Blueprint Academic Publishers

Journal of Business, Economics and Management Research Studies
2(3)
Received: August 13, 2024
Accepted: September 07, 2024
Published: September 22, 2024

Financial Inclusion and Stock Market Development in Kenya; A Case of Kajiado County

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Abstract

The Group of Twenty (G20) recognizes that financial inclusion as a key enabler in the fight against poverty. In effort to alleviating poverty in Kenya, the government identified the stock market as a key avenue in mobilizing resources. The Development of its stock market is thus vital avenue that could be used to mobilize investment funds required for implementation of vision 2030 projects. However, the stock market is contributing less than one percent of growth financing against the government expectation of ten percent. This study therefore, sought to investigate the effect of financial inclusion on stock market development in Kenya. The specific objectives were to determine the effects of access to financial services, usage of financial services, quality of the products and the service delivery on stock market development in Kenya. Using stratified random sampling, a sample size of 482 respondents was drawn from a target population. Multiple regression Model was employed in order to determine the relationship between financial inclusion and stock market participation in Kenya. The study found out there was a strong positive relationship between financial access, usage and product quality and stock market development. Also, financial access (β=.061, $p<0.05$), usage (β=.083, $p<0.05$) and product quality (β=.476, $p<0.05$) has a positive and statistically significant effect on stock market development in Kenya. In addition, the study found that most of the responses on advanced financial literacy questions were performed below average indicating low financial literate levels among the respondents. The study recommends that the county government initiate programs that will enhance financial inclusion in the county, this will not only enhance stock market development but also other market sectors.

Keywords: Financial services, usage, access, quality of the products, service delivery, stock market development.

Journal ISSN: 3005-2173

Article DOI: https://doi.org/10.69897/jobemrs.v2i3.147

Original Article

Issue DOI: https://doi.org/10.69897/jobemrs.v2i3

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Funding: The author received no financial support for the research, authorship and/or publication of this article

Data Availability Statement: The authors confirm that the data supporting the findings of this study are available within the article [and/or] its supplementary materials.

Competing interests: The authors declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Introduction

Background information

A stock market is a crucial component of a good working financial system and a critical vehicle for national development (Osamwonyi, 2015). This is because a stock market provides funds for long run investment projects as well as attracts the investors by providing investment avenues to earn suitable investment returns. In fact, domestic stock markets improve the implementation of fiscal, monetary, and exchange rate policy (Laeven, 2018). Stock market activities play a major role in determining the level of economic activities in both emerging and developed economies, by providing and efficiently allocating capital for investment, providing appropriate platform to engender best corporate practices that will result in growing investment and further growth of the economy (Osamwonyi, 2015).

In Africa, over half of 54 countries operate stock exchanges. The rapid expansion of these stock markets in the continent has contributed to economic development in various ways such as facilitating long term capital mobilization, the provision of alternative investment opportunities, attracting foreign capital inflows and serving as a signal of economic performance (Iwasaki & Kumo, 2019). However, despite these benefits African stock markets with exception of South Africa are characterized as small in size. The total value of African stocks outside of South Africa was only 0.94% of world stock market capitalization, and 2.14% of all emerging markets stocks at the end of 2021 (WFEs, 2022). Standley et al. (2020) posits that in Africa the banks dominate the financial systems and most sub-Saharan countries are yet to operate viable stock market.

Kenya has made remarkable progress in terms of financial inclusion between 2006 and 2021. Since the baseline survey, access to formal financial products has increased from 26.7% in 2006 to 83.7% in 2021, while access to 'informal only' finance has decreased from 32.1% to 4.7% over the same period. The financially excluded population has decreased from 38.4% in 2006 to 11.6%, in the 2021 survey. The latter figure shows a slight increase from 11% of the pre-COVID survey in 2019. The remarkable progress in financial inclusion can be attributed to a number of factors including the bank branch expansion throughout the country and the outstanding growth of digital finance and mobile money. According to the Central Bank of Kenya's Bank Supervision Annual Reports (CBK, 2021), the bank branch network grew from 576 to 1,459 during the period 2006-2016, reflecting a 153% increase.

While Kenya has made remarkable progress in terms of financial inclusion, differences persist among various segments of the population that remain excluded from the financial system, with significant disparities in financial access and usage across different demographic groups.

In terms of geographical distribution, the 2021 survey presents results by county showing that the performance varies across the country. Nairobi and Nyeri (Central) have the highest inclusion levels with respect to formal financial services. West Pokot (Northern), Turkana (Northern) Garissa (North-Eastern) and Narok (Rift Valley) show the lowest level of formal financial inclusion.

Problem statement

The Group of Twenty (G20) recognizes financial inclusion as a key enabler in the fight against poverty. In effort to alleviating poverty in Kenya, the government identified the stock market as a key avenue in mobilizing resources. The Development of stock market is thus vital avenue that could be used to mobilize investment funds required for implementation of vision 2030 projects. However, the stock market is contributing less than one percent of growth financing against the government expectation of ten percent.

One of the main focuses of Kenya's stock market development initiatives is promoting financial inclusion. The NSE (Nairobi Securities Exchange) champions this through targeted education programs, the CMA (Capital Markets Authority) through county education programs, and KASIB (Kenya Association of Stockbrokers and Investment Banks) through online financial education and activations, just to mention a few. Generally, financial inclusion has improved throughout the years since 2006. The share of informal finance has declined from 32% in 2006 to 4% in 2021, as the excluded population share has also dropped from 41% in 2006 to 12% in 2021.

Moreover, there has been extensive reforms implemented in the stock market, however the number of listed companies failed to pick up significantly. Currently, the stock market has about 60 listed firms, which is less than the number of listed companies in 1970, a period before the commencement of the reforms. Although the number of listed companied failed to pick up on the growth momentum, market capitalization, total value traded and turnover ratio have all responded positively to the reforms. They increased in the early 1990s, but declined between 1995 and 2001, before increasing again sharply between 2002 and 2008 (World Bank, 2018). It is worth noting that although these three measures of stock market development have improved over the years, the improvement was not good enough to liberate Kenya's stock market from being labelled "developing. Therefore, the main objective of this study was to determine the effect of financial inclusion on stock market development.

Specific objectives

i. To find out the effects of access to financial services on stock market development in Kenya

ii. To investigate the effects of usage of financial services on stock market development in Kenya
iii. To determine the extent in which quality of the products and service delivery affect stock market development in Kenya

Research hypothesis

H_{01}: Access to financial services has no effects on stock market development in Kenya

H_{02}: Usage of financial services does not affect stock market development in Kenya

H_{03}: Quality of the products and service delivery has no effects on stock market development in Kenya

Significance of the study

Development of stock market in Kenya is imperative if the government is to achieve its annual economic growth rate of ten percent and an investment rate of thirty percent through mobilization of resources as stipulated in the vision 2030. The findings of this study therefore will enable the government and other policy makers to enact laws and policies that will be geared towards enhancing financial inclusion which foster stock market participation hence stock market development.

Literature Review

Fin Mark Trust study by Fanta and Murendo & Mutsonziwa (2016) observed that using usage rather than access to measure financial inclusion highlights a wider gender gap suggesting that men use bank accounts more than women. The study also finds that more women, especially in Tanzania, Zambia and Swaziland, use accounts owned by someone else. Additionally, the gender gap in accessing bank credit remains significant even in countries with high levels of financial access.

In a separate study, Dupas and Robinson (2013) conducted randomized controlled experiments in Kenya, giving both men and women access to non-interest-bearing bank accounts. Despite high withdrawal fees, the majority of women used the accounts and were able to save and increase their investment and expenditures more than men. The study suggests that women, particularly in rural areas, experience negative private returns on their money when they cannot find secure forms of saving. Similar findings were also obtained in Nepal and Malawi (Flory, 2018; Prina, 2015).

Wachira & Kihiu (2012) conducted a study to establish the impact of financial literacy on access to financial services in Kenya. The study established that the probability of a financially illiterate person remaining financially excluded is significantly high calling for increased investment in financial literacy programs to reverse the trend. Clement (2012) sought to investigate factors influencing investment decisions in equity stocks at the Nairobi securities exchange among teachers in Kisumu. The results indicated that decisions to invest in equity stocks are influenced by economic and behavioral factors.

Kiprop & Tenai (2017) investigated the factors influencing the development of capital markets in a developing economy. The target population were all the 53 firms listed at N.S.E. Stratified random sampling based on the segmentation of the trading counters was used for sampling the population of the study. A sample of 30 firms was selected. Data was summarized using the inferential statistical methods. Descriptive research design was adopted and used for the study. The study established that the greatest impediment to the NSE is the level of knowledge of the local investors, and recommended that the CMA in collaboration with other market stakeholders should implement a comprehensive awareness and public education programme that targets both supply and demand of securities. It should implement a specialized proficiency certification programme targeting both the market intermediaries and the general public to enhance financial literacy. A program of education for the investors‟ particularly educational tours and short courses offered on a continuous basis in very crucial in helping to educate the public about securities.

The degree to which individuals are aware of available financial assets depends on the aggressiveness of asset suppliers to spread the information about the instruments they issue (Guiso, Jappelli, 2005). Guiso and Jappelli, (2005) further argue that lack of awareness affects stock market participation amongst individual clients. They establish that individuals often learn about investment opportunities from peers who are already informed about equities. From the arguments above, awareness encourages participation because the probability of becoming informed is an increasing function of the probability of buying stock. Therefore, it can be argued that awareness is a strong determinant of individual's investor's stock market participation.

Methodology

The study utilized descriptive research design. The target population was 480,000 respondents of Kajiado County. The population was stratified into five sub counties namely; Isinya, Kajiado central, Kajiado North, Kajiado East and Kajiado West. A simple random sampling method was employed on each stratum to obtain a sample of 600 respondents. Primary data was thus collected by use of the questionnaires for a period of two weeks. Out of the six hundred questionnaires administered four eighty-two were returned yielding a response rate of 81.%. Before collecting data, a pilot test was carried out in order to determine the validity and reliability of the data collection instrument. The test revealed an overall Cronbach alpha coefficient of 0.86. The conclusion was that the instrument met the required scale for of internal consistency threshold of 0.7 as per Bryman and Bell, 2015. Multiple regression analysis was also carried out. The equations below represented the model. Stocks market development = $\beta 0$ + $\beta 1$ Access+ $\beta 2$ Usage+ $\beta 3$ Quality + ε

Results and Discussion

Descriptive analysis

Descriptive analysis was carried out in order to describe the data collected. The findings are presented in the table 1 below.

Table 1: Descriptive analysis

Variable	Minimum	Maximum	Mean
Gender	0.132	1.58	1.24
Age	21.45	70.30	35.23
Education	1.41	5.60	1.86
Income	Ksh.7 000	K.sh 120, 000	Ksh.42,250
Job Status	4.54	2.35	2.66

The results indicates that the majority of the respondents were females as indicated by a mean of 1.24. Most of the respondents were aged around 35 years.

On the education level the findings indicated that the lowest level was primary and the highest level was postgraduate with the majority being at primary level. In respect to the job status the findings indicates that majority of the respondent were self-employed.

Access to financial services

The first objective of the study was to determine the extent of access to financial services. The respondents were asked to indicate their agreement level with different statements on access to financial services The results areas shown in Table 2.

Table 2: Access to Financial Services

	N	Mean	Std. Deviation
Percentage of adults with access to mobile phone	482	3.983	0.961
Percentage of adults with access to internet	482	1.941	0.689
Percentage of adults who hold a bank account	482	2.75	0.997
Percentage of adults that saved at a bank or other formal financial institution in the past year	482	2.35	0.856

From the findings, the respondent's majority of the respondents had access to mobile phones as indicated by a mean of 3.983 however the number of adults who had access to internet was below average. On average the respondents held a bank account and were able to save in a financial institution.

Usage of financial services

The study also aimed to evaluate the usage of financial services in the stock market development in Kenya and presented key statistics in table 3 below.

Table 3: Usage of financial services

	N	Mean	Std. Deviation
Percentage of adults who report making at least one deposit or withdrawal from their account in the past 12 months	482	2.650	.977
Number of mobile money transactions per year	482	3.983	.978
Borrowed from a financial institution or used a credit card in the past year.	482	2.116	.881
Percentage of adults using a mobile phone or the internet to make or receive payments, to make a purchase, or to send or receive money through their financial institution account or through the use of a mobile money services	482	4.133	.888
Used a mobile phone or the internet to check account balance in the past year.	482	2.300	.640
Percentage of adults using a debit or credit card to directly make a payment from an account	482	1.096	0.533

From the findings in table 3 above majority of the respondents used a mobile phone to make payments and only a few respondents used a credit cards as way of making payments as indicated by a mean of 1.096. The percentage of adults who report to making at least one deposit or withdrawal from their account in the past 12 months was average as indicated by a mean of 2.650. The numbers of respondents who borrowed from a financial institution or used a credit card in the past year was below average.

Quality of products and delivery of services

In respect to objective three, the respondents were asked to give correct responses to questions about basic financial concepts, such as: (a) Inflation, (b) Interest rate, (c) Compound interest, (d) Money illusion, (e) Risk diversification, (f) Main purpose of insurance. And the findings are presented in table 4.

Table 4: Financial knowledge

Statement	Correct	Incorrect	Do not Know
Indicate the name of the stock market in Kenya	30.16%	50.65%	19.19%
Describes the main products of the stock market	20.71%	70.49%	9.8%
Describe the main function of the stock market	12.26%	72.42%	16.32%
If you buy a 10-year bond, it means you cannot sell it after 5 years without incurring a major penalty	3.65%	20.72%	67.63%
Stocks are normally riskier than bonds	10.24%	56.51%	34.25%
When an investor spreads his money among different assets, the risk of losing money is low	46.82%	38.94%	15.24%

The findings in table 4 indicates that majority of the respondents lacked knowledge on the basic financial concepts.

Inferential analysis

Correlation analysis

In this study, correlation analysis was used to determine the relationship between independent variables (financial access, financial usage and product quality and the dependent variable (stock market development in Kenya). The results are presented in Table 5.

From the results, financial access had a strong and positive relationship with stock market development in Kenya (r=0.828, p-value=0.000). The p-value (0.000) was below the (0.05), significance level thus making the correlation significant. Also, financial usage had a strong and positive relationship with the stock market development in Kenya (r=0.766, p-value=0.000). The p-value (0.000) was below the (0.05), significance level thus making the correlation significant. In addition, there was a strong positive relationship between product quality and stock market development in Kenya.

Table 5: Correlation coefficients

		Stock market Development	Financial Access	Financial Usage	Product Quality
Stock market Development	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	482			
Financial Access	Pearson Correlation	.828**	1		
	Sig. (2-tailed)	.000			
	N	482	482		
Financial Usage	Pearson Correlation	.766**	.117	1	
	Sig. (2-tailed)	.000	.201		
	N	482	482	482	
Product Quality	Pearson Correlation	.737**	.095	-.117	1
	Sig. (2-tailed)	.000	.302	.205	

Regression analysis

The study aimed to evaluate the effects of financial access, financial usage, and product quality on stock market development in Kenya using multiple regression analysis.

Table 6: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.718[a]	0.657	0.633	0.4613

a. Predictors: (Constant), Financial Access, Financial usage, product quality and service

The R-squared value of 0.667, which means that approximately 65% of stock market development in Kenya can be explained by the extent of financial access, usage and product quality.

Table 7: Analysis of variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.227	4	15.284	124.286	.000[b]
	Residual	14.45	478	0.144		
	Total	78.677	482			

a. Dependent Variable: stock market development
b. Predictors: (Constant), financial access, financial usage and product quality

As indicated in the F-calculated (124.286), was lower than the F-critical. The p-value associated with the F-statistic was 0.000, which indicates that the overall model is statistically significant. Thus, the regression model can be used to explain the extent of financial access, usage and product quality on stock market development in Kenya.

Table 8: Multiple regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Financial Access	0.061340	0.025477	4.608821	0.0020
Financial Usage	0.083108	0.032600	3.104045	0.0015
Product Quality	0.476023	0.077468	5.456706	0.0000
	8.221220	1.032067	7.322504	0.0000
R-squared	0.657699	Mean dependent var		4.464475
Adjusted R-squared	0.632613	S.D. dependent var		1.423581
S.E. of regression	0.623342	Akaike info criterion		2.033196
Sum squared resid	78.548221	Schwarz criterion		2.257739
Log likelihood	-22.43155	Hannan-Quinn criter.		2.078532
F-statistic	124.28148	Durbin-Watson stat		1.265455
Prob(F-statistic)	0.000000			

Dependent Variable: Stock market Development

From the findings in table 8 an adjusted R2 of 0.652699 with an F value of 124.28 and p value of 0.000 which indicates that the model is statistically significant and explains approximately 65 % of variance in stock market development. Based on the results of multiple regression analysis in the above table, the regression equation model obtained is as follows:

$$Y= 8.22+0.06X1 +0.083X2+0.47X3+e$$

Based on the results, financial services (β=.061, $p<0.05$), usage of financial services (β=.083, $p<0.05$) and product quality (β=.476, $p<0.05$) all had a positive and statistically significant effect on stock market development in Kenya. Therefore, the three hypotheses were rejected. These findings align with those of Demirgüç-Kunt et al. (2017) who stated that financial inclusion improves market participation, enabling more individuals and businesses to invest in the stock market, which in turn promotes liquidity and market development. Sahay et al. (2015) also noted that the depth of financial service usage measured by the extent to which individuals and firms engage with financial institutions drives stock market performance. According to Beck et al. (2011), when financial institutions offer superior products and services, they boost investor confidence and market efficiency, leading to increased stock market activity. Levine (2005) further asserts that well-developed financial systems marked by access, usage, and quality is key for efficient stock market functioning. Additionally, Shahbaz et al. (2018) found that both access to and usage of financial services are positively correlated with stock market development in emerging economies.

Conclusion

Results indicated that there was a strong positive relationship between financial access, usage and product quality and stock market development. The study also found that most of the responses on advanced financial literacy questions were performed below average. Indicating low financial literate levels among the respondents.

Recommendations

The study recommends that the county government initiate programs that will enhance financial inclusion in the county, this will not only enhance stock market development but also other market sectors. The Capital Markets Authority, which is tasked with supervision, licensing and monitoring the activities of market intermediaries, should implement a comprehensive awareness and public education on the importance of investing in stock market.

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