

Entrepreneurial Financing and Economic Development: Evidence from SADC Countries

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Abstract

The banking industry plays a crucial role in the economic development of a country by efficiently allocating credit to investors. This paper examined the effect of bank loans to SMEs on economic development of countries from the Southern African Development Community. The Human Development Index was used as a measure of economic development whilst loans from banks to SMEs were used as a proxy for entrepreneurial financing. Savings, inflation rates and debt were adopted as control variables. The study employed the correlation matrix to determine the presence of multicollinearity amongst the variables and it was free from multicollinearity. However, tests for heteroscedasticity indicated the presence of unequal variance and the model was adjusted to correct the presence of heteroscedasticity. The Hausman test was used to determine the panel model to be adopted. The random effects model was adopted. Comoros, a new member of the SADC region was left out of the study due to lack of data and data for fifteen countries was used for the achievement of the objectives. The results of the study revealed that loans provided to SME's negatively impact human develop region. It is therefore recommended that loans to SME's be minimised and closely monitored and in addition

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governments are recommended to finance their developmental projects using debt. Since debt is statistically significant in determining human development it is highly recommended that governments in the SADC region use debt for development projects. Savings and inflation were statistically insignificant in determining human development amongst SADC countries.

Keywords: economic development, entrepreneurial financing, SME's, Hausman test, random effects model

1. INTRODUCTION

Different countries around the world have been working hard to implement changes in their industrial bases or capacities. These changes led to the major driving force for economic development which are of great importance to businesses³. This is why economists advocate for government policies to support financial institutions that invest in entrepreneurship. Talking of entrepreneurship, it is opined to be creating fresh businesses by people who are stable to coordinate their efforts in the production of fresh value-added economic activity (Omoruyi EMM et al 2017). Entrepreneurial development is the backbone of economies if they are well managed and supported. It aids in job creation and empowerment, innovation and transformation thus solving challenges of poverty reduction in developing nations. Without proper funding and investing in this endeavour, the pursuit of economic growth and development becomes a mirage (Akinola A. O, 2013). In relation to this, a paramount objective that govern the member states of SADC is to attain sustainable development and economic growth as a way of improving the living standards of residents in the region and thus create employment opportunities (<https://www.sadc.int/themes/economic-development/>). This paper recognizes entrepreneurship as another strategic means to boost economies and emphasizes the need of investing in it as a key to economic development in SADC⁴.

³ In this paper, economic development is the process in which an economy grows or changes thereby becoming more advanced particularly when both social and economic conditions are met.

⁴ Abbreviation for Southern African Development Community

In developed economies, it is evident that an excellent financial system is the one that allows other aspects of the economy to perform. When there is an increase in trade and industry, the banking system that is integrated, credit institutions and capital markets produce the security of savings that are adequate to motivate new businesses. More so, excellent financial system redirect funds into new projects that further results in economic development. When dealing with finance the law of scarcity is sagacious, which is why there is need to formulate germane strategies for its acquisition is consequential (Akinola (2013).

Bara A (2016) explains that the repertoire of finance in SADC economic development has not been greatly researched in most studies and policy initiatives⁵. The reason being that financial sectors of some of the region's member states are considered to be less developed with exception of South Africa (KPMG 2014). In the case of SADC, facts indicate that the level of financial development is miscellaneous across member states with South Africa being the most financial advanced. Botswana, Mauritius and Namibia are ranked as having fairly developed financial markets while DRC, Madagascar and Malawi have the least developed financial markets according to KPMG (2014). Most countries in SADC's financial systems are dominated by banks with only Mauritius, South Africa and Zimbabwe having developed non-bank financial sectors.

1.1 Statement of the problem

Developing nations are affected by lack of investment in entrepreneurship. This normally leads to high rates of unemployment, lack of innovation, high rates of inflation, low GDP⁶, high taxes, few exports and high imports, low incomes among others and the SADC region is not an exception. All these aspects affect economic development in one way or another. The main purpose of this paper is to examine how entrepreneurial financing contributes towards economic development in the SADC region⁷.

⁵ The entire range of skills or aptitudes or devices used in a particular field or occupation

⁶ Abbreviation for Gross Domestic Product

⁷ SADC is the Development and Economic Block for the Southern African Community

1.2 Research Questions

- Is entrepreneurship the backbone of economic development in SADC?
- What are the financial systems and mechanisms that promote entrepreneurship?
- What is the significance of investing in entrepreneurship as a way of promoting economic development in SADC?

1.3 Purpose of Research

The main purpose of this research is to find out how loans from banks to SMEs influence economic development amongst SADC countries.

1.4 Objectives of the Study

The objectives of this paper are:

- To prove that entrepreneurship is the backbone of economic development in SADC.
- To analyze financial systems or mechanisms that promotes entrepreneurship.
- To emphasize the significance of investing in entrepreneurship as a means for economic development in SADC.

1.5 Research Hypothesis

The two main hypothesis of the research are:

H₀: Loans to SMEs have no significant influence on economic development for SADC countries.

H₁: Loans to SMEs have a significant influence on economic development for SADC countries.

1.6 Scope of Research

The scope of the study is limited to 15 countries from the SADC region for the time period of 2000 to 2018. The study adopted different control variables which influence economic development in the SADC region.

1.7 Limitations of the Study

The study adopted 15 countries within the SADC region out of the possible 16 due to missing data for the Comoros which recently joined the SADC agreement. In addition, some of the data was missing and several sources were used to fill up the missing gates. It must be noted that the data was obtained from reliable sources such as the SADC statistics office, World Bank and the IMF. It must be noted that these organisations use different base years when calculating inflation and other economic variables.

2. LITERATURE REVIEW

Giordani, (2013) incorporated entrepreneurial finance into an endogenous growth model which encompassed horizontal innovation. Existing marketing frictions that underlie the financing of innovation and entrepreneurial finance was explained as the process of searching and matching the similarities and differences between entrepreneurs who propose their innovative strides and capitalist selections and financing of significant projects. On a study on the liquidity constraints and entrepreneurial financing in Nigeria, the fate of fresh graduate entrepreneurs, a justification of the establishment of entrepreneurship development centres in Nigerian universities revealed the significance of entrepreneurship development programme on overall national development of the country (Ovat, 2013). The paper show cases the importance of developing financial markets and personal affluence in piloting entrepreneurship in a country.

After outlining the new sources of entrepreneurial finance and comparing them with the traditional ones in the study, they proposed a theoretical and empirical challenges presented to the current scholars done by both new and traditional sources of finance. It is attested that what makes it easier for ventures to raise capital grow is the escalation of new sources of entrepreneurial finance (Cristiano B et al 2016). According to Toma Sorin-George et al (2013), there is a massive interconnection between economic development and entrepreneurship. The main factors involved in the relationship between entrepreneurship and economic development is revealed in the theoretical model of the study. The conclusion is made on the basis that entrepreneurship contributes to economic development positively as well as negatively.

In an effort to reveal the role contributed by entrepreneurship towards economic development, an illustration on how entrepreneurs contribute towards structural transformation of economies with low level of income into high technology based and high income service countries was done by Naude Wim (2008). The paper used the dual economy models of structural transformation and growth to show case the role of this phenomenon in economic development. The conclusion is drawn with policy implications and suggestion that there is existence of government support which should have more emphases on the quality, quantity and allocation of entrepreneurial ability.

With the conclusion that entrepreneurs have notable non-diversifiable business risks, a dynamic incomplete market model of entrepreneurial finance was constructed to illustrate the significant implications of non-diversifiable risks for entrepreneurs (Hui Chen et al 2009). Their research concluded that a generalized trade off model determines the optimal capital structure where diversification benefits are provided by the leverage risky non-recourse debt. One of the biggest challenges of potential entrepreneurs are financing constraints (Kerr William et al 2009). The author's analysis aligns with previous research that attests to entrepreneurship contributing towards economic growth and that policy makers should work in the alleviation of financing constraints. A development and analysis on the contribution of entrepreneurship towards economic development by Small and Medium Enterprises in Nigeria was done with 100 SMEs being randomly selected from different states. A statistical package for social sciences (SPSS) was used to analyse the responses the participants where hypotheses were tested at 0.05 level of significance using chi-square statistics. The hinge was on identifying the greatest problem of SMEs in Nigeria and the findings are contrary to the believed notion. The study depicted that access to finance or capital is not the greatest facing SMEs in Nigeria but rather managerial capacity (Ogbo A. et al 2014).

3. METHODOLOGY AND THEORETICAL FRAMEWORK

In this section of the study the following areas are covered, population of the study, sample of the study, sampling technique, sample size, sampling design/methodology and data collection, description of dependent and independent variables, as well as the theoretical framework.

3.1 Population of the Study

The study is centred on establishing the effect of entrepreneurial financing on economic development from SADC countries⁸. The SADC community is a regional economic block which comprises of 16 member states namely Angola, Botswana, Comoros, Democratic Republic of the Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius,

⁸ Entrepreneurial Financing is defined in this paper as the provision of investment capital in the form of loans to SMEs and other business ventures.

Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe. The population of this study are all the SADC countries.

3.2 Sample of the Study

The purpose of the investigation is to analyse all the countries in the SADC region but due to limitations and unavailability of data the sample is reduced to 15 countries.

3.3 Sampling Design/Methodology

The study is based mostly on quantitative data in which secondary panel data is used. Data was collected from the SADC statistical data base, World Bank and United Nations Human development data base and was analysed using pooled OLS. Human development index is the explained variable. Loans to SME's, Savings to GDP ratio, Debt to GDP ratio and inflation rate are the independent variables.

3.4 Types of Data

Numerous studies use different types of data. The difference is identified through the way in which the data is collected. The most common types of data are qualitative and quantitative types of data. If a study is qualitative in nature, it therefore implies that mostly primary and to a less extend secondary data is employed. If a research is quantitative in nature, then mostly secondary data is used. The current research is quantitative in nature; therefore, we have used secondary data.

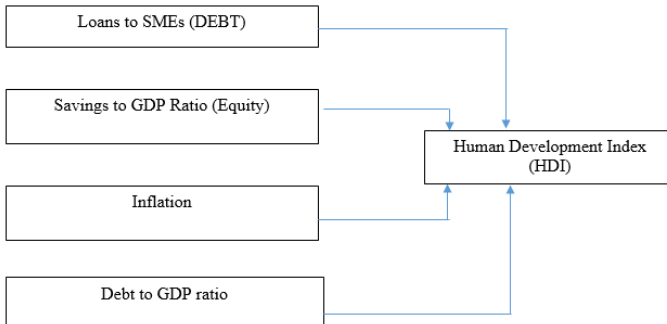
3.5 Data Collection

The data collected for the research is secondary in nature. Secondary data is that data which has already been collected and anyone can access it using internet, reports, and magazines etc. All the data collected for the research is from the annual reports of SADC, World Bank and United Nations data base for development.

3.6 Theoretical Framework

Shah and Khan (2017) observed that the pivotal part of a study is the theoretical framework. The framework indicates the number of dependent and independent variables employed in the research. Several variables were identified in literature review. The theoretical framework shows the relationship that exists among dependent and independent variables and the direction of the relationship (Sekaran and Bougie 2016).

Figure 1: Theoretical Framework Diagram



The theoretical frame work diagram shows the direction of association between the dependent and independent variables. All of them are explained in table 1 below

Table 1: Explanation of variables

Variable	Symbol	Description and justification	Expected Sign
Human Development Index (HDI)	HDI	The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: 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.	N/A
Entrepreneurial Financing	LOANS	Measures the availability of financial resources which are in the form of debt mainly for small and medium enterprises (SMEs) ⁹ and this include grants and subsidies	+
Debt/GDP ratio	D/GDP	This indicates other sources of finance available to a country from international donors. It is a metric which compares what a country owes and what it produces.	+/-
Inflation	INF	Measures the rate at which a currency loses its value over a given period of time. The higher the inflation rate the lower the level of entrepreneurial financing in an economy	+/-
Savings/GDP ratio	SAVINGS	Gross savings are calculated as gross national income less total consumption, plus net transfers and expressed as a percentage of GDP. The ratio represents domestic sources of financing entrepreneurial activities.	+

3.7 Model Specifications

The model adopted in this study was followed from the works of Zulfikar et al (2017) who suggested that parameter estimation in the regression analysis with cross section data is done by estimating the least squares method called Ordinary Least Square (OLS). The results

⁹ Abbreviation for Small and Medium Enterprise.

of Panel regression method give the result of estimation which is Best Linear Unbiased Estimation (BLUE). The model to be estimated is depicted in equation below:

$$y_{it} = \alpha + \beta' X_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

Where α is the constant

β' a matrix for coefficients of all dependant variables

X_{it} a matrix for all dependent variables

The β' matrix is coefficient matrix which represents $\beta_1; \beta_2; \beta_3$ and β_4 whilst X_{it} represents the independent variables which are loans to SMEs, debt/GDP ratio, the inflation rate and the savings ratio as a percentage of GDP.

4. DATA PRESENTATION AND INTERPRETATION OF RESULTS

In this section of the study the results are analysed and discussed:

i) Descriptive Statistics

Table 2 below is the summary of all the descriptive statistics for all the variables used in this research study. The table provides a research summary on the basic information of the data which include measures of central tendency such as the mean, mode and median as well as measures of dispersion. The total numbers of observations for each variable are also indicated in the summary statistics.

Table 2: Summary Statistics

Variable	Number of Observations	Mean	Median	Standard deviation	Jarque-Bera
HDI	286	0.536759	0.514	0.120304	18.12426
Loans To SME's	286	24.76170	16.78472	23.63474	136.1066
Savings	286	17.43092	16.94683	12.38075	4.393625
Debt Ratios	286	43.50947	32.20000	38.89453	889.9937
Inflation	286	810577.2	7.1000000	13683256	944418.6

ii) Testing for correlation and heteroscedasticity.

Classical linear regression assumes that there is no multicollinearity amongst the independent variables. Multicollinearity is technically defined as a situation where there is either an exact or approximately exact linear relationship among the explanatory variables. The study employed the correlation matrix to determine the presence of multicollinearity amongst the variables. The rule of thumb is that if the

pair-wise or zero-order correlation coefficient between two regressors is high, say, in excess of 0.8, then multicollinearity is a serious problem, (Gujarati 2004). Table 3 below indicates the pair wise correlations of the variables in the model.

Table 3: Correlation Matrix

	HDI	Loans	Savings	Inflation	Debt
HDI	1				
Loans	0.69405076	1			
Savings	0.295246	0.10675204	1		
Inflation	-0.056541	-0.0623077	-0.0832205	1	
Debt	-0.438555	-0.3705523	-0.5084875	0.05928796	1

The pair wise correlations indicated in table 3 above satisfy the rule of thumb that the zero order correlation coefficient between two regressors should not exceed 0.8. The data was further tested for the presence of heteroscedasticity using the white test. The test statistics for the presence of heteroscedasticity indicated the presence of unequal variance in the dependent as well as the independent variables as the p-values of 0.0000 was observed. Therefore, the regression results given in table four below are after controlling for heteroscedasticity (Shah and Khan, 2016), that is, after applying the robust option in each of the regressions. After conducting the Hausman test, the study adopted the random effects model and the results are indicated in table four below¹⁰. As the loans provided to SME’s increases they negatively impact human development. The results are similar to the one reported by Giordani (2013). In addition, the national debt of the country improves human development marginally. The other two variables savings and inflation are statistically insignificant. R² which measures the variability caused by the independent variables to the dependant variables was 41%. It implies that 41% of the variability in human development index (HDI) are caused by these four independent variables, while 59% variation is due to other factors.

¹⁰ The Hausman test is used as an econometrics model that is used to evaluate the consistency of an estimator when compared to an alternative.

Table 4: Results of the Random effects model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	2.007415	0.086564	23.18995	0.0000
Loans	-0.007203	0.001136	-6.339728	0.0000
Savings	-0.000351	0.001250	-0.280745	0.7791
Debt	0.003066	0.000326	9.414917	0.0000
Inflation	2.07E-10	6.88E-10	0.300284	0.7642

5. CONCLUSION AND RECOMMENDATIONS

The study concluded that the continual financing of SME's produces negative effects for countries in the SADC region and the national debt level have positive effects to human development as the debt may be used for developmental purposes. Savings and the rate of inflation were statistically insignificant in influencing the human development index. From the results of the study it can be recommended that private and public sources of funding to SME's be minimised and requires close monitoring to ensure that funds are channelled to where they are needed. SADC governments are further recommended to finance their developmental projects using debt as it improves the human development index.

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