & Chu test at first level. economic growth for the all the companies selected for the study is constant over the period. null hypothesis regarding the unit root has been rejected at 5% significance level (p value < .05). all series of data do not have unit root, data being stationary. (Table 2.)

Table 2. Results of unit root by Levin, Lin & Chu

Variables	Stat.	Prob.
CR	-4.02397	0.000*
DE	-4.57784	0.000*
GDP	-3.69784	0.001*
NPR	-4.86345	0.000*
ROA	-3.19739	0.007*
ROCE	-6.42318	0.000*

(Source: Author's Compilation)

Correlation test

Test of correlation help to understand the association between the variables and can be used to check multicollinearity in the data. It is necessary prior to design panel data analysis to check goodness of fit. In the present study matrix of Pearson correlation is measured. Value higher than .07 show the strong relationship between the variable which is a negative sign of goodness fit. In our study ROCE (0.72 & 0.87) have high correlation with NPR and ROA. (Table 3)

Table 3. Correlation Test

	CR	DE	GDP	NPR	ROA	ROCE
CR	1.000000	0.322924	0.403004	-0.331275	-0.352777	-0.356135
DE		1.000000	-0.129227	-0.348701	-0.533455	-0.554373
GDP			1.000000	0.116248	0.586962	0.458029
NPR				1.000000	0.633535	0.726718
ROA					1.000000	0.873735
ROCE						1.000000

(Source: Author's Compilation)

Regression Analysis

Below table shown the results of regression analysis using ordinary least square (OLS). Debt equity ratio, return on capital employed are not statistically influenced by GDP because the probability value is more than 5% (.05). while current ratio, return on assets and net profit ratio are statistically significant at 5% level (p value <.05). r-square value is 0.84 (84%) and adjusted r-square value is 0.76 (76%) show that independent variable (GDP) explain all variable by more than 75%, F-statistics value is 9.962 with probability of 0.00 (Table 4). In regard to testing of hypothesis, 1, 3, and 4 hypotheses have been rejected while other hypothesis have not rejected. Testing of hypothesis reveal that GDP has significant relationship and effect ROA, CR & NPR. DE and ROCE are not effected by GDP in India. Final results shown that ROA, CR and NPR are the major indicator of FA of Indian companies in India also, influenced by GDP rate.

Table 4. Regression analysis

Variables	Coeff.	SE	t-Stat.	Prob.
CR	9.615598	2.153252	4.465616	0.0016*
DE	2.074705	2.086330	0.994428	0.3460
NPR	-0.188551	0.096313	-1.957694	0.0419*
ROA	0.623819	0.181138	3.443885	0.0073*
ROCE	0.054279	0.072392	0.749796	0.4725
C	-6.566904	2.460503	-2.668928	0.0257*
R-sq value	0.846975			
Adj. R-sq value	0.761962			
F-stat.	9.962815			
Prob (F-stat.)	0.001817*			

(Source: Author's Compilation)

Summary and conclusion

This study aims to analysis the impact of various factor on financial performance of Indian companies listed in stock exchange. We have checked the impact of economic growth rate i.e. GDP. There are macro and micro factors associated with company which effect financial

performance. Micro factors are controllable in nature while macro factors are uncontrollable in nature. GDP is important measure of economic development of a nation while financial performance plays important role in attracting investors to invest in their company. Our study reveals that financial performance is significantly affected by economic growth rate. By application of panel methods through Eviews reveals that return on assets, return on capital employed, current ratio, net profit ratio and debt equity are the major determining factor of financial performance of the companies. There is direct linkage between the dependent variable and independent variable.

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