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Influence of Convertible Bonds on Liquidity Growth of Commercial Banks in Nairobi County Kenya

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Influence of Convertible Bonds on Liquidity Growth of Commercial Banks in Nairobi County Kenya

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ABSTRACT

Purpose: The purpose of this study was to investigate the influence of convertible bonds on liquidity growth of commercial banks in Nairobi county Kenya

Methodology: This research applied descriptive research design when gathering data by closed-ended questionnaires on 39 commercial banks in Nairobi County Kenya and secondary data from commercial banks dating from 2016-2018. Overall operations managers, marketing managers and general managers were the respondents. Census technique was used. Pre-testing questionnaires was issued to branch marketing managers, operational managers and assistant managers in simple randomly selected five commercial banks located in Meru county Kenya. SPSS data analysis software was be consulted for quantitatively using the descriptive statistics such as mean, percentage and standard deviation. Tables, graphs and detailed explanations was used to present the final results of the study.

Results: The study found out that there was a statistically significant positive relationship between convertible bonds and liquidity growth of commercial banks in Nairobi county Kenya. Convertible had an R value of .732 and an R square value of 0.536. This proved that convertible bonds predicted 53.6% of the changeability in the liquidity growth. The regression coefficients of convertible bonds had a β=.117, P=010 at 0.00 significance level.

Unique contribution to theory, policy and practice: The discovery of presence of positive influence of convertible bonds on liquidity growth led to new knowledge contribution by the study. The study recommended that more types of customized bonds should be issued and public awareness should be raised. The study recommended that policies should be developed by government through the central bank whereby bank customers can obtain bonds more often just like the way mobile loan apps are common. This would promote more market for the bonds. Commercial banks should also indemnify various types of bonds with insurance firms so that any misfortune of events like the recent covid-19 pandemic would have minimal impact on the various types of fixed-rate bonds. The study contributed new knowledge when the relationship between corporate bonds and liquidity growth of commercial banks in Nairobi was established.

Keywords: *Convertible bonds, liquidity growth, commercial banks, Nairobi county*

1.0 INTRODUCTION

1.1 Background of the study

Liquidity is defined as the ability of a business entity that had adequate money to meet their financial obligations as they arose (Price water-house cooper, 2020). Commercial banks being business ventures, have encountered various financial obligations in their economic cycles. Their ability to amicably handle the financial obligation have been stunted in the past due to the financial crisis of 2008. The damage caused by the decline in abrupt revenues by the commercial banks have caused them to struggle in attempt made towards regaining their former position in the financial robustness. Commercial bank's liquidity growth in the first world country like America have been inhibited by several issues such as liquidity risks, high leverage unrealistic funding requirements, higher standards for risk reporting (McKinsey & Company, 2015). In Asia there have been liquidity risks in a country like Pakistan; regulatory tough encounters and poor asset quality in a Singapore and Japan (McKinsey, 2015; Arif & Anees, 2012). In Africa, commercial banks located in countries like Egypt, Algeria, Nigeria and Malawi are experiencing more difficult loan-loss provisioning necessities, intensifying operational expenses and passive corporate development prospects linked to weak financial development; poor asset quality in a country like Ghana (Moody Analytics, 2020; Price waterhouse coopers, 2019). In East Africa, there has been low liquidity and deterioration of the quality of credit offered in a country like Rwanda; abridged profitability in a country like Uganda (Businge, 2017; Ntuite, 2015).

In Kenya, stiff competition from non-banking lenders; low quality of assets whose value keep on declining as time goes on; high loan defaults; high interest rates and unfavorable policies are facing commercial banks in Kenya. This had caused banks to now consider alternative ways of ensuring liquidity growth is enhanced through raising long-term capital such as through derivatives practices, credit card banking; asset securitization, mobile banking and internet banking. Convertible bond issuance is still not fully utilized in Kenyan commercial banks. This is because of weak covenant protection, weak corporate earnings, high default rate mean (JPMorgan Chase & Co, 2020). A convertible bond is a debt instrument issued to investors to raise funds for financing normal operations of a business entity and have the ability to be changed into shares or money as the bond holder wishes (Standard Bank, 2020).

The normal operations of a bank are prioritized to be internally funded. However, the more their operations grow, the more internal funding becomes insufficient to fully cater for everything hence necessitating external funding through sources such as a convertible bond. A bond as a way of raising equity does not allow bond holders to have stake in form of ownership in the bank but they become creditors who expect to receive periodic payments in form of interests pegged on a specific period of time (Businge, 2017). The bank that has issued the convertible bonds has prospects that it would benefit from intended project before the bond reaches its maturity date to be able to fulfill its financial obligations to the corporate bond owners (Standard Bank, 2020). Based on different opposing internal and external factors, banks who are corporates in general have been having a rough time in fulfilling their part leading to convertible bonds defaults. This has made them less

attractive to investors who are naturally risk averse. Assessment of these bonds has also poised a challenge to many investors who have limited knowledge about the bonds and the business entity as a going concern (Standard Bank, 2020).

1.2 Statement of the problem

A sound firm's capital structure should strike a balance between combining debt and equity options to fund its operations and projects hence able to meet its financial obligations as they arise. Commercial banks issue bonds to investors who are supposed to buy from them through the capital market or directly in order for the bank to raise debt capital. Once cash is received the bank becomes liquid and is able to perform various intended banking functions (Asia Development Bank, 2019).

However, escalating liquidity risks caused by increase in non-performing loans have been a menace to the future of commercial bank's liquidity growth in Kenya (Central Bank of Kenya, 2018). In 2018, non-performing loans increased from 264.6 billion in 2017 to 316.7 billion depicting 19.6 percent increase (Central Bank of Kenya, 2018). This made the asset quality of commercial banks to decline with 0.4 percent between 2017 and 2018. (Central Bank of Kenya, 2018). When the quality of commercial bank's assets declines, the value of convertible bonds which derive their worth from the assets of the bank, deteriorates rendering them worthless hence becoming less attractive to investors.

Previous studies such as Musah and Acquah (2019); Businge (2017); Ntuite (2015); Arif and Anees (2012); Mu, Phelps and Stotsky (2011) have categorically debated on the problems engulfing convertible bonds issuance in various international nations. However, in Kenya, limited study has been done pertaining the influence of convertible bonds on liquidity growth of commercial banks in Nairobi county Kenya. This proves that less is known concerning the convertible bonds issuance. A lot of stakeholders do not clearly comprehend on what exactly happens in the process hence the main motivation of the study.

1.3 Purpose of the study

To investigate the influence of convertible bonds on liquidity growth of commercial banks in Nairobi county Kenya

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Preferred habitat theory

Preferred habitat theory guided the convertible bonds. The preferred habitat theory was developed by Franco Modigliani and Richard Sutch in 1966 (Modigliani & Richard, 1966). The theory stipulates that investors abandon their anticipated maturity sectors if there are comparatively better rates to pay them (Modigliani & Richard, 1966). Meaning that investors are made to relinquish their seamless ideal bond tenures when supply and demand situations in diverse bond markets do not match (Modigliani & Richard, 1966). The theory has been further advanced by Merton in 1987 and later by Delcey and Sergi (2019) who associated between rational expectations and the efficient market. For instance, investors invest in short-term convertible bonds due to their nature of being risk averse which is a problem to commercial banks need of having capital for longer

duration due to their projects causing excess supply of long-term bonds by banks and excess demand of short-term bonds by investors. This theory is used because in any market, investors would wish to change from their current bond plans to other investment options available in a commercial bank such as other types of bonds, cash or even shares due to various economic conditions. Once they move, this may attract change of accounts, share allocation fees and bank account charges which improves the income status of a commercial bank. When that happens, there is need to have an equilibrium by both demand and supply sides for the market to be perfectly matched. The theory has been criticized because in most cases, investors are enthusiastic to change their partialities if more profit is assured in other investment option which is not normally the case.

2.2 Empirical Review

Convertible bonds have been in various phases of development depending on the economic status of a nation. A report made by Fisch asset management (2019) agreed that there were developments such as growing of new convertible bonds issuance anchored on a variety of securities in developed nations. The report pinpointed engulfing concerns in convertible bonds such as increased market unpredictability in America; low growth in China convertible bonds, prospects of global economic depression due to yield curves capsizing, universal demand decelerating and products prices plummeting. Huerga and Monroy (2019) on mandatory convertible notes as a sustainable corporate finance instrument confirmed that despite the fact that debt securities were an acknowledged source of finance in a corporate, excessive of debts taken was one of the causes of the financial crisis of 2008. The study stipulated that mandatory convertible bonds were a hybrid that was issued and in which they had almost similar characteristics as equity and also conventional bonds.

In addition, a review in Russia done by Karpenko and Blokhina (2019) on convertible bonds for companies' investment process's, reviewed different approaches used by corporations while issuing bonds. The study established that convertible bonds which were currently popular in Russian market were utilized by the corporations with truncated investment prospects for funding investment ventures, lure of inexpensive monetary backing and also for payment of coupon of the previous releases of bonds. Chang et al. (2019), conquered that there were few studies that had been done on the effect of corporations' performances after issuance of corporate bonds in developed nations and the ones that existed painted a negative picture on the bonds. The study informed us that most of the firm's performance declined after issuance of corporate bonds.

Asian Development Bank report (2019) on the great practices for building up a neighborhood cash security showcase hypothesized that by a country not having a local market prompted gigantic money related dangers in the nation. The examination gave a clarification that Asian nearby money security markets were basic to convey a substitute spring of funding to unfamiliar cash designated bank advances in order to lessen the money and development ambiguities that had made the province powerless to the unforeseen hitch of capital streams. This gave this examination motivation to take a gander at the achievement or disappointments of corporate securities which were items exchanged Nairobi protections trade. This examination tied down on business banks corporate securities.

In developing nations, Ecobank Transnational Incorporated (ETI) dispensed $150 million convertible bond on London's International Securities Market (ISM) (London Securities Exchange, 2020). The convertible bond was a five-year period payable twice a year and with a

coupon interest rate of 6.46 % annually above three-month U.S. dollar LIBOR. This branded it the foremost African convertible bond to list in an international market such as London. Convertible bond issuance in Africa was generally at its early stages, probably because of valuing difficulty and vagueness on change activated (Liebenberg, Vuuren & Heymans, 2016).

According to Liebenberg et al. (2016), the valuing of convertible bonds was explored and the effect of domestic environments are examined. The investigation set up that the high loan fees and value shakiness likened with the state in cutting edge economies brands convertible bonds for the most part striking instruments for the simultaneous lessening of obligation and the improvement of capital.

International Finance Corporation (2017) report on solutions offered in debt market verified that regulation changes in convertible bonds were needed on high issuance charges, local markets experiencing instability in global funding sources and ways of attracting global investors. These problems among others were the motivating factors of this study to look in Kenyan commercial banks whether there was any relationship between corporate bond such as convertible bond and liquidity growth.

Based on the above reviewed studies, the current study acknowledges that there is no significant relationship between convertible bonds and liquidity growth of commercial banks in Nairobi County Kenya. Thus, the current study adopts the following hypothesis.

2.3 Hypothesis of the Study

H_0: There is no significant relationship between convertible bonds and liquidity growth of commercial banks in Nairobi County Kenya.

2.4 Research Gaps

The research gaps noticed in convertible bonds included aspects such as increased market unpredictability in America; low growth in China convertible bonds, prospects of global economic depression due to yield curves capsizing, universal demand decelerating and products prices plummeting. Convertible bonds which were currently popular in Russian market were utilized by the corporations with truncated investment prospects for funding investment ventures, lure of inexpensive monetary backing and also for payment of coupon of the previous releases of bonds; few studies that had been done on the effect of corporations' performances after issuance of corporate bonds in developed nations and the ones that existed painted a negative picture on the bonds.

3.0 RESEARCH METHODOLOGY

This research applied descriptive research design when gathering data by closed-ended questionnaires on 39 commercial banks in Nairobi County Kenya and secondary data from commercial banks dating from 2016-2018. Overall operations managers, marketing managers and general managers were the respondents. Census technique was consulted. Pre-testing questionnaires was issued to branch marketing managers, operational managers and assistant managers in simple randomly selected five commercial banks located in Meru county Kenya. SPSS data analysis software was be consulted for quantitatively using the descriptive statistics

such as mean, percentage and standard deviation. Tables, graphs and detailed explanations was used to present the final results of the study.

4.0 FINDINGS AND PRESENTATION

4.1 Reliability statistics

To ensure that the research instrument used could be depended upon to deliver what it was meant to deliver, the study subjected the pre-test response rates on Cronbach alpha test. The pre-test was done on five randomly selected commercial banks in Meru County which were Family bank, Co-operative bank, Kenya Commercial Bank, Standard chartered bank and Equity bank. These selected banks had their branch marketing managers, operational managers and assistant managers respond to the pre-tests. Table 1 showed the results derived.

Table 1: Reliability Statistics

Instrument	Cronbach's Alpha	N of Items
Questionnaire	.85	15
Average	**0.857**	

Source: Researcher (2020)

The results from the pre-test indicated that the research instruments were reliable since they gathered a Cronbach alpha value of 0.85. Bhattacherjee (2012) conformed that when a study has a Cronbach alpha value of 0.7 to 1, it could be relied upon to deliver when used in the main study.

4.2 Response rate

There were questionnaires which were supposed to be filled by overall marketing managers, overall operations managers and overall general managers in the 39 commercial banks in Nairobi county. The total number of the respondents were 117 as per the study's intention. That not-withstanding, various factors beyond the respondent's capability to handle affected the total number of returned questionnaires. This was because out of 117 issued questionnaires, the total returned questionnaires were 102. That meant that the study had an 87 percent return rate. This was an excellent return rate according Mugenda and Mugenda (2003). According to them when questionnaires returned had a 50-60 percent the return rate was fair; 61-70 percent the return rate was good; 71-80 percent the return rate was very good; while over 81 percent indicated an excellent rate.

4.3 Background profiles of the respondents

At the commencement of the questionnaires, the researcher had inquired about the length of stay in their current bank. By getting to know how long a respondent had stayed in the bank, gave the researcher the knowledge on whether the respondent would be able to really relate with the inquiries used in the study. The results are indicated in Table 2.

Table 2: Demographic Profile of the Respondents

Category	Frequency	Percent	Cumulative Percent
Less than 1 year	43	41	41
2-5 years	52	50	91
Over 6 years	10	9	100
Total	**105**	**100**	

Source: Researcher (2020)

The results in Table 2 indicated that many respondents had stayed in their banks for a period of 2-5 years which had the highest number of 52 (50%). This was followed by respondents who has stayed in their banks for a period of less than a year who were 43 of them translating to 41%. The last group of 10 (9%) respondents showed that they stayed in their current banks for more than 6 years. These results further explained elaborated that most bankers had not stayed long in their banks. The reason could partly be attributable to bankers always shifting from one bank to another to look for a better payment structure. This was confirmed by Dolnicar et al. (2018) who explained as a result of market segmentation, firms such as banks, insurance firms and forex firms were in need of new fresh ideas to remain competitive in the job market. As a result, they tended to offer the best bargain when tapping new experienced personnel. This increased shift of jobs withing the same field or different similar fields by employees.

4.4 Descriptive analysis of convertible bonds

The main objective was to measure the influence of convertible bonds on liquidity growth of banks. Convertible bonds had several indicators such as Vanilla, mandatory, reversible, packaged, contingent and foreign currency. There were statements that the respondents were required to either 1-Strongly disapprove, 2-disapprove, 3- Neutral, 4- Approve, 5- Strongly approve on what influence convertible bonds had on liquidity growth of banks. Table 3 showed the response rates of the respondents.

Table 3: Descriptive Statistics of Convertible Bonds

Statements (N=102)	1	2	3	4	5	Mean	Std Dev
Vanilla convertible bonds have had a positive effect on current ratios the bank	0(0%)	36(42.9%)	0(0%)	48(57.1%)	0(0%)	4.37	1.116
There has been improved quick ratio due to huge income derived from Mandatory convertible bonds have reduced liabilities of the bank	3(3.6%)	34(40.5%)	0(0%)	45(53.6%)	2(2.4%)	4.73	0.72
Reversible convertible bonds have led to overall cash growth of the bank hence boosted cash ratio	32(38.1%)	16(19.0%)	12(14.3%)	11(13.1%)	13(15.5%)	4.54	0.951
Sales ratio has advanced due to presence of packaged convertible bonds	34(40.5%)	16(19.0%)	8(9.5%)	14(16.7%)	12(14.3%)	3.63	1.304
Contingent convertible bonds have boosted the long-term net working capital ratio of the bank	5(6.0%)	32(38.1%)	0(0%)	46(54.8%)	1(1.2%)	4.1	0.917
Foreign currency convertible bonds have improved income of the bank	5(6.0%)	32(38.1%)	0(0%)	46(54.8%)	1(1.2%)	3.31	1.289
Average Mean						**4.94**	**1.26**

Source: Researcher (2020)

Convertible bonds results had an average mean of 4.94 and a standard deviation of 1.26. This showed that most of the respondents had interacted with these types of bonds and they had seen the influence they had on various aspects of liquidity growth. The most agreed statement in the convertible bonds sections was that there has been improved quick ratio due to huge income derived from mandatory convertible bonds which reduced liabilities of the bank. It had a mean of 4.73 and a standard deviation of .72. Fisch asset management (2019) agreed that convertible bonds were a major source of revenue since they gave bond holders the liberty to change them to shares whenever they wanted to. This attracted more investments especially from investors who did not want their investment to be held constantly in one portfolio of a bank.

In the same section of convertible bonds in the questionnaires, there seem to be a disagreement by respondents whether the foreign currency convertible bonds had in any way improved income of the bank. This query had a mean of 4.94 and a standard deviation of 1.26. Chang et al. (2019) shed more light on this when they identified that local investors were always cautious of investing in foreign firm's bonds that they knew the originating bank well. This was because over recent times, most firms were suffering from lack of finances which caused them to pay very low returns on convertible bonds.

4.5 Liquidity Growth of Commercial Banks

The study analyzed reports from commercial banks dating from 2016-2018. The specific indicators of liquidity growth that the researcher assessed were the current ratio, quick ratio, cash ratio, net working capital ratio and sales ratio. Table 4 gives the results gotten.

Table 4: Liquidity Growth Indicators

Variable	N	Mean	Std Dev
Current ratio	39	3.94	1.98
Quick ratio	39	4.98	2.23
Cash ratio	39	3.45	1.86
Net-working capital ratio	39	3.63	1.91
Sales ratio	39	4.21	2.05
Average		**4.04**	**2.01**

Source: Researcher (2020)

According to Table 4, liquidity growth indicators had an average mean of 4.04 with a standard deviation of 2.01. Most of the reports derived indicated that quick ratio had the highest mean of 4.98 while cash ratio had the lowest mean of 3.45. The results indicated that the liquidity of the 39 commercial banks were ranging between high and medium. This is to confirm that by the 39 commercial banks being located in a very busy environment where bank customers were highly engaging in monetary transactions, this turned out to be a boost to the banks. Another fact was that these commercial banks engaged in all types of bonds scrutinized in this study implying that there was a high likelihood that bonds played a significant-roles towards ensuring liquidity growth was stable enough in Nairobi County. A report by Kenya Bankers Association (2019) agrees to that various commercial banks in Nairobi county had a medium liquidity growth as compared to other banks in the Kenya banking industry.

4.6 Inferential Statistics

The main hypothesis stated that there was no significant relationship between convertible bonds and liquidity growth of commercial banks in Nairobi County Kenya. Convertible had an R value of .732 and an R square value of 0.536. This proved that convertible bonds predicted 53.6% of the changeability in the liquidity growth. The results are given in Table 5.

Table 5: Model Summary of the Variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Convertible bonds	732[a]	.536	.533	2.308

Predictors: (Constant), Convertible bonds
Source: Researcher (2020)

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4.6.1 ANOVA for linear relationship between asset-backed securities and financial performance.

ANOVA was used to evaluating the exact relationship between convertible bonds and liquidity growth of commercial banks. The researcher considered the significance value which were gotten for various variables. For example, convertible bonds had a significance value of 0.000. These values were indicated in the ANOVA Table 6. Therefore, since all the convertible bond had a significance value of less than 0.05, the researcher rejected all the null hypotheses and accepted alternate hypothesis that there was no significant relationship between convertible bonds and liquidity growth of commercial banks in Nairobi County Kenya.

Table 6: ANOVA for linear relationship of the variables

Model		Sum of Squares	Df	Mean Square	F	Sig.
Convertible bonds	Regression	732.913	1	732.913	17.071	.000[b]
	Residual	415.410	100	4.154		
	Total	486.324	101			

a. Dependent Variable: liquidity growth

a. Predictors: (Constant), convertible bonds

Source: Researcher 2020

4.6.2 Regression coefficients

The regression coefficients of convertible bonds had a $\beta=0.117$, P=0.01. That was to indicate that separately the four study's variables were vital however combining them together they all became insignificant and only fixed-rate bonds was significant. The results are indicated in Table 7

Table 7: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		β	Std. Error	Beta		
1	(Constant)	7.445	2.222		3.351	.001
	Convertible bonds	.117	.114	.141	1.020	.010

a. Dependent Variable: liquidity growth

 Source: Researcher (2020)

The multiple model of the study was liquidity growth = CO + β3CVBi, t + $\mathcal{E}$i,t where CVB was convertible bonds. Replacing them with the values from Table 7, the model was: Liquidity growth=7.445CO+0.117CVB. The model showed that by growing a unit of convertible bonds, liquidity growth increased by 7.445+ 0.117

4.6.3 Hypothesis testing

Determining the influence of convertible bonds on liquidity growth of banks, hypotheses were quantified. The study's hypothesis stated that there was no significant relationship between convertible bonds and liquidity growth of commercial banks in Nairobi County Kenya. Convertible bonds had a regression coefficient significance p-value of 0.01 and analysis of variance of 0.000 which was less than 0.05. The study thus rejected all the null hypotheses and accepted alternate hypothesis that there was significant relationship between convertible bonds and liquidity growth of commercial banks in Nairobi County Kenya.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of the findings

The main objective of the study was to investigate the influence of convertible bonds on liquidity growth of commercial banks in Nairobi County Kenya. Convertible bonds had several indicators such as Vanilla, mandatory, reversible, packaged, contingent and foreign currency. Convertible bonds results had an average mean in this study of 4.94 and a standard deviation of 1.26. This showed that most of the respondents had interacted with these types of bonds and they had seen the influence they had on various aspects of liquidity growth. The most agreed statement in the convertible bonds sections was that there has been improved quick ratio due to huge income derived from mandatory convertible bonds which reduced liabilities of the bank. It had a mean of 4.73 and a standard deviation of 0.72. The main hypothesis stated that there was no significant relationship between convertible bonds and liquidity growth of commercial banks in Nairobi County Kenya. Convertible had an R value of .732 and an R square value of 0.536. This proved that convertible bonds predicted 53.6% of the changeability in the liquidity growth. Convertible bonds had a β of 0.117 and a significance p-value of 0.010. A significant value implies that the variable outcome being predicted does not happen by chance while Beta value implies that there is a certain direction/magnitude of measurement. The beta value of 0.117 implies that a unit increase in convertible bonds increases the liquidity growth by 0.117 because of the positive nature of the value (vice versa is true).

5.2 Conclusion

The study rejected null hypothesis that there was no significant relationship between convertible bonds and liquidity growth. It was established that there was a statistically significant strong relationship between convertible bonds and liquidity growth. By commercial banks being able to sell vanilla, mandatory, reversible, packaged, contingent and foreign currency and other types of convertible bonds, revenue was heavily generated. Banks in Kenya are able to improve their incomes hence eventually growing their liquidity status by selling various types of convertible bonds to their clients.

5.3 Recommendations and Contributions of the Study

The recommendations given on convertible bonds was that Kenyan commercial banks should have a massive drive towards improving the types of convertible bonds. There should be training once in a while for stakeholders to fully understand why convertible bonds are important. This is because, these types of bonds showed potential to fully boost liquidity growth in our Kenyan banks

through this study. Commercial banks should maximize on the types of bonds that are working to make them even better. Since the study was only done in Nairobi County, future studies may take advantage and explore the relationship between various convertible bonds not just in banking field but also other firms in different areas of Kenya.

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