THEORETICAL PERSPECTIVES OF FOREIGN DIRECT INVESTMENTS AND THEIR IMPLICATION ON ECONOMIC GROWTH

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Abstract - The world economic growth and development has shifted from being controlled by the so-called developed nations to an era where both developed and developing economies share a taste of the pie. Particularly the BRICS (Brazil, Russia, India, China and South Africa) nations have been some of the critical recipients of this globalisation of markets and production. The globalisation of markets has also resulted in South Africa's Multinational Corporations (MNCs) investing directly in foreign markets to produce or market products, called Foreign Direct Investment (FDI). The past 30-35 years has since been showing steady increase in both the flow and the stock of FDI. The average annual outflow FDI (OFDI) has increased from US $25 million in 1975 to US $1.6 trillion by 2012 (Hill, 2014). By 2012, the global OFDI stock was valued at US $21 trillion and more than US $27.9 trillion in global sales was cross-border trade in goods and services (Hill, 2014). FDI has indeed been a driving force behind global economic growth. The aim of this paper is to review the theoretical framework of FDI, hypothesis development,mathematical processing and conceptual model development and specification. Sub-sections covered in this paper are related totheories of FDI, justification of the variables and hypothesis development, model specification and a table explaining how variables of the study were measured.Based on theoretical grounding, the initial findings revealed that, although FDI decisions may sound to be easy to make, the existing literature suggests that, MNCs need to consider certain factors before an endeavour to a foreign economy is made. Dunning (1988) suggests a comprehensive framework, which stress that a decision to enter a foreign market is influenced by ownership advantages of the firm, location advantages of the market, and internalisation advantages of integrating transactions within the firm. Hill (2014) proposes the framework in figure 8 in the next page that consists of a set of questions to assist firms in deciding on FDI.

Keywords - Brics, FDI, MNCs, OFDI, theoretical framework

I. INTRODUCTION

FDI has indeed a driving force behind global economic growth. The aim of this paper is to review the theoretical framework of FDI, hypothesis development, mathematical processing and conceptual model development and specification. Sub-sections covered in this paper are related to theories of FDI, justification of the variables and hypothesis development, model specification and a table explaining how variables of the study were measured. Based on theoretical grounding, the initial findings revealed that, although FDI decisions may sound to be easy to make, the existing literature suggests that, MNCs need to consider certain factors before an endeavour to a foreign economy is made. Dunning (1988) suggests a comprehensive framework, which stress that a decision to enter a foreign market is influenced by ownership advantages of the firm, location advantages of the market, and internalisation advantages of integrating transactions within the firm. Hill (2014) proposes the framework in figure 8 in the next page that consists of a set of questions to assist firms in deciding on FDI.

II. NEOCLASSICAL MODEL

The neoclassical model focuses on the impact of FDI towards economic growth and development of both source and host countries. The model also stresses that FDI will alwaysdistribute funds to the most productive sectors of both countries, for the source country through capital income, while the host country benefits in terms of payment of taxes and creation of jobs (Adams, 2009).The Neoclassicalmodelwas developed by Robert Solow and Trecor Swan during the 50s. The model demands that the rate at which GDP grows should be increased by a higher share towards investment; an increase in the growth of technology or in total productivity (Solow, 1956). According to Hlongwana (2015), the neoclassical model believes that technological progression is similar across the globe if workforce is perpetual and if savings (S), investment (I) and propensity to save (sY) are all equal. According toNeoclassical the production output (Y) is always affected by the interaction between the workforce and the invested capital(Hlongwana, 2015).

The equation of neoclassical model can be written as follows:

$$Y = F (K, L) \quad (2.1)$$

Based on this equation, the production of Y = F (K, L) shows that the returns are continuous to the scale andthat there are diminishing returns to scale of the variable factor, while other factors are held constant (Mankiw, 2003). In economics terms, the neoclassical model can be used to explain why an economy would reach a steady level of growth, while the capital per

employee and the investments are in equilibrium(Hlongwana, 2015). This then suggests that positive impacts of both workforce and capital would results in successful production output. Burda and Wyplosz (2009) believe that technology is a major factor in productivity. But, there is another view that without workforce, capital technology alone would have no effect in increasing productivity and a MNCs can increase productivity by consistently training and educating workforce (Becker & Barro, 1988).

III. JUSTIFICATION OF THE VARIABLES AND HYPOTHESIS DEVELOPMENT

The selection of variables in this study was based on the reviewed literature with regards to OFDI determinants and patterns. Dependent variable: the total value of annual OFDI stock from SA, which refers to both greenfield investment as well as mergers and acquisitions, is the dependent variable of the study. Independent variable: the study comprised of seven (7) independent variables, which are market openness, market size, economic growth, labour and production costs, availability of infrastructure, culture and government policies.

Relationship between FDI flow and market openness

A study by Gray (2011) found a positive correlation between levels of trade or market openness and the FDI flows. This implies that an open trade regime indicates an open approach to money as well as goods and investment entering a country. As explained in chapter 2, it is likely for a MNC to consider investing in a country that encourages open trade. Mabule (2012) found that, there is a correlation evidence between FDI flow and the market openness. Wilson and Vencatachellum (2016) argues that there is a positive relationship between FDI and market openness, however, it is suggested that greenfield investments could have longer lags than mergers and acquisitions simply because greenfield initiatives requires the MNC to set-up new operations in a host country while mergers and acquisitions involves continuation of existing business operations.

H_{01}: There is a relationship between OFDI and market openness activities

Relationship between FDI flow and market size

Obwona (2001) studied determinants of FDI and their impact on economic growth in Uganda and found a positive and significant relationship between FDI flow and market size of the host country. An empirical study by Lim (2001) also found that MNCs are keen on investing in a growing economy where they can benefit from economies of scale and efficient utilisation of resources from the large market size. Therefore, the larger the size of the market, the lower the cost of production and economies of scale it would be for the MNC (Adrino, 2012).

H_{02}: There is a relationship between OFDI and market size of a country

Relationship between FDI flow and economic growth

Dumludag (2011) when analysing determinants of FDI in Turkey has found that economic instability could be a barrier in attracting foreign direct investment. Stable economic conditions result in constant growth. According to Antras et al (2007), when financial markets are more developed, it becomes easier for MNCs to access funds that necessitate growth. An economic market condition that embraces growth is likely to attract investors.

H_{03}:There is a relationship between OFDI and economic instability

Relationship between FDI flow and costs of labour and production

In Japan, a study by Kimino, Saal and Driffield (2007) found that, labour costs and other factors such as market size, bilateral trade, relative exchange rates, exchange rate volatility, and relative borrowing risk had a huge impact on FDI flows to the Japanese economy.In any business operation, higher costs are not conducive to increase profit. The rising costs of production are key factors for foreign investments since MNCs usually look for countries with a cheap labour force (Hlongwana, 2015).

H_{04}:There is a significant relationship between OFDI and costs of labour and production

Relationship between FDI flow and availability of infrastructure

The availability of resources and issues such as skilled workforce, research and development and management complementary skills has been found that, it may affect the decision or choice of a MNC to invest in a country (Anyanwu, 2012).Luiz (2010) has found that investment in existing infrastructure development like efficient electricity services, good quality of roads and railway lines, ports and telecommunication networks has positive relationship with the flow of FDI.However, Luis and Stephan (2011) in a study analysing FDI determinants into Sub-Saharan Africa has found that availability of infrastructure was not seen as statistically significant with a standardised mean (μ) of -0.10 and a p-value of 0.4935 when MNCs decides to invest in a Sub-Saharan African country. Minges et al (2008) also adds that shortages of electricity may contribute to higher production costs because a firm can utilise other means such as solar panels or generators to access power. Therefore, a decision of MNCs to invest cannot be affected by unavailability of infrastructure.

H_{05}: There is no significant relationship between OFDI and the availability of infrastructure.

Relationship between FDI flow and culture

Johanson and Vahlne (1977) argues that the initial stages of OFDI has found that MNCs preferred to invest in a country that share similar cultural background or that is already in a well-established networking or trading partnering relationship to moderate investment risks. Yean et al (2015) believes that investing in a country with different cultural background may require additional costs for the MNC, such as translation of product specification manuals and language training for staff. A study by Harzing (2003) has found that national languagedifferences between host and source countries can be a barrier for foreign business.

H_{06}:There is a significant relationship between OFDI and cultural clash

Relationship between FDI flow and government policies

Government policies usually comprises of investment terms and conditions such as tax reductions, tax deferments, import tariffs in a country. In a study that focused on ICT sector, Kazmi and Manarvi (2009) has found that sound government policies have a positive influence on FDI flow. Luis and Stephan (2011) also found a significant relationship between FDI flow and government policies. Transparent state policies encourage investment (Ariff & Lopez, 2007; Masron & Shahbudin, 2010; Pavida, 2001;.

H_{07}:There is a significant relationship between OFDI and government policies

Model specification

To empirically measure foreign direct investment outflow growth in South African MNCs that are listed on the JSE, the general model specification used is as follows: South Africa's OFDI stocks = FDI_o{market openness, market size, economic growth, labour and production costs, infrastructure, culture, government policies}.[4] Based on the justification of the variables as explained in the previous section, the formal model specification of the study as motivated by Yean et al (2015) who studied OFDI stock in Malaysia is described in this section. The model assumes that market openness, market size, economic growth, labour and production costs, infrastructure, culture, government policies impact on the outflow of FDI growth in South Africa.

Table 3.1: Description of variables, measurements, equation and outcome

Variable	Measured by	Equation	Expected Outcome + / -
OFDI	OFDI stocks of SA (f) in host country (g), in US $ million	FDI_{ofgt}	
Market Openness	Ratio of (total trade/ nominal GDP) of host country (g) to SA (f), in US $ million	$OPENN_{gft}$	(+)
Market Size	Gross domestic product per capita of host country (g) to South Africa (f) in US $ nominal	$GDPPP_{gft}$	(+)
Economic Growth	Ration of inflationrate of host country (g) to South Africa (f) in (%)	INF_{gft}	(+)
Labour and Production costs	Ratio of unit labour costs index of host country (g) to SA (f)	$ULCI_{gft}$	(-)
Infrastructure	Capital distance from SA (f) to host country (g), in km	$DIST_{fgt}$	(- / +)
Culture	Similar communication languages, dummy variable D=1 if English, French or Portuguese are official languages, D=0 if not.	$LANG_{fgt}$	(+)
Government policies	Ratio of corporate tax rates of host country (g) to SA (j) in (%)	TAX_{gft}	(+ / -)

Notes. DDRC, DMAR, DMOZ, DNGR are respectively dummy variables for Democratic Republic of Congo, Mauritius, Mozambique and Nigeria.DDRC*$InULCI_{gf}$, DMAR*$InULCI_{gf}$, DMOZ*$InULCI_{gf}$, and DNGR*$InULCI_{gf}$ are respectively the interaction of f = Democratic Republic of Congo, Mauritius, Mozambique and Nigeria country dummy with relative labour costs to SA.

Source: Depicted by the author, based on a table by Yean et al (2015)

The formal model specification of the study where f denotes South Africa, gdemotesthe FDI host country, tdenotes the year and $\varepsilon_t$denotes the error term,

αdenotes alpha, β denotes beta and Indenotes interaction,is then given as South Africa's OFDI stock in country g is represented as follows:

$$\begin{aligned}InFDI_{ofgt} = \alpha &+ \beta_1 InGDPPP_{gft} + \beta_2 InULCI_{gft} \\ &+ \beta_3 DDRC*InULCI_{gf} \\ &+ \beta_4 DMAR*InULCI_{gf} \\ &+ \beta_5 DMOZ*InULCI_{gf} \\ &+ \beta_6 DNGR*InULCI_{gf} \\ &+ \beta_7 InTAX_{gft} + \beta_8 InOPENN_{gft} \\ &+ \beta_9 InINF_{gft} \\ &+ \beta_{10} InDIST_{fgt} \\ &+ \beta_{11}\ LANG_{fgt}\end{aligned}$$

Where:

(1) $GDPPP_{gft}$ = market size ofcountry g to SA f,
(2) $ULCI_{gft}$ = labour costs of country g to SA f,
(3) $DDRC*InULCI_{gf}$= interaction of Democratic Republic of Congo country dummy with relative labour costs of the country gto SA f,
(4) $DMAR*InULCI_{gf}$ = interaction of Mauritius country dummy with relative labour costs of the country gto SA f,
(5) $DMOZ*InULCI_{gf}$ = interaction of Mozambique country dummy with relative labour costs of the country gto SA f,
(6) $DNGR*InULCI_{gf}$ = interaction of Nigeria country dummy with relative labour costs of the country gto SA f,
(7) TAX_{gft}= relative corporate tax rates of country gto SA f,
(8) $OPENN_{gft}$= relative market openness of country gto SA f,
(9) INF_{gft}= inflation rate of country g,
(10) $DIST_{fgt}$= distance from capital of SA to country g, and
(11) $LANG_{fgt}$= similar communication languages between SA f and country g

The paper also examined the relationship between OFDI in South and Africa and market openness, market size as well as economic stability or growth of the host nations that MNCs targets. The regression model, which was motivated by(Sandhu & Gupta, 2016), was then applied to test the relationship between the dependent variable, which is OFDI stock outside South Africa to the Democratic Republic of Congo, Mozambique, Mauritius and to Nigeria, and the predictor variables being gross domestic product, inflation rate and trade/market openness. The model has tested only four hypotheses(H_{01}, $H_{02,}H_{03}$and H_{07}), and was applied as per the below:

- H_{01}: There is a relationship between OFDI and market openness activities
- H_{02}: There is a relationship between OFDI and market size of a country
- H_{03}: There is a relationship between OFDI and economic instability
- H_{07}:There is a significant relationship between OFDI and government policies

$$OFDI = \beta_0 + \beta_1 GDP + \beta_2 TO + \beta_3 INF + \beta_4 TR\ \mu \text{……...……. Equation 2}$$

So, the above analysis and model refers OFDI as outward foreign direct investment flow outside SA to to DRC, Mozambique, Mauritius and to Nigeria (the parameter to be estimated), β_0 is the constant, β_1 to β_4 are the slope coefficients, GDP is gross domestic product, INF is inflation, TO is trade/market openness, TR is corporate tax rate and μ is referred to the random residual or error term that captures other variables which may influence the dependent variable of the study (OFDI), but not considered in the model. OFDI in South African MNCs in this study was examined with the data from2000 to 2016.
According to Sandhu & Gupta (2016), also supported by (Mottaleb, 2007; Sofilda et al, 2015) reckons that GDP positively impacts FDI flow of host country's market size or economic growth. It is also argued that countries with increasing GDPs attract FDI (Sandhu & Gupta, 2016). This study expectseither a positive or negative sign of the correlation between GDP of the sampled countries and OFDI of SA, while a low inflation rate as per the literature indicates economic stability of ahost country of FDI (Tsen, 2005; Lokesh and Leelavathy, 2012). In this study, the correlation between inflation and FDI outflow from SA to the sampled economies can either be positive or negative. On the other hand, market or trade openness increases the flow of FDI (Chakrabarti, 2001; Aw and Tang, 2009; Bandekar and Sankaranarayanan, 2014). The higher the extent of market openness of a host country, the more is its positioning towards the foreign market (Sandhu & Gupta, 2016). So, the total value of imports and exports divided by the gross domestic product of a host country is used as a representation for market openness (Faroh and Shen, 2015).Since this study has sampled four different countries, the relationship between OFDI and market openness is also expected to either be positive or negative.

CONCLUSION

The argument is that no MNC would successfully grow its OFDI assets if the host country has limited market growth, the size of its market is not large enough to encourage growth, the economy does not adequately grow, labour and production costs are too high, has government policies that are not conducive for business, has a lack of infrastructure, the rate of return on capital is very low and if there is a cultural clash. While conducting the literature review the researcher identified the following relationships:

- Firstly, that there is a positive relationship that exists between OFDI and market openness

activities.

- Secondly, that there is a relationship between OFDI and market size of a host country.
- Thirdly, that there is a relationship does exist between OFDI and economic instability
- Fourthly, that there is a significant relationship between OFDI and costs of labour and production.
- Fifthly, that there is no significant relationship between OFDI and the availability of infrastructure.
- Sixthly, the literature reviewshows that there is a significant positive relationship between OFDI and cultural clash.
- Finally, that there is a significant relationship between OFDI and government policies.

Although FDI decisions may sound to be easy to make, the existing literature suggests that, MNCs need to consider certain factors before an endeavour to a foreign economy is made. Dunning (1988) suggests a comprehensive framework, which stress that a decision to enter a foreign market is influenced by ownership advantages of the firm, location advantages of the market, and internalisation advantages of integrating transactions within the firm. Hill (2014) proposes the framework in figure 8 in the next page that consists of a set of questions to assist firms in deciding on FDI.

According to this framework, a firm should first assess the costs of sending locally produced goods to a foreign country. This includes tariffs charged and determines if such costs are very high or not. Exporting goods can be used instead of going the FDI route if the distribution and tariff costs are very low. However, it is important to define the acceptable low costs before one can make a good business decision. Should the costs be high, it is advisable for the firm to then consider OFDI. The decision for OFDI should not just be finalised during this stage as per figure 8, but another assessment must be conducted on the issue of know-how (Hill, 2014). If the know-how can be agreed upon, then the firm may go for licencing instead of OFDI. This is because licencing can be an alternative should there be an agreement, and failure to such an agreement on the know-how process would then mean the firm should initiate the OFDI process. In particular, a situation where the firm deem the transaction not to be viable for business. But, then again, the firm can opt for licencing in a situation where the know-how can be agreed upon and IP is protected. On the other hand, should the assessment process further indicate that the know-how can be best protected by licencing, the firm can opt for licencing like Nando's, McDonalds, KFC and Burger King have done so before. This framework is in support of what other authors criticised that OFDI is not always effective and firms should not look at FDI as the only way to foreign business market openness and expansion of the business.

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