Globalisation and its Influential Factors: An Analysis on India

Somnath Das

Govt. Approved Part Time Teacher,
Department of Commerce,
Burdwan Raj College, Burdwan,
West Bengal

Abstract

Globalisation of a country signifies the connectivity with various nations through different forms of trading. Globalisation has been measured by Globalisation index (GCI). Generally, it focuses on the flow of trade, capital, information and human being of nations. Globalisation of a country may be influenced by various macro environmental elements; like, Human Development Index (HDI), Corruption Perception Index (CPI) and Global Terrorism Index (GTI) etc. Objective of this study is to identify and analysis the effect of the above mention environmental elements on globalisation index of India. Multiple Regression model has been implemented on forty seven years (1970 to 2016) related data of macro environmental elements and globalisation index for calculation of results. Result of the study reveals that some determinants have positive impact on globalisation of India during the sample period and some have not.

Keywords: Globalisation Index, Multiple Regressions, Human Development Index, Corruption Perception Index, Global Terrorism Index.

Introduction

Globalisation is a growing interaction and interdependent process of economy and society among various nations of a large distance (Vujakovic, 2001). Effective use of all resources is possible through globalisation (Fischer, 2003). It helps Individual to enjoy the facilities of resource mobilisation (Edwards,1998). Globalisation also affects technology, education, culture also affected by globalisation (Dreher, 2006). It effects not only limited within economic and social aspects of nation but politics also affected by it. Economic, social and politics are treated as three pillars of globalisation (Kearney,2007) and thus it has multiple effects. Globalisation is not only a multidimensional approach but also a composite form of various indicators (JRC/OECD, 2008, p. 13).

Degree of globalisation has been measured through globalisation index. Globalisation of a country depends on country's macro and micro environmental factors (Birnleitner,2013) such as suppliers, customers, labour, trade union, human development, education of individual, inflation rate etc (Kalpana, 1986). So, it can be said that globalisation is the function of various environmental elements and therefore it is assume that these elements have effect on globalisation index.

The remaining of this paper is designed as follows: Review of literature and research gap have been depicted in section-II. Section –III deals with objective. Section-IV highlights collection of data and study period. Section-V highlights formulation of hypotheses. Research Methodology has been discussed in section-V. Section-VI analyses the results and the last section deals with conclusion and recommendation.

Section-II

Review of Literature:

Globalisation is the degree of connectivity of any country with rest of the world. It is measured through globalisation index. This index is consists of three dimensions i.e. social, economic and politics. Globalisation acts as a driver of globalisation (Obwana, 2001).

The term Internationalization and globalization are used for many economic aspects (Adler, N. J., 2008). It affects the growth of any country (Dreher, 2006). Globalisation of a country depends on various elements of environment. Pfaff (2004) investigates that it is affected by PEST i.e. political environment, economic environment, social environment and technological environment. Hofstede (2001) conducts a study regarding culture and its impact on globalisation. He observes that five cultural dimensions i.e. power distance (PDI), uncertainty avoidance (UAI), individualism versus collectivism (IND), masculinity versus femininity (MAS) and long-term versus short-term oriented persons (LTO) affect globalisation procedure. In a study McCarthy (1975) defines five various segments of macro environmental elements i.e. objective, resources of the firm, present business circumstances, social & cultural environment, political & legal environment and economic environment that influence the entry of new foreign business in a country. Another study by Kieser and Kubicek (1976) evaluate that competitive situation, customer structure, dynamic of technology, task specific environment, and social condition, cultural conditions etc influence on globalisation of a country. Ansoff (1997) investigate that adjustment of internal environment with external environment is essential for multinational companies. Mintzberg (2009) and Skinner (1964) examine that materials, relative costs of labour, overhead, equipment, capital, availability of credit taxes, cyclical activity, stability-inflation growth, forecast ability, foreign exchange, competition, distribution system, tariffs, mass media for communication, availability of talents and skills, purchasing power of individual etc have impact on globalisation. Karlsson et al. (2012) examine the relationship between education and skilled employee which is attractive for globalisation. Trompenaars (1994) examines that various various cultural factors affect the globalisation. According to his views culture is the combination of human relationships, the feeling and interpreting of time and the attitude to the environment.

Similarly, cross-border culture, perception of foreign life style may influence the adoption capability of globalisation (Monda et al., 2007; Popkin, 1999; Rivera et al., 2002; Swenburn,2011). Globalisation influences the balance of power that helps to change the market economy, social and environmental conditions and collective action of internal agencies (Zarsky 1997).

Section-III

Research Gap and Objective of the study:

Globalisation is affected by various environmental factors such as political, economic, technological and social environment. Cultural dimensions, employee's skill, relative cost of labour, foreign exchange rate, perception of foreign lifestyle also affects the globalisation flow of this country. It is observed from the above study that globalisation changes the balance of socio-economic power of a country. Education and skilled workers also play vital role for enhancing the degree of globalisation. So it can be said that globalisation is influenced or affected by various environmental elements. These may be macro or micro. It is expected that except these elements other macro environmental factors like human development index, global terrorism index and corruption perception index have effect on globalisation. But existing literature unable to presents the effect of these environmental elements on globalisation. This is the research gap of the present study which motivates me to carry out this research work.

Objective of the study:

Objective of the present study is to identify the effect of above mention environmental elements on globalisation and investigate the more effective element/s for improving the globalisation of India.

Section-IV

Formulation of Hypotheses:

The following hypotheses are formulated based on three environmental elements:

Human Development Index:

The Human Development Index (HDI) is a summary composite index which measures a country's average achievements in basic three aspects of human development i.e. knowledge, health and income (Reyles, 2011). It is a more compact welfare outcome of a country (Lehnert, Benmamoun, & Zhao, 2013; Sharma & Gani, 2004). HDI has been developing through various ways. Foreign direct investment i.e. globalization is affected by it (Agosin and Machado, 2005; Al-Sadig, 2013). Reiter & Steensma, (2010) suggest that HDI has positive effects globalization but its impact is small. Hence, following hypothesis can be drawn from this argument:

H1(Hypothesis 1): There is a positive relationship between Globalisation index and Human Development Index.

Corruption Perception Index:

Corruption has a negative impact on globalization (Hines,1995 and Wei,2000). Smarzynska and Wei (2000) suggest that corruption reduces transparency and increases the power of bureaucracy; as a result foreign direct investors are less interested to invest in corrupted country. But a reverse result is depicted by the study of Henisz (2000). He examines the effect of corruption on new foreign business enters the market and ownership mode for US based multinational companies. He observes that coefficients of corruption on new foreign business are insignificant that represent corruption is associated with globalisation. But generally it is expected that corruption creates a negative impact on globalisation. Therefore, the following hypothesis may be drawn:

H2: There is a negative relationship between globalisation index and corruption perception index.

Global Terrorism Index (GTI):

Terrorism is the use of violence or threat of violence in order to purport a political, religious, or ideological change (Wikipedia). Degree of terrorism movement has been measured through Global Terrorism Index (GTI). It is an attempt to prepare ranks in a systematic way of the world based on terrorist movement (Fandl, 2003). This activity of a country creates negative impact on trade activities (Nitsch and Schumacher, 2003). S.W.Polachek (2004) also examines the negative association between trade and terrorism movement. From the above be concluded that, globalisation is negatively affected by Global Terrorism Index. Following hypothesis can be derived from the above explanation.

H4: There is a negative relationship between Global Terrorism Index and globalisation index.

Data and Study Period:

The study uses annual data relating to globalisation index, HDI, GTI, GCI, which are collected from their respective websites and from the official website of World Bank during the period 1970 to 2017.

Section-V

Research Methodology:

Measurement of Variables:

Two types of variables have been considered, namely dependent and independent variable which are as under:

Dependent Variable:

Forty seven years Globalisation index of India has been considered as dependent variable.

Independent Variable:

Three variables have been considered and establish as independent variable for the study.

Human Development Index:

The Human Development Index (HDI) is a combined measure of average achievement of key dimensions of human development i.e. a long and healthy life, being knowledgeable and have a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions (Human Development Report). Higher score indicates higher development of human life.

Corruption Perception Index:

The Corruption Perceptions Index is the result of public sector survey. It measures the perceived levels of public sector corruption in countries worldwide. It based on expert opinion; countries are scored from 0 (highly corrupt) to 10 (very clean). Some countries score well, but no country scores a perfect 100. (Petrobas, 2012).

Global Terrorism Index:

The Global Terrorism Index (GTI) is an attempt to represent systematic rank the nations of the world according to terrorist activity. The index combines a number of factors associated with terrorist attack. It is the product of Institute for Economics and Peace (IEP) and is based on data from the Global Terrorism Database (GTD) which is collected and collated by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland. Higher value of this index provides high terrorism activity and vis-à-vis. It varies between zero (0) to one (1) (Wikipedia).

Hence, multiple regression model has been used as method for analysing the result of this study by taking log both side. Hence Durbin Watson test is also applied for searching out the autocorrelation among sample independent variables. Kolmogorov-Smirnov test and Shapiro-Wilk test are applied for testing the normality of the data. VIF is also examined for testing the Multi-Colinearity among data. Following regression equation represents the relationship of said above mention elements and globalisation.

$LGI = \beta_0 + \beta_1 LHDI + \beta_2 LCPI + \beta_3 LGTI + e$

$LGI = \beta_0 + \beta_1 (LHDI_{t-1}) + \beta_2 (LCPI_{t-1}) + \beta_3 (LGTI_{t-1}) + e$ [Taking lag 1]

Explanation of variables are presented in table no.1

Table No.1

Variable	Description
LGCI	Log of Globalisation Index
LHDI	Log of Human Development Index.
LCPI	Log of Corruption Perception Index.
LGTI	Log of Global Terrorism Index.

Section-VI

Analysis of Result:

Result of descriptive statistics shows by the table number 2. Deviation of Globalisation index (0.12) among sample years is lower than other variable. Coefficient of variance signifies the consistency of data among sample period. Value of coefficient variance of Globalisation index (7.99) indicates more consistency among sample period than other variables.

Table No 2
Descriptive Statistics

Dimensions	Mean	Std. Deviation	Coefficient of variance
GI	1.56	0.12	7.99
HDI	1.35	0.54	40.29
CPI	0.91	0.24	26.40
GTI	1.76	1.01	57.81

Among independent variables CPI is more consistent (26.40) during sample period. It indicates fluctuation through the period of this data is very lower. Coefficient variance of this descriptive statistic also highlights that intensity of fluctuation of GTI of India is very high (57.81) during the sample period. Result also shows that movement of HDI of India is 40.29 for sample period. It can be said that our country is not free from corruption.

Table No.3
Coefficient

Model	Beta	t	Sig.
(Constant)		4.317	.000
HDI	.435	3.226	.002*
CPI	.589	7.463	.000**
GTI	-.017	-0.149	.882

Note: '*' stand for significance at 2% level and '**' stand for significance at less than 1% level.

Human development index (HDI) has positive impact (.435) on globalisation of India during the study period and the value of this effect is significant at 2% level, this value of effect satisfies our alternative hypothesis. Corruption perception Index (CPI) does not satisfies the alternative hypothesis but it significant at less than 1% level. Result of CPI indicates enhancement of corruption act as a influencer of globalisation and vis-à-vis. Global terrorism index of India gives a result which is not significant but this result indicates that terrorism movement in India negatively influences the globalisation of India which able to satisfy our alternative hypothesis 3 (H3).

Hence, the adjusted R square is 84% , it represents the good-fitness of the regression model.

Hence the value of Durbin Watson test is 2.158 that belong to autocorrelation free range (1.80-2.20). It signifies that there is no autocorrelation among sample independent variables. Variance Inflation Factor (VIF) of three variables is around 1 i.e. HDI (1.000), CPI (1.005) and GTI (1.005). It signifies there is good shape among variables and it can be proceed for regression. It also says that there is no multicollinearity among variables. Kolmogorov-Smirnov test and Shapiro-Wilk test on variables shows that the significance value is close to zero which represents the data are not normal. Hence the regression analysis has been conducted on these non normal data. It also be expected that these three independent variables influence the globalisation index of India. Effect of these independent environmental elements on globalisation of India during study period can be presented by the following table (Table No 3).

Table number 4 shows this result.

Table No 4
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.922	.850	.840	.04983

ANOVA table shows the macro environmental how much accurate. Table number 5 represents these results.

Table No.6 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.619	3	.206	83.094	.000
Residual	.109	43	.002		
Total	.728	46			

Here, the regression value is .619 i.e. 85.03% of total. Hence residual value is .109 i.e. 14.97 % of total. The result of this table indicates that these elements are perfectly accurate. Value of F statistics is 83.094 that is significant at less than1% level.

Conclusion:

Globalisation of India is influenced by all sample environmental elements. This study is conducted on forty seven years (1970-2017) data of three environmental elements by using multiple regression method. Result of this study reveals that effect of two elements satisfies the hypotheses. Out of these two only human development index has significant impact on globalisation. Corruption perception index has significant positive impact on globalisation of India. But this impact does not satisfy alternative hypothesis (H2). Impacts of GTI on globalisation show that terrorism activity of India reduces the degree of globalisation. It can be concluded that all three variables have impact on globalisation but human development index act as more influential factor on it.

Hence it would be better to consider the impact of more variables on globalisation. Future study will try to do this.

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