A STATISTICAL MODEL TO FORECAST FOREIGN DIRECT INVESTMENT OF A COUNTRY: A CROSS COUNTRY ANALYSIS

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DECLARATION

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ABSTRACT

In this research it is aimed to study the effects of variety of different socio economic factors for foreign direct investment. The multiple linear regression model is developed to forecast the foreign direct investment. The dependent variable of the model is foreign direct investment of the country in calendar year 2015. (in USD) and the independent variables are the gross domestic product in USD, adult literacy rate, gross national income, gross domestic products annual growth and gross national income. Hypothesis tested was all socio economic factors affect equally to the attracting foreign direct investment. Further the extent of which various socio economic indexes affect a country's economic well-being was evaluated to determine which indexes have stronger effect on the foreign direct investment of a country when compared with the others. Having identified the stronger and more impact socio economic indexes, it was tried to improve the econometric model by using variable selection methods and possibly multiple regression methods to further understand the relationship between foreign direct investment and the socio economic factors that affected. Finally exploratory factor analysis was carried out to examine the common factors among socio-economic variables. For this study a pool of forty five countries were selected and ten models were developed using thirty five countries from the pool and the ten models illustrated that there is no equal influence from eight macro-economic variables to FDI amount of the country at 95% significant level. The result emphasis that the macro-economic variables differently affect in attracting foreign direct investment. Moreover the factor analysis asserts that there are similar patterns among macro-economic variables.

Keywords: Foreign Direct Investment, Macro-economic Indicators, Multiple Regression Analysis, Factor Analysis

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ANOVA Table: Analysis of Variance Table.

BOP: Balance of Payment.

BRICS- Brazil, Russia, India, China and South Africa.

CGE: Computable General Equilibrium

DW Statistics: Durbin Watson Statistics.

ECOWAS: Economic Community of West African States

EU: European Union Countries

FA: Factor Analysis

FDI: Foreign Direct Investments.

GLS: Generalized least squares

GNI: Gross National Income.

KMO Test: Kaiser-Meyer-Olkin Test.

MANOVA: Multivariate analysis of variance.

MENA: Middle East and North African Countries

MNE: Multinational Enterprises.

MR: Multiple Regression.

OECD: The Organization for Economic Co-operation and Development.

OLS: Ordinary least squares

PCA: Principle Component Analysis.

SSR: Residual Sum of Squares.

SST: Total Sum of Squares.

UK: United Kingdom.

US: United States.

USD: United States Dollar.

VIF: Variance Inflation Factor.