



ORIGINAL RESEARCH PAPER

Management

A STUDY ON SELECTED MACRO ECONOMIC VARIABLES AND ITS IMPACT ON TOTAL EXPORTS FROM INDIA

KEY WORDS: SEZ, G.D.P, Inflation, Exports

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ABSTRACT

Exports plays a vital role in the development of economy of any developing country and exports are also considered as a very important factor for foreign exchange earnings. Similarly, Macro-economic variables are the indicators of any country's economic development. In this study we are assuming that exports of any developing country are dependent upon various economic variables, some of them are having positive impact on exports whereas some of them are having inverse. The selected macro-economic variables are Foreign Direct Investment (FDI) inflows, Inflation, Gross Domestic Product (GDP) and Exchange rate. We will use multiple regression and ANOVA as statistical tools in the analysis of data. The current research would enable us to identify the impact of above mentioned macro-economic variables on exports further we would try to conclude weather there is any correlation between these macro-economic variables and exports or not.

Introduction

Exports are one of the most important sources of growth and earning foreign exchange for developing countries. Which conclude that there is a direct relationship between the country's exports and growth of the country (Kravis, 2000). Exports from India have increased rapidly in the past decade after the SEZ Act. Robertson (1938) stated that the exports are the 'engine' of growth. Robertson also suggested that countries with greater exports always have rapid overall growth. Exports provide the basis for sustainable development by earning necessary foreign exchange for the country to import necessary products. The development of SEZ generates exports from the country, employment, income creation, infrastructural development within the country, attracts foreign players for investments (Shrivastava. A, 2017)

After analyzing previous researches it has been found that macro-economic variables like GDP per capita, GDP growth rate, Foreign Direct Investment & Inflation of India have shown substantial differences in last decade. In this paper, we are interested to find out that if there is any significant impact of these macroeconomic variables on export performances of India. Therefore, we need to justify the selection of these macro-economic variables, for this intensive review is done.



Defining Macro Economic Variables

Gross Domestic Product (G.D.P) is considered to be the sum total of all the final goods and services produced within the geographical boundary of a country in a given period (Aslanov E, et.al. 2010). GDP growth means the increase of social welfare and wealth in the country (McConnell and Brue, 2008). India has shown a constant increase in the GDP.

Foreign Direct Investment (F.D.I) net inflows are the net investments of foreign investments and assets into host/domestic country in the form of business organization, infrastructure, trade and equipment. Economic growth rate and exports have shown a positive relationship with FDI inflows.

Inflation means rise in the price of goods and services, or when rupee buys less than you think off called as inflation. It is caused by various factors, but most of the factors are related to debt and interest.

Inflation Rate is measured by the consumer price index or retail price index in different countries which reflects the annual percentage change in the cost to the average consumer of acquiring goods and services in a given time such as yearly (Muhammad Waqas Chughtai,2015).

Exchange rate is the value of one country's currency in terms of units of other country's currency. In the last decade, the Indian Rupee (INR) has been depreciated drastically which somehow affects the exports from the country. The exchange rate is taken as independent variable.

Per Capita Income is when total national income (GDP) of the country divided by total population. It serves as one of the indicator of country's living standards. McConnell and Brue (2008) recently per capita income of India has shown a significant trend of increment. Per capita income is taken as independent variable.

All the above macroeconomic variables are selected based on research done by the other scholars.

Objective of the Study:

1. To study the impact of various Macro Economic Variables on Total Exports from India

Hypothesis:

- H₀₁: There is no significant impact of FDI inflow on Total Exports from India.
- H₀₂: There is no significant impact of Exchange Rate on Total Exports from India.
- H₀₃: There is no significant impact of GDP on Total Exports from India.
- H₀₄: There is no significant impact of Inflation on Total Exports from India.

Research Methodology

The Study:

The study undertaken was exploratory cum descriptive in nature which provide valuable inputs on the research topic. To analyze the impact of 'Macro-Economic Variables' on 'Total Exports from the

country' the data is taken from reliable sources like website of department of commerce.

The Sample:

The research was conducted on a sample of last 10 years data.

The Tools

- **Tools for Data Collection:** The data was collected through various sources available for secondary research like website of department of commerce, website of world trade organization, various published research papers, newspapers etc.
- **Tools for Data Analysis:** The analysis of collected data was carried out using SPSS 16.0 and MS-Excel. The significant association among factors was analyzed by applying *Multiple regression test* and ANOVA by using SPSS.

Result Analysis and interpretation

The collected data was analyzed by applying 'Multiple Regression' and 'ANOVA' on 'SPSS 16.0' to study the impact of various macro-economic variables on Total exports from India, used in our study and to understand the level of significant association with them. During the analysis following results were found:

Descriptive Statistics			
	Mean	Std. Deviation	N
Total_Export	2.24735714E2	9.206570622E1	7
FDI_Inflow	3.177143E1	9.1476252	7
Exchange_Rate	50.9929	9.52037	7
GDP	1.6184E3	476.07011	7
Inflation	7.2557	1.52026	7

The above table represents the descriptive statistics of the data used in the test. The means are displayed for all four variables used in the study, where variable 1 (total export) is the dependent variable and rest four variables viz. FDI_Inflow, Exchange_Rate, GDP & Inflation are predictor variables (dependent variables). Standard deviations are also displayed to get closer prediction and variation among the variables' values.

Correlations						
		Total_Export	FDI_Inflow	Exchange_Rate	GDP	Inflation
Pearson Correlation	Total_Export	1.000	.215	.840	.967	.233
	FDI_Inflow	.215	1.000	.097	.244	.280
	Exchange_Rate	.840	.097	1.000	.854	-.289
	GDP	.967	.244	.854	1.000	.099
	Inflation	.233	.280	-.289	.099	1.000
Sig. (1-tailed)	Total_Export	.	.322	.009	.000	.307
	FDI_Inflow	.322	.	.418	.299	.272
	Exchange_Rate	.009	.418	.	.007	.265
	GDP	.000	.299	.007	.	.416
	Inflation	.307	.272	.265	.416	.
N	Total_Export	7	7	7	7	7
	FDI_Inflow	7	7	7	7	7
	Exchange_Rate	7	7	7	7	7
	GDP	7	7	7	7	7
	Inflation	7	7	7	7	7

The above correlation matrix displaying the relation between dependent and independent variables. List wise cases are displayed to show individual correlation between two variables. All the variables are positively correlated (as per the result). Each relation is discussed below:

First Case: Total Export & FDI_Inflow (1:0.215) – The correlation matrix shows positive but week relation between these two variables. It can be considered that, FDI_Inflow not having much significant impact on Total Export of the country, but may be one of the predictor.

Second Case: Total_Export & Exchange_Rate (1:0.840) – The correlation matrix shows positive and very strong relation between

these two variables. The relation is very much positive and strong and can be considered as one of the most promising predictor of total export of the country. According to the testing result Exchang_Rate may help to predict total export of the country.

Third Case: Total_Export & GDP (1:0.967)– The correlation matrix shows positive and very strong relation between these two variables. The relation is very much positive and strong and can be considered as one of the most promising predictor of total export of the country. According to the testing result GDP may help to predict total export of the country.

Fourth Case: Total Export & Inflation (1:0.233) – The correlation matrix shows positive but week relation between these two variables. It can be considered that, Inflation not having much significant impact on Total Export of the country, but may be one of the predictor.

ANOVA ^b					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	47570.737	1	47570.737	72.388	.000 ^a
Residual	3285.828	5	657.166		
Total	50856.566	6			

a. Predictors: (Constant), GDP
b. Dependent Variable: Total_Export

The null hypothesis is found rejected as the sig. value for the test is found 0.00 < 0.05. it can be concluded that independent variables viz. FDI, Exchange_Rate, Inflation & GDP has significant impact on dependent variable viz. Total_Export. Hence, it is believed that these variables are the strong predictor of total export of the country.

Conclusion

Macro-economic variables are considered as the economic indicators of any country's economy, and export is the backbone of developing economy. In this study we tried to check the impact and correlation between the various macroeconomic variables and the exports. The result of the study concludes that there is positive and strong correlation between Total Exports from India and macroeconomic variables like Gross Domestic Product (GDP), Exchange Rate and Foreign Direct Investments inflows (FDI), whereas Total exports and Inflation is having positive but weak correlation, which means if GDP, FDI, Exchange Rate is increasing then the total exports from the country will also increase and thus with the help of this study we can also conclude that exports is somehow dependent upon these macroeconomic variables.

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