# RELATIONSHIP BETWEEN ECONOMIC GROWTH, FINANCIAL DEEPENING, INCOME DISTRIBUTION, FINANCIAL EFFICIENCY AND POVERTY LEVELS WITHIN EAST AFRICA COMMUNITY MEMBER COUNTRIES

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***Abstract***

***Purpose:*** *The purpose of this study was to examine the relationship between economic growth, financial deepening, income distribution, financial efficiency and poverty levels in East Africa Community member countries.*

***Methodology:*** *The study adopted descriptive research designs. The study population was the five countries of EAC countries that included Kenya, Rwanda, Uganda, Burundi, and Tanzania. Annual secondary data for 30 years beginning 1989 to 2018 was gathered for the study purpose. The data was analyzed with the help of excel and STATA version 14. Feasible Generalised Least Squares (FGLS) panel data regression models was used for hypotheses testing. The tests of hypotheses were examined at 95% confidence level.*

***Findings:*** *The study results revealed that the joint effect of economic growth, financial deepening, income distribution and financial efficiency on poverty levels in East Africa Community countries was statistically significant at 0.05 level of significance. The study therefore rejected the null hypothesis. Additionally, the study examined the individual effect of the explanatory variables. Economic growth and financial deepening had a significant effect on poverty levels in East Africa Community countries. However, the effect of income distribution and financial efficiency on poverty levels in East Africa Community countries was not statistically significant.*

***Implications:*** *The study concludes that economic growth, financial deepening, income distribution and financial efficiency are critical to poverty eradication in East Africa Community countries. Specifically, improved and sustainable economic growth leads to poverty level reduction among EAC countries. The growth in economy through real GDP growth translates to income in the hands of the poor masses hence poverty reduction. Additionally, financial deepening in terms of credit to private sector also leads to reduction in poverty level through access to various financial product for wealth creation. .*

***Value:*** *The study recommends that the governments of East Africa Community countries should ensure stable and consistent GDP growth rates to eradicate poverty among the countries. Additionally, the study recommends that the governments of the East Africa Community countries to facilitate financial deepening by empowering players in the banking and capital markets.*

**Key Words:** Economic Growth, Financial Deepening, Income Distribution, Financial Efficiency and Poverty Levels

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# 1.0 INTRODUCTION

Globally, the economic problem of poverty has been an area of concern for decades as world economies pool their resources to fight poverty. Various policies have been developed based on theoretical studies on the determinants of poverty (Bitler & Hoynes, 2015; Nyamweya, Ochieng, Ondigo & Magutu, 2020). One of the policy areas has been the financial development front based on the finance and development nexus. The association between economic growth, financial deepening, income distribution, financial efficiency and poverty levels in national economies has been an area of concern for scholars in both the developed nations and developing counterparts (Sinha, Pearson, Kadekodi & Gregory, 2017; Nyamweya & Obuya, 2020). As observed by Otieno (2013), a financial system tends to increase the breath and access to funds while on the other hand; a financial system that is underdeveloped limits the access to funds by people.

The EAC countries are composed of countries in the eastern region of the African continent. They include Tanzania, Kenya, Uganda, Rwanda, Burundi and South Sudan. A report by the World Bank (2019), while analysing of financial deepening in EAC Countries established that the Countries are far from achieving advanced financial systems. However, the potential for growth in EAC has been witnessed with various economic and financial activities expected to be realised such as increased investment in security, modern banking system including internet banking and investment in global financial markets.

Even though Africa has experienced economic growth since 2003, the continent still has high levels of poverty because almost half of the population earns below $1.25 per day. This challenge is even more prevalent in EAC Countries community because effort geared towards reducing income disparity is minimal (World Bank, 2019). Various policies to combat poverty introduced in most EAC countries for instance have performed dismally (Aduda, Chogii & Murayi, 2014). This study, attempted to address a number of knowledge gaps. Firstly, most of the studies that examine the effects of economic growth on reducing poverty in the EAC region focus on individual countries. They have limited application in the context of EAC countries as a whole (Pérez-Moreno & Weinhold, 2012; Waiyaki, 2013 Kakwani & Son, 2016; Keho, 2017; Williams, Adegoke & Dare, 2017). Secondly, the majority of studies have ignored the effect of financial deepening and income distribution in the association between economic growth and poverty which is contrary to the growth-finance-poverty nexus literature (Singh & Huang, 2015). Thirdly, the majority of studies on the relationship between economic growth and poverty have omitted the effect of financial efficiency (Hasana,et al., 2008; Ferreira, 2012). In this respect, this study examined the link between economic growth, financial deepening, income distribution, financial efficiency and poverty levels in EAC countries.

## 1.1 Objective of the Study

To establish the joint effect of economic growth, financial deepening, income distribution and financial efficiency on poverty levels in EAC countries.

## 1.2 Hypothesis of the Study

**$H_{01}$**: Economic growth, financial deepening, income distribution and financial efficiency have no significant joint effect on poverty levels in EAC countries.

# 2.0 LITERATURE REVIEW

## 2.1 Theoretical Foundations

Liberal Theory: Liberal theory revolves around the idea that poverty in an economy is caused by both market distortions and underdevelopment in various areas. This theory was formulated by Keynes (1936) who believed that market forces were capable of promoting economic growth and in turn eradicate poverty. Based on this belief, Keynes justified government's interventions at macroeconomic level especially in handling involuntary unemployment. From a liberal perspective, poverty is defined as the misfortune of a small group of people who cannot work even if they wished to work. As a consequence, governments should regulate as opposed to impose its rule on poverty reduction (Bradshaw et. al., 2000). The liberal theory argues that poverty can be used to reflect the extent to which market forces fail to justify redistributive taxation in kind and cash. In line with the argument above, liberal theory holds that economic growth has the capacity to improve per capita income of the population that results in reduced poverty levels (Nyamweya & Obuya, 2020). An expanding economy through economic growth also leads to reduced unemployment that enables households to afford basic goods needed to support life. Economic growth thus is very critical in poverty reduction at the microscopic and macroeconomic level.

Financial Intermediation Theory: The financial intermediation theory as advanced by Akerlof (1970) postulates that the financial intermediation process includes economic units with surplus funds deposited with financial institutions who in turn lend the same funds to economic units with deficit funds. Generally, financial intermediaries exist in the financial markets because of the very nature of market imperfections concerning surplus units and deficit units. In reality, most financial markets are characterized by information asymmetry hence there exist differences in access to market information between buyers and sellers of financial products. Financial markets have pronounced and elevated levels of information asymmetries that make it crucial that intermediaries should exist to bridge the gap in information and make flow of finances within an economic system practicable (Leland & Pyle, 1977; Obuya & Olweny, 2017). The theory underpins the study by examining the contributions of financial intermediation to financial deepening and efficiency.

**The Public Choice Theory of Distribution**: Buchanan and Tullock (1975) were the first people to propose the Public Choice Theory of Distribution. The theory claims that income distribution can be critical in redistributing resources in countries that have high levels of income disparity (Fiszbein & Schady, 2009). In proportion to this argument, the first fundamental economic theory presupposes that competitive market economies are able to provide effective means that can be utilized to allocate resources to Pareto's optimal point (Blaug, 2007). Such an allocation would not make certain people better than others meaning that all people would be equal. The theory identifies the role of income distribution in redistributing resources in countries that have high levels of income disparity hence leading to poverty reduction (Nyamweya, Ochieng, Ondigo & Magutu, 2020).

## 2.2 Empirical Review

Research carried out Waiyaki (2013) evaluated the connection between economic growth, poverty and development of financial sector in Kenya for the period between 1997 and 2012. Kakwani and Son (2016) analyzed how connection between poverty and growth can vary

depending on income inequality and economic development. Further, the study exhibits that tradeoff between economic growth and income inequality can be clarified as far as initial states of income inequality and development. Keho (2017) analyzed the link between growth of economy, development of financial sector and poverty reduction in nine African nations using the data from 1970 to 2013. The study established a strong relationship between GDP and financial deepening with GDP positively affecting poverty decrease in five nations including South Africa, Cote d'Ivoire, Benin, Cameroon and Gabon's GDP also affected decrease in poverty positively affecting growth of economy in three nations including Senegal, Nigeria and Ghana.
Uddin, Shahbaz, Arouri and Teulon (2014) analyzed the association between growth of economy, poverty reduction and development of financial sector in Bangladesh. The study used quarterly data from 1975 to 2011. The study established poverty was influenced by growth. Okereke (2015) examined how the financial deepening has influenced the welfare of Nigerians, using data running between 1975 and 2010. The findings demonstrated that aggregate welfare is not directly affected by financial deepening. Abosedra, Shahbaz and Nawaz (2016) analyzed the association between poverty eradication and development of financial sector in Egypt using quarterly data for the period between the first quarter of 1975 and the last quarter of 2011. The results revealed that poverty rates are reduced by financial development. Naceur and Zhang (2016) examined the link between financial development, inequality and poverty. They utilized a sample of 143 countries and focused on the period between 1961 and 2011. They established that the components of financial deepening especially those related to banking sector were able to reduce poverty and income inequality.

Nwanna and Chinwudu (2016) evaluated the causal link between economic growth and financial deepening in Nigeria between 1985 and 2014 using ordinary least squares (OLS). The findings showed that financial deepening based on banking and stock exchange market had positive influence on economic growth that was significant statistically. Chinweze (2017) investigated the direction of causation between poverty reduction and Financial Deepening in Nigeria. Data used from 1981 to 2015 with the study establishing mono causation from financial deepening to Poverty Reduction. Singh and Huang (2015) analyzed the association between Poverty, property rights and Financial Deepening Sub-Saharan Africa countries. The Data was from 37 countries in Africa from 1992 to 2006. The study used panel data regression model. Study showed that poverty, financial deepening and income inequality were significantly related. It specifically showed that financial deepening was able to increase income inequality thereby increasing poverty that is contrary to finance- poverty nexus. In addition, the study only considered direct effect of financial deepening on poverty thereby ignoring the indirect ones.

Ben and Zhang (2016) analyzed the connection between income distribution and financial development proxies. Utilizing selected 143 nations and analyzing data covering the period 1961 to 2011. The research established that financial development proxies fundamentally lessened poverty and income inequality. Fosu (2017) examined the link between economic development poverty in less developed nations, with attention to the role of income inequality. The empirical examination found that out growth of income has largely been significant in the changes in poverty. Rossignolo (2017) examined the effects that tax and government expenditure had on poverty and income distribution within Argentina using data spanning from 2012 to 2013. The outcomes of the study demonstrate that monetary and fiscal strategy has been an incredible asset in decreasing income imbalance and poverty.

Ayadi, Arbak, Naceur and De Groen (2014) analyzed the link between growth in economy and financial sector development in selected nations found in the northern and southern part of the Mediterranean Sea for the period between 1985 and 2009. The study established that financial deepening is inversely related to growth of the economy and credit to the private segment is adversely related with development. Belke, Haskamp and Setzer (2016) sought to establish whether areas of the country with banks that have high quality financial intermediation were growing faster during economic booms and were more stable compared to regions with banks that have poor quality financial intermediation. The findings established that banks that are relatively more efficient in terms of intermediation quality stimulated growth in economy of the regions of their existence.

## 3.0 RESEARCH METHODOLOGY

The study adopted a descriptive and comparative research designs. The design was preferred as the study attempts to investigate the link between economic growth, financial deepening, income distribution financial efficiency and poverty levels in EAC countries. Since the study intended to compare the relationship between study variables across the five countries in East Africa Community, comparative research design is the most appropriate. The study population was five countries in the EAC, which included Kenya, Rwanda, Uganda, Burundi, and Tanzania. South Sudan was omitted because it is not a full member of the EAC. Annual data for 30 years beginning 1989 to 2018 was gathered for the study purpose. Secondary data, which consisted of annual data, was utilized in the study. The data relating to credit to the private sector was obtained from respective websites of central banks of the EAC countries. The real GDP data was gathered from World Bank's website whereas data on cost efficiency of the respective banking sector was gathered from the website of Central Banks of EAC countries and IMF. Data on headcount ratio and Gini coefficient was acquired from the World Bank and African Development Bank websites. The study collected annual data for 30 years from 1989 to 2018 from five EAC countries.

### 3.1 Operationalization of Study Variables

**Table 1: Definition and Measurement of Variables**

| Variable | Notation | Proxy | Expected Sign |
|---|---|---|---|
| **Dependent Variable** | | | |
| Poverty | Y | Head Count Ratio | |
| **Explanatory Variables** | | | |
| Economic growth | X | Real GDP | Negative |
| Financial Deepening | U | Credit to Private Sector (CPS) | Negative |
| Income Distribution | W | Gini coefficient | Positive |
| Financial efficiency | Z | Operational cost efficiency | Negative |

### 3.2 Diagnostic Tests

These tests were carried out to examine the conformity of the empirical model to classical ordinary least squares assumptions. This ensured that the model is fit for the purpose of forecasting. The study employed normality, heteroscedasticity, multicollinearity, serial correlation, unit root diagnostic tests and Cross-sectional correlation test.

### 3.3 Data Analysis

The data were tabulated in to Microsoft excel and various variables generated. The excel file was then be exported to STATA version 14 for further analysis. Diagnostic tests were then carried out and finally inferential statistics analysis were performed based on Feasible Generalised Least squares (FGLS) panel data regression models. The tests of hypotheses were examined at 95% confidence level. The study adopted the model in equation (1).

$$\mathbf{Y}_{jt} = \beta_0 + \beta_1 \mathbf{X}_{jt-1} + \beta_2 \mathbf{U}_{jt-1} + \beta_3 \mathbf{W}_{jt-1} + \beta_4 \mathbf{Z}_{jt-1} + \varepsilon \quad \text{.....(1)}$$

Where

$Y_t$ = Poverty Levels for the current period
$X_{t-1}$ = Economic Growth for lagged one period
$U_{t-1}$ = Financial Deepening for lagged one period
$W_{t-1}$ = Income Distribution for lagged one period
$Z_{t-1}$ = Financial Efficiency for lagged one period
$\beta_0$= Constant
$\beta_1, \beta_2, \beta_3$ *and* $\beta_4$ = coefficients of explanatory variables (**X,U,W** and **Z** respectively)
$\varepsilon$ = error term
***t***= current period
***t-1***= lagged one period
j= 1, 2, 3, 4, 5 (Country)

## 4.0 RESULTS AND DISCUSSION

### 4.1 Descriptive Analysis

This involved the use of descriptive statistical tools including mean, standard deviation, minimum, maximum and time series line graphs.

**Table 2: Summary of Statistics**

| Variable | Obs | Mean | Std.Dev. | Min | Max |
|---|---|---|---|---|---|
| Y | 150 | 60.005 | 16.433 | 31.108 | 86 |
| X | 150 | 1.62e+10 | 1.51e+10 | 1.23e+09 | 6.18e+10 |
| U | 150 | 2.63e+09 | 4.72e+09 | 7.45e+07 | 2.46e+10 |
| W | 145 | .412 | .091 | .199 | .59 |
| Z | 150 | .496 | .119 | .117 | .758 |

Table 2 presented the mean, standard deviation, minimum and maximum point. All the observations (Obs) were 150 with the exception of income distribution. The 150 observations were generated by getting the product of the time period and the number of the countries. Since the time was 30 years, from 1989 to 2018, and there were five countries, the observations were thus (30*5) = 150. However, data for income distribution (W) was only available for 29 years from 1989 to 2017 giving 145 observations (29*5) = 145. The mean of poverty implies that for the 30-year period of the study, poverty level has remained high in East Africa countries with more than 60% of the population earning less than 2 USD per day. The average economic growth was USD 16.2 billion, the standard deviation was USD 15.1 billion implying the economic growth of the East Africa Community countries is spread around the mean by USD 15.1 billion. The mean financial deepening was USD 2.63 Billion while the standard deviation for financial deepening was USD 4.72 billion. The mean income distribution was 0.41. The distribution of income for the five countries for the last 30 years

has been about 0.41 implying that the income distribution is unequal. The mean financial efficiency was 49.62 implying the cost of financial intermediation was about 49.62 % as a proportion of the income earned by the banking sector.

### 4.2 Diagnostic Tests

The study tested panel data classical least squares assumptions including normality, heteroscedasticity, multicollinearity, serial correlation, unit root diagnostic tests, cross-sectional correlation. **Shapiro-wilk test for normality:** All the p-values were less than 0.05 meaning there of a problem of normality hence Least Squares Assumptions of normality of observed variables and residuals is violated hence the study adopted FGLS model. **VIF** test for multicolliniarity: all the explanatory variables had a VIF value less than hence no signs of multicollinearity. **Modified Wald Test for Heteroskedasticity:** The p-value (0.0000) was less than the significance level (0.05) hence the test concluded that there is no constant variance meaning the error terms are heteroskedastic and the OLS assumptions of homoscedasticity is violated. The study therefore ignored the Ordinary Least Squares panel model regression model and adopted FGLS model.

**Wooldridge Test for autocorrelation:** The results showed that the p-value (0.0003) was less than the significance level (0.05) hence the test rejects the null hypothesis of no autocorrelation implying that the data has strong serial correlation. In addition utilising first order difference data transformation of the variables did not eliminate autocorrelation. Hence, the Ordinary least squares (OLS) assumption of no autocorrelation is violated. The study had to make a choice between Panel Correlated Standard errors (PCSE) model and Feasible Generalised Least Squares (FGLS) model. The study settled on FGLS given that it is used when T > n (T = 30 years and n= 5 countries).

**Levin-Lin-Chu unit-root test:** Since the P-value for poverty (0.9385), financial deepening (0.7819), economic growth (0.9171) and income distribution (0.6568) were greater than the significance level (0.05). The test fails to reject the null hypothesis hence the explanatory variables with the exception of financial efficiency had unit units meaning the variables are significantly affected by time. **Correlation Matrix for Residuals test for cross-sectional correlation:** the p-value (0.000) is less than the level of significance implying that data shows presence of cross sectional correlation. The study therefore concluded that the panels were not independent since there exist significant cross-panel correlation. Synergies of the economies can explain the panel dependence across East Africa Community countries.

### 4.3 Correlation Analysis

The study adopted correlation analysis to assist explain the association between economic growth, financial deepening, income distribution and financial efficiency and poverty levels among East Africa community countries. Pairwise Pearson correlation coefficient was generated at 0.05 level of significance. The results is presented in Table 3.

**Table 3: Pairwise Correlation Coefficients**

| Variables | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| (1) Y | 1.000 | | | | |
| (2) X_01 | -0.748*<br>0.000 | 1.000 | | | |
| (3) U_01 | -0.824* | 0.880* | 1.000 | | |

| | | | | | |
|---|---|---|---|---|---|
| | 0.000 | 0.000 | | | |
| (4) Z_01 | -0.119 | 0.142 | 0.358* | 1.000 | |
| | 0.154 | 0.089 | 0.000 | | |
| (5) W_01 | -0.701* | 0.787* | 0.897* | 0.366* | 1.000 |
| | 0.000 | 0.000 | 0.000 | 0.000 | |

* shows significance at the .05 level

In the table 3, Pearson's correlation (r) indicated that there was a negative correlation between income distribution and poverty ($r = -0.701$, $p = 0.000 < \alpha = 0.05$). The association between Financial efficiency and poverty level was negative ($r = -0.119$, $p = .0.154 < \alpha = 0.05$). The correlation between financial deepening and poverty level was also negative ($r = -0.824$, $p = 0.0000 < \alpha = 0.05$). The relationship between economic growth and poverty level was negative ($r = 0.748$, $p = .000 < \alpha = 0.05$). All the explanatory variables were negatively correlated with poverty among the East Africa countries.

### 4.4 The Joint Effect of Economic Growth, Financial deepening, income distribution, Financial Efficiency on Poverty Levels

The study sought to test the null hypothesis ($\mathbf{H_{01}}$) that economic growth, financial deepening, Financial efficiency, income distribution have no joint effect on poverty levels in the East Africa member countries. The hypothesis test was based on p-values of FGLS regression analysis. The null hypothesis would be rejected if the overall p-value associated with the model was less than 0.05 level of significance. The results were presented in table 4.

**Table 4: Joint effect of economic growth, financial deepening, financial efficiency, Income distribution on Poverty levels.**

| Y | Coef. | St.Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---|---|---|---|---|---|---|---|
| X_01 | -0.113 | 0.017 | -6.69 | 0.000 | -0.146 | -0.080 | *** |
| U_01 | -0.027 | 0.013 | -1.97 | 0.041 | -0.054 | 0.000 | ** |
| W_01 | -0.102 | 0.065 | -1.58 | 0.114 | -0.229 | 0.024 | |
| Z_01 | 0.011 | 0.012 | 0.89 | 0.373 | -0.013 | 0.035 | |
| Constant | 7.094 | 0.369 | 19.24 | 0.000 | 6.371 | 7.816 | *** |
| Mean dependent var | | 4.050 | SD dependent var | | | 0.299 | |
| Number of obs | | 145.000 | Chi-square | | | 206.960 | |
| | | | Prob> chi2 | | | 0.000 | |

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

Table 4 revealed that the overall p-value (0.000) was less than the level of significance (0.05), hence the null hypothesis that Economic growth, financial deepening, income distribution and financial efficiency have no joint effect on poverty levels in East Africa Community member countries was rejected. The results implies that economic growth, financial deepening, income distribution and financial efficiency have joint effect on poverty levels in East Africa Community member countries. In addition, Effect of economic growth on poverty was statistically significant at 0.05 level of significance ($p$ –value = $0.000 < 0.05$). The effect of financial deepening on poverty was also statistically significant at 0.05 level of significance (p-value = $0.041 < 0.05$)). The study also established that effect of income distribution on poverty was not statistically significant at 0.05 level of significance (p-value =

0.114>0.05). Finally, the study established that the effect of financial efficiency on poverty was not statistically significant at 0.05 level of significance (p-value = 0.373> 0.05). The Multiple Regression was thus fitted as follows.

$$Y_{jt} = 7.094 - 0.113X_{jt-1} - 0.027\,U_{jt-1} - 0.102\,W_{jt-1} + 0.011\,Z_{jt-1} + \ldots\ldots\ldots\ldots(1)$$

In the fitted model, Intercept term 7.0936 gives the levels of poverty when all the explanatory variables (economic growth, financial deepening, income distribution and financial efficiency) are held constant at zero. The coefficient of economic growth ($\beta_1$= - 0.113) was negative meaning a unitary growth in economy in terms of real GDP, ceteris paribus, is associated with reducing poverty levels by 0.113 units. The coefficient of economic growth gives direct effect of economic growth on poverty. The coefficient of financial deepening ($\beta_2$= – 0.027) gives the indirect effect of economic growth on poverty through financial deepening. Additionally, the coefficient of income distribution ($\beta_3$= – 0.102) gives the indirect effect of economic growth on poverty through income distribution. Finally, the coefficient of financial efficiency ($\beta_4$= 0.011) gives the indirect effect of economic growth on poverty through financial efficiency.

**4.5 Discussion of Results**

The results established that the overall p-value (0.000) was less than level of significance (0.05). Hence the null hypothesis that economic growth, financial deepening, income distribution and financial efficiency have no joint effect on poverty levels in East Africa Community countries was rejected, meaning lagged values Economic growth, financial deepening, income distribution and financial efficiency have joint effect on poverty levels in East Africa Community member countries. In the fitted model, Intercept term 7.0936 gives the level of poverty when all the explanatory variables (economic growth, financial deepening, income distribution and financial efficiency) are held constant at zero. The coefficient of economic growth ($\beta_1$= - 0.113) was negative meaning a unitary growth in economy in terms of real GDP, ceteris paribus, is associated with reducing poverty level by 0.113 units. The coefficient of economic growth gives direct effect of economic growth on poverty. The coefficient of financial deepening ($\beta_2$= – 0.027) gives the indirect effect of economic growth on poverty through financial deepening. Additionally, The coefficient of income distribution ($\beta_3$= – 0.102) gives the indirect effect of economic growth on poverty through income distribution. Finally, the coefficient of financial efficiency ($\beta_4$= 0.011) gives the indirect effect of economic growth on poverty through financial efficiency.

The findings of the study have a basis in empirical literature. Research by Pérez-Moreno and Weinhold (2016), for example, held that development causes poverty reduction which is unidirectional. Keho (2017) evaluated the link between financial development, poverty and economic growth which showed that GDP and financial development were positively affecting poverty in five nations. Dutta, et al., (2012) together with Mellor (2009) have supported trickle down theory where income distribution affect poverty through economic growth. A study by Fosu (2010) found that income elasticity of poverty keeps on falling and that the poverty income elasticity is less than responsiveness of income inequality. Ben and Zhang (2016) analyzed the connection between income distribution and financial development proxies. The research established that financial development proxies fundamentally lessened poverty and income inequality.

# 5.0 CONCLUSIONS

Based on the findings on the relationship between economic growth, financial deepening, income distribution, financial efficiency and poverty levels, the study makes a number of conclusions. The study established that economic growth, financial deepening, income distribution and financial efficiency have a significant joint effect on poverty levels in EAC countries implying the explanatory variables explains the poverty levels in EAC countries. Regarding effect of the explanatory variables in isolation, the study concludes that economic growth has a significant effect on poverty levels in East Africa Community countries. The study also concluded that financial deepening has a significant effect on poverty levels in East Africa Community countries. The study also concluded that income distribution has no significant effect on poverty levels in East Africa Community countries Finally, It was concluded that financial efficiency is associated with rising poverty levels. The study makes a number of recommendations for policy purposes. The study recommends that the government in general and ministries of planning and economic affairs of EAC countries should put down concrete plans and concerted actions aimed at improving economic growth rates. In addition, the governments of EAC countries to work towards enhancing financial deepening within their respective countries. The countries' regulatory authorities should come with policies that ensure the deepening of the financial sector for instance; interest rate should be regulated to ensure that the interest spread is narrow hence making it cheaper for the general population to have access to financial products, especially credit for business start-ups. The EAC countries should also work at encouraging equitable income distribution among the population through measures such as progressive taxation. Finaly, EAC countries governments should encourage financial efficiency in their financial markets and systems through adopting financial innovations to lower the cost of financial intermediation.

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