

CORPORATE DIVERSIFICATION AND PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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Abstract

This study sought to establish the effect of size on the relationship between corporate diversification and performance of commercial banks in Kenya. Specifically, the study sought to; determine the effect of corporate diversification on performance of commercial banks in Kenya, investigate the effect of performance on corporate diversification among commercial banks in Kenya, examine the effect of size on the relationship between corporate diversification and performance of commercial banks in Kenya, establish the combined effect of corporate diversification and firm size on performance of commercial banks in Kenya. Herfindahl Hirschman Index was used to measure interest income and non-interest income diversification and natural log of number of branches was used to measure geographic diversification. Bank performance was measured in terms of operating efficiency using the data envelopment approach comparing operational expenses and net income. Bank size was measured in terms of natural log of total assets. Correlation and regression analysis variants were used in analysis of the data. From the eight study sub hypotheses, the study found statistically significant positive relationships between efficiency on one hand and interest income diversification as well as branch diversification on another hand. Non-statistically significant negative relationships were established between efficiency on one hand and branch network diversification as well as the interaction term of size and branch diversification on another hand. Non-statistically significant positive relationships were established between non-interest income diversification and efficiency, performance and interest income diversification, performance and non-interest income diversification. The study findings contribute to the pool of literature, which has over the years demonstrated that there exists a positive direct linear relationship between revenue diversification and financial performance. This is the first study ever to decompose corporate diversification into interest income diversification, non-interest income diversification and branch diversification while lagging the predictor variables to an optimum five year lag in Kenya, using a data envelopment analysis approach and the Herfindahl Hirschman Index. On future research directions, there is a need to undertake a study on internal and external factors which influence levels of diversification and financial performance among financial institutions across geographical locations, financial product lines and non-financial institutions while taking cognizance of the organizations' motives and ownership structures.

Keywords: Corporate diversification, Performance, Commercial banks.

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Introduction

A bidirectional link exists between corporate diversification and company performance as presented by Bhatia and Thakur (2018). Lien and Li (2013) puts forward that diversification is a commonly employed approach for developing a company's market share, leading to increased revenue and profitability. According to He (2012), good company performance allows the adoption of various diversification approaches. Erdorf, Hartmann-Wendels, Heinrichs and Matz (2013) and Shyu and Chen (2009) opine that a simultaneous correlation exists between diversification strategies and corporate performance. These studies suggest that the level of diversification is endogenous to the company's profitability and similarly, enterprise performance is endogenous to the corporate diversification.

This study was anchored among others, on the financial intermediation theory, the resource based theory of the firm and the portfolio theory. The portfolio theory of Markowitz (1952 and 1959) conceptualizes how risk-averse investors wishing to maximize their expected returns will choose their optimally diversified portfolios. Banking institutions are in business to maximize investors' returns and profit. Because commercial banks act as intermediaries in the financial system, some studies in the sector are also underpinned by financial intermediation theory as proposed by Diamond (1984) which explains the role of banking systems as financial intermediaries. The resource-based theory of the company advanced by Rumelt (1984) and Barney (1991) confirms a positive impact of increased levels of diversification of products on the general financial performance owing to economic quasi-rents and economies of scope and scale that provide a competitive lead

Financial institutions hold diversified portfolio of loans in different categories with the objective of generating desired returns to their shareholders and to minimize the risk of default, aligned to the modern portfolio theory (Markowitz, 1952). Bank managers must therefore aim to invest the funds available to the organization in loan portfolios that balance the trade-off between optimum return and minimum risk in order to deliver value to the owners of the business. Agency theory (Jensen & Meckling, 1976) suggest that divorce of ownership and control in a firm often leads to conflict of interests between agents or managers and their principals who are shareholders of the organisation. Bank managers, as agents, are involved in decisions on which loan products to invest in and the type of product innovations to undertake in order to maximize returns for their principals, the shareholders.

Corporate diversification remains a central research topic with innumerable studies exploring its association with firm performance (Wernerfelt & Chatterjee, 1991, Palich, Cardinal and Miller, 2000). Flamini and McDonald (2009) illustrate that diversification explain performance levels variations. Ali, Haider Hashmi and Mehmood (2016) summarize that literature document mixed results on the relationships between diversification and performance as ranging from linear, U-shaped or inverted U-shaped relationships. Bhatia and Thakur (2018) for instance documented a strong bidirectional relation between performance and diversification. The diversification extent

was directly interrelated with corporate profitability, thus an indication that well diversified companies experience a substantial diversification premium. Further, total diversification had a positive effect on performance, suggesting that high performance brings about greater diversification. Benito-Osorio, Guerras-Martín and Zúñiga-Vicente (2012), Palich et al. (2000), Park and Jang (2013), Zahavi and Lavie (2013) and Zhou (2011) clarify that the research stream examining the diversification, size and performance relationships cannot be described as mature due to lack of an empirically shaped consensus.

Globally, Dimitrios and Mike (2016), Psillaki and Mamatzakis (2017) and Gololo (2018), observe that worldwide, the banking industry has encountered various difficulties which has led interest income destabilization. In particular, the industry continues to face growing problem loans, competition from non-banks and unprecedented financial technology growth. In response to these challenges, Mohamed and Bett (2018) and Ferrari, Masetti and Ren (2018) explain that in the last three decades, banking institutions have extended their sources of revenue by undertaking non-interest revenue producing activities also called nontraditional activities, like shares brokerage as well as underwriting, to supplement the declining interest revenues. Flamini, Valentina, McDonald and Liliana (2009) and Slocombe (2017) illustrate that sub-Saharan Africa (SSA) banking entities make more profits compared to the others across the globe. In Kenya, as noted by Kiweu (2012), higher levels of bank profitability are a concern for public furor though Ndungu and Muturi (2019) observe that over the years, in Kenya, diversification has been viewed as important in improving commercial banks financial performance. Teimet, Lishenga, Iraya and Ochieng (2020) posit that the Kenyan-banking sector has experienced numerous regulations that have affected diversification activities, financial performance and size of the corporations over the years.

Mazur and Zhang (2015) identify adverse implications of diversification on performance. Stulz (1990) illustrates that diversification exacerbates agency conflicts between small shareholders and corporate insiders. Saoussen and Dominique (2011) illustrate that diversification performance relationship is nonlinear with risk, and not significantly uniform across business lines and among banks. A strand of studies has examined the difference between related and unrelated diversification with no consensus. Christensen and Montgomery (1981), Palepu (1985) Rumelt (1974 and 1982) and Tanriverdi and Venkatraman (2005) argue that related diversification can improve performance. Markides and Williamson (1994) observe that unrelated diversification can compromise performance. In Kenya, Olweny and Sipho (2011) and Onuonga (2014) documented a significant linkage between diversification and corporate profitability. Teimet, Lishenga, Iraya and Ochieng (2020) also show that the level of diversification positively affected Kenyan banks financial performance with the central revenue streams having a positive correlation. Inferring from the contradictory findings globally and with some studies indicating a dual causality relationship between corporate diversification and performance, it is deduced that empirical studies are yet to conclusively address the research question: what are the effects of size on the relationship between corporate diversification and performance of commercial banks in Kenya?

To address the above research question, the study addressed the objective through the following null hypothesis:

H₁: There is no significant relationship between corporate diversification and performance of commercial banks in Kenya

The hypothetical relationships were as presented in Figure 1 below.

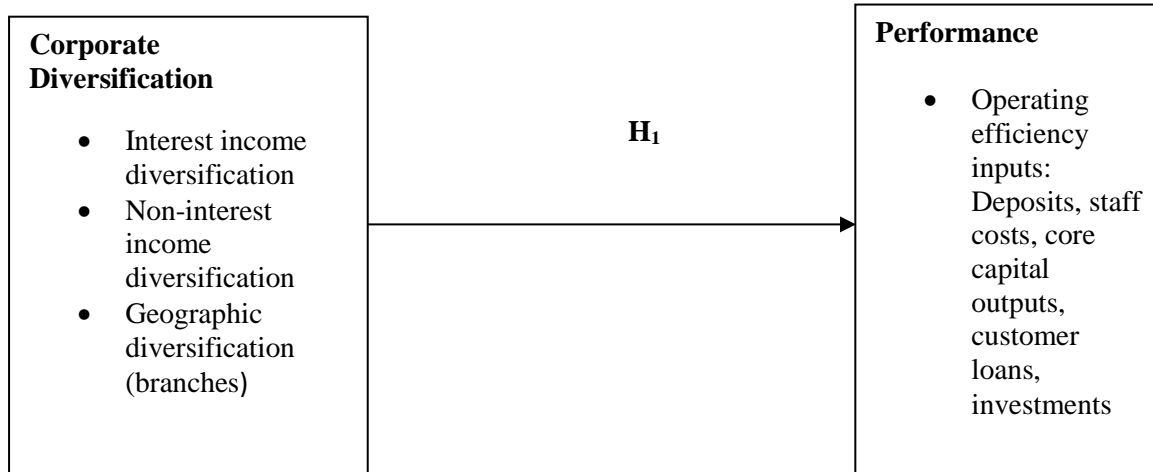


Figure 1: Conceptual Framework

Methodology

In order to visualize the data collected and make a meaningful presentation, descriptive statistics were generated for each variable. The descriptive statistics include; Maximum, Minimum, Mean, Median, Standard Deviation, Skewness, Kurtosis, and Jarque-Bera. Mean is a measure of central tendency of the most indicative number in a set of numbers, while the standard deviation shows how widely the tabulated values have dispersed from the mean value. Skewness measures the data symmetry or lack of symmetry, while kurtosis is an indication of how the tails of distribution differ from the normal distribution. Skewness ranges between positive two and negative two (± 2), while kurtosis ranges from positive three to negative three (± 3) (George & Mallery, 2010).

For this study, both descriptive and inferential statistics were used. To test the study hypotheses, simple and multiple linear regressions were used. Simple linear regression analysis was used to test Hypothesis 1. To determine the effect of corporate diversification on performance of commercial banks in Kenya the following model was used:

$$ER_{it} = \beta_0 + \beta_1 HHI_{it} + \beta_2 HHI_{NII, it} + \beta_3 BR_{,it} + \varepsilon$$

Where:

ER – Efficiency Ratio;

HHI- Herfindahl Hirschman Index;

BR – Branch Network;

Diagnostic tests

Normality test was done. The results are shown in table 1 below.

Table1: Tests for Normality

	Observed Coefficient	Bootstrap Std. Err.	Z	P> Z
Skewness e	0.000199	0.0003	0.65	0.514
Kurtosis e	0.0007	0.0002	3.95	0.000
Skewness u	-0.0025	0.0006	-4.15	0.000
Kurtosis u	0.0009	0.0002	3.78	0.000
Replications	500			
No. of Observations	371			
Joint test for Normality on 'e':	chi2(2) = 3.10	Prob > chi2 = 0.0003		
Joint test for Normality on 'u':	chi2(2) = 3.53	Prob > chi2 = 0.0000		

From table 1 above skewness and kurtosis results in the table show that all variables used in the study fall outside the required skewness of ± 1.96 and standard kurtosis of ± 3 for normality assumption. This implies that the panel data failed the normality assumption and as such, ordinary least squares (OLS) regression model is not suitable for data analysis. Alternative panel data analysis models such as fixed or random effects models can be used after data transformation.

To test what level of multicollinearity that would be tolerated in the models estimated, VIF of less than 10 indicates tolerable levels of multicollinearity (Robinson & Schumacker, 2009). Multicollinearity test finds applications only in multivariate regressions, VIF statistics are the only ones reported because the regressions have independent variables that are more than one.

Table 2: Multicollinearity Test

Variable	VIF	Tolerance
Portfolio Size	3.35	0.298
Portfolio Quality	1.02	0.977
Portfolio Return	3.24	0.308
Lending Capacity	1.07	0.938
Mortgage Term	1.22	0.822
LTV Ratio	1.11	0.898
Mean VIF	1.69	

Table 2 above shows that the VIF for all models are between the acceptable ranges of 1.11 to 3.35. This indicates that the results of the VIF are between the ranges of 1 to 10 (Robinson & Schumacker, 2009). This indicates that multicollinearity was not exhibited by the variables. Therefore regression analysis could be carried out. Were the VIF factor >10 , it would imply serious multicollinearity. Serious multicollinearity can be dealt with by dropping collinear variables or obtaining additional data.

Analysis and Discussion of findings

Diagnostic tests for statistical assumptions

Fitness of the variables to a normal distribution was tested and results are summarised in table 3 below:

Table 3: Normal distribution test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Efficiency	.064	555	.000	.970	555	.000
Interest Income Diversification	.043	555	.016	.993	555	.009
Non-Interest Income Diversification	.175	555	.000	.765	555	.000
Branches	.083	555	.000	.965	555	.000

a. Lilliefors Significance Correction

The study used Shapiro-Wilk and Kolmogorov-Smirnov statistics to test the fit of the variables to a normal distribution. As presented in table 3 above, the Kolmogorov-Smirnov statistics for efficiency (0.064, $p < 0.05$), interest income diversification (0.043, $p < 0.05$), Non-interest income diversification (0.175, $p < 0.05$), branches (0.083, $p < 0.05$) and firm size (0.246, $p < 0.05$) are all statistically significant. Shapiro Wilk statistics for technical efficiency (0.970, $p < 0.05$), interest income diversification (0.993, $p < 0.05$), Non-interest income diversification (0.765, $p < 0.05$) and branches (0.965, $p < 0.05$). These statistics are an indication that generally, the data collected for the study variables exhibited a normal trend especially considering the sample size.

Variance Inflation Factor (VIF) was used in this study to evaluate the level of correlation between the predictor variables. As a rule of thumb adapted from Newbert (2008) and Field (2009), if any of the VIF are greater than 10 (greater than 5 when conservative) then there is Multicollinearity presence. From the findings as presented in Table 4 below, the VIF are all less than 10 thus indicating that there is no multicollinearity problem with the predictor variables.

Table 4: Multi Collinearity Coefficients

Variable	Collinearity Statistics	
	Tolerance	VIF
Interest Income Diversification	.893	1.120
Non-Interest Income Diversification	.977	1.023
Branches	.475	2.103

a. Dependent Variable: Efficiency

To visualize the dataset, descriptive statistics were generated as shown in table 5 below:

Table 5: Descriptive Statistics

		Efficiency	Non-Interest Income Diversification	Branches	Interest Income Diversification
N	Statistic	555	555	555	555
Minimum	Statistic	.00	.06	.69	.01
Maximum	Statistic	1.00	.77	5.89	.65
Mean	Statistic	.6687	.6275	2.7689	.3624
Std. Deviation	Statistic	.21824	.12177	1.08754	.11868
	Statistic	-.348	-2.285	.511	-.128
Skewness	Std. Error	.104	.104	.104	.104
	Statistic	-.283	6.114	-.193	-.333
Kurtosis	Std. Error	.207	.207	.207	.207

The commercial banks efficiency which is the dependent variable in this study varies from 0.00 to 1.00, revealing a significant variation in levels of efficiency among the commercial banks in Kenya. The banks mean efficiency was 0.668 with a standard deviation of 0.218 that show the levels of variation in the banks' efficiency. The mean efficiency discloses that on average, the banks on average exhibit above average levels of efficiency. With a maximum efficiency level at 1, technical efficiency maximum and minimum values were 0.00 and 1.00, a pointer to heterogeneity and diversity in efficiency among the banks sampled. Skewness and kurtosis show the shape of variables distributions and aid to check for normality and heteroscedasticity in a distribution. Efficiency is negatively skewed (-0.348) specifying that the firm efficiency distribution is relatively not normally distributed. The distribution has a negative peakedness with a kurtosis of -0.283 revealing that some banks presented very low levels of efficiency.

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Non-Interest Income diversification which was computed using the Herfindahl Hirschman index (HHI) varies from 0.06 to 0.77, revealing a significant variation in levels of non-interest income

diversification among the commercial banks in Kenya. The banks mean non-interest income diversification was 0.627 with a standard deviation of 0.122 that show the levels of variation in the non-interest income diversification. The mean non-interest income diversification discloses that on average, the banks on average exhibit above average levels of corporate diversification with respect to non-interest income. Non - Interest Income diversification maximum and minimum values were 0.06 and 0.77, a pointer to heterogeneity and diversity in non-interest income earning activities among the banks sampled. Non - interest income diversification is negatively skewed (-2. 28) indicating that the non-interest income distribution among the banks is relatively not normally distributed. The distribution has a positive peakedness with a kurtosis of 6.114 revealing that some banks presented very high earnings from non - interest incomes.

The Natural log of the number of branches was another indicator of corporate diversification. The indicator varied from 0.69 to 5.89 inferring a significant variation in the number of branches amongst the commercial banks in Kenya. The banks mean natural log of number of branches was 2.768 with a standard deviation of 1.087 that show the levels of variation in the number of branches established by the respective banks. The mean natural log of the number of branches discloses that on average, the banks on average have established several branches in corporate diversification efforts. The natural log of number of branches is positively skewed (0.511) indicating that the number of branches among the banks is relatively normally distributed. The distribution has a negative peakedness with a kurtosis of -0.193 revealing that some banks presented very few numbers of branches as compared to the other banks.

Corporate diversification and performance

The first objective of the study was to determine the effect of corporate diversification and performance of commercial banks in Kenya. The study postulated that the relationship between efficiency and corporate diversification in banking in form of interest revenue diversification, non-interest revenue diversification and geographic diversification in number of branches was not statistically significant.

A linear regression analysis with the predictor variables lagged at 5 periods was used in testing the hypothesis:

H₁: There is no significant relationship between corporate diversification and performance of commercial banks in Kenya.

As presented in table 6 below, 1.8 percent of variations in efficiency that proxy performance for the commercial banks is explained by variations in the corporate diversification initiatives of the bank (Adjusted R²= 0.018, F (3,366) = 3.224, p<0.05. Due to the introduction of the lag of 5, the data points subsequently reduced to 370.

Table 6: Model Goodness of fit of Corporate Diversification and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.160 ^a	.026	.018	.22939

a. Predictors: (Constant), Branches, Non-Interest Income Diversification, Interest Income Diversification

b. Dependent Variable: Efficiency

As presented in table 7 below, the model on the relationship between corporate governance and performance is statistically significant, $p < 0.05$.

Table 7: Model Overall Significance of Corporate Diversification and Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.509	3	.170	3.224	.023 ^b
	Residual	19.259	366	.053		
	Total	19.768	369			

a. Dependent Variable: Technical Efficiency

b. Predictors: (Constant), Branches, Non-Interest Income Diversification, Interest Income Diversification

As presented in table 8 below, there is a statistically significant positive relationship between interest income diversification and efficiency ($\beta = 0.138$, $t = 2.641$, $p < 0.05$) implying that every unit increase in interest income diversification leads to increase in bank efficiency by upto 0.138 unit.

Table 8: Model Regression Coefficients of Corporate Diversification and Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.525	.076		6.889	.000
	Interest Income Diversification	.275	.104	.138	2.641	.009
	Non-Interest Income Diversification	.124	.097	.066	1.274	.203
	Branches	-.005	.012	-.024	-.451	.653

a. Dependent Variable: Efficiency

Findings and Discussion

The first objective of the study was to determine the effect of corporate diversification proxied by interest income diversification, non-interest income diversification as well as branch network diversification and performance proxied by efficiency of commercial banks in Kenya. The study finds that 1.8 percent of variations in efficiency among the commercial banks is explained by variations in the corporate diversification initiatives. Specifically, the study finds a statistically significant positive relationship between interest income diversification and efficiency

interpreted that every unit increase in interest income diversification leads to increase in bank efficiency by upto 0.138 units. The study also finds a non-statistically significant positive relationship between non-interest income diversification and efficiency which suggests that every unit increase in non interest income diversification leads to increase in bank efficiency by upto 0.066 units. The non-statistically significant negative relationship between branch network diversification and efficiency implies that every unit increase in branch network leads to a decline in bank efficiency which suggests diseconomies of scale.

Conclusions and Recommendations

The study concludes that interest income diversification has a statistically significant positive relationship with efficiency which is interpreted that every unit increase in interest income diversification leads to increase in bank efficiency by upto 0.138 units. The statistical significance shows the emphasis that banks still lay on earning interest income from loans. The non statistically significant positive relationship between non-interest income diversification and efficiency which suggests that every unit increase in non interest income diversification leads to increase in bank efficiency by upto 0.066 units is a pointer to the contributions of non interest incomes to the performance in the banking industry. The non-statistically significant relationship between branch network diversification and efficiency is found to be negative to an extent that every unit increase in branch network leads to a decline in bank efficiency. The finding points to diseconomies of scale that exists when branch expansion in the banking sector is not well thought out an even well planned.

The study also concludes that there are no dual causality relationships between efficiency and interest income diversification, efficiency and non-interest income diversification and efficiency and bank branch network diversification. The statistically significant positive relationship between efficiency and branch diversification is an indication that in the efficiently managed banks, branch expansion decisions are a consequence of performance. The non-statistically significant positive relationships between efficiency and interest income diversification as well as non-interest income diversification points to additional performance precursors that arise from previous periods levels of efficiency.

References

- Ali, S., Haider Hashmi, S., & Mehmood, T. (2016). Corporate diversification and firm performance: An inverted U-shaped hypothesis. *International Journal of Organizational Leadership*, 5, 381-398.
- Barney, J. (1991). Special theory forum the resource-based model of the firm: origins, implications, and prospects. *Journal of Management*, 17(1), 97-98.
- Bhatia, A., & Thakur, A. (2018). Corporate diversification and firm performance: An empirical investigation of causality. *International Journal of Organizational Analysis*.
- Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *The review of economic studies*, 51(3), 393-414.
- Erdorf, S., Hartmann-Wendels, T., Heinrichs, N. and Matz, M. (2013), "Corporate diversification and firm value: a survey of recent literature", *Financial Markets and Portfolio Management*, 27(2), 187-215.
- Flamini, C., Valentina C., McDonald, G., Liliana, S. (2009). The Determinants of Commercial Bank Profitability in Sub-Saharan Africa. IMF Working Paper

- Ferrari, A., Masetti, O., & Ren, J. (2018). Interest rate caps: the theory and the practice. The World Bank.
- George, R., & Kabir, R. (2012). Heterogeneity in business groups and the corporate diversification–firm performance relationship. *Journal of business research*, 65(3), 412-420
- Gololo, I. A. (2018). Challenges of the Nigerian Banking Sector and the Way Forward. *American Finance & Banking Review*, 3(1), 26-34.
- He, X. (2012), “Two sides of a coin: endogenous and exogenous effects of corporate diversification on firm value”, *International Review of Finance*, Vol. 12 No. 4, pp. 375-397.
- Kiweu, J. M. (2012). Income diversification in the banking sector and earnings volatility: evidence from Kenyan commercial banks
- Lien, Y. C., & Li, S. (2013). Does diversification add firm value in emerging economies? Effect of corporate governance. *Journal of Business Research*, 66(12), 2425-2430.
- Mazur, M., & Zhang, S. (2015). Diversification discount over the long run: New perspectives. *Finance Research Letters*, 15, 93-98.
- Mohamed, A. I., & Bett, S. (2018). Strategic resources and performance of commercial banks in Kenya: Case of Equity Bank Limited. *International Academic Journal of Human Resource and Business Administration*, 3(3), 218-242.
- Ndungu, J. G., & Muturi, W. (2019). Effect of Diversification on Financial Performance of Commercial Banks in Kenya. *International Journal of Current Aspects*, 3(V), 267-285.
- Olweny, T., & Shiphoh, T. M. (2011). Effects of banking sectorial factors on the profitability of commercial banks in Kenya. *Economics and Finance Review*, 1(5), 1-30.
- Onuonga, S. M. (2014). The Analysis of Profitability of Kenya’s Top Six Commercial Banks: Internal Factor Analysis. *American International Journal of Social Science*, 3(5), 94-103.
- Palich, L. E., Cardinal, L. B., & Miller, C. C. (2000). Curvilinearity in the diversification–performance linkage: an examination of over three decades of research. *Strategic Management Journal*, 21(2), 155-174.
- Psillaki, M., & Mamatzakis, E. (2017). What drives bank performance in transitions economies? The impact of reforms and regulations. *Research in International Business and Finance*, 39, 578-594
- Rumelt, R. P. (1982). Diversification strategy and profitability. *Strategic management journal*, 3(4), 359-369
- Schommer, M., Karna, A., & Richter, A. (2015). Performance Effects of Diversification Across Institutional Contexts: A Meta-analysis. In *Academy of Management Proceedings* (Vol. 2015, No. 1, p. 15633). Briarcliff Manor, NY 10510: Academy of Management.
- Shyu, J. and Chen, Y.L. (2009), “Diversification, performance, and the corporate life cycle”, *Emerging Markets Finance and Trade*, Vol. 45 No. 6, pp. 57-68.
- Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of financial Economics*, 26(1), 3-27.
- Teimet, P. R., Lishenga, L. J., Iraya, M. C., & Ochieng, D. E. (2020). EFFECT OF BANK SIZE ON THE RELATIONSHIP BETWEEN REVENUE DIVERSIFICATION AND PERFORMANCE OF COMMERCIAL BANKS IN KENYA. *African Development Finance Journal*, 4(2), 1-18.