

# Determinants of Emerging Capital Markets Development: A Case of Dar Es Salaam Stock Exchange

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**Abstract**— This study aims to assess determinants of emerging capital markets development with particular reference to Dar es Salaam Stock Exchange (DSE). Specifically, the study aimed to analyze influence of legal and institutional framework, influence of political and macroeconomic stability and effects of broadening the investors' base on capital markets development. The study employed time series research design. Data from statistical observations were recorded in a duration of 10 years (2011-202) on capital market development in relation to macroeconomic factors including liquidity in the stock market, investment, banking sector expansion and foreign direct investment. The regression findings correspondingly showed that the multiple determination coefficient  $R^2$  is 0.9272. The result showed that the exogenous variables (INTR, INFL, EXCHR, NINFA and LFW) are explained by 92.72% of the variations in dependent variable (CMD) while remaining 7.28 % are attributed to other factors not considered in the model are to blame. In addition, Durbin Watson (DW) statistics of 1 were disclosed in the results. The study recommends that small and medium businesses, which play a significant role in Tanzania's economy, should also be encouraged to engage in the stock market. A systematic and comprehensive investment promotion and facilitation plan that suits Tanzania's interests is required. Savings habit must be encouraged in the country by government policies that favour it. Also, as a country attracts foreign investment, more jobs become available, and individuals have more money to save. In addition, foreign direct investment adds management and technology transfer capabilities.

**Keywords**— Capital market development, political and macroeconomic stability, broadening the investors.

## I. INTRODUCTION

Capital markets play a vital role as a tool for translating savings into finance for the real industry. The significance of capital market expansion in the economy cannot be over-emphasized. Nations with competitive capital markets have a higher level of savings and investment in high-return ventures (Motswapo, 2019). The growth of the capital markets is also important to increase local currency financing over the long term together with proof indicates that progress on regional capital market integration is slow and that an ongoing reform agenda is required dividends have been demonstrated to have a significant and hopeful link with development in terms of increased levels of

economic growth and infrastructure, capital markets, and foreign direct investment for regional nations (Apergis, 2016).

The benefits accruing to national economies as capital markets develop and deepen may be bigger in emerging and frontier countries, but they are also more sensitive to a variety of structural characteristics, such as competitiveness, minority investor security, and overall company productivity. As a result, support for the growth of capital markets typically requires a broad and aggressive reform program me. Even then, effective market builders need to be alert to signs that the social and

regulatory resources on which they depend will outgrow markets (Schizas, 2015).

A large number of studies have used market capitalization as a percentage of GDP to quantify capital market development since it is considered as a better proxy and less arbitrary than other specific assessments of capital market development (Yartey, 2018).

Economists and financial professionals have been debating how to identify the right criteria that drive capital market growth. As a result, the relevance of factors of capital market growth has expanded. As a result, previous studies examined the factors from a macroeconomic and institutional standpoint. The most significant drivers of capital market development have been recognized as these organizations. Stock market liquidity, income level, saving and investment, banking sector expansion, foreign capital investment, and supply and demand pressures are all macroeconomic drivers. Property rules, clearing and settlement concerns, transparency and insider knowledge issues, accounting standards and tax hurdles, education and public awareness are all institutional aspects.

Although the stock market allows people and financial institutions to purchase and sell assets privately or publicly, the capital market encompasses a wide-ranging range of marketable resources that contains the stock market as well as other trading platforms for other economical instruments. Capital markets are separated into primary and secondary markets, which trade financial assets such as bonds, derivative contracts such as options, separate loans, commodities futures, and other debt instruments (Omodero, 2019).

Awareness the major factors of capital market development necessitates not only an understanding of the market's fundamental determinants, but also a consistent definition of "capital market growth" and how to assess progress toward it. Capital market expansion, on the other hand, is a multifaceted ideal, a sophisticated, dynamic, and long-term activity. The fact that CMD is large and liquid is insufficient to make the stock market a reality. Macroeconomic determinants include stock market liquidity, income levels, savings and expenditures, banking sector growth, foreign capital investment, and supply and demand variables. Institutional factors, on the other hand, include land regulations, clearance and arbitration issues, accountability and internal information difficulties, accounting principles and Issues of taxation, education, and public awareness (Msangi, 2015).

## II. LITERATURE REVIEW

### 2.1 Capital Market

According to Al-Faki (2016), is a network of specialized financial institutions, as well as a set of procedures, processes, and infrastructure that makes it easier to connect providers and consumers of medium-term to long-term money investment in economic initiatives in a range of ways. Is the lending and borrowing market for long-term loanable financial assets? Capital market is a subdivision of the financial market that permits medium and long-term money to be transferred to other economic organizations.

### 2.2 Capital Market Development

Capital market development is an important aspect of financial development that is linked to economic expansion. It is determined by the number of publicly traded corporations, market capitalization (as a percentage of GDP), value traded (as a percentage of GDP), and turnover (percent). Capital market is a comprehensive notion (Cherif & Gazdar, 2018),

### 2.3 Stock Exchange

A stock exchange is a crucial component of the capital market. It is a secure place in which systematic trade is carried out. Securities are acquired and sold in accordance with to well-defined rules and regulations. Debentures and public corporation's stock are issued in the form of shares that is correctly a publicly traded company, as well as debentures and bonds issued by government, local, and public bodies, are all securities specified here. Bonds are often traded over the counter (OTC), but a few corporate bonds are offered on a stock exchange. It has the authority to impose rules and regulations on the brokers and companies that have signed up with them.

### 2.4 Stock Market

A stock market is a public market where businesses may sell stock/shares and derivatives with a predetermined price; these assets might be listed on a stock market or privately traded.

### 2.5 Efficient Market Theory (EMT)

The Efficient Markets Theory (EMT) is a hypothesis that explains how capital markets have evolved through time. This concept was developed by Fama in 1965. It asserts that an asset's price represents all relevant information regarding the asset's inherent value, which is sometimes referred to as value in the present of the security's predicted monetary flow. The profit opportunities provided by the presence of undervalued and overpriced equities, on the other hand, encourage investors to trade,

bringing stock prices closer to the current value of future cash flows (Ewah et al., 2009).

## 2.6 Capital Market Theory (CMT)

All investors, according to Capital Market Theory, are Markowitz efficient investors who choose investments based on anticipated return and risk, that investors may borrow or lend any amount at a risk-free rate of interest, and that all investors have the same return expectations. The context in which securities research takes place is established by capital market theory. Capital market theory is a positive theory that hypothesizes how investors behave rather than how they should act.

## 2.7 Empirical Literature Review

According to the IMF financial stability report (2017), capital markets have expanded significantly since the early 1990s, with a special emphasis on rising African countries. Before 1989, there were only five stock exchanges in Sub-Saharan Africa and three in North Africa. There are presently 19 stock exchanges in Uganda and Mozambique, ranging from startup exchanges to major markets like Nigeria and Johannesburg.

Between 1992 and 2002, the market capitalization for African markets climbed from US\$113,423 million to US\$244,672 million. According to stock market development metrics, African stock markets are small, with few listed enterprises and low market capitalization. Egypt, Nigeria, South Africa, and Zimbabwe are the outliers, with 792, 207, 403, and 79 listed companies, respectively. With the inclusion of Egypt and South Africa, the regular number of listed enterprises on Sub-Saharan African marketplaces is 39, compared to 113, (Yartey & Adjasi 2007).

Yatey and Adjasi (2020) conducted a research used data from 14 African nations in an unbalanced panel. A regression technique was used to compute the data. Capital market development is influenced by a number of variables, including domestic product investment, private money flows, stock market returns, income levels, and banking sector expansion. according to the research. In the study, political risk, law and order, and bureaucratic efficiency were all shown to be significant predictors of capital market growth. Based on his findings, he concluded that, at this point in its development, the banking sector serves as a supplement to the stock market for investment capital. Nonetheless, the development of both banks and stock markets as investment finance and political risk resolution mechanisms would boost investor confidence and promote capital market growth.

Doku et al., (2016) conducted research in parallel with banking and stock market advancements in financing choices of listed enterprises in Ghana, the emergence of

the stock market has been shown to have a positive impact on capital structure decisions of listed businesses in Ghana. However, when the financial situation changes, the substitution effect of debt and equity investment shifts overwhelmingly in favor of equity investment. This conclusion shows the relevance of stock markets in the capital structure of listed corporations in industrialized countries. This research examines links between the expansion of financial markets and the choice of financing (debt-equity) of listed firms in Ghana using a panel of data. The study's primary purpose is to determine if debt and equity financing are complimentary or substitutive. The research looked at panel data from twenty-one Ghana Stock Exchange (GSE) listed companies throughout time between the years 1995 and 2005.

In Bahrain, Abdelbaki (2016) looked at the link between macroeconomic conditions and stock market growth. The Auto Regressive model was used by him. Revenue, capital, banking industry development, private capital flows, and stock market liquidity are all key predictors of Bahraini stock market development. Because the stock market is liquid, the stock price may fluctuate from time to time, but investors may profit from it and enhance their income level, according to the study.

Msangi (2017) examined the factors that impact Tanzania's capital market growth. The empirical data was carried out utilizing time series data from 1998 to 2012. The Pearson correlation test was used to assess the relationship between the variables in this quantitative study, which used secondary data from the previous fifteen years. For multiple regression analysis, this research used the Ordinary Least Square (OLS) method. The macroeconomic variables analyzed were stock market liquidity, investment, banking sector development, and foreign direct investment. As indices of capital market development, market capitalization, listed firms, value traded, and turnover ratio were employed. According to the regression findings, investment, banking sector growth, and foreign direct investment are all key predictors of capital market development in Tanzania. The research, on the other hand, found that there is no relationship between capital market development and stock market liquidity. The model is significant in its whole, according to the Ordinary Least Square (OLS) analysis.

The macroeconomic elements that drive capital market growth were studied by Billmeier and Mussa (2020). They looked at panel data from seventeen countries in the Middle East and Central Asia using a fixed-effect panel regression. According to the research, both organizations and remittances have a positive and significant impact on capital market growth. The organizational theory, which is described as legal mechanisms that provide traceability,

contractual compliance, and intellectual rights protection, is critical for capital market growth.

Chepkoiwo (2017) discussed the factors influencing the growth of developing capital markets are examined in this report, which focuses on the Nairobi Stock Exchange. The research covered all NSE-listed companies from 2005 to 2010. Despite numerous government initiatives implemented at various times, performance indicators indicate that the NSE has performed poorly as compared to other emerging stock markets. Low turnover ratios, low market capitalization to GDP ratios, and low valuation of stock traded to GDP ratios are only a few examples. As a result, the aim of this study was to identify factors influencing the development of emerging stock markets, specifically the Nairobi Stock Exchange. The factors influencing the growth of a developing capital market were investigated using a case study design. In data processing, however, descriptive and regression approaches were used, as well as a secondary data collection tool. The study identifies both external (macroeconomic and social cultural factors) and business (legal, regulatory, and institutional) constraints on the Stock Market's growth. However, some factors, such as macroeconomic stability-inflation and private capital inflows, did not explicitly demonstrate the above relationship. As a result, it can be inferred that stock market liquidity determines stock market growth.

### III. METHODOLOGY OF THE STUDY

Specifically, the presented study used time series involved collection of data from statistical observations recorded in duration of 10 years on capital market development in relation to macroeconomic factors including Stock Market Liquidity, Investment, Banking Sector Development and Foreign direct investment. Using the Dar es Salaam Stock Exchange as a case study, the researcher looked at the influence of legal and institutional framework, political and macroeconomic stability and broadening the investor base on capital market growth from 2011 to 2020. The research used variables of interest in time series data from 2011-2020. The data used sufficiently increase the sample size for effective econometric analyzes since the period under analysis is extensive (2011 to 2020) as the linear interpolation of the annually available data is used to compute them to achieve a resounding relation between the variables listed in the study.

The research used quantitative time series data that were collected from UNCTAD data base, DSE and NBS in a span of 10 years (2011 to 2020).

### IV. DIAGNOSIS OF THE DATA

#### 4.1 Stationarity Test

Before running any association model, a root test using the Augmented Dickey Fuller (ADF) test was performed to test the relationship (stationarity) between 2 variables while maintaining the effects of the other associated variables (ceteris paribus). This test is justified in avoiding the risk of a falsified regression.

Table 1: Stationary (Unit Root) Test

Method	Individual Levels		1st difference	
	Statistic	Prob**	Statistic	Prob**
ADF-fisher chi-square	0.568002	0.9792	-2.01478	0.0000
ADF-choi Z-stat	3.84284	0.9999	-6.76784	0.0000

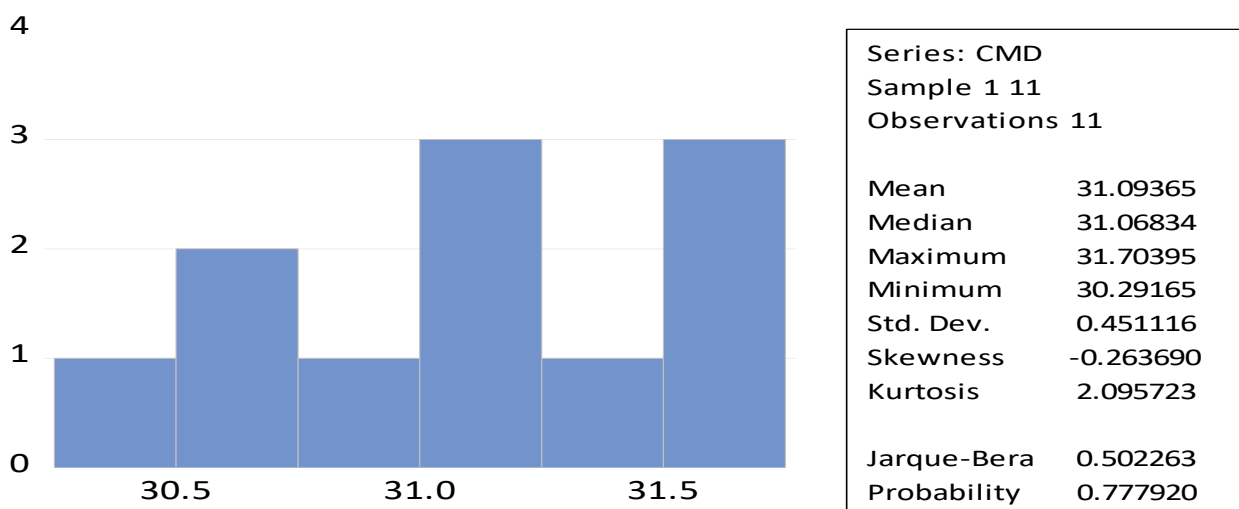
Note: Significant at 10%, Significant at 5%, Significant at 1%

Table 1 summarizes the results of this test. Variables like CMD, EXCHR, INFL, INTR, and LFW are clearly not stationary in their individual levels, but they are stationary at their initial difference level. This is because the P-values of the data series of the statistic variables are larger than 5% level of significance at their levels, but less than 5% at their initial difference. As a result, we can conclude that no unit root exists in the data series (non-stationary).

#### 4.2 Normality Test

Given that various statistical approaches assume that the population data distribution is normal, it is critical to evaluate and analyze whether the data is normality requirements in data analysis (Sang Gyu Kwak & Sung-Hoon Park, 2019). Thus, normality of the sample data is premeditated by means of the Jarque-Bera test statistics below:

Table 2: Normality test



critical value ( $\alpha$ ), 5%, 1%

$H_0$ : the data in the sample are regularly distributed.

$H_1$ : the data in the sample are not regularly distributed.

Based on the normality test statistics presented in Table 2, the results showed that the sample data of eleven observations, are a normal distribution because the P-values of the jaque-Bera test statistics is greater than the significant alpha value (5%). Hence failing to reject the null hypothesis as the data of the sample satisfies the normality requirement at the 95% level of confidence.

### 4.3 Granger Causality Test

The pairwise granger causality test was therefore used to evaluate whether MVA, MEXP and MPRD granger predictor variables cause two economic variables (GDP and employment) to be correlated with an instantaneous moment in time related to the principle of measuring cause and effect relationship from VECM due to the existence of a long-term relationship among the variables. Table 3 presents the results obtained from the test.

Table 3: Granger Causality Test Results

Null Hypothesis:	Obs	F-Statistic	Prob.
INTR does not Granger Cause CMD	9	0.31992	0.7432
CMD does not Granger Cause INTR		6.79488	0.0517
INFL does not Granger Cause CMD	9	0.63798	0.5748
CMD does not Granger Cause INFL		12.0519	0.0203
EXCHR does not Granger Cause CMD	9	7.29337	0.0463
CMD does not Granger Cause EXCHR		2.28031	0.2183
NINFA does not Granger Cause CMD	9	7.74522	0.0421
CMD does not Granger Cause NINFA		9.25057	0.0316
LFW does not Granger Cause CMD	9	5.65537	0.0683
CMD does not Granger Cause LFW		5.73742	0.0668

Table 3 shows the Granger Causality test results. The P-values of these explanatory variables have a significant value greater than 0.05, indicating that the estimations INTR, INFL, and LFW failed to reject the null hypothesis.

Consequently, the results show that the causality of explanatory variables (INTR and INFL) and dependent variable (CMD) to be independent of each other. The results further revealed a uni-directional relationship



between EXCHR and CMD as the P-value of the F-statistic is fewer than the significance value of 0.05, thus rejecting the null hypothesis as EXCHR granger causes CMD but CMD does not granger cause EXCHR because the null hypothesis was not rejected by the test results.

However, the findings suggest that there is a bi-directional relationship between the variables NINFA and CMD because the P-values of the results of the F-statistics test are lower than 0.05 significant value, thus failing to reject the null hypothesis. In addition, the results the null hypothesis was not rejected. for LFW and CMD, as both variables do not granger cause each other because of their P-value being greater than 0.05 level of significance despite maintaining a positive Bi-directional relationship.

**4.4. Autocorrelation Test**

Autocorrelation is a mathematical term that describes the degree of resemblance between a given time series and a trailing version of itself across subsequent time intervals (Smith, 2020).

The Durbin-Watson test is a method of determining whether or not a person The random or error term, ‘’, was tested for temporary independence, that is, whether the value assumed by ‘’ is independent of the value assumed in any preceding period, using statistics from the regression analysis. In other terms, it determines whether non-auto-correlation disturbances are valid.

The hypotheses are stated as follows;

H<sub>0</sub>: No auto-correlation in the models

H<sub>1</sub>: Auto-correlation in the models

Decision rule: reject H<sub>0</sub> and accept H<sub>1</sub> if;  $d^* < 2$  but if  $d^* \geq 2$ , we accept H<sub>0</sub> and reject H<sub>1</sub>.

The results show that  $d^* = 1.831176$ , based on the regression result (Table 6). As a result, the value of 1.831176 is nearly equal to two (2), implying that no autocorrelation is detected in the approximate model, therefore failing to reject the null hypothesis H<sub>0</sub>. This indicates that the estimated model has no first-order auto-correlation, and so the errors in the models are not auto-correlated.

**4.5 Heteroskedasticity Test**

In order to ensure that the assumptions are correct and that the estimation limits for the dependent variable are true, and that confidence intervals and p-values for the parameters are valid, the regression of the squared residuals on the cross products of the original regressors is performed using the white heteroskedasticity test without white cross terms to check the presumption of constant variance (homoskedasticity).

The hypotheses are as follows:

H<sub>0</sub>: There is no heteroskedasticity in the models

H<sub>1</sub>: There is heteroskedasticity in the models

Table 4: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey  
Null hypothesis: Homoskedasticity

F-statistic	0.714446	Prob. F (5,5)	0.6394
Obs*R-squared	4.583932	Prob. Chi-Square (5)	0.4687
Scaled explained SS	1.901776	Prob. Chi-Square (5)	0.8626

Decision rule: If Prob chi-square is a level of importance greater than 5%, reject H<sub>0</sub> (of no constant variance, i.e., heteroskedasticity) at 5% level of significance, and accept otherwise, that is, if H<sub>1</sub> 5%.

The model results show that the likelihood of Chi-squared = 0.4687, from (Table 4) As a result, the null hypothesis of no heteroskedasticity in the model is rejected because the chi-squared probability is greater than 5% of significance, implying that homoskedasticity exists in the model and that in a regression model the error term is constant.

**V. DESCRIPTIVE STATISTICS**

Descriptive statistics are crucial in the early stages of data analysis because they provide the foundation for inferential statistical tests to compare variables (Statistics, 2021). As a result, as part of good research methodology, it is vital to offer the most relevant descriptive data in a systematic way to reduce the danger of presenting misleading conclusions.

The accurate use of descriptive statistics allows health-care executives and clinicians to more effectively weigh the impact of health policies and programs, since the findings of statistical analysis are crucial in affecting the future of public health and health sciences (Trochim, 2020).

Table 5: Descriptive Statistics

	CMD	EXCHR	INFL	INTR	LFW	NINFA
Mean	31.09365	0.000542	6.838658	7.434858	14.10687	26.90575
Median	31.06834	0.0005	5.58817	6.589167	13.14128	26.6914
Maximum	31.70395	0.00072	16.00109	9.99761	17.685	28.27588
Minimum	30.29165	0.00044	3.290291	5.4625	12.93646	25.83282
Std. Dev.	0.451116	0.000105	4.024624	1.672136	1.79811	0.882375
Skewness	-0.26369	0.351129	1.350709	0.442081	1.309529	0.296103
Kurtosis	2.095723	1.547322	3.627053	1.648683	3.088387	1.562685
Jarque-Bera	0.502263	1.193243	3.524973	1.195242	3.147501	1.1076
Probability	0.77792	0.550669	0.171618	0.550119	0.207266	0.574762
Sum	342.0301	0.00596	75.22524	81.78344	155.1756	295.9632
Sum Sq. Dev.	2.035056	1.10E-07	161.976	27.9604	32.332	7.785863

The degree of symmetry and sharpness, as evidenced in the skewness and kurtosis statistics, determine the normality of the variables, as long as the null hypothesis that the distributions aren't distributed routinely is true. Thus, the descriptive statistics for CMD, EXCHR, INFL, INTR, LFW AND NINFA variables show skewness values of -0.26369, 0.351129, 1.350709, 0.442081, 1.309529 and 0.296103, respectively, as the values are below the usual value of zero skewness, the normal distribution is shown to

demonstrate that the skewness is symmetrical around the mean. However, the sharpness of the line in a series distribution shows that all variables in the descriptive analysis have values that are less than three, implying that the distribution is a normal distribution, while the statistical values of Jargue-Bera show the distinction between the series' skewness and kurtosis and those of the series.

Table 6: Regression Analysis

Variables	Coefficients	td. Error	T-Statistic	Prob.
C	31.83337	8.881982	3.584039	0.0158
INTR	0.050563	0.039360	1.284626	0.2552
INFL	-0.026393	0.02454	-1.074019	0.3319
EXCHR	-4098.865	2078.925	-1.971627	0.1057
NINFA	0.002317	0.403614	0.005740	0.9956
LFW	0.086721	0.086888	0.998078	0.3641
R <sup>2</sup> 0.927202		Adj. R <sup>2</sup> 0.854403		
Durbin-Watson stat. 1.831176		F-Statistic 12.73657		

**VI. REGRESSION ANALYSIS**

Thus, from the description of the VAR regression results Table 6, the predicted model in previous chapters can be mathematically represented as follows

$$CMD = 31.8334 + 0.006INTR - 0.00264INFL - 4098.86EXCHR + 0.0023NINFA + 0.0867LFW$$

Subsequently the regression results and coefficient tests between capital market development and capital market

development indicators in Tanzania are shown in Table 6. More so, the p-values of INTR, INFL, EXCHR, NINFA and LFW are 0.2552, 0.3319, 0.1057, 0.9956 and 0.3641 at 5 percent significance level, respectively, thus, from the results, indicate the existence of a significant relationship between the variables since the model has at least one cointegration equation. More so, the results showed evidence of short-term relationship between the variables.

Furthermore, result demonstrates a negative and insignificant relationship between the macro-economic factors (inflation and exchange rate) and capital market development while interest rate (proxy of macroeconomic variable indicator) showed a rather positive but insignificant relationship with capital market development. Furthermore, the results showed an existence of a positive but somewhat insignificant relationship between independent variables (net investment in non-financial assets, legal frame work) and capital market development at 95% confidence interval.

It is therefore safe, in light of the insignificant relationship, to say that stagnation of the development of capital markets in Tanzania has long been affected not only by economic factors but also famous tax legislation by the governments, as inventory developments are dependent on political leadership, social-cultural factors such as regime governance and the extent of technology affects prices, the number of buyers and stock market demand (Shirima, 2020).

The regression findings on Table 6 correspondingly showed that the multiple determination coefficient  $R^2$  is 0.9272. The result showed that the exogenous variables (INTR, INFL, EXCHR, NINFA and LFW) are explained by 92.72% of the dependent variable's variability (CMD), while the remaining 7.28% are other variables not considered in the model. In addition, Durbin Watson (DW) statistics of 1 were disclosed in the results.

## VII. DISCUSSION

The purpose of presented study focused on the determinants of capital market development in Tanzania a case study of Dar es salaam Stock Exchange (DSE) at Kinondoni municipal. The findings show that the eleven observations in the sample data are regularly distributed based on the normality test statistics shown in table 3, because the P-values of the Jaque-Bera test statistics are bigger than the significant alpha value (5 percent). As a conclusion, since the sample data fits the normality requirements at the 95% confidence level, the null hypothesis is not rejected.

### 7.1 Influence of Institutional Framework on Capital Market Development

The granger causality test shows that legal frame work and capital market developments have directional relationship. This means that legal framework influence capital market development likewise capital market development influence legal framework. Also, findings from regression analysis the p-values of INTR, INFL, EXCHR, NINFA, and LFW at the 5% significance level are 0.2552, 0.3319,

0.1057, 0.9956, and 0.3641, respectively, indicating the existence of a meaningful association between the variables because the model incorporates at least one cointegration equation. More importantly, the findings revealed a short-term link between the factors. The results showed an existence of a positive but somewhat insignificant relationship between independent variable (institutional legal frame work) and capital market development at 5% confidence interval as the p-value of the coefficient of legal frame work is seen to be greater than 5% hence concluding that legal frame work has had an insignificant influence on capital market development for the period under review. These findings are related to Narziev (2021) that the evolution of one of the market economy's most important institutions, the securities market, in terms of its function in supporting competitive conditions in the financial services industry. In terms of both acquiring and allocating financial resources, banks have become the most prominent institutions in all Commonwealth of Independent States (CIS) countries. The study evaluates the importance of capital markets and their regulation in CIS nations, analyses the institutional and legislative framework of capital market regulation, and analyzes particular capital market development difficulties.

### 7.2. Influence of Macroeconomic Stability on Capital Market Development

Findings from the regression analysis show that the p-values of 0.2552, 0.3319, 0.1057, 0.9956 and 0.3641, INTR, INCHR, NINFA, and LFW at 5 per cent of the meaning level show that at least one cointegration equation has been incorporated inside the model. Furthermore, there is a positive but minor association between macroeconomic factors (inflation and exchange rate) and capital market growth, while the interest rate (a proxy for a macroeconomic variable index) exists with capital market development. The above the result demonstrates negative and insignificant the connection between the macro-economic factors (inflation and exchange rate) and capital market development as the p-values of the macro-economic indicators demonstrate figures which are greater than 5% significant value.

The findings revealed by (Molefhi, 2019) disagree with the fact, given that many developing countries, particularly in Africa, face government deficits, and economic theory suggests that one way to finance the deficit is to borrow or issue government bonds by a deficit government. If the government borrows money, the rate will increase and some private investment expenditure will crowd. The expansionary impact of deficit spending is reduced by decreases in private spending. This demonstrates that the capital market has an influence on a variety of factors in macroeconomic variables.



### 7.3. Effects of Broadening Investors' Base on Capital Market Development.

Results from granger causality test shows that Net investment in non-financial assets and capital market development has unidirectional relationship. This implies that on variable does not influence another variable in one way or another. Likewise results from regression analysis shows that furthermore, at the 95 percent confidence range, the results revealed a positive but relatively low association between independent variables (net investment in non-financial assets, legislative framework) and capital market development. The results showed an existence of a positive but somewhat insignificant relationship between independent variables (net investment in non-financial assets as a proxy of establishing investors base) and capital market development at 5% confidence interval. This is due to the fact that the p-value of the net investment in non-financial assets is greater than 5% significant level.

Thus, it is safe to say that broadening investors base has had insignificant impact on Tanzania's capital market development throughout the time under consideration. The regression findings correspondingly showed that the multiple determination coefficient R<sup>2</sup> is 0.9272. The result showed that the exogenous variables (INTR, INFL, EXCHR, NINFA and LFW) are explained by 92.72 % of variations in dependent variable (CMD), while the remaining 7.28% are other variables not considered in the model. In addition, Durbin Watson (DW) statistics of 1. were disclosed in the results. Unlike to a study related to Msangi (2015) which shows there is a significance in investment and capital market development have a symbiotic connection hence among the policies recommended by the report are the following: to assist capital market growth, the government should regulate and manage the financial sector. Policymakers need to remove barriers for international investors, develop measures to encourage foreign direct investment, and provide incentives.

Conclusively, it is therefore safe, in light of the insignificant relationship, to say that stagnation of the development of capital markets in Tanzania has long been affected not only by economic factors but also famous tax legislation by the governments, as inventory developments are dependent on political leadership, social-cultural factors such as regime governance and the extent of technology affects prices, the number of buyers and stock market demand (Shirima, 2020).

## VIII. CONCLUSION AND RECOMMENDATIONS

The significance of macroeconomic factors in assessing capital market development success cannot be emphasized.

Investors benefit from assessing their investments in light of the present state of the stock market. In the absence of macroeconomic data, Investors are unable to educated judgments about whether to join or depart the stock market.

Results in the regression model shows that because the model includes at least one cointegration equation, the p-values of INTR, INFL, EXCHR, NINFA, and LFW at the 5% significance level are 0.2552, 0.3319, 0.1057, 0.9956, and 0.3641, respectively, demonstrating the existence of a meaningful link between the variables. Furthermore, the findings suggest that macroeconomic variables (inflation and exchange rate) have a negative and negligible link with capital market development; however, interest rate (a proxy for macroeconomic variable indicator) has a positive and substantial relationship. Though not all variables are significant but still there are indicators for capital market development per say. The government should control and regulate the financial sector, according to the report's recommendations, in order to support capital market development. Authorities should establish measures to attract and incentives foreign direct investment, and international investors should be permitted to participate without restrictions. To attract more investors, the study proposes that the government promote policies that sustain fair interest rates and invest more in infrastructure, particularly energy, telecommunications, and roads throughout the country.

## REFERENCES

- [1] Apergis, T. &. (2016). Capital Markets, Infrastructure Investment and Growth in the Asia Pacific Region. *International Journal of Financial studies*, 1.
- [2] Al-faki, M. (2016), The Nigerian capital market and socio-economic development, Public Lectures, University of Benin, Nigeria.
- [3] Billmeier& Mussa. (2020). What Drives Stock Market Development in the Middle East and Central Asia--Institutions, Remittances, or Natural Resources? Researchgate, 5-10.
- [4] Chepkoiwo. (2017). *factors affecting the development of emerging capital markets*. The case of nairobi stock exchange. 1-4.
- [5] Cherif, M., Gazdar, K. (2018), Institutional and macroeconomic determinants of stock market development in MENA region: New results from a panel data analysis. *International Journal of Banking and Finance*, 7(1), 139-159.
- [6] Doku,Adjasi& Kumankuma. (2016). Financial market development and capital. *S e r b i a n Journal of Management*, 1.
- [7] El-Wassal, K.A. (2018). The development of stock markets: In search of a theory. *International Journal of Economics and Financial Issues*, 3(3), 606-624.
- [8] IMF. (2017). *Global Financial Stability Report*. Washington, DC : World Economic and Financial Surveys.

- [9] Molefhi. (2019). Financial Inclusion and its Impact on Employment Creation in Botswana. Botswana: BIDPA.
- [10] Motswapo, M. (2019). The Impact of Macroeconomic Variables on Capital Market Development in Botswana's Economy. BIDPA Working Paper, 1-2.
- [11] Msangi, P. (2015). The determinant of capital market in Tanzania: A case study of Dar es salaam Stock exchange. Dar es salaam: Open university.
- [12] Omodero, C. (2019). Capital Market Determinants and Market Capitalization in Nigeria. *International Journal of Financial Research*, 462.
- [13] Schizas, E. (2015). The rise of capital markets in emerging and frontier economies. ACCA, 1.
- [14] Shirima,Chalu & Ndiege. (2020). *Relationship between performance measurement system aspects among agricultural marketing co-operative societies in Rombo district, Tanzania*. Moshi: East African Journal of Social and Applied Sciences.
- [15] Trochim, W. (2020). Sampling. Research method knowledge base, 1.
- [16] Yartey, C. A & Adjasi, C. K. (2007). "Stock Market Development in Sub Saharan Africa: Critical Issues and Challenges" IMF Working Paper, WP/07/209.
- [17] Yartey. (2018). Determinants of Stock Market Development in Emerging Economies; Is South Africa Different? IMF working paper WP/08/32 Washington, International Monetary Fund., 6-10.