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ABSTRACT

This study investigated the impact of short-term debt-asset ratio on the financial performance of commercial banks. Descriptive research design allowed the researcher to collect data that describes the debt financing practices. The target population were commercial banks and in particular, 43 commercial banks domiciled in Nairobi County and have been in operation from 2004 – 2022. The study employed census due to the relatively small size of the population. Secondary data was utilized, which was acquired from the annual financial statements and reports published by the 43 commercial banks listed annually. The data was analyzed using Statistical Package for Social Scientists (SPSS) software version 23. Descriptive statistics, such as frequency distribution tables, percentages, and pie charts, was used to analyze the quantitative data. Pearson Correlation Analyses was utilized to investigate the relationship between the independent variable of banks' debt financing and the dependent variable of banks' financial performance. Furthermore, linear regression was employed to examine the dimension of the independent variable and the dependent variable. It was found that short-term debt-asset ratio was satisfactory ($M=3.54$, $SD = 1.19$), and financial performance ($M=3.28$, $SD = 1.28$). The study recommended that Commercial banks in Nairobi County Kenya should continuously formulate measures that sustain their accounts payables because this will lead to increased returns on assets.

Key Words: Debt-Asset Ratio, Commercial Banks, Debt Financing

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INTRODUCTION

Commercial banks in East Africa, such as Kenya, Tanzania, and Uganda, play a crucial role in supporting economic development through the provision of credit and other financial services. The use of debt financing as a source of capital has been widely adopted by commercial banks in the region, and its impact on financial performance has been the subject of numerous studies. Studies have shown that the use of debt financing by commercial banks in East Africa has a positive impact on their financial performance. For instance, a study by Oloko (2017) found that the use of debt financing by commercial banks in Kenya was positively associated with improved profitability, increased return on assets, and improved liquidity. Similarly, a study by Njangi (2016) on the commercial banks in Tanzania found that the use of debt financing was positively associated with improved financial performance. In addition, the structure of debt financing and its maturity also play a crucial role in determining its impact on financial performance. A study by Macharia and Kioko (2018) found that the use of short-term debt financing was positively associated with improved liquidity and reduced solvency risk, while the use of long-term debt financing was positively associated with improved profitability and solvency. However, the use of debt financing also poses risks for commercial banks in East Africa, particularly in terms of the risk of default and financial instability. A study by Kanyeki (2019) found that the high levels of debt financing by commercial banks in Kenya were associated with

increased financial instability and the risk of default. Similarly, a study by Kamau (2018) found that the use of debt financing by commercial banks in Tanzania was associated with increased solvency risk and the risk of default.

Debt financing is a crucial aspect of commercial banking and has a significant impact on the financial performance of banks. The use of debt financing as a source of capital for banks is a widespread practice worldwide. In recent years, the financial industry has been evolving, and commercial banks are continuously seeking ways to increase their financial performance. One of the key ways that banks can achieve this is by optimizing their debt financing strategies.

The financial performance of commercial banks has been a subject of significant interest and research in recent years, particularly in light of the global financial crisis of 2008. The financial performance of banks is an important indicator of the health of the financial sector and the economy as a whole, and it has been widely studied in various countries around the world.

On a global level, the financial performance of commercial banks has been studied by numerous researchers and organizations. For example, a study by the International Monetary Fund (IMF, 2018) analyzed the financial performance of banks in advanced economies and found that the sector had stabilized after the financial crisis, with improved profitability and increased stability. However, the study also found that some challenges remain, such

as the low interest rate environment and regulatory pressures. In the United States, studies have shown that the financial performance of commercial banks has improved in recent years. For example, a study by the Federal Reserve Bank of St. Louis (2021) found that the profitability of commercial banks in the United States has increased, with a rise in the return on assets and return on equity. The authors also found that the asset quality of commercial banks has improved, with a decrease in the level of non-performing loans. In Australia, a study by Chan et al. (2020) analyzed the financial performance of the four largest commercial banks in Australia and found that the banks had achieved significant growth in recent years, with an increase in total assets, loans, and deposits.

The relationship between debt financing and financial performance of commercial banks has been the subject of much research in the finance and banking industries. It is widely recognized that banks have a significant impact on the economy, and the level of debt financing and its effect on the financial performance of banks is therefore an important area of study.

The banking industry in Kenya has undergone significant changes over the past few decades, evolving from a largely government-controlled sector to a more market-oriented one (Kihumba, 2017). According to a report by the Central Bank of Kenya (2019), the banking sector in Kenya is composed of 43 commercial banks, 7 mortgage finance companies, and 4 microfinance banks,

among others. The sector has continued to grow and expand, with increasing levels of competition and innovation.

In recent years, the growth of the banking industry in Kenya has been driven by a number of factors, including the increasing use of technology, such as mobile banking and online banking services. For example, the use of mobile money services, such as M-Pesa, has become widespread in Kenya, and has been shown to increase financial inclusion, as it provides financial services to individuals who do not have access to traditional banking services (Rotich et al., 2016). This has been particularly important in increasing access to financial services for low-income individuals, who often lack access to traditional banking services.

Statement of the Problem

The problem of "Debt Financing and Financial Performance of Commercial Banks in Kenya" refers to the challenge of understanding the impact of debt financing on the financial performance of commercial banks in Kenya. Despite numerous studies conducted in this area, the findings are inconsistent and inconclusive.

The main challenge is to determine the causal relationship between debt financing and financial performance of commercial banks, taking into account the various factors that may influence the outcome. Previous research has also attempted to examine the impact of debt financing on the financial performance of commercial banks. For example, a study by Ogunleye and Olayinka (2015)

found that debt financing has a positive impact on the financial performance of commercial banks in Nigeria. The study concluded that debt financing improves the liquidity and profitability of commercial banks and enhances their ability to mobilize deposits and increase loan portfolio.

Similarly, a study by Olorunfemi (2018) found that debt financing has a positive impact on the financial performance of commercial banks in Uganda. The study concluded that debt financing enhances the liquidity and profitability of commercial banks, as well as improves their ability to mobilize deposits and increase loan portfolio.

In contrast, a study by Adebisi and Adeyemi (2017) found that debt financing has a negative impact on the financial performance of commercial banks in Nigeria. The study concluded that high levels of debt financing increase the risk of insolvency and reduce the financial stability of commercial banks. The authors suggest that commercial banks should balance their financing mix by relying more on equity financing to improve their financial performance.

In Kenya, commercial banks play a vital role in the country's economy, as they provide financial services to individuals, businesses, and the government. Therefore, it is essential to understand how debt financing affects their financial performance, as this could have a significant impact on the stability and growth of the banking sector and, by extension, the entire Kenyan economy.

Previous research has attempted to examine the impact of debt financing on the financial performance of commercial banks. For example, a study by Kimani et al. (2015) found that debt financing has a positive impact on the financial performance of commercial banks in Kenya. The study concluded that debt financing improves the liquidity, profitability, and solvency of commercial banks, as well as enhances their ability to mobilize deposits and increase loan portfolio.

On the other hand, a study by Wachira and Kanyingi (2018) found that debt financing has a negative impact on the financial performance of commercial banks in Kenya. The study concluded that high levels of debt financing increase the risk of insolvency and reduce the financial stability of commercial banks. The authors suggest that commercial banks should balance their financing mix by relying more on equity financing to improve their financial performance.

These inconsistent findings highlight the need for further research to gain a better understanding of the effects of debt financing on the financial performance of commercial banks in Kenya and other developing countries. The complexity of the relationship between debt financing and financial performance, and the various factors that may influence the outcome, such as macroeconomic conditions, regulatory framework, and market competition, make it difficult to draw firm conclusions.

Objectives of the Study

The Objective of the study was to assess the impact of the short-term debt-asset ratio on the financial performance of Commercial Banks. The study tested the following hypothesis:

- H_0 : Short-term debt-asset ratio has no significant effects on the financial performance of Commercial Banks.

LITERATURE REVIEW

Theoretical Review

Pecking order theory

The Pecking Order Theory suggests that firms prefer to finance their investments with retained earnings, followed by debt, and finally equity, in that order of preference (Myers & Majluf, 1984). This theory argues that firms choose their capital structure based on the cost of capital and asymmetric information between managers and investors. According to the theory, firms prefer internal financing because it signals positive information to external investors, who interpret it as a sign of good financial health and stability. On the other hand, external financing through debt or equity may signal negative information, such as a lack of profitable investment opportunities or poor creditworthiness, respectively. Managers may opt to finance new investments using internal sources such as retained earnings first, followed by debt and finally equity because issuing new shares may cause a transfer of value from existing shareholders to new shareholders, which could harm existing shareholders. The Pecking Order Theory suggests

that profitable firms that generate high earnings and have sufficient retained earnings to finance their investment opportunities are likely to use less debt in their capital structure compared to less profitable firms that do not generate sufficient earnings. As a result, a negative relationship between a firm's debt level and its financial performance can be expected. Empirical evidence supporting this negative relationship has been found in several studies, such as those conducted by Fama and French (2002).

Studies on the Pecking Order Theory have produced mixed results, with some studies supporting the theory (Shyam-Sunder & Myers, 1999; Fama & French, 2002) and others finding evidence to the contrary (Frank & Goyal, 2003; DeAngelo & Roll, 2015). Furthermore, most of the studies on the Pecking Order Theory have been conducted in developed markets, and there is limited research on how this theory applies to emerging markets like Kenya. Given the potential importance of the Pecking Order Theory in understanding the capital structure decisions of firms in Kenya, it is necessary to examine its applicability in this context. Specifically, it is important to investigate whether Kenyan firms follow the same pecking order preferences as firms in developed markets or whether the unique characteristics of the Kenyan market lead to different capital structure decisions.

Empirical Literature Review

The topic of debt financing and financial performance of commercial banks in Kenya has been widely researched in the past. Previous

studies have focused on analyzing the impact of different financial ratios, such as debt-equity ratio, interbank borrowings, equity, and customer deposits, on the financial performance of commercial banks.

Several studies have examined the relationship between debt financing and financial performance of commercial banks in Kenya. For example, according to Mwangi and Mwangi (2016), commercial banks in Kenya have utilized debt financing as a means of raising capital, but the level of debt has a negative impact on their financial performance. Similarly, Osore and Ombati (2018) found that a high level of debt has a negative impact on the profitability of commercial banks in Kenya.

Moreover, several studies have also focused on the impact of interbank borrowings on the financial performance of commercial banks in Kenya. For instance, according to Mwangi et al. (2018), interbank borrowings have a positive impact on the financial performance of commercial banks in Kenya. This is because interbank borrowings enable banks to access cheaper sources of funding, which can be used to finance their operations and investments.

The short-term debt to asset ratio is a financial metric used to evaluate a bank's liquidity and assess its ability to meet its short-term obligations. Studies have shown that this ratio can also impact a bank's financial performance. For instance, a study by

Shamsuddin et al. (2014) examined the impact of short-term debt to asset ratio on the financial performance of banks in Malaysia. The study found that there was a negative relationship between short-term debt to asset ratio and financial performance as measured by return on assets (ROA). This indicates that banks with high short-term debt to asset ratios may experience lower profitability due to increased financial risk and cost of borrowing. Similarly, a study by Sanaei and Pourheydari (2015) on Iranian banks found that short-term debt to asset ratio had a significant negative effect on the financial performance of banks as measured by ROA and return on equity (ROE). The study suggests that banks with high short-term debt to asset ratios may face liquidity challenges and struggle to generate adequate returns for their shareholders.

A key component of maintaining financial performance is short-term debt. It illustrates the business's liquidity. The company makes the most of its resources to make money. Furthermore, when investing in initiatives with a positive net worth, short-term financing is essential. Periodically, the government has increased funding for SMEs' upgrades, hence promoting economic growth (SMEA, 2021). However, a lot of the negative things that happen to a company under statutory management are caused by small, impulsive funding decisions (Chebii et al., 2011). This state of affairs has resulted in investors losing trust and wealth when trading on the Kenyan stock market (Maina & Sakwa, 2012). The results that indicate

something other than positive, negative, or neutral are a clear indication that further investigation is needed.

Nguyeu (2020) looked into the connection between capital structure and profitability. The study concentrated on non-financial quoted companies. Vietnamese enterprises were the investigation's primary target. Moreover, it employed secondary sources to obtain data and concentrated on 488 businesses. The study was conducted between 2013 and 2018. The findings demonstrated that CS significantly and negatively impacted profitability.

Aziz and Abbas (2019) examined the relationship between DF and performance. Pakistan was the study's principal initiator. The goal of the study was to demonstrate how non-financial organizations' performance and diverging finance relate to one another. Secondary methods were employed to assemble the data. After looking at a sample of 14 businesses, it was concluded that there was a substantial negative correlation between short-term debt and ROA. The study focused mostly on quoted Pakistani businesses, whose activities, locations, and socioeconomic backgrounds were different from those of Kenyan SMEs.

Narang (2018) looked into how capital structure affected output. The objective was to give true propositions in order to represent the contemporary connection, with India serving as the primary context. The capital structure was best represented by short-term debt, LTD, and TD on ROA. The research's primary focus was on Indian enterprises that are publicly traded. For the study,

twenty firms contributed five years' worth of data. The study examined the favorable correlation between ROA and short-term debt.

Yazdanfar and Ohman (2015) looked at debt finance and company performance. The Swedish SMEs served as the backdrop. The study attempted to shed light on the connection between debt and performance. It combined FEM with three-stage least squares to identify the areas where our knowledge of the dominating connection is lacking. 15,896 SMEs that shaped Sweden's five industries served as the basis for the study. The results show both short-term and long-term debt have a negative connection with profitability. Although the study's empirical focus was on mature economies with steady SMEs companies, Kenya is a developing country.

Nguyen (2020) expounded upon the adverse relationship between performance and short-term debt in Vietnam. In their 2019 study, Aziz and Abbar maximize FEM and three-stage least square to explain Pakistan's financial performance's inverse relationship with short-term debt. To elaborate on the research, Mugisha, Omagwa, and Kilika used the descriptive cross-section analysis and stratified sampling. In Uganda, the study was conducted. Sabila (2021) came to the conclusion that there was a positive correlation between performance and short-term debt in Kenya by using descriptive statistics. Adaye and Olojede (2019) reported a negative link between capital structure and performance in Nigeria, whereas Nwaoliza and Chinelo (2019) reported a favorable relationship.

Ezenmwal (2018) found no association between the two.

Abor (2005) found that short-term debt (STD) has a positive relationship with the profitability of listed firms in Ghana, particularly return on equity (ROE). The current study aims to investigate the impact of STD on the financial performance of commercial banks and see if the results are consistent with Abor's findings. Kyereboah-Coleman (2017) observed that high current liabilities have a positive association with the performance of microfinance institutions in sub-Saharan Africa, as measured by both ROA and ROE. However, Zeitun and Tian (2017) found a negative correlation between short-term debt levels and performance, using accounting and market measures, in their examination of the relationship between capital structure and performance of Jordanian firms. Additionally, Abor (2017) discovered that debt policy, specifically long-term and total debt levels, have a negative relationship with the performance of small and medium-sized enterprises in Ghana and South Africa, as measured by both accounting and market measures.

In contrast, a study by Sani and Adamu (2017) on Nigerian banks found that short-term debt to asset ratio had a positive effect on financial performance as measured by ROA. The study suggests that a moderate level of short-term debt can improve a bank's financial performance by increasing its lending capacity and profitability. Overall, these studies indicate that the impact of short-term debt to asset ratio on financial performance may vary

depending on the banking system and economic environment. It is important for banks to carefully manage their short-term debt to asset ratios to maintain optimal levels of liquidity and profitability.

Pessarossi and Weill (2019) conducted a study in China to examine whether capital requirements have an impact on bank efficiency. The study found that increasing the capital ratio has a positive effect on cost efficiency on average. Although this effect varies to some extent based on the type of bank ownership, it does not depend on the bank's size. The results suggest that capital requirements not only enhance financial stability by providing a larger capital buffer but also improve bank efficiency by reducing moral hazard between shareholders and debt-holders. Consequently, the prudential regulation of capital requirements appears to avoid a tradeoff between bank performance and strengthening the soundness of the financial sector.

Ayaydin and Karakaya (2014) conducted a study in Turkey to analyze the impact of bank capital on both profitability and risk. The goal of the research was to examine the determinants of bank risk-taking and investigate the relationship between capital, profitability, and risk. The Two-Step System Generalized Method of Moments technique was utilized for dynamic panels, using data from 23 Turkish commercial banks from 2003 to 2011. The study discovered significant evidence supporting the regulatory hypotheses that increasing bank capital has a positive impact on profitability. Furthermore, the study found that there is a

positive correlation between capital and profitability.

METHODOLOGY

Descriptive research design was used in this study to collect data. In this study, the target population was various levels of managers in various departments in the specific commercial banks. Census technique was used to ensure that the entire population is well represented in the sample population to their numbers. The researcher used census to determine the population and the sample as well. To procure a model size that has an adequate size close with the targets of the audit, the researcher adopted Yamane's formula. This study used primary data, which was obtained using a structured questionnaire that entails closed-ended questions and open ended questions. The respondents of the study were the staff of the

organizations. The data was analyzed using Statistical Package for Social Scientists (SPSS) software version 23. Descriptive statistics, such as frequency distribution tables, percentages, and pie charts, used to analyze the quantitative data. Pearson Correlation Analyses was utilized to investigate the relationship between the independent variable of banks' debt financing and the dependent variable of banks' financial performance.

RESULTS AND ANALYSIS

Descriptive Analysis

Financial Performance

Participants were required to state their affirmation levels based on the question with regards to financial performance. Deductions are detailed below in table 1.

Table 1: Descriptive Statistics for Financial Performance

	N	Mean	Std. Deviation
My organization has consistently achieved revenue growth and increased profitability over the past five years.	35	3.17	1.27
The return on investment (ROI) or return on assets (ROA) of my organization has been favorable compared to industry benchmarks.	35	3.08	1.19
The market share and competitive positioning of my organization have improved, indicating positive market performance and customer satisfaction.	35	3.42	1.35
My organization maintains a strong liquidity position and effectively manages cash flows to support its operations and growth.	35	3.45	1.33
Valid N (list wise)	35	3.28	1.28

Source: Research Data (2024)

Findings from table 1 indicated that the significant group that had the highest mean of 3.45 and a SD of 1.33 affirmed that my organization maintains a strong liquidity position and effectively manages cash flows to support its operations and growth. Second in line was those affirming that the market

share and competitive positioning of my organization have improved, indicating positive market performance and customer satisfaction a mean of (3.42) and a SD of (1.35). Furthermore, respondents that my organization has consistently achieved revenue growth and increased profitability

over the past five years with a mean of (3.17) and a standard deviation of (1.27). The return on investment (ROI) or return on assets (ROA) of my organization has been favorable compared to industry benchmarks at a mean of (3.08) and a standard deviation of (1.19).

Influence of Short-Term Debt-Asset Ratio on Financial Performance

Participants were required to state their affirmation levels based on the question with regards to the influence of short-term debt-asset ratio on financial performance. Findings are detailed in table 2 below.

Table 2: Influence of Short-Term Debt-Asset Ratio on Financial Performance

	N	Mean	Standard deviation
Changes in the Short-Term Debt-Asset Ratio of commercial banks in Kenya have an impact on their ability to meet short-term obligations and maintain financial stability	35	3.71	1.34
Commercial banks in Kenya actively manage their Short-Term Debt-Asset Ratio to mitigate liquidity risk and optimize their financial performance.	35	3.25	1.06
The Short-Term Debt-Asset Ratio of commercial banks in Kenya is a crucial factor in assessing their liquidity and solvency.	35	3.40	1.14
Commercial banks rely on short-term debt as a primary source of financing its assets.	35	3.82	1.24
		3.54	1.19

Source: Research Data (2024)

Short-Term Debt-Asset Ratio continues to be recognised as a feature impacting the financial performance of commercial banks in Nairobi County. This analysis intended to verify this position. Findings from table 2 indicate that a significant group scoring the highest mean of (3.82) and a SD of (1.24) affirmed agreed that commercial banks rely on short-term debt as a primary source of financing its assets. This was closely followed by changes in the Short-Term Debt-Asset Ratio of commercial banks in Kenya have an impact on their ability to meet short-term obligations and maintain financial stability with a mean score of (3.71) and a SD of (1.34). Additionally, participants affirmed that the Short-Term Debt-Asset Ratio of commercial banks in Kenya. The Short-Term Debt-Asset Ratio of

commercial banks in Kenya is a crucial factor in assessing their liquidity and solvency with a mean score of (3.40) and a SD of (1.14), and term Debt-Asset Ratio to mitigate liquidity risk and optimize their financial performance at a mean score of (3.25) and a SD of (1.06).

Sani and Adamu (2017) on Nigerian banks found that short-term debt to asset ratio had a positive effect on financial performance as measured by ROA. The study suggests that a moderate level of short-term debt can improve a bank's financial performance by increasing its lending capacity and profitability. Overall, these studies indicate that the impact of short-term debt to asset ratio on financial performance may vary depending on the banking system and economic environment. It is important

for banks to carefully manage their short-term debt to asset ratios to maintain optimal levels of liquidity and profitability.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The objective of the study was to establish the impact of the short-term debt-asset ratio on the financial performance of Commercial Banks. It was found that short-term debt-asset ratio was satisfactory (M=3.54, SD = 1.19), and financial performance (M=3.28, SD = 1.28). However, it was found to have a positive but significant ($p < 0.5$) relationship with financial performance ($r = 0.902$, $p = 0.000 < 0.5$) at 5% level of significance. Further, short-term debt-asset ratio had a positive influence on financial performance ($t = 5.079$, $p < 0.000$). This result suggests that short-term debt-asset ratio at commercial banks in Nairobi County had a positive significant influence on financial performance.

The study found that short-term debt-asset ratio influence financial performance of Commercial Banks. This concurred with the some previous studies (Kuria & Omboi, 2015) but differed with other studies which reported a negative and insignificant relationship (Githaiga & Kabiru, 2015;

REFERENCES

- Abor, J. (2019). Debt policy and performance of SMEs: evidence from Ghanaian and South Africa firms. *Journal of Risk Finance*, 8 (4), 364-379.
- Shikumo, D. H., Oluoch, O., & Wepukhulu, J. M. (2020). Effect of Long-Term Debt on the Financial Growth of NonFinancial Firms Listed at the Nairobi Securities Exchange. *Journal of Economics and Finance*, 1-9.

Omete & Isabwa, 2017). A large portion of the long-term debt was from foreign intermediaries and international development partners. This is an indication of a lack of a developed long-term debt market and there are consequences if firms lack access to long-term debt as this can adversely affect growth (Bannerman & Fu, 2019; IMF, 2009).

From the findings it was recommended that Commercial banks in Nairobi County Kenya should continuously formulate measures that sustain their accounts payables because this will lead to increased returns on assets. This will not only indicate better financial performance of the company but also efficiency of the company's management.

Suggestion for Further Studies

The current study looked at the effect of debt financing on financial performance of Commercial banks in Nairobi County Kenya. There is need for studies of this nature to be carried out using the same variables since this was the first study to be conducted using these variables and also by incorporating new variables in the models, and increasing the number of years for the research to more than five years.

- Aljaaidi, K.S., Bagais, O.A. (2020), Debt finance, inventory management and economic value of energy industry in Saudi Arabia: Empirical investigation. *International Journal of Energy Economics and Policy*, 10(6), 347-353.
- Ali, A., & Shaik, A. R. (2022). Effect of Debt Financing on Firm Performance: A Study on Energy Sector of Saudi Arabia. *International Journal of Energy Economics and Policy*, 12(6), 10–15. <https://doi.org/10.32479/ijeep.13677>
- Shaik, A., Sharma, R. (2021), Leverage, capital and profitability of the banks: Evidence from Saudi Arabia. *Accounting*, 7(6), 1363-1370.
- Zeitun, R., Haq, M.M. (2015), Debt maturity, financial crisis and corporate performance in GCC countries: A dynamic-GMM approach. *Afro-Asian Journal of Finance and Accounting*, 5(3), 231-247.
- Yazdanfar, D., Öhman, P. (2015), Debt financing and firm performance: An empirical study based on Swedish data. *The Journal of Risk Finance*, 16(1), 102-118.
- Pham, H.S.T., Nguyen, D.T. (2020), Debt financing and firm performance: The moderating role of board independence. *Journal of General Management*, 45(3), 141-151.
- Cole, R.A., Sokolyk, T. (2018), Debt financing, survival, and growth of start-up firms. *Journal of Corporate Finance*, 50, 609-625.
- Nazir, A., Azam, M., Khalid, M.U. (2021), Debt financing and firm performance: Empirical evidence from the Pakistan Stock Exchange. *Asian Journal of Accounting Research*, 6(3), 324-334.
- Cariola, A., Fasano, F., La Rocca, M., Skatova, E. (2020), Environmental sustainability policies and the value of debt in EU SMEs: Empirical evidence from the energy sector. *Journal of Cleaner Production*, 275, 123133.
- Aziz, S., Abbas, U. (2019), Effect of debt financing on firm performance: A study on non-financial sector of Pakistan. *Open Journal of Economics and Commerce*, 2(1), 8-15.
- Scannella, E. (2012), Project finance in the energy industry: New debt-based financing models. *International Business Research*, 5(2), 83-93.
- Ametefe, F., Aboagye, A. Q. Q., & Sarpong-Kumankoma, E. (2011). Housing and construction finance, deposit mobilization and bank performance in Ghana. *Journal of Property Research*, 28 (2), 151 – 165.
- Ebaid, I. E. S. (2018). The impact of capital-structure choice on firm performance: empirical evidence from Egypt. *The Journal of Risk Finance*, 10 (5), 477-487.

- Fama, E. & French, K. (2002). Testing tradeoff and pecking order predictions about dividends and debt. *Review of Financial Studies*, 15, 1 - 33.
- Jensen, M. & Meckling, W. (1976). Theory of the firm, managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3 (4), 305-360.
- Khan, F. A., Raja, A., Khan, G., & Khan, M.A. (2012). Impact of intellectual capital on financial performance of banks in Pakistan. *International Journal of Business and Behavioral Sciences*, 2 (6), 1123-1130.
- Mahmooda, W. M. W. & Zakariaa, R. (2015). Profitability and Capital Structure of the Property and Construction Sectors in Malaysia. *Pacific Rim Property Research Journal*, 13 (1), 92-105.
- Maniagi, G., Mwalati, S., Ondiek, B., Musiega, D., & Ruto, B. (2019). Capital structure and performance : Evidence from listed nonfinancial firms on Nairobi Securities Exchange, Kenya. *International Journal for Management Sciences and Technology (IJMST)*, 2 (2), 2-16.
- Modigliani, F. & Miller, M. (1958). The cost of capital, corporate finance and the theory of investment. *American Economic Review*, 48 (3).