Institutions as a determinant of Foreign Direct Investment inflows into the Southern African Development Community

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Abstract

Foreign Direct Investment (FDI) in Southern Africa has been one of the drivers of infrastructure development and economic growth especially in sectors such as mining, agriculture, energy, information, and communications technology (ICT).

However, although important economic and institutional reforms have been undertaken by some SADC countries to encourage the inflow of FDI--particularly in low-income countries in the region, the flow of FDI to SADC member states remains low and concentrated in few countries and sectors and is still largely attracted to natural resources sectors.

This paper examines the institutions and infrastructure development in the promotion of FDI inflows into the SADC region. Institutions and infrastructure development typically have a positive effect on FDI inflows through their impact on the investment climate. The paper uses panel data econometric analysis with OLS and PCSE to ascertain the impact of governance institutions on FDI inflows into the region. The results obtained reveal that the quality of governance, together with the level of economic development, market size, and openness to trade with the external world play a critical role in attracting FDI into SADC countries. There is however a need to control rampant corruption and reduce the political instability common in some of the countries of the region.

Аннотация

Важность инфраструктуры для устойчивого экономического роста и развития давно признана экономистами, начиная с 1900-х годов. Однако значение этой ключевой экономической переменной является спорным вопросом, усугубляемым отсутствием эмпирических исследований, особенно в регионе Южной Африки. Из-за нехватки региональных исследований сохраняется определенная неопределенность в отношении инвестиций в инфраструктуру и их влияния на экономический рост. В результате большинство анализов и политических выводов основаны на моделях и исследованиях, проведенных в промышленно развитых странах, или исследованиях по отдельным странам.

Сообщество по вопросам развития стран Юга Африки (САДК) определило инфраструктуру как ключевой элемент устойчивого экономического роста, торговли и инвестиций, а также как средство борьбы с повышенным уровнем бедности и общими тяжелыми социальными условиями. Общеизвестным остается тот факт, что неадекватные стратегии инвестирования и улучшения инфраструктуры в любом регионе могут оказать негативное влияние на его экономический рост и развитие. Это исследование дополняет дискуссию, анализируя вклад расходов на инфраструктуру в экономический рост в Сообществе по вопросам развития Юга Африки.

Анализ взаимосвязи между инвестициями в инфраструктуру и экономическим ростом Сообщества по вопросам развития Юга Африки (САДК) имеет важное значение для определения экономического воздействия инвестиций в инфраструктуру и уровня инвестиций, которые, вероятно, внесут значимый вклад в усилия региона по содействию экономическому росту и решению проблемы бедности и низкого экономического роста. Таким образом, целью данного исследования было установить, существует ли долгосрочная взаимосвязь между инвестициями в инфраструктуру, выражающимися в валовом накоплении основного капитала, и экономическим ростом Сообщества по вопросам развития Юга Африки. В исследовании использовались панельная авторегрессионная модель с распределенным запаздыванием (ADRL) и модель коррекции ошибок (ECM) для изучения долгосрочных и краткосрочных взаимосвязей между валовым накоплением основного капитала и экономическим ростом наряду с другими объясняющими переменными. Исследование показало, что инвестиции в инфраструктуру оказывают положительное и значительное влияние на экономический рост SADC в долгосрочной перспективе, однако в краткосрочной перспективе влияния нет.

Ключевые слова

Инвестиции в инфраструктуру, экономический рост, расходы, развитие инфраструктуры.

JEL: H54; O11; P44.

1. Introduction

Notwithstanding a number of economic and institutional reforms undertaken by some Southern Africa Development Community (SADC) countries to encourage the inflow of Foreign Direct Investment (FDI),FDI into SADC member states remains low and concentrated in few countries and sectors when compared to their regional counterparts in Europe and Asia. For a region made of countries that are developing, FDI is important

because it can serve as a conduit for capital and technology transfer from one economy to the other. Such technology spill overs 'constitute the major contribution of FDI to long term development due to their contribution to improvements in total factor productivity besides their potential to contribute to capital accumulation and the employment and foreign exchange earnings it promotes' (Balasubramanyam and Mahambare, 2004:59). This contribution of FDI to the transfer and diffusion of technology is a critical component of the often-touted benefits of FDI because 'technology is believed to be a vital source of economic growth through capital accumulation, and the benefits that come with the promotion of trade (Moosa, 2002:87).

In the case of SADC, the global economic downturn that began in 2008 affected the region to the extent that between 2009 and 2010, total FDI in the region fell by almost 50%. In addition to this, FDI into SADC is still largely driven by inflows into the resources sector with countries like Angola, South Africa and recently Mozambique leading the way in attracting FDI into the natural resources sector. In the light of this reality, it is important for SADC to increase its global share of FDI inflows and to further diversify this increased inflow into other sectors that would enable the countries of the region to be able to participate in some manufacturing global production value chain, as it diversifies away from natural resources dependency.

This paper contributes to this debate by examining the role of governance institutions in the promotion of FDI inflows into the SADC region. Governance institutions here capture both political and economic institutions and have typically been found to have a positive effect on FDI inflows through their impact on the investment climate and business environment of the recipient regions (Beri & Nubong 2023). By ascertaining these institutional determinants of FDI alongside other control variables, the paper contributes directly to improving our understanding of what are the institutional constraints to greater FDI inflows to the SADC region. This will make it possible to isolate the constraints that prevent effective FDI inflows and to propose relevant policy interventions that could enhance the inflow of FDI to the region. The rest of the paper is divided into six sub-sections. Section 1.2 presents a brief overview of FDI's performance in SADC, while section 1.3 briefly presents some of the literature on FDI and institutions. Section 1.4 contains the model specification and data description, while section 1.5 Presents and discusses our results and section 1.6 concludes the paper.

2. FDI performance in SADC

As many Member States of the Southern African Development Community (SADC) strive to develop their economies, they rely on investment from other nations to help achieve their long-term economic goals. This is because historically, Foreign Direct Investment (FDI) in Southern Africa has been one of the drivers of infrastructure development and economic growth especially in sectors such as mining, agriculture, energy, information and communications technology (ICT) (AFDB,2020:25).

Countries and regions with stronger economic institutions — effective rule of law, a good business climate, more secure property rights and market-friendly social norms — are better positioned to attract investment, participate in trade and utilise physical and human capital more efficiently, resulting in better growth performance over the long run (Robinson et al., 2005). FDI generally contributes to economic growth through capital accumulation in the recipient economy. It also encourages the incorporation of new inputs and foreign technologies in the production processes of the recipient economy. FDI is therefore expected to augment the existing stock of knowledge in the recipient economy through labour training and skill acquisition, on the one hand, and through the introduction of alternative management practices and organisational arrangements on the other (De Mello, 1999:134). Although in Africa public investment is typically critical to lay the foundation for industry (particularly through public provision of infrastructure), private investment is often the direct driver of industrial development and therefore a key enabler of economic growth (Markowitz (2020:6).

In recognition of the importance of FDI, SADC countries have adopted a number of policies and protocols aimed at attracting FDI into the region. One such example is the Finance and Investment Protocol of 2006 which serves as the guiding financial policy for SADC. This Protocol on Finance and Investment highlights the importance of Foreign Direct Investment in Article *3 of Annex 1* by encouraging Member States of SADC to promote entrepreneurship in industries that specifically attract Foreign Direct Investment. Similarly, *Article 4 of Annex 3* directs Member States to collaboratively develop a framework for Tax Incentives that will draw foreign direct investment into the region.

Prior to this regional prioritization of policies to attract FDI in the Finance Protocol, the region had experienced some significant improves in annual inflows of FDI from only $660 million in 1985–95 to about $5.9 billion in 2000–04. Although South Africa and Angola have historically been the top FDI destinations in the region, new champions like Mozambique emerged in the last two decades because of the discovery of natural gas, while the Democratic Republic of Congo (DRC) also increased its net foreign direct investment inflow in 2010 to almost US $3 billion. Similarly, Seychelles increased its foreign direct investment as a percentage of gross domestic product significantly, approaching 40%. Between 2017 and 2018 seven of the region's countries experienced a decline in FDI namely: Angola, Lesotho, Madagascar, Mauritius, Namibia, São Tomé & Príncipe and Zambia. In 2018, FDI more than doubled in South Africa and Zimbabwe. However, in the case of Zimbabwe, the rising FDI inflows in 2018 are associated with a small number of projects, as well as the low base. In 2019, the FDI inflows into the country fell to USD259 million and the downward trend is likely to continue in the context of the COVID-19 pandemic as on global economic growth. (AFDB, 2020:25). See Table 1 below:

Table 1. Net FDI Inflows by SADC Country, 2017-2018 (USDmillion)

	2010-2016	2017	2018(e)
South Africa	4,353	2,007	5,334
Mozambique	4,353	2,293	2,711
Zimbabwe	384	349	745
Zambia	1,447	1,108	569
Mauritius	399	443	372
Madagascar	583	389	349
Botswana	249	177	229
Namibia	666	461	196
Malawi	189	90	102
Lesotho	66	43	39
Eswatini	62	-56	25
Sao Tome & Principe	28	41	17
Angola	-190	-7,397	-5,732

Source: African Development Bank 2019

When compared to other regions, the SADC region has struggled to attract inward FDI both from the region and globally (**See Figure 1**). The barriers identified as preventing higher investment and value chain participation within SADC include access to and cost of finance, tax policies, labour cost and quality, customs regulations, macroeconomic policy restrictions, restrictions on the movement of goods and people (whether formal or informal), infrastructure development, bureaucracy/ease of setting up a business, product quality and standards barriers, corruption, and general political risk/policy uncertainty (Markowitz (2020:8). Mitigating the identified risks and eliminating the associated constraints should encourage an increase in the inflow of FDI into the SADC region and also enhance its contribution to the region's Economic Growth and Development Objectives.
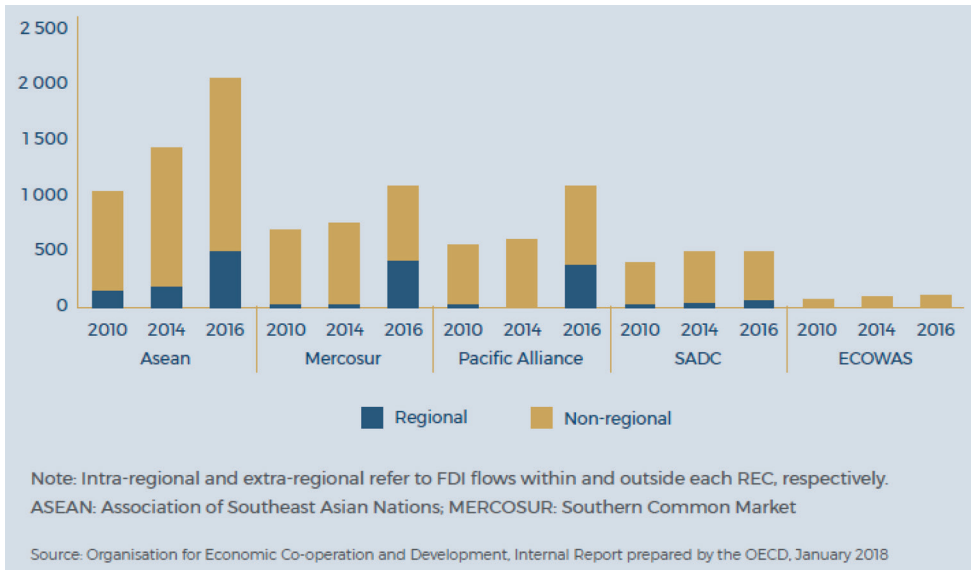
Figure 1. Inward FDI positions by REC, 2010, 2014 and 2016 ($ billion)

3. Some theories on FDI and Institutions

UNCTAD's 2006 World Investment Report (WIR) provides a conceptual framework from which FDI can be viewed. It argues that the basic rationale for FDI by firms in a global market economy is to increase or protect their profitability and/or capital value. One of the ways in which Multi- National Corporations (MNCs) are achieving this goal is by engaging in FDI, either to better exploit their existing competitive advantages or to safeguard, increase or add to these advantages. Firms may be in a position to respond directly to these pressures or opportunities to internationalize by utilizing their competitive advantages, some of which may be firm or ownership-specific. The latter is necessary if internationalization is to take place through FDI and international production within a MNC system. These advantages could be assets possessed by a firm (e.g. patents, a recognized brand or production process capabilities) or they could involve more efficient organization of these assets across a geographical space. Using either kind of advantage, this type of MNC strategy is referred to as "asset exploiting", and its choice of host country location is determined by one or more of three types of motive: to seek out new markets, to raise efficiency (cost reduction), and to source better quality or cheaper factor inputs, such as skilled labour, raw materials or good quality infrastructure (UNCTAD, 2006:142). In contrast to asset-exploiting MNC strategies, firms engaged in 'asset augmenting' strategies may not possess competitive advantages, especially firm specific ones, which allow them to respond to, or exploit effectively, the drivers mentioned above. In order to address this shortcoming, such firms may therefore be motivated to venture into international markets and exploit their limited competitive advantages in order to acquire "strategic" created assets

such as technology, brands, distribution networks, R&D facilities and managerial competences.

The earlier theories of FDI mostly focused on explaining the behaviour of Multinational Companies, focusing on why and how they come to the decision of engaging in FDI. For example, Dunning (1993) classifies four main FDI drivers:

i. **Natural resource-seeking** FDI driven by the availability of natural resources in the destination country, usually in order to export;

ii. **Market-seeking FDI** with investors seeking to sell to local or regional markets, often motivated by tariff regimes in destination countries;

iii. **Efficiency-seeking FDI** driven by competitive advantages in the destination country, such as labour costs, quality infrastructure, innovation and specialised skills; and

iv. **Strategic asset-seeking FDI** with investors seeking an asset that is strategic to the firm's long-term development strategy, possibly to strengthen its position against competitors.

While the first two may appear to be purely structurally driven, enabling policies can influence all four FDI drivers. Some examples include policies to support transportation and/or beneficiation of natural resources, tariff structures that incentivise domestic production to access local markets, and policies to develop specialised industry skills (Markowitz 2020:7). According to Barclay (2000:18) four distinct theories exist in the foreign direct investment literature that attempt to explain the firm's motivations for FDI, these are: The **monopolistic advantage theory**; the **oligopolistic reaction theory**; the **internationalisation theory** and the eclectic paradigm. Furthermore, FDI is increasingly seen by many regional policy makers as an important source of technology transfer, industrialisation and inclusion in global production value chains.

Whereas in Africa's earlier history, Multinationals used to be seen as an emblem of dependency; their presence equated to foreign exploitation and it was inconceivable that these firms could contribute anything to the development of their host economies (Mold, 2004:94). However, this perception changed because of the slowdown in international commercial lending to developing countries following the debt crisis of the 1980s and the special role FDI is said to have played in the rapid development efforts of some East Asian economies.

FDI is also important because MNCs are often at the forefront of innovation and their presence can provide a way of keeping up with innovation and global technological progress. FDI also contributes to growth and economic development by granting firms access to new machinery and equipment through joint venture activities with foreign affiliates that possess superior technological knowledge and equipment. This can enable a country to copy foreign technology and adopt it to domestic use and can raise a country's productivity in the development of new technologies, thereby affecting the productivity of the entire economy, (Coe et al., 1997). However, these asserted benefits of FDI on growth in the literature have not gone unchallenged. For example, FDI has been criticised for also having negative employment effects, retarding home-

grown technological progress and worsening the trade balance in certain countries (Moosa, 2002:3). The FDI-growth literature presents inconclusive results about the empirical relationship between FDI and growth. While some studies find a positive relationship between FDI and growth, others find a negative relationship; still other studies conclude that FDI enhances growth only under certain conditions, such as when the host regions/country 's (educational base) stock of human capital exceeds a certain threshold.

With regards to the question of governance institutions and their relationship with FDI, the emphasis has often been on the role of economic and political institutions. Economic institutions — the "rules of the game" in a society, such as law and order, control of corruption, property rights, or the way in which public services are delivered — vary vastly across countries. Numerous explanations for these differences have been put forward. In particular, economic institutions can be affected by the maturity of political institutions, for instance, effectiveness of checks and balances on those in power; a country's geography and factor endowments; a country's history and structure of its society. Economic institutions canal so be shaped by interactions between different countries and cultures — in particular, the extent to which a country is open to trade, investment and financial flows. Political institutions are voluntary followed rules, designs, and structures that serve as a forum to stimulate change and influence the allocation of advantages and disadvantages with the aim to benefit all involved (Moe, 2005; Rhodes et al., 2008). The quality of political institutions is widely held to be one of the most important determinants of the quality of economic institutions (Adsera, Boix and Payne, 2003). Political competition and the checks and balances imposed in a well-functioning democracy restrict the ability of governments to engage in rent seeking while the accountability of government to taxpayers leads to more business-friendly rules and regulations (Olson (2000), North (1990) and North and Weingast, 1989). A country's geography can have a profound impact on a country's economic development. Landlocked countries with difficult climates and terrains may experience lower growth and development outcomes due to high transportation costs, diseases, low productivity in agriculture and other factors. Some studies see these direct channels as the driving force shaping economic outcomes (see, for instance, Gallup, Sachs and Mellinger, 1999) while others argue that geography affects development primarily through its impact on economic and political institutions (Robinson, Acemoglu and Johnson, 2005).

As a combination, economic institutions and political institutions are influenced by collective societal choices (Acemoglu et al., 2004). While well functioning economic and political institutions have an impact upon economic growth and also positively influence investments through their influence on the investment climate and business environment. (Rodrik, 2004; Acemoglu & Robinson, 2005; Redek & Suijan, 2005; Pereira & Teles, 2016). In the same token, economic prosperity (economic growth) through economic institutions relies on political institutions, and these political institutions shape the policy making process in turn influences economic growth (Acemoglu &

Robinson, 2005; Flachaire et al., 2014; Campos & Giovannoni, 2017). Failure to implement efficient political policy reform processes may lead to economic difficulties, including corruption, the disregard of property right and the collapsed of the rule of law, with would ultimately also hinger effective economic growth (Mbulawa, 2015; Campos & Giovannoni, 2017).

4. Model Specification, data and empirical framework.

4.1. Model Specification and some empirical studies.

To ascertain the inpact of governance institutions on FDI in SADC, the paper drew inspiration from similar studies like Beri & Nubong (2021), Kamal et al. (2020). and Anyanwu & Yameogo (2015). It employs a panel data model to estimate the impact of institutions, while also controlling for the level of economic development, market size, investments in human capital, and the level of trade openness. The panel econometric model can be specified as shown in equation (1).

$$FDIi_{it} = \beta_0 + \beta_1 Institutions + \gamma_i x_{it} + \epsilon_{it} \tag{1}$$

Where i reflects the number of panels and t denotes the time period. $FDIi_{it}$ is is the net inflow of FDI as a percent of GDP. X_{it} are a set of control variables in the econometric model, while γ_i are their corresponding parameters to be estimated. Finally, ϵ_{it} captures the idiosyncratic error terms. Several econometric models, including pooled OLS, dynamic econometric models, and instrumental variable regressions are typically employed to estimate Eq.(1). OLS provides best linear unbiased estimates under strict assumptions of stationarity, linearity, and normality. In this study, we shall estimate our econometric model using the pooled OLS technique and test for robustness using the panel corrected standard errors, and the feasible generalised least squares methods. These methods fit OLS models while assuming that the idiosyncratic error terms are heteroskedatic and contemporaneously correlated. In particular, the feasible generalised least squares assumes the error strcutrue to be of order AR(1). Our main expectation is that institutional quality, as proxied by governance effectiveness, and economic development, market size, investment in human capital, and trade openness will play a positive and econometrically signficant role in atrracting FDI into SADC member countries. We also test for the same effect on other measures of institutional quality such as regulartory quality, the rule of law, voice and accountability, political stability, and control of corruption, together with the first principal components of these variables. The first principal component was retained because it accounted for 85.38% of the variance of the components of institutions.

The effects of institutions as well as regional integration on foreign direct investment (FDI) has been particularly tested empirically with varying results

and outcomes. The literature generally shows significant positive effects of formal institutions on FDI. A significant impact of institutions seems to have been converging to show the importance of in particular the following institutions: (1) corruption, 2) governance and regulatory institutions, 3) political institutions (civil and political rights) and political risk (Kapas, 2020:163). Ajide and Raheem (2016) studied the institutions-FDI Nexus in ECOWAS countries and found that countries with better institutions were able to attract more FDI than countries within ECOWAS with poorer institutions. On their part, Adegboye et al. (2020) conducted a study on Institutional quality, foreign direct investment, and economic development in sub-Saharan Africa (SSA). They make use of pooled data for 30 SSA countries for the period 2000 to 2018. Their study makes use of panel fixed and random effect estimation techniques. Their study finds that foreign capital inflow is crucial for economic development in the SSA and the quality of institutions is also a determinant factor that affects levels of FDI inflows into SSA. Their study recommends that the government of host SSA sub-region needs to consider the degree of institutional quality to encourage further FDI inflows.

4.2. Data sources and description

The data used for this study was drawn from the World Bank's World Development indicators and the Worldwide Governance Indicators (WGI). It is a balanced panel data that covers the years 1996 to 2022. Retained counries for the econometric analysis include Botswana, comoros, the Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Mauritius, Namibia, Seychelles, South Africa, Zambia, and Zimbabwe.

The proxy for FDI is straightforward and common in the literature, that is, net FDI inflows as a percentage of GDP (Beri & Nubong 2021). Proxies for institutions were drawn out of the WGI project reports which aggregates individual governance indicators for over 200 countries and territories over the period 1996–2022 in six identified dimensions of governance, namely; Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. These aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. They are based on over 30 individual data sources produced by a variety of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms for each of the identified countries and consequently make for fairly standardized comparisons and trustworthy results. Table 2 below contains the variables used for the econometric estimations and their sources, followed by data characteristics.

Table 2. Description of Variables

Variable	Proxy/Description	Source
Foreign Direct Investment inflow	FDIi	UNCTAD Data base
Economic development	GDP per capita (GDPPC)	WDI database
Market size	Annual population growth (POPG)	
Human Capital	Education expenditure share in GDP (EDUEXP)	WDI database
Trade Openness	Trade share in GDP (Trade)	WDI data base
Voice and Accountability,	VoA	WGI data base
Political Stability and Absence of Violence/Terrorism	POS	WGI data base
Government Effectiveness,	GoE	WGI database
Regulatory Quality,	ReQ	WGI database
Rule of Law	RoL	WGI database
Control of Corruption	CoC	WGI database
Score of Principal Component	PC1	Principal Component analysis

5. Results and Discussion

Table 3 presents the descriptive statistics of all included variables in the study. It can be observed that the average FDI inflow as a percent of GDP for the entire sample over the period considered was 4.4%. FDIi ranged from -10% (divestment in some countries) to 56.2% of GDP. Table 3 also shows summary statistics of economic development (GDPPC), market size (population growth rate), human development (EDUEXP), trade openness (XR), and governance indicators from the WGI.

Table 3. Summary statistics

	Mean	Std. Dev.	min	max	skewness
FDIi	4.443	6.812	-10.038	56.288	26.63***
GDPPC	1.547	4.343	-18.324	19.939	34.070***
POPG	1.949	1.028	-2.629	3.759	77.240***
EDUEXP	4.811	2.474	1.1	13.22	17.180***
XR	87.296	40.099	25.042	222.178	26.070***
GoE	-.485	0.756	-1.841	1.15	53.86***
CoC	-.3	.711	-1.648	1.698	23.040
ReQ	-.461	.738	-2.202	1.197	8.010
RoL	-.419	.738	-1.918	1.024	22.270
VoA	-.242	.741	-1.734	1.007	67.770
PoS	-.074	.858	-2.848	1.283	43.780
pc1	0	2.263	-5.154	3.94	-.175

Figure 2 presents a scatter plot of the relationship between FDI and our global index of institutional quality derived from principal components analysis, together with the quadratic specification. It can be observed that there is a positive linear relationship between the two variables. The scatter plots also shows that there might be evidence of heterogeneity across countries.
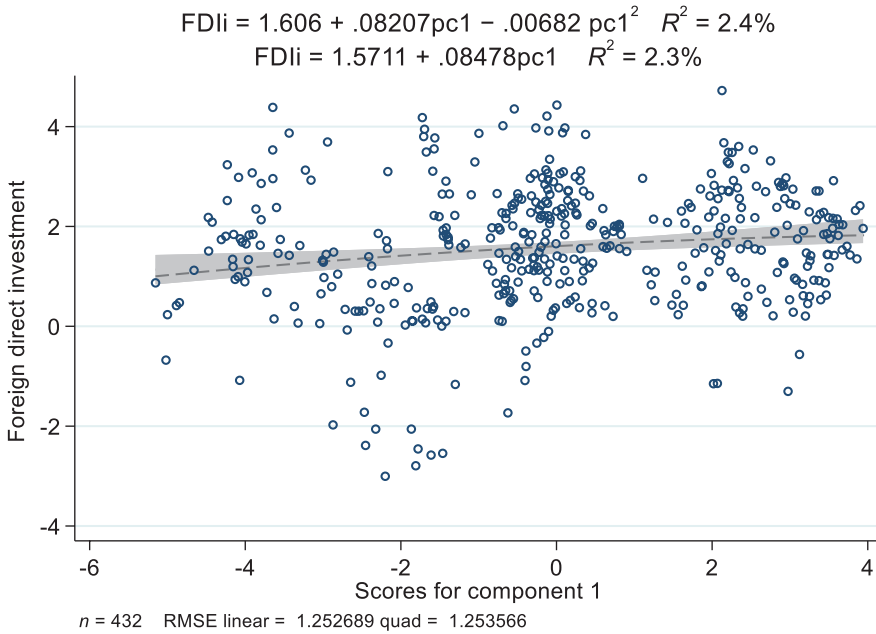
$$FDIi = 1.606 + .08207pc1 - .00682 \, pc1^2 \quad R^2 = 2.4\%$$
$$FDIi = 1.5711 + .08478pc1 \quad R^2 = 2.3\%$$

$n = 432$ RMSE linear = 1.252689 quad = 1.253566

Figure 2. Scatter plot of FDI and institutional quality

We now turn over to the preliminary diagnostics of our data. Firstly, we test for normality of the data using the skewnesss test. Table 3 shows results of Skewness test hypothesis or the D'Agnostino-Pearson test for skewness. The null hypothesis states that the distribution is symmetric. Based on the results, we reject the null hypotheses and conclude that the distributions are asymmetric. In order to address skewness, we proceed by using sine log transformation to linearise our dataset.

In Table 4, we present results from the pair-wise correlation test of all included explanatory variables. It would be observed that the correlation between governance effectiveness and the first principal component institutional are quite high, greater than 95%, indicating evidence of potential multicollinearity. Therefore, both variables cannot be used in the same model. This is so because PC1 is derived from constructs of institutional quality, and governance effectiveness accounted for a significant variation in its construction.

Table 4. Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) GDPPC	1.000					
(2) POPG	-0.080	1.000				
(3) EXPEDU	-0.070	-0.415	1.000			
(4) Trade	0.104	-0.406	0.336	1.000		
(6) GoE	0.045	-0.596	0.430	0.423	1.000	
(6) pc1	-0.006	-0.585	0.467	0.367	0.955	1.000

Next, we test for levels of stationarity of the variables included in our study. it can be observed from Table 5 that foreign direct investment inflow, GDP per capita growth, population growth rate, trade openness, governance effectiveness, and political stability and the absence of violence are stationary at level, that is, I(0). The remaining variables are stationary at first difference. Therefore, we take first differences of human capital investmen (education expenditure), control of corruption, regulatory quality, rule of law, and voice and accountability in all regressions to ensure we do not arrive at spurious regression results.

Table 5. Test for stationarity

Variable	Statistic	Level
FDIi	-2.899***	I(0)
GDPC	-6.668**	I(0)
POPG	-6.221***	I(0)
EDUEXP	-7.198***	I(1)
XR	-1.6363*	I(0)
CoC	-9.405***	I(1)
GoE	-2.043***	I(0)
ReQ	-9.899***	I(1)
RoL	-9.309***	I(1)
VoA	-9.214***	I(1)
PoS	-2.713***	I(0)

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

*** $\varrho < 0.01$, significant at 1% level, ** $\varrho < 0.05$ significant at 5% level, * $\varrho < 0.10$ significant at 10% level.

Note: Null hypothesis (H_0): All panels contain a unit root.

Source: Author's calculations.

The model adopted for this study follows the standard practice within the literature of the determinants of FDI, laying emphasis on a number of variables that measure amongst others market size, the quality of human capital, the level of economic development, and trade openness as combined measures of the quality of the investment climate and business environment. These are further strengthened by a number of measures of institutional quality drawn from the World Bank's governance indicators database. The results obtained from running different models within the pooled OLS (1), PCSE (2), and the FGLS (3) are presented in table 3 below,

As far as the governance institutions determinants were concerned, they were found to have different effects on the FDI in the region but we present results for governance effectiveness in Table 6. Accordingly, governance effectiveness has a positive and highly significant impact on FDI inflow in SADC region. These findings are consistent with many studies in the empirical literature (Beri & Nubong, 2023; Kamal et al., 2020; Asiedu, 2005).

Additional results in Appendix shows that voice and accountability, regulatory quality, the rule of law, political stability have positive but insignificant effects on FDI into SADC. This seems to be consistent with the noted experience of the countries in the region, where there have been some political instability in countries like Zimbabwe, Swaziland, Lesotho and to some extent South Africa. There is also the situation of terrorist activities in the northern Part of Mozambique and corruption seems to be rampant across all countries, as noted in the recent revelations of the State Capture Commission and their reports in South Africa. These challenges notwithstanding the judiciary systems are still robust in most of the countries of the region, with a healthy respect for property rights and the rule of law. This suggest that the institutional quality and strength of the business environment and investment climate is quite friendly towards attracting FDI but the politics and levels of corruption, including concerns around the security situation in some of the countries of the region remain a concern. The policy implications of these findings, is that the constraints to the institutional quality that affects inflows of FDI including corruption, political instability and security concerns including the rising threat of terrorism, all need to be addressed so that the SADC region can increase its total inflow of FDI,

According to the results obtained, economic development (proxied by GDP per capita growth) and market size (proxied by population growth rate) are significant and important determinant of FDI inflows into SADC. This is a confirmation of the market size hypothesis, that further attests the importance of a successful regional integration arrangement in creating a large market that attracts more FDI. The variable for human capital development (proxied by government expenditure on education share in GDP) is also positive but econometrically insignificant. The results suggest that the quality of human capital in the economies of the SADC region is a positive attraction for FDI. The variable for trade openness is positive but highly significant in our models, which sort of show confirm the complementarity in the relationship between FDI and trade. Recent literature also suggests that FDI and Trade go hand

in hand as more FDI tends to encourage more trade, especially for market seeking export orientated FDI.

Table 6. Results from Econometric Estimations

	(1)	(2)	(3)
VARIABLES	OLS	PCSE	FGLS
Economic Development	0.115**	0.00911	0.0672*
	(0.0555)	(0.0332)	(0.0354)
Market Size	0.515***	0.247	0.783***
	(0.166)	(0.159)	(0.122)
LD. Human Capital	0.327	0.111	0.0567
	(0.423)	(0.263)	(0.286)
Trade Openness	0.981***	0.794***	1.281***
	(0.176)	(0.135)	(0.124)
Governance Effectiveness	0.310***	0.382***	0.227***
	(0.105)	(0.0950)	(0.0785)
Constant	-4.081***	-2.928***	-5.800***
	(0.948)	(0.770)	(0.652)
Observations	282	282	282
Number of ids	14	14	14

Robust standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Source: Author's calculations.

6. Conclusion

Recent changes in global production structures with the unbundling of global production represents real opportunities for developing country regions to become part of the global production structures. The inflows of FDI can make a significant contribution towards taking advantage of these advantages through their promotion of technology transfer and diffusion and the capital accumulation that comes with greenfield FDI. FDI in this regard comes with the added advantage of encouraging economic growth and development in the recipient countries, if the right kind is attracted and channelled to the right sectors. The SADC region is in high need for more FDI and for this FDI to be diversified into other sectors. This diversification is important to move the region away from resource dependence and to help it develop its industrialisation and manufacturing base. This paper has demonstrated that the region enjoys certain

positive elements within its business environment and investment climate that attracts FDI, including the quality of governance and vibrant democracies as proxied by Voice and Accountability, Government Effectiveness, Regulatory Quality and the rule of Law. These are further supplemented by a successful regional integration arrangement and a good quality of human capital. More work however needs to be done to increase the quality of the region's infrastructure, control corruption and improve the challenges brought about by Political instability and the new surges of violence and Terrorism. Should these be addressed, the SADC region should be able to increase its inflow of SADC and use it to advance its developmental objectives.

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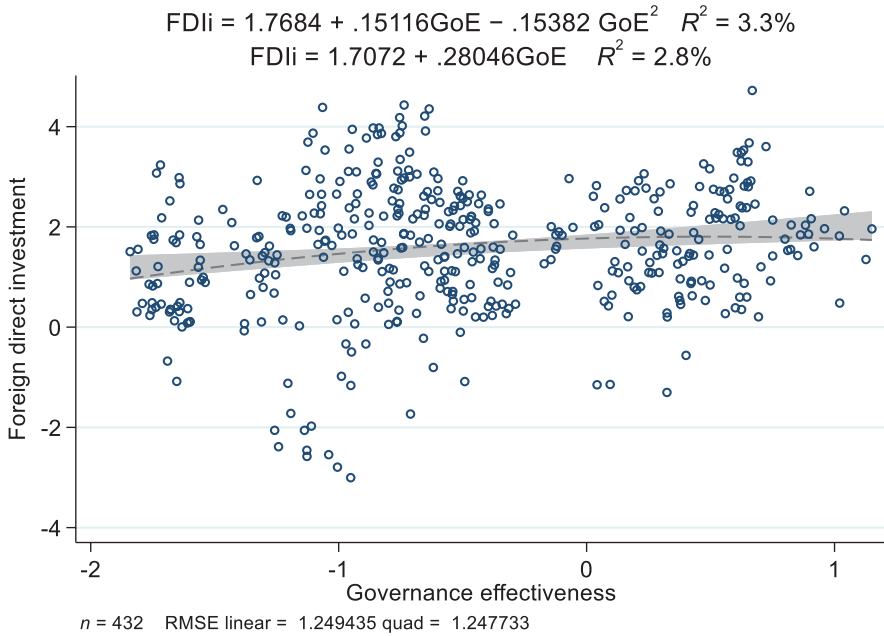## Appendix

$$FDIi = 1.7684 + .15116GoE − .15382 \, GoE^2 \quad R^2 = 3.3\%$$
$$FDIi = 1.7072 + .28046GoE \quad R^2 = 2.8\%$$

n = 432   RMSE linear = 1.249435 quad = 1.247733

Figure A1. Scatter plot of of FDI and governance effectiveness

Table A1. Further regression results, PCSE

	(1)	(2)	(3)	(4)	(5)	(6)
	m1	m2	m3	m4	m5	m6
VARIABLES	FDIi	FDIi	FDIi	FDIi	FDIi	FDIi
Economic development	0.0121	0.00870	0.0104	0.0116	0.00882	0.0115
	(0.0339)	(0.0336)	(0.0339)	(0.0341)	(0.0346)	(0.0341)
Market size	0.194	0.204	0.135	0.139	0.141	0.126
	(0.158)	(0.157)	(0.151)	(0.153)	(0.154)	(0.154)
D. human capital	0.126	0.143	0.125	0.118	0.137	0.134
	(0.269)	(0.272)	(0.275)	(0.274)	(0.276)	(0.276)
Trade openness	0.741***	0.811***	0.813***	0.830***	0.788***	0.845***
	(0.163)	(0.139)	(0.146)	(0.142)	(0.163)	(0.145)
CoC	0.398**					
	(0.185)					
ReQ		0.304***				
		(0.108)				
D. RoL			0.391			
			(0.560)			
D. VoA				-0.251		
				(0.370)		
PoS					0.0664	
					(0.152)	
D. Scores for component						-0.0392
						(0.203)
Constant	-2.684***	-3.038***	-3.005***	-3.117***	-2.884***	-3.151***
	(0.881)	(0.781)	(0.810)	(0.794)	(0.885)	(0.807)
Obs,	282	282	282	282	282	282
R-squared	0.154	0.144	0.128	0.123	0.129	0.131
Number of id	14	14	14	14	14	14

Standard errors in parentheses

*** p < 0.01, ** p < 0.05, * p < 0.1