

Effects of Foreign Direct Investment on Economic Growth of Tanzania: A Case of Iringa Region

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Abstract

The main objective of the study was to determine effects of foreign direct investment on economic growth of Tanzania. The specific research objectives of the study were to examine the effect of capital inflow from FDI on economic growth, to determine whether or not transfer of new technology from foreign investors has affect economic growth, and to identify if creation of employment from FDI has effect on economic growth. The Neo-classical Growth Theory and The Monopolistic Advantage theory are supported by the study's findings. The study employed a quantitative research approach. The target population of the study was the population from the society how are involved within agriculture and industrial sector and work with foreign investors in Tanzania. The sample period was the period 2007 to 2022. Diagnostic and model specification tests were done on the data. Some data was treated of the problems of times series data and a suitable model, that would address the problems of untreated data was selected. With the aid of Eviews software the study used least squares regression model to perform a regression of the independent variables on the dependent variable. Results were interpreted based on the regression output. On objective one which was to examine the effect of capital inflow from foreign investors, the study found that there is a positive significant relationship with economic growth of Tanzania. The second objective was to determine whether or not transfer of new technology from foreign investors has affected economic growth. The study found that transfer of new technology had a positive significant relationship with economic growth of Tanzania. The third objective was, to identify creation of employment from FDI has effect on economic growth. The study found that employment creation had a positive significant effect economic growth Tanzania. From the findings the study concludes that foreign direct investment has positive relationship with economic growth. From the conclusions the study recommends that, there is need to encourage the foreign direct investors to invest in Tanzania because the benefit to gain from them is more compared to the loss. Therefore if the rules and regulation are set foreign direct investment is more beneficiary than exploitative.

Keywords: Foreign direct investments, economic growth.

Introduction

This section presents an introduction of the research topic on the “Effect of Foreign Direct Investment on Economic Growth of Tanzania a case of Iringa. In Tanzania and most developed countries believe that FDI is there to affect the economy negatively by exploiting raw materials and generate profit for their home country and live their county staving with poverty, but FDI is more important when it is being controlled. Here need to have FDI since it results to capital inflows whereby through investment from foreigners brings new items and machinery as well as funds for investment so the host country will be benefit financially. The other one is technology transfer whereby foreign investors bring new technology skills to the host county when operating their investment in Tanzania. The last one is creation of employment where by foreign investors bring new employment to the people by employing that at their investment industries as well as indirect employment to the society who provide services to the employees of the industry. All these benefit the host country (Tanzania) economically by boosting the economy to grow so there is a need to set rules and policies so as we can benefit from FDI instead of neglecting it.

General Objective

The main objective of the study was to assess the effects of Foreign Direct Investment on Economic Growth of Tanzania.

Specific Objectives

To achieve the general objective described above, the following specific objectives were examined:

- i. To examine the effect of capital inflow on economic growth.
- ii. To determine whether or not transfer of new technology has an effect economic growth.
- iii. To identify creation of employment having an effect on economic growth.

Literature Review

Theoretical Literature Review

The theory that guided the study was Neo-classical theory and Monopolistic Advantage Theory

Neo-classical theory

The Neo-classical Growth Theory is also known as, the Solow-Swan growth model or the exogenous-growth theory. It is an economic growth model that defines how stable economic growth occurs when three economic factors come into play; capital, labour, and technology. The theory implies that the accumulating of exogenous productive resources, like capital, technology, and labour force, drives economic growth. Using the exogenous model (Cobb &

Douglas, 2011) developed empirical research on economic growth that employs the aggregate production function.

It has shown that the accumulation of capital contributes directly to economic growth through this framework, in proportion to the share of capital in national output. Besides, economic growth relies on an increase in the labour force and technological development. FDI raises the capital stock in the host country, according to this theory; and this, in turn, will influence economic development (Mahembe & Odhiambo, 2014)

Through the exogenous or neo-classical growth model, capital accumulation and the inclusion of new inputs and foreign technologies in the host country's production function, FDI can directly impact economic growth. Therefore, the neoclassical growth model shows that by increasing the amount and the efficiency of investment in the host country, FDI promotes economic growth (Mahembe & Odhiambo, 2014)

FDI influences income growth by increasing the amount of capital per person. It spurs long-run growth through such variables as research and development and human capital. Through technology transfer to their affiliates and technological spill over to unaffiliated firms in host economies MNCs can speed up the development of new intermediate product varieties, raise product quality facilitate international collaboration on research and development and introduce new form of human capital (Ikara 2003). In the neoclassical growth models FDI promotes economic growth by increasing the volume of investment and/or its efficiency but FDI affects growth only in the short run because of diminishing returns to capital in the long run. Long run growth in the neoclassical models arises from exogenous growth of the labor force and exogenous technological progress.

Monopolistic Advantage Theory

The monopolistic advantage theory by Stephen H. Hymer 1976 suggests that the multinational enterprises possess monopolistic advantages, enabling it to operate subsidiaries abroad more profitably than local competing firms can.

Monopolistic advantage is the benefit accrued to a firm that maintains a monopolistic power in the market. Such advantages are specific to the investing firm rather than to the location of its production. Stephen H. Hymer found that FDI takes place because powerful MNEs choose industries or markets in which they have greater competitive advantages, such as technological knowledge not available to other firms operating in a given country. These competitive advantages are also referred to as firm-specific or ownership-specific advantages. According to this theory, monopolistic advantages come from two sources: superior knowledge and economies of scale. The term knowledge includes production technologies, managerial skills, industrial organization, and knowledge of product.

Empirical Literature Review

Effect of Capital inflow on Economic Growth

Ndiweni (2021) in his study assesses the relationship between international capital inflows and economic growth in developing economies. Methods of threshold regression were employed to examine whether capital flows have different effects in developing economies with weak institutions as compared to those with good institutional infrastructure. Our findings show that a threshold effect exists in the capital inflows and growth nexus. More precisely, the results obtained demonstrated that the impact of capital inflows on economic growth is positive and significant once a defined threshold level of institutional quality has been exceeded. At any point below that threshold level, the capital inflows-growth relationship appears to be non-existent. These results support the notion of the capital inflows and growth relationship being contingent on the level of institutional development in an economy. Therefore, providing vital policy implications for policy makers and government in ensuring the improvement of a country's institutional environment with the purpose of enhancing economic growth through capital flows.

Effect of Technology Transfer on Economic Growth

Modarress (2014) in the study "The Impact of Technology Transfer through Foreign Direct Investment in Developing Nations", foreign investments have evolved over the past two decades to become the most critical business strategies for many companies. While developed countries have been the originators of more than 86% of foreign investment outflows, they receive only 65% of foreign inflows. By contrast, inward investments for developing countries have risen from 28% in 1990 to 53% in 2012. This increase is the result of a growing perception among recipients that attracting FDI to their nations contributes to technology transfer, which enhances human capital formation, leading to reduced income inequality and sustainable economic growth. Therefore, the purpose of the paper was to examine the aforementioned perceptions in the United Arab Emirates (UAE), a developing nation. The study is based on a mail survey of 123 companies, personal interviews with 12 executives, and the review of documents from United Nations Conference on Trade and Development, Annual World Investment, IMF, OECD, UAE Ministry of Economy reports, and several local agencies. The findings indicate that there has been a significant transfer of technology to the UAE, which has had a positive impact on human capital formation. However, evidence of the relationships between technology transfer and income.

Effect of Employment creation on Economic Growth

Romanyuki (2019) emphasizes that labor is one of the main factors of production. Economic growth and social development depend on the full use of it and the quality of the workforce. The article discusses the direct and inverse links of employment and productivity with economic development changes in the structure of the economy (on the example of the Russian economy). The author revealed the fact of insufficiently effective use of labor resources in Russia and offered measures to improve employment and increase productivity.

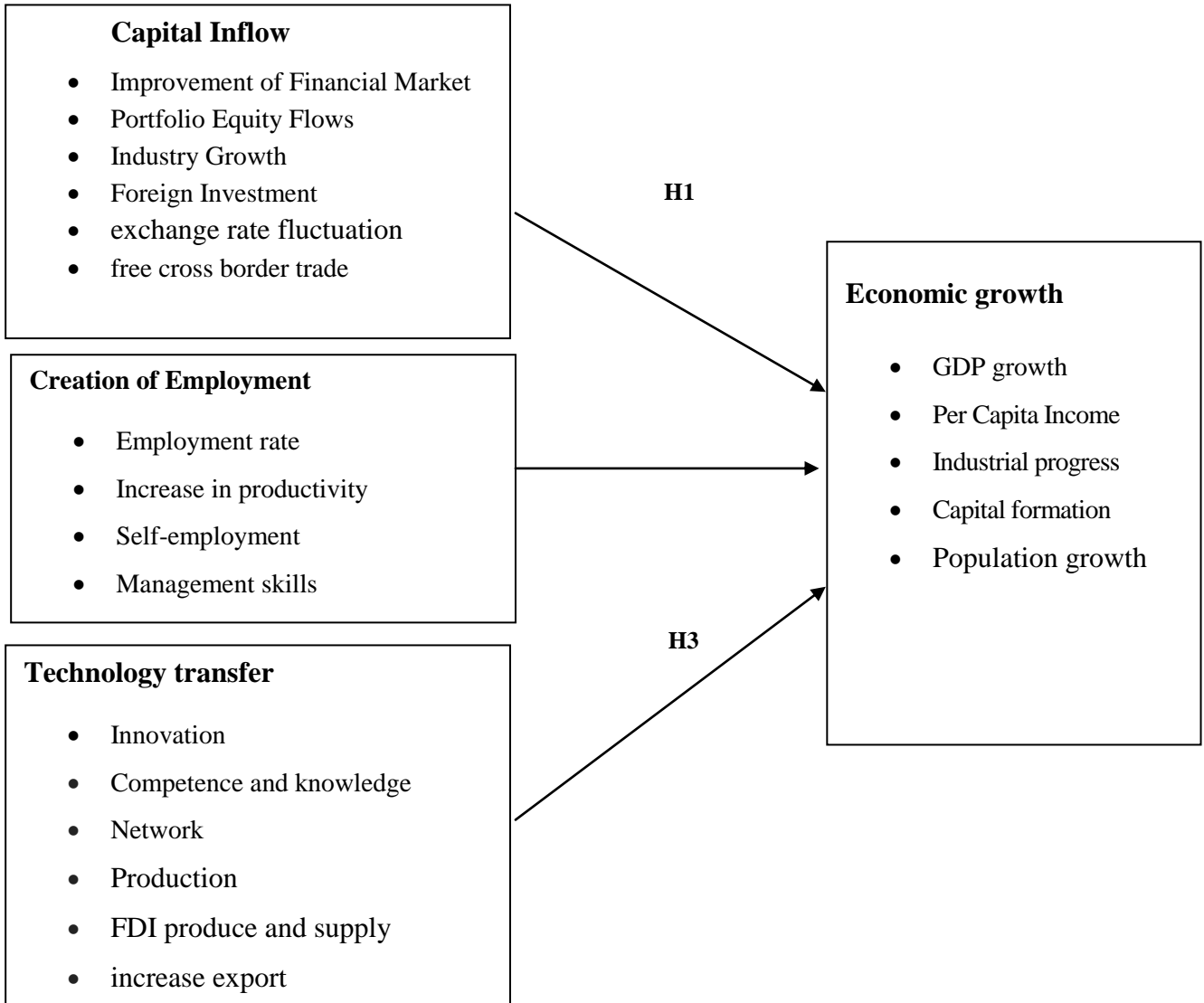
Sudrajat (2008) analyzed “The Relationship between Economic Growth and Employment in Indonesia Period 1993-2003” This study analyses the relationship between employment and regional economic growth on district level during the period 1993-2003 in Indonesia using panel data model as a analysis tool. The result shows a negative relationship especially on distribution effect model and quintile distribution effect model and it is contradict to some empirical analysis. Electricity, gas and water supply is an expansive growth sector but it gives small contribution to economic output about 1.58%. Share of rural population has a positive sign, and also number district split up. Only primary education attainment gives positive effect on employment. In quintile term split up by household income, only share of rural population and primary education give positive effect on employment for all quintile.

Conceptual Framework

A conceptual framework represents the researcher’s synthesis of literature on how to explain a phenomenon. Conceptual framework is the researcher understands of how the particular variables in his study connect with each other (Patrick, 2015). In this study there are two major kinds of variables; dependent variables and independent variable. It is called dependent because it "depends" on the independent variable. Independent Variable is the variable that is stable and unaffected by the other variables you are trying to measure. The independent variables in this study are technology transfer, employment creation, capital inflow. Dependent variable of this study is economic growth in Tanzania.

Figure 2.1: Conceptual Framework: effects of Foreign Direct Investment in Economic Growth in Tanzania.

Effect of Foreign Direct Investment in Economic Growth in Tanzania.



Source: Researcher (2022)

Hypotheses Formulation

Using the above conceptual framework, hypotheses were formulated as follows:

Ha₁: *There is a positive significant relationship between capital inflow and economic growth.*

Ha₂: *There is a positive significant relationship between technology transfer and economic growths.*

Ha₃: *There is a positive significant relationship between employment creation and economic growth*

Methodology

In this study positivism paradigm was used. Positivism paradigm argues for the existence of a true and objective reality that can be studied through the premises of empirical evidence and theory. Thus, the suitability of positivism paradigm in the current study was justified as it offered a chance for the researcher to understand reality and acquire knowledge on the effect foreign direct investment in economic growth using existing theory and empirical evidence. Since the current study was based on empirical studies, positivism paradigm was used to test if capital inflow, technology transfer, employment creation have effects on Economic Growth of Tanzania.

Quantitative approach was used in this study. This study used quantitative approach in order to test the hypothesis on the effects of Foreign Direct Investment on Economic Growth of Tanzania. This also enabled the researcher to determine if capital inflow, technology transfer, employment creation have effects on Foreign Direct Investment on Economic Growth of Tanzania.

In this study both explanatory research design and descriptive research design were used. Descriptive research design was used to profile respondents' characteristics of the study. This study was conducted in Tanzania - Iringa. The study involved the agriculture and industrial sector, these sectors were selected because they are one of the sectors with population which itself involves themselves with foreign investors. Therefore, collecting data from them helped the researcher to mobilize evidence and get required data in order to understand effects of Foreign Direct Investment on Economic Growth of Tanzania.

Stratified sampling was employed to get population respondents from various places in Iringa. Proportional stratified sampling was then used to ensure a fair representative of respondents across the identified places. Finally, simple random sampling was applied to select respondents from strata to complete the survey.

According to Krejcie and Morgan (1970), sample size estimation methods provided a given number of population (N) and size (S). Respondents will be citizens and foreign investors with population of 100 and sample size of 88.

The study used a questionnaire to collect data. Quantitative data analysis was performed by using multiple regression analysis and correlation analysis to test the extent or magnitude of each factor effect on economic growth in Tanzania-Iringa.

Data Analysis, Interpretation and Discussion of Findings

Validity of the study

The researcher measured the validity of the study by using Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of sphericity through SPSS. According to Malhotra (2010), the Bartlett's of 0.5 and above is adequate for multivariate analysis. In this study, all variables have an average value of 0.5 and above. The result extracted from SPSS is presented in the Table 4.1 below which gives the information. From the table researcher found out that sample

sufficiency index KMO by Kaiser-Meyer-Olkin, which compares the sizes of the observed correlation coefficients to the sizes of the partial correlation coefficients for the sum of analysis variables is 0.839 or 83.9%, and it is valid because it above 0.5 or 50% which is the cut-off.

Table 4. 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.839
Bartlett's Test of Sphericity	Approx. Chi-Square	965.343
	Df	253
	Sig.	.000

Source: Field data (2022)

Reliability

Table 4.2 indicates the reliability conducted for all independent variables and dependent variables used in this study. According to Hair et al. (2009) Cornbrash’s alpha is the most common reliability coefficient which estimates internal consistency by determining how all items on a test related to all other items where Cornbrash’s alpha (CA) >6 indicate adequate and composite reliability (CR) >7 indicate good. Based on the reliability analysis, all constructs have Cronbach’s alpha value greater than 0.6, which indicates the internal items are accurate and good. Reliability statistics shows the value of the coefficient alpha or Cronbach’s alpha for the research scale is 0.863 or 86.3% which is an acceptable value for the internal consequence of the conceptual construction of the investigated scale.

Table 4. 2: Reliability Statistics

Variables	Items	Cronbach’s Alpha	Cronbach’s Alpha Based on Standardized Items
Independent variables			
Capital inflow	7	0.860	0.863
Creation of Employment	7	0.854	0.863
Technology transfer	7	0.855	
Dependent Variable			
Economic Growth	7	0.745	

Findings according to Objectives

In these sections, findings have been interpreted in light of literature reviewed and data collected from field. The objectives of the study were to examine the effect of capital inflow from FDI on economic growth, to determine whether or not transfer of new technology from foreign investors has affect economic growth, to identify creation of employment from FDI has effect on economic growth of Tanzania.

Table 4.10 indicates that there is a correlation between each independent variable and the dependent variable. From the findings, the following hypotheses are accepted.

Ha1 There is a significant relationship between capital inflow and economic growth; Pearson correlation value is 0.903 and is significant at the 0.01 level.

Ha2 There is a significant relationship between technology transfer and economic growth, Pearson correlation value is 0.820 and is significant at the 0.01 level.

Ha3 There is a significant relationship between employment creations; Pearson correlation value is 0.907 and is significant at the 0.01 level

Table 4. 1: Correlation

		Capital Inflow	Technology Transfer	Employment	Economic Growth
Capital Inflow	Pearson Correlation	1	.730	.521	.903 ^{**}
	Sig. (2-tailed)		.000	.000	.000
	N	81	81	81	81
Technology Transfer	Pearson Correlation	.730	1	.603 ^{**}	.820
	Sig. (2-tailed)	.000		.000	.000
	N	81	81	81	81
Employment	Pearson Correlation	.521	.603 ^{**}	1	.680
	Sig. (2-tailed)	.000	.000		.000
	N	81	81	81	81
Economic Growth	Pearson Correlation	.903 ^{**}	.720	.680	1
	Sig. (2-tailed)	.000	.000	.000	
	N	81	81	81	81

** . Correlation is significant at the 0.01 level (2-tailed).

a) Model Summary

The overall estimation results are supported by the value of the R square value of is 70.0%. This explains about 70.0% of the variance to the dependent variable, which is economic growth. Furthermore, the R-value, which represents correlation, is 0.801, which indicated a positive relationship between the independent variables and the dependent variable. (Capital inflow, technology transfer and employment creation from foreign investors has a positive relation with economic growth. This implies that the model results in this study fit the data used in the analysis to a large extent.

Table 4. 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.801 ^a	0.700	0.757	1.41239

a. Predictors: (Constant): Capital inflow, Technology transfer, and employment creation

The results show that F-statistics is 39.971 at a p-value of 0.000, whereas the sum of squares 318.943 at 4 degrees of freedom. In summary, the model is statistically significant as the p-value is less than the cutoff of 0.05. From the ANOVA results, the research can conclude that model results fit the data, and all predictors of foreign investors have a significant effect on Economic growth.

Table 4. 3: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	318.943	4	79.736	39.971	.000 ^b
	Residual	91.763	46	1.995		
	Total	410.706	50			

a. **Dependent Variable:** Economic Growth

b. Predictors: (Constant), Capital inflow, Technology transfer and Employment creation

The overall model estimate indicates that the regression coefficient $\beta = 0.562$ at $p = 0.592$ and t-value of 0.541. Furthermore, the estimate revealed that all parameters are statistically significant with Economic growth. Capital inflow has positive effects on economic growth with $\beta = 0.261$, $t = 2.708$, and $p = 0.008$. Technology transfer has significant positive effects on Economic growth with $\beta = 0.316$, $t = 2.660$, and $p = 0.009$. Employment creation also has significant positive effects on Economic Growth with $\beta = 0.378$, $t = 4.046$, and $p = 0.000$. Based on the regression results, all factors have effects on economic growth. To conclude, all the three independent variable namely capital inflow, technology transfer and employment creation has a positive relationship Economic Growth.

Table 4. 4: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.562	1.385		.541	.592
Capital Inflow	.261	.096	.242	2.708	.008
Technology Transfer	.316	.119	.275	2.660	.009
Employment	.378	.094	.448	4.046	.000

a. Dependent Variable: Economic Growth

Implications of the Findings

To the Policy Makers and Government

The findings can be used to provide practical guidance in solving different economic problems which face the economy of Tanzania such as inflation, balance of payment deficit which can be controlled through making policy which limits the investors to take profit out at a time to equalize the balance of payment. The findings can also be used by the government to find out significant contribution to the economic growth in Tanzania.

Other Researchers and Academicians

The findings of this study can be used to contribute to the stock of available theoretical knowledge in the subject area of foreign investment and economic growth. The study findings can help academicians who may wish to carryout research on related topics.

To Investors

The finding of this study can be used by investors in creation of new jobs and more opportunities as investors build new companies in foreign countries. This can lead to an increase in income and more purchasing power to locals, which in turn leads to an overall boost in targeted economies.

Recommendations for Action

Emanating from the above findings and discussions the researcher provides the recommendations for actions in Iringa municipality where this study was conducted. The recommendations are as follows:

Effect of capital inflow on economic growth.

Foreign direct investment is important since it brings inflow of capital from other countries. From the indicators of this objective the result show that Capital inflows provide a major source of financing with high mean so the government should encourage the inflow of FDI so as to have different source of financial from different countries. FDI is also important because it improve financial market since it brings new currency of other country hence improve exchange rate as well. In addition FDI brings the capital and machines which are not available in the country. This is agreed by many of the respondents that we need FDI to have new capital and machines to increase production in the country. Furthermore foreign investors contribute to revenue collection since they also pay tax for their investment this adds revenue to the host country.

Effect of technological transfer on economic growth

From this objective the researcher recommends FDI is important since it bring new technology from their country which at the end benefit the host country and increase the level of production. The other thing FDI brings knowledge on production of innovative product which is quality and hence increases export. The respondent agree on all this items this why the researcher advice to have foreign direct divestment so to have new knowledge and skills this will lead to increase in production since technology simplify production.

Effect of employment creation on economic growth

Majority of the respondent agree on the effect of employment creation on economic growth. On the following items respondents agree; recipient of FDI often gain employee training here the researcher advice the policy maker to set rules so as the investors to employ the people of the host country this will make them to train them so they will have knowledge from them, There is self-employment which provided services to FDI employees this means that that the society where the investment is they can employ themselves by supply services such as food, shops, and other services can be consumed by the those employees.

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