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Nexus between Financial Inclusion and Economic Growth

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Abstract

Financial inclusion ensures access to appropriate financial products and services needed by all sections of society, especially the vulnerable low-income groups, at an affordable cost fairly and transparently by regulated mainstream financial institutions. The study investigated the causal relationship between financial inclusion and economic growth. The study adopted the Granger causality test, using the two-step generalised method of moments. The study adopted three measures of financial inclusion: branches of commercial banks per 1000 adults, depositors with commercial banks per 1000, and outstanding loans with commercial banks as a percentage of gross domestic product. The results showed bidirectional causality between economic growth and financial inclusion. The results imply that causality runs from economic growth to financial inclusion and vice versa. It shows that there is two-way causality. These results apply to two measures of financial inclusion, i.e., branches of commercial banks per 1000 adults and outstanding loans with commercial banks as a percentage of gross domestic product. The results between depositors with commercial banks per 1000 and economic growth showed a unidirectional causality from economic growth to financial inclusion. The result of the study implies that governments in the Southern African Development Community should pursue twin policies that spur both financial inclusion and economic growth, given that both are essential variables influencing each other.

Keywords: *Causality, Economic growth, Financial inclusion, Generalised method of moments.*

1. Introduction

Financial inclusion is the process of availing an array of required financial services at a fair price, at the right place, form, and time, without any form of discrimination against all members of society (Lee., Lou, & Wang, 2023; Mahalika., Matsebula, & Yu, D. 2023; Sarma & Pais, 2011). The process is a strategy that seeks to overcome the market friction that hinders the markets from operating in favour of the poor and underprivileged. It aims to draw the unbanked population into the formal

financial system to access financial services ranging from savings, payments, and transfers to credit and insurance. Properly executed financial inclusion strategies are essential for gross domestic product (GDP) growth and poverty reduction. The role of financial inclusion in economic growth has attracted interest among researchers and practitioners because of the need to attract the poor into the financial system (Adedokun & Ağa 2023; Ozil, 2023; Anthony-Orji, 2023). The United Nations (2007) highlights that approximately three billion people around the globe lack access to formal financial services such as a bank account, credit, insurance, a safe place to keep savings, and a secure and efficient means to receive social benefits payments through a registered financial institution. Financial inclusion, within the broader context of inclusive development, is viewed as an essential means to tackle poverty and inequality (Chibba, 2009).

The scope of financial inclusion can be expanded in two ways: through state-driven intervention by way of statutory enactments and through a voluntary effort by the banking community itself to evolve various strategies to bring within the ambit of the banking sector the large stratum of society (Leeladhar, 2005). The centrality of financial inclusion in the growth debate is premised mainly on the former's ability to drive an economy's growth and sustainability (Okoye et al., 2017; Anthony-Orji, 2023). The exclusion of millions from the formal financial systems in the world implies a loss of deposits, investible funds, and diminished capacity to generate more wealth by the world economy (Okoye et al., 2017). Countries have developed national financial inclusion strategies in this endeavour and spearheaded vital programmes and initiatives to improve financial markets. Developing strategies have gone beyond countries with regional blocs and coming up with different initiatives. The Sothern African Development Community (SADC) is among those blocs that have developed different initiatives to improve financial inclusion among member countries. The SADC financial inclusion strategy complements and strengthens country strategies via integration and supports Country Strategies; hence, it focuses on supporting country strategy development and implementation among members.

Given the importance of financial inclusion, this paper evaluates the nexus between financial inclusion and economic growth among SADC countries, using country level data.

2. Literature Review

This section reviews the literature pertaining to the relationship between financial inclusion and GDP growth. The importance of an inclusive financial system is widely recognised among policymakers (Molyneux, 2007). The relevance of an inclusive financial system is driven by the role that finance plays as one of the critical factors for growth and development and the fact that exclusive growth is not sustainable (Agrawal, 2008). It has the potential to reduce formal credit channels, such as money lenders, facilitate less risky liquidity management, and provide opportunities for innovation in developing products targeted at the poor market segment. Accessing and using a wide range of financial products and services is necessary to lead an everyday (Subbarao, 2009; Gloukoviezoff, 2007; Kempson et al., 1999). Financial inclusion ensures access to appropriate financial products and services needed by all sections of society, especially the vulnerable low-income groups, at an affordable cost fairly and transparently by regulated mainstream financial institutions.

Financial inclusion benefits the poor population by lowering collateral requirements, and borrowing costs reduce the cost of capital, thus leading to a rise in production and generating employment opportunities, and help to create specialised financial commodities (Scholtens et al., 2003; Schmeid, 2013). Equally important is access to finance by all segments (Pande & Burgess, 2003). A well-developed financial system that is accessible to all reduces information and transaction costs and positively influences savings rates, investment decisions, technological innovation, and long-run growth rates (Beck et al., 2009). The consequences of financial exclusion include exorbitant charges for the use of the financial system, reduce self-esteem, and lead to self-isolation and deprivation of social connections and social relationships, leading to social exclusion (European Commission, 2008; Bayot, 2007; Gloukoviezoff, 2006).

2.1 Financial inclusion and economic growth

The relationship between finance and economic growth can be traced back to Smith (1776), who argues that financial system activities drive real economic growth because increased production and specialisation

are facilitated by enhanced resource acquisition offered by the system. As more people get integrated into the formal financial sector, they become empowered to participate economically in productive activities that grow the economy. Kim (2016) argues that financial inclusion positively affects income inequality and proposes that driving down income inequality would drive economic growth. By having access to formal borrowing channels, people can borrow for more productive purposes. Improvements in the financial services sector result in an efficient allocation of resources, which in turn leads to economic growth (Akinboade, 2014).

Economic growth increases the economy's ability to produce goods and services. Economic growth proponents argue that economic growth drives demand for financial products and that the financial sector responds to the economic demands (Levine, 2000). Therefore, based on this view, it is economic growth that drives financial sector development and not financial sector development driving economic growth. This has been termed the demand following hypothesis. Levine (2000) reviews the finance-growth nexus and finds out that economic growth is dependent on financial development in a country with a higher level of financial development. Such a country has a higher per capita income and economic growth. Studies against the idea that the financial system where economic growth leads to improved financial infrastructure and banking services (Sharma, 2016). Sharma (2016) further terms the economic growth driven by the financial infrastructure and banking services as the supply leading hypothesis. Other scholars argue that there is a positive relationship between financial sector development and economic growth, meaning that the level of financial development is a good predictor of the future rate of capital accumulation and economic growth (Levine, 1999).

2.2 Financial inclusion and economic growth in Africa

The relationship between financial inclusion and economic growth in sub-Saharan Africa was assessed by Adedokun and Aga (2023). The study used the generalised method of moments and Dumitrescu-Hurlin's causality test for the period 2004–2017. A principal component analysis was used to create a composite index for financial inclusion based on the multidimensionality of the financial inclusion measures. The findings

demonstrate that financial inclusion significantly boosts economic growth in sub-Saharan Africa. Additional research suggests that there is a short-term causal relationship between financial inclusion and economic growth (Emra & El Said, 2021). Therefore, to promote inclusive growth across the continent, policymakers should place a strong emphasis on measures that promote access to high-quality, reasonably priced financial services and products. Ozili (2023) investigated the connection between economic growth and financial inclusion in both secular and religious nations. The number of bank branches per 100,000 adults and the number of automated teller machines per 100,000 adults were adopted as financial inclusion indicators. The accessibility aspect of financial inclusion based on physical points of service is represented by these two indicators. The impact of financial inclusion on the growth of real GDP per capita and real GDP in religious and secular countries was examined, using the two-stage least square (2SLS) regression technique.

In secular countries – countries that claim to treat all their citizens equally regardless of religion – bank branch contraction substantially boosts economic growth. In these countries, the expansion of bank branches and increased Internet usage lead to higher economic growth, whereas high ATM supply and increased Internet usage reduce economic growth. Additionally, it was discovered that in these nations, Internet usage is a significant predictor of economic growth. The relationship between financial inclusion, governance, and economic growth in the MENA region has been examined by Emra and El Said (2021). Using a variety of financial inclusion metrics that address the access to financing for households and businesses, the general method of moments (GMM) dynamic panel model technique is applied to annual data for 44 emerging markets (EMs) and the Middle East and North Africa (MENA) over the period 1990–2018. The study specifically makes use of indicators like the number of bank accounts (per 1000 adults), corporate and enterprise bank accounts, the number of bank branches and ATMs (per 100,000 people), the percentage of businesses that use banks to finance working capital and investments, and the percentage of businesses that use bank loans to finance investments.

The findings of the study show that financial inclusion has a favourable effect on the growth of GDP per capita in the chosen nations. The MENA region's economic growth is positively and statistically significantly impacted by financial inclusion, as measured by

the households' financial access index. However, this financial inclusion necessitates regulatory and supervisory frameworks supported by political stability, judicial independence, contract enforcement, and the rule of law. The findings also show that the impact of firms' financial access is only statistically significant when robust institutions are present. Ratnawati (2020) evaluates the impact of financial inclusion on financial stability, income inequality, poverty, and economic growth in several Asian nations.

Three criteria are used to measure financial inclusion: banking penetration, banking service usage, and access to banking services (Dixit & Ghosh, 2013). The indicators of poverty and income inequality include the Gini coefficient and the poverty ratio below the federal poverty line. Bank nonperforming loans and the Bank Z-Score are two indicators of financial stability. The hypothesis test results demonstrate that financial stability, economic growth, poverty, and income inequality are all significantly impacted by all aspects of financial stability at the same time. However, in 10 Asian countries, the financial inclusion dimension has not had the best partial impact on economic growth, income inequality, poverty alleviation, and financial stability.

To attain sustainable development and improve the welfare of the populace, the government of every nation should evaluate and consider the conclusions drawn from this study when formulating plans to broaden financial inclusion. Similarly, the impact of financial inclusion on income inequality, poverty reduction, and economic growth in Eastern Indonesia is examined by Erlando et al. (2020). In this study, two methodologies were employed: the dynamic panel vector autoregression (PVAR) and the Toda-Yamamoto VAR bivariate causality model. The bivariate causality model's findings show that there is a strong correlation between Eastern Indonesia's financial inclusion, economic growth, poverty, and income distribution. While poverty is negatively impacted by socio-economic growth, financial inclusion is positively impacted. Van (2019) offers a thorough analysis of the relationship between financial inclusion and emerging market economic expansion. To quantify financial inclusion on a global scale, a multidimensional index is first created. Second, the effect of financial inclusion on economic growth is estimated, using the panel econometric technique based on this newly developed index. The results bolster the idea that financial inclusion and economic growth go hand in hand. For nations with lower levels of

financial inclusion and income, a stronger correlation is observed. Financial inclusion should be implemented to promote economic growth and development in emerging markets like Vietnam, according to policy implications that have surfaced.

2.3 Empirical review

The role of financial inclusion in economic growth and poverty reduction in a developing economy was studied by Harley et al. (2017). The period of the study was 2006-2015, using panel data analysis. The research results establish that the records of active ATMs, bank branches, and government expenditures selected from three African countries were the most robust predictors for financial inclusion on poverty reduction. The research shows that a 1% increase in active ATMs leads to a 0.0082% increase in the gross domestic product. They found that most ATMs in developing countries need to be updated and require a technological upgrade. Dixit and Ghosh (2013) studied financial inclusion for inclusive growth in India. The researchers concluded that inclusive growth could be attained through equitable growth opportunities and benefits distribution.

Financial inclusion is one of the most crucial opportunities to be equitably distributed to attain comprehensive growth. Financial literacy and the level of awareness remain an issue about using financial services or products. Okoye et al. (2017) investigated the outcome of financial inclusion on economic growth and development in Nigeria from 1986 to 2015, using the ordinary least squares technique. Loan-to-deposit ratio, financial deepening indicators, loan-to-rural areas, and branch networks were used to measure financial inclusion. The researchers proxied economic growth as growth in GDP over successive periods. The study concluded that credit delivery to the private sector had not significantly contributed to economic growth and that financial inclusion had promoted poverty alleviation in Nigeria through rural credit delivery. They recommended deepening financial inclusion efforts through enhanced credit delivery to the private sector and strengthening the regulatory framework to ensure efficient and effective resource allocation and utilisation.

Kelkar (2010) studied financial inclusion for inclusive growth. The study showed that enhanced financial inclusion will drastically reduce

farmers' indebtedness. It also led to more rapid modernisation of Indian agriculture. Enhanced financial inclusion means better risk management tools for farmers. Another benefit will be increased growth and more equitable growth. Gretta (2017) studied the impact of financial inclusion on the growth of the economies in developing countries such as the Middle East, North Africa, and the BRICS region. The study applied a VAR regression to quantify the relationship between financial inclusion in terms of financial activities, financial literacy, and growth. The study showed the importance of financial inclusion in the MENA and BRICS regions. Gakii (2012) investigated the factors that determine financial inclusion. The main objective of the paper was to examine the factors that determine the use of mobile financial services in Kenya. A multinomial logit model was used to model the use of three types of financial services, namely mobile money transfers, mobile payments, and mobile banking, against various explanatory factors such as age, gender and education level, tariff of service, and volume of transactions. The researcher recommended developing financial products and services that are gender-sensitive and sensitive to low-income earners as well as the creation of awareness on financial services.

According to Hariharan and Marktanner (2012), lack of financial inclusion is a socio-economic phenomenon that results from factors such as geography, culture, history, socio-economic inequality, religion, structure of the economy, economic policy, etc. Greater financial inclusion can promote economic development by establishing mechanisms that allow more access to the products and services of financial institutions. In their study, Hariharan and Marktanner (2012) concluded that financial inclusion can enhance economic growth and development. Their research found that financial inclusion has the potential to increase the financial sector's savings portfolio, enhance intermediation efficiency, and boost entrepreneurial activities, ultimately resulting in economic growth. Access to essential financial services increases rural households' economic activities and employment opportunities. As more people engage in economic activities, disposable income for rural households would rise, leading to more savings; this implies inclusive growth (Khan, 2011). Very few economies transition from an agrarian system to a postindustrial modern society without a broad financial inclusion strategy (Subbarao, 2009). Sarma and Pais (2010) concluded that a financially inclusive system helps reduce the

prevalence of informal financial institutions that are, in most cases, exploitative; it encourages easy access to capital and usage of the formal financial system by all segments of the economy.

The empirical review shows that existing studies have discussed various ways that have been used to promote financial inclusion. The literature sources show that financial inclusion is an important facet for developing the financial system in an economy. There is no consensus on how financial inclusion is linked to economic growth. Studies that have attempted to establish the relationship between financial inclusion and GDP growth have been done in different jurisdictions and none has been done for the SADC regional bloc. This study, therefore, seeks to fill this gap by determining the relationship between financial inclusion and GDP growth in the SADC region.

3. Methods

The study estimated the causal relationship between financial inclusion and economic growth, using aggregated banking data for five selected SADC countries. The study employed the Granger causality test to examine the causal relationship (Gour'ene & Mendy, 2017; Dimitrescu & Hurlin, 2012). Granger causality test is used to confirm whether one variable can accurately predict another. If a variable aids in forecasting another variable, it is said to Granger-cause the other variable.

The study employed equation 1 to capture the Granger causality between economic growth and financial inclusion, and study employed equation 1:

$$FI_{i,t} = \alpha + \sum_{k}^{K} \gamma_i^{(k)} FI_{i,t-k} + \sum_{k}^{K} \beta_i^{(k)} GDPG_{i,t-k} + \varepsilon_{i,t} \quad (1)$$

Where FI represents the financial inclusion, GDGP represents economic growth, *i* ranges from 1 up to *N* cross units, *t* represents periods (1,2, ...T), *a* denotes the intercept, *k* represents the number of lags, and ε represents the error term including not only the disturbance term but also the cross-unit specific effects.

The null hypothesis for the Granger non-causality between economic growth and financial inclusion is $H_0: \beta_i = 0$, $foralli$=1 to N. The alternative hypothesis states that there is a causality relationship from

economic growth to financial inclusion for at least one cross unit of the panel: $H_0: \beta_i \neq 0,$ for $i = N_1 + 1, N_1 + 2, \ldots, N; 0 \leq \frac{N_1}{N} \leq 1$

The study employed equation 2 to capture the Granger causality between financial inclusion and economic growth, which is given as:

$$GDPG_{i,t} = \alpha + \sum_{k}^{K} \gamma_i^{(k)} GDPG_{i,t-k} + \sum_{k}^{K} \beta_i^{(k)} FI_{i,t-k} + \varepsilon_{i,t} \quad (2)$$

As discussed above, to test the Granger non-causality from financial inclusion to economic growth, the null hypothesis is $H_0: \beta_i = 0$, $foralli$=1 to N. The alternative hypothesis states that there is a causality relationship from financial inclusion to economic growth for at least one cross unit of the panel: $H_0: \beta_i \neq 0,$ for $i = N_1 + 1, N_1 + 2, \ldots, N; 0 \leq \frac{N_1}{N} \leq 1$

The Granger causality equations (1 and 2) were estimated, using the two-stage generalised method of moments (GMM) panel estimation technique, designed to handle auto-regressive properties in the dependent variable when lagged values were included as explanatory variables. System GMM adopted for the study was particularly suitable when dealing with endogeneity issues. Endogeneity occurs when a variable of interest is correlated with the error term in a regression model. This correlation can bias the estimated coefficients and lead to inconsistent results. System GMM addresses endogeneity by using instruments, which are variables that are correlated with the independent variable of interest but not with the error term. The study method follows (Arellano & Bond, 1991; Arellano & Bover, 1995; Blundell & Bond, 2023) and deals with the problem of endogeneity and measurement error. For robustness sake and novelty of the study, three dimensions of financial inclusion were used to measure financial inclusion. These are access, penetration, and usage, as many authors recommend them as indicators of financial inclusion. The three measures of financial inclusion adopted are branches of commercial banks per 1000 adults (BCB000), depositors with commercial banks per 1000 (DCB000), and outstanding loans with commercial banks as a percentage of GDP (OLCB). Outstanding loans measure the accessibility to formal financial services, which reflects the extent to which individuals and businesses have access to credit from commercial banks. In economies

where financial inclusion is high, a larger proportion of the population can access formal financial services, including loans. By measuring the ratio of outstanding loans to GDP, OLCB provides an indication of the accessibility of formal credit facilities to different segments of the population.

The data set consists of cross-country level observations from five SADC countries (Zimbabwe, Zambia, Namibia, Botswana, and Malawi) from 2004 to 2022. These countries were selected taking into account the economic size and diversity of the countries. Selecting countries with varying levels of economic development, resource endowments, and economic structures can provide insights into different aspects of the regional economy. This criterion helps to capture the range of economic activities, sectors, and potential opportunities within SADC. The total number of observations for the study was 80, obtained from the World Bank and International Monetary Fund (IMF) databases. The availability informed the choice of the study period of the data sets. There has also been a great deal of prominence on the topical issue of financial inclusion in SADC over the last period, where various governments have put in place financial inclusion policies.

4. Results Presentation and Analysis

The results of the Granger causality test between economic growth and financial inclusion show bidirectional causality (Table 1). The results mean that causality runs both wise from economic growth to financial inclusion and from financial inclusion to economic growth.

Table 1: Granger causality test regression results

	BCB000	**GDPG**	**0LCB**	**GDPG**	**DCB000**	**GDPG**
Constant	2.4910 (0.0550)	0.4073 (0.2791)	-0.1816 (0.7842)	2.9009 (0.0145)	3.8219 (0.0073)	24.8309 (0.3140)
GDPG (-1)	0.3094 (0.0285)	0.06157 (0.1304)	0.1346 (0.0990)	0.3145 (0.0263)	0.2762 (0.057)	3.671 (0.1378)
GDPG (-2)	0.04719 (0.7204)	0.0452 (0.2353)	0.0579 (0.4734)	-O.09289 (0.5163)	-0.1049 (0.4579)	-1.5060 (0.5404)
BCB000(-1)	-0.1619 (0.7412)	0.8413 (0.000)				
BCB000(-2)	0.02363 (0.9613)	0.08275 (0.5586)				
OLCB (-1)			1.1419 (0.0000)	0.4513 (0.0714)		
OLCB(-2)			-0.1322 (0.3747)	-0.4695 (0.0501)		
DCB000(-1)					0.0229 (0.0211)	1.2915 (0.000)
DCB000(-2)					-0.0300 (0.0053)	-0.32915 (0.0751)
R-Squared	0.1151	0.8844	0.9826	0.2099	0.2830	0.9022
J-Statistic	2.01E-27	2.46E-26	2.11E-21	1.46E-22	1.27E-25	4.17E-26
$\sum_{i=1}^{2} \beta_i$	1.1382	0.8932	0.8104	1.0453	1.082	1.165
Chi-square	47.84	371.73	72.0017	926.79	61.64	0.1658
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.6838

The results apply to two measures of financial inclusion, i.e. branches of commercial banks per 1000 adults (BCB000) and outstanding loans with commercial banks as a percentage of GDP (OLCB). The results between depositors with commercial banks per 1000 (DCB000) and economic growth show a unidirectional causality from growth to financial inclusion.

The results show there is a positive Granger causality between economic growth and the three measures of financial inclusion adopted for the study – branches of commercial banks per 1000 adults (BCB000), depositors with commercial banks per 1000 (DCB000), and outstanding loans with commercial banks as a percentage of GDP (OLCB). The joint effect of the GDPG has a sum of 1.1382 and is confirmed by the Wald test which returned the chi-square of 47.84 with a p-value of 0.0000. This means that economic growth positively Grange causes branches of

commercial banks per 1000 adults (BCB000). However, the joint effect of economic growth on outstanding loans with commercial banks as a percentage of GDP (OLCB) has a coefficient sum of 0.8104 and is significant since the chi-square is significant with a p-value of 0.0000. Similarly, economic growth has a positive impact on depositors with commercial banks per 1000 (DCB000) since the joint effect of growth has the sum of 1.165, which is positive and significant (chi-square – 1.165), and a p-value of 0.0000. These results show that economic growth Granger causes financial inclusion.

The results show a reverse causality between economic growth and the number of commercial banks per 1,000 adults. The results discussed above show that economic growth Granger causes the number of commercial banks per 1,000 adults. The results further show that the joint effect of the number of commercial banks per 1000 adults has a joint effect coefficient of 0.8932 which is significant according to the Wald test (371.73) with a p-value of 0.0000. The results imply that an increase in the number of commercial banks per 1,000 adults will increase economic growth. The result implies that, as the number of banks increases, there is increased access by the adult population to financial services. Once these adults can increase access to financial services, they should be able to save or get credit, increasing their productivity, which would lead to increased economic growth. Nonetheless, there is also reverse causality, with an increase in economic growth, leading to the opening of new banks and increasing their reach to the previously marginalised areas. The result makes sense because increased economic growth creates new markets. For example, in Zimbabwe, increased growth has always led to increased demand for new bank accounts since it is a legal requirement that salaries and incomes should be paid through bank accounts.

The study has also established that the amount of outstanding loans with commercial banks as a percentage of GDP (OLCB) positively Granger causes economic growth and vice versa. This is shown by the joint coefficient of OLCB which is 1.0453 with a p-value of 0.0000. The result means that the more people are financially included and have access to bank loans, the more the economic opportunity to grow. Studies have been carried out in Africa and have shown that the major hindrance to economic growth has been the lack of access to credit by the poor and the marginalised. It means that once the economies,

through their financial systems, can increase their lending to the different economic groups, there is an increased scope for economic growth. This means that the previously marginalised groups, such as the informal players, should be assisted in getting loans so that they can boost their business, which could be an excellent source for improved growth opportunities. The results further confirm that there is reverse causality where economic growth Granger causes an increase in the number of outstanding loans with commercial banks as a percentage of GDP. This means that, as the economy grows, commercial banks can increase their lending, hence increasing their loan books. The result signifies that banks can relax their lending requirements as the economy grows because the chances of default will decline. One of the giant stumbling blocks in Africa has been the increasing non-performing loans sometimes caused by declining growth rates where the incomes of the societies will be declining, impairing their capacity to repay. The increase in non-performing loans implies that pro-growth policies should be encouraged as they can increase financial inclusion in SADC countries.

The results between depositors with commercial banks per 1000 (DCB000) and economic growth show a unidirectional causality from growth to financial inclusion. There is no evidence of DCB000 Granger causing economic growth since the joint effect is insignificant with p-value of 0.6838. These results mean that economic growth leads to an increase in the number of depositors in commercial banks. The result confirms the above assertion that people start using financial institutions as the economy grows. Most of these users of financial institutions would start receiving their incomes through the banking system and affecting their payments through the same. This study confirms the results from prior studies (Adedokun & Aga, 2023; Ozili, 2023; Gour'ene & Mendy, 2017; Sharma, 2016; Onaolapo, 2015; Babajide et al., 2015). Gour'ene and Mendy (2017) identified that financial services usage leads to increased economic growth. Similar results were also obtained by Sharma (2016). Oruo (2013) found a strong positive correlation between financial inclusion and economic growth in Kenya. Onaolapo (2015) and Babajide et al. (2015) show that the effects of financial inclusion on the economic growth of Nigeria are positive.

5. Conclusion

The main objective of this study was to investigate the causal relationship between financial inclusion and economic growth, and data from five SADC countries were used to investigate the causal relationship between financial inclusion and economic growth. The main findings from the study established that the direction of relationships between financial inclusion and economic growth is bi-directional, meaning that increased financial inclusion leads to real economic growth and that an increase in economic growth leads to an increase in financial inclusion. The result of the study further buttresses the findings from the studies that have been done elsewhere, which found a reverse causality between financial inclusion and economic growth. The result of the study implies that governments in SADC should pursue twin policies that spur both financial inclusion and economic growth, given that both are essential variables influencing each other.

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