FINANCIAL RISK HEDGING PRACTICES, MANAGEMENT STRATEGIES AND DEBT CAPACITY: THEORETICAL REVIEW

Damaris Wangui
Ph.D. (Finance) Fellow, School of Business, Kenyatta University, Nairobi, Kenya

Ambrose Jagongo
School of Business, Kenyatta University, Nairobi, Kenya

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ABSTRACT

There has been a rapid increase in non-financial firms leveraging their balance sheet, which seem to have constrained their borrowing space thus reducing the volume of credit uptake. Leverage has been rising since 2015 thus reducing the borrowing capacity of these companies. Majority of these firms are the top large borrowers therefore, corporate sector weaknesses across a majority of economic sectors largely restricted their ability to borrow and expand the asset side of banks. Kenya is heavily dependent on imports and hence its market aggregates are vulnerable to external shocks. Exchange, inflation and interest rates have been highly volatile in Kenya and this is not helped by the fact that most non-financial firms don't have concrete policies on financial risk hedging therefore the need for hedging in those firms listed in Kenya. This paper offers a background on financial risk hedging practices, management strategies and debt capacity. It also provides a theoretical and empirical overview on the relationship between financial risk hedging practices, management strategies and debt capacity by reviewing other literature on the topic. This paper concludes that hedging practices, management strategies and debt capacity are related and therefore assessing firms' debt capacity is crucial as it also affects firm performance.

Key Words: *financial risk hedging practices, management strategies, debt capacity, non-financial*

INTRODUCTION

Uncertainty levels are extremely high because of the fluctuation in the macroeconomic environment. Numerous political, social and other factors affect the prices of various instruments and commodities on the global markets. Hedging is one of the effective and widely used instruments for the protection against such price fluctuations. Hedging has been developed by contemporary brokers and managers as a reaction to a major risk of potential losses. Global trade, liberalization of almost all world economies and the ever wider trade opportunities at futures markets all gave rise to hedging. Therefore, the basic role of hedging as a futures market trading technique is to protect against business risk, i.e. a rapid and significant increase/decrease in the prices of commodities or services on the international market (Ivo & Zoran, 2015).

Companies are exposed to a wide variety of such exchange rate risks, interest risks, commodity risks, and supply-demand coordinated risks that affect the value of the firm which in turn affects their performance (Slim & Fathi, 2010). Kenya's risk of external debt distress remains low, while overall public sector debt dynamics continue to be sustainable. However, margins have generally narrowed, and standardized stress tests suggest that the vulnerability to export shocks has increased. Public debt has risen in recent years, with most new debt financing infrastructure to address bottlenecks and boost sustainable growth. The bulk of Kenya's external public debt carries concessional terms, but recent commercial borrowing entails significant repayment needs. Implementation of the planned reduction in the fiscal deficit over the medium term is essential to limit and eventually reverse the rise in public debt ratios. In addition, the composition of fiscal financing between domestic and foreign sources

should seek to contain risks of public external debt from export shocks while avoiding a crowding out of domestic bank credit to the private sector.

With international trade increasing, enterprises are increasingly realizing the need to explore foreign exchange hedging strategies to mitigate against risk. Corporates engage in numerous hedging practices to manage their risk. This includes options and forwards which are widely used to determine rates for future pricing (Christopher, 2017). Kenya is heavily dependent on imports and hence its market aggregates are vulnerable to external shocks (Turana, 2011). Exchange, inflation and interest rates have been highly volatile in Kenya and this is not helped by the fact that most non-financial firms don't have concrete policies on financial risk hedging therefore the need for hedging in those firms listed in Kenya.

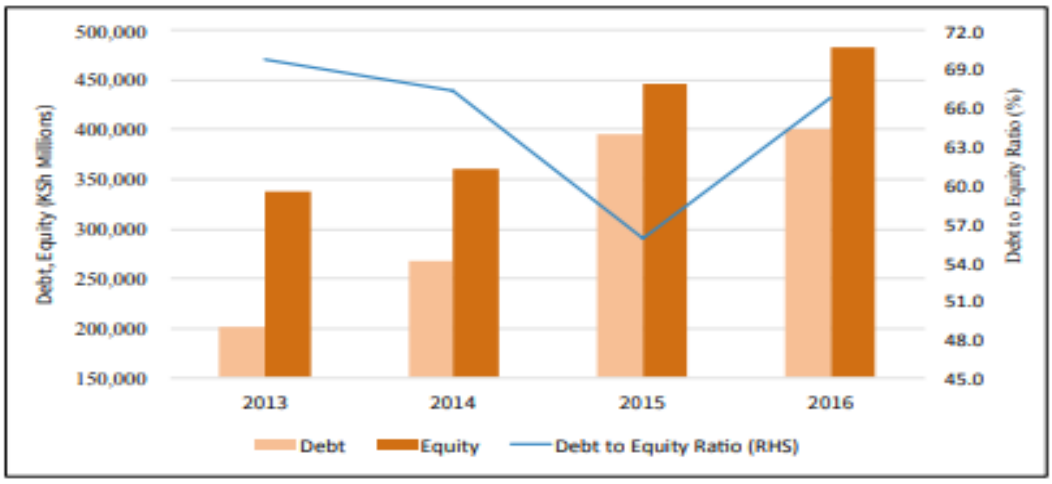
Management styles either conservative or aggressive may also be a reason which can support company to determine its debt level. Generally firms with conservative style use less debt and prefer equity and firms with aggressive style use more debt (Athar, Irfan & Naveed, 2012).

Empirical literature shows that managers have more information about the firm than the outsiders who include the investors. Therefore managers can use that information to increase the debt capacity of a firm by employing strategies that can be used to reduce the overall risk that a firm could face. Allayannis, Lel, & Miller (2012) in their study found out that derivatives can be used for managers' self-interest, for hedging or for speculative purposes. Well-governed firms are more likely to use derivatives to hedge rather than to speculate or pursue managers' self-interest. Hedging practices vary from company to company, with the decision to hedge being based on the risk attitude of the company's management team.

Interest rate fluctuations and revenue changes can affect the capacity of a business to borrow. The debt capacity of a company can be bad or good. Debt is regarded as desirable when the value of the shareholder's equity is higher than the cost of financing. Bad debt capacity on the other hand affects the ability of companies to borrow as well as their stock price. It also indicates that a business doesn't have sufficient cash flows for its operations and debt repayment. For example In 2006, Uchumi was almost sinking in debts which it was unable to pay and as a result, it was put under receivership between July 2006 and March 2010.Although the government stepped in to help the sinking giant, the ride up has not been an easy one, especially due to tough competition from private giant retailers like Tuskys. In 2014, Uchumi had to borrow Sh.405 million from Co-operative Bank in September to pay its suppliers.

Studies have proved that company's growth also affects its debt capacity. High growth companies have high cooperation risk generally, and these companies have a tendency to reduce debt financing, while the high-growth business whose financing options is more diverse, with more financing channels, it also makes high-growth companies have the possibility choose to reduce the debt financing (Yan, 2013).

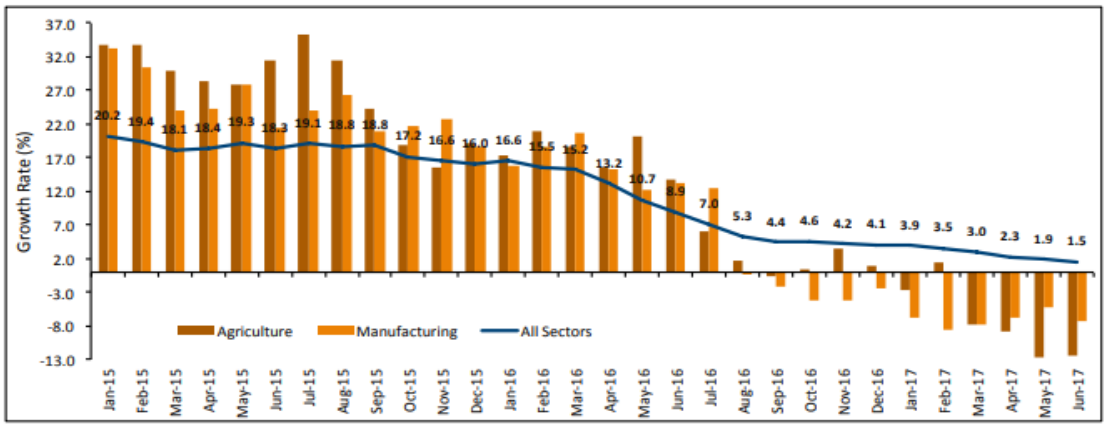
According to (CBK, 2017), there has been a rapid increase in corporates leveraging their balance sheet, which seem to have constrained corporates borrowing space thus reducing the volume of credit uptake. Non-financial firms have taken up more debt as reflected by their statement of financial position and the increase in leverage since 2015 has reduced their debt capacity.



Source: Computed from Nairobi Securities Exchange

Figure 1: Leverage of the listed non-financial companies

Growth in credit slowed down continuously, reaching 1.5 percent by June 2017. The slowdown has been recorded across all sectors of the economy. Some sectors however recorded faster decline, specifically agriculture and manufacturing, which had net repayments. Other sectors that have recorded significant decline in credit uptake leading to a net repayment in the recent past include mining and quarrying, building and construction, business services and other services. There are signs of the trend bottoming out, with upticks recorded in trade, transport and communications, real estate, private households and consumer durables sectors. This should however be supported by slowdown in lending to government, which currently offer better returns given the risk-free perception.



Source: Central Bank of Kenya

Figure 1: Annual Credit Growth Rate for Select Economic Sectors (%)

STATEMENT OF THE PROBLEM

According to (CBK, 2017) there has been a rapid increase in corporates leveraging their balance sheet, which seem to have constrained corporates borrowing space thus reducing the volume of credit uptake. Corporates seem to have taken up more debt as reflected in the balance sheet financing for non-financial listed companies at the NSE. Leverage measured by debt to equity ratio has been rising since 2015 thus reducing the borrowing capacity of these companies. Majority of these firms are the top large borrowers therefore, corporate sector weaknesses across a majority of economic sectors largely restricted their ability to borrow and expand the asset side of banks. When the management of a company increases their debt capacity then this leads to an increase in the risk factor if they do not get proper returns as forecasted. Default in debt repayment can lead to a company being liquidated or just becomes bankrupt. Highly leveraged firms often cannot afford a large debt capacity since the cost of debt is high. Graham and Rogers (2002) found that hedging helps increase debt capacity, leading to an average increase of 1.1% in firm value. As a firm's leverage increases, so does the potential for information and agency problems with respect to the investor community thus making attracting new funding more difficult (Jankensgard, 2008). A number of firms are experiencing liquidity problems that have seen their earnings drop significantly and this has led to their share prices dropping below the par value putting investor's wealth at risk. A good example is Kenya Airways that has undertaken a debt restructuring plan that saw Jamii Bora bank opt out of converting their loan to equity. In this same restructuring KLM'S equity was diluted and their shareholding dropped from 26.7% to 7.8% (CMA, 2017). According to (Gregg, 2007) investors are interested in assessing firms' debt capacity in order to avoid investments in companies with little or no unused debt capacity and thus a high risk of default. Bad debt capacity affects the ability of companies to borrow, as well as their stock price. It also indicates that a business doesn't have sufficient cash flows for its operations and debt repayment. Darush & Peter (2015) found out that excessive debt leads to higher agency costs implying a negative association between debt ratio and firm profitability and this could also increase the risk of losing control of the firm. Some companies have been experiencing declining performance and have even been given warnings of being delisted from the NSE over the last decade and significant efforts to turn them around or even liquidating them have focused mainly on financial restructuring to increase their debt capacity (Ayako, 2015). Therefore this study will seek to investigate the relationship between financial risk hedging practices, management strategies and debt capacity of listed non-financial firms in Kenya.

THEORETICAL REVIEW

Pecking Order Theory

The theory was developed by Myers & Majluf (1984). It suggests that the cost of financing increases with asymmetric information. This model assume that firms do not have an optimal capital structure but instead follow a pecking order that places internally generated funds at the top of the order followed by debt and finally when the firm reaches its debt capacity,

equity is issued (Al-Tally, 2014). This theory is based upon costs derived from asymmetric information between managers and the market and the assumption that tradeoff theory costs and benefits of debt financing are of second-order importance when compared to the costs of issuing new securities in the presence of asymmetric information.

Pecking order theory does not recognize that there exists target leverage. Basically, this theory suggest that firms will prefer utilize debt rather than equity to finance its investments (Nyamita, 2014). The theory is based on assumption that decisions on the use of leverage are purely catalyst by asymmetric information between managers of a firm and investors. The theory of pecking order also suggest that most of firms with a high level of financial needs will probably end up with a very great debt ratio since managers do not prefer the issue of new equity in form of stocks (Calabrese,2011).

The theory of Pecking order is based on assumption that decisions on the use of leverage are purely catalyst by asymmetric information between managers of a firm and investors (Ismail, 2016). This theory is based on the assertion that managers have more information about their firms than investors. This disparity of information is referred to as asymmetric information. The manner in which managers raise capital gives a signal of their belief in their firm's prospects to investors. This also implies that firms always use internal finance when available, and choose debt over new issue of equity when external financing is required. When equity is issued, investors think firm is overvalued (managers use the last resort tool, only because firm is overvalued). Investors demand a higher return on equity than on debt. Based on the arguments of pecking order theory, this study will seek to establish the relationship of this hierarchy and debt capacity of listed non- financial firms in Kenya.

Liquidity Preference Theory

The theory was developed by (Keynes 1983) which postulates that investors prefer and hence will pay a premium for assets which are very liquid, or alternatively will pay less than market value for very illiquid assets. This difference in price between market value and actual price represents the risk associated with the liquidity of an asset. This is clearly evidenced in the yield pricing of bonds. A bond with a longer maturity typically pays more interest than one with a short maturity and this is to entice investors to buy the less liquid, more risky asset (assuming longer-maturity bonds are harder to trade than those with a shorter maturity).

The liquidity preference theory specifies that the liquidity premium is positive so that the forward rate is less than the market's expectation of the future short rate. This could result in an upward sloping term structure even if the market does not anticipate an increase in interest rates. The liquidity preference theory is based on the assumption that the financial markets are dominated by short-term investors who demand a premium in order to be induced to invest in long maturity securities.

Interest Rate Parity Theory

Interest Rate Parity theory (Keynes, 1923) is used to analyze the relationship between the spot rate and a corresponding forward rate of currencies. The IRP theory states interest rate differentials between two different currencies will be reflected in the premium or discount for the forward exchange rate on the foreign currency if there is no arbitrage. The theory further states that size of the forward premium or discount on a foreign currency should be equal to the interest rate differentials between the countries in comparison. IRP is a no-arbitrage condition representing an equilibrium state under which investors will be indifferent to interest rates available on bank deposits in two countries (Feenstra, Robert, Taylor & Alan 2008). The fact that this condition does not always hold allows for potential opportunities to earn riskless profits from covered interest arbitrage. Two assumptions central to IRP are capital mobility and perfect substitutability of domestic and foreign assets.

Given foreign exchange market equilibrium, the IRP condition implies that the expected return on domestic assets will equal the exchange rate-adjusted expected return on foreign currency assets. Investors then cannot earn arbitrage profits by borrowing in a country with a lower interest rate, exchanging for foreign currency and investing in a foreign country with a higher interest rate due to gains or losses from exchanging back to their domestic currency at maturity (Mishkin & Frederic, 2006).

Agency Theory

Jensen & Meckling (1976) pioneered the agency cost theory. The model identifies two conflicts of interest; conflict between managers and shareholders and debt holders and shareholders. Agency theory extends the analysis of the firm to include separation of ownership and control, and managerial motivation. In the field of corporate risk management agency issues have been shown to influence managerial attitudes toward risk taking and hedging (Smith & Stulz, 1985).

This theory also explains a possible mismatch of interest between shareholders, management and debt holders due to asymmetries in earning distribution, which can result in the firm taking too much risk or not engaging in positive net value projects (Mayers & Smith, 1987). Consequently, agency theory implies that defined hedging policies can have important influence on firm value (Fite & Pfleiderer, 1995). Agency theory provides strong support for hedging as a response to mismatch between managerial incentives and shareholder interests.

According to Aretz, Bartram & Dufey (2007), conflicts resulting from the principal agent relationship between shareholders and managers might emerge, as shareholders can usually diversify away the personal risk of their positions, whereas for managers this is often difficult at the personal level. Agency theory suggests that debt is used as a tool to control the manager since with debt financing; managers will be forced to focus on using the free cash flows to service the debt other than trying to invest the funds in some unprofitable projects (Calabrese, 2011). The theory is founded on the notion that manager's behavior can be controlled by debt financing since the managers will use the free cash flow to interest payment of the debt obtain to finance the firm's investment projects. Thus, the theory of

agency supports the use of debt to improve the firm's financial performance (Mwangi, Muturi & Ngumi, 2016). Based on the arguments of agency theory, this study will seek to establish whether managers behaviour has any effect on the relationship between financial risk hedging practices and debt capacity of listed non-financial firms in Kenya.

EMPIRICAL LITERATURE

Chua (2012) investigated the effect of debt capacity on investment ability of companies listed in US security exchange. Using a sample of 677 public firms from all US over the period 1980 to 2008, the researcher analyzed the effects of firm's internal flexibility using investment model analysis. To measure the actual impact of debt capacity, the researcher used the actual investment variable measured in two ways; Net investment measured as the sum of capital expenditure, acquisitions, increase in investment less sale of property plant and equipment and sale of investment scaled by beginning period total assets. Then gross investment measured as investment in fixed assets scaled by beginning period total assets. The study further found that the impact of debt capacity on investment to be 1.73 for a firm with average cash holdings of 21 percent; while the impact of cash on investment was 0.52 for a firm owning average debt capacity of 29 percent . Debt capacity had greater impact on investment compared to cash.

Jun & Dolly (2013) studied the relationship between corporate hedging and the cost of public debt. Data of 2,612 U.S. firms from 1994 to 2009 was used in their study. According to the results of their study, hedging leads to a drop in the cost of debt by reducing bankruptcy risk and the level of information asymmetry. However they did not find evidence to support that hedging reduces the cost of debt by mitigating agency conflicts. Also the study concluded that hedging mitigates the negative effect of an increase in the cost of debt on capital expenditure and firm value, therefore suggesting that hedging promotes firm investment and creates value.

Joseph (2014) examined the effects of hedging strategies on financial performance of total PLC. The study relied solely on quarterly data for the period 2006Q1-2014Q2. Findings from correlation analysis revealed that there is a negative and statistically significant relationship between hedging firm performance, Correspondingly, findings of the ordinary least squares regression analysis showed that there is a very weak negative and statistically significant relationship between hedging and firm performance, The study concluded that leverage dampen firm performance as funds allocated to trading in derivatives for speculative purposes amount to misapplication of funds from the core business of the company. The study therefore recommends that firms should diversify their leverage strategies and introduce robust and tested econometric and financial models to forecast international oil prices.

Bernabe, Julio & Andre (2017) carried a study on Commodity Price Risk Management and Fiscal Policy in a Sovereign Default Model. The study analyzed a sovereign default model with endogenous fiscal policy to evaluate the macroeconomic consequences of using financial derivatives and commodity indexed bonds to moderate the impact of fluctuations in

commodity-related government revenues. The study documented how these instruments reduce the volatility of the different macroeconomic variables as well as their correlation with commodity prices.

Joonas (2017) investigated the relationship between Jet fuel price risk management and exposure in small airlines within a period of 2006-2014. The results of the study showed that all the airlines considered jet fuel price as a significant factor affecting the operations and earnings as well. What is more, all the airlines stated that the jet fuel is either the most significant operating expense or at least a very significant expense item. The study concluded that the higher the hedging ratio and the longer the hedging tenor, the less jet fuel exposure the airline faces.

Jingjing (2015) carried a study on determinants of corporate hedging for US and UK non-financial firms for a period between 2002-2011. The study was motivated by the idea of whether or not the hedging policies of non-financial firms depend on the financial characteristics of those firms and the strength of their corporate governance. The results showed that corporate hedging decision is closely associated with firms' financial characteristics and the strength of their corporate governance.

Joseph & Jagongo (2017) on the effects of Financial Risk Hedging Practices and Performance of Firms found out that a positive relationship between hedging practices, the moderator (central bank controls) and dependent variable performance of listed firms. Data was collected from the firm's financial statements for the last five years 2011-2015. The study recommended that firms in the stock exchange could employ other risk mitigation instruments such as exchange-traded funds, insurance, collateralized debt obligations and credit default swaps.

Craig W. Reynolds David W. Wang (2007) carried out a study on Interest Rate Hedging on Traditional Life and Health. The study found out that there is a general lack of industry attention to managing the interest-rate risk on traditional products. The study further concluded that there is substantial interest-rate risk in these products, and hedging may provide significantly more protection against such risk than does a simple duration-match strategy.

Cao D. H (2013) examined interest rate risk management practices and solutions in a Vietnamese Joint Stock Commercial bank. The results of the study indicated that the efficiency of the investigated bank's interest rate risk management was in average level which posed a lack of methods in measuring, simulating and hedging the risk and information technologies employed in collecting and evaluating data.

Chen (2016) carried an investigation of foreign exchange management practices and financial performance of Chinese owned enterprises operating in Kenya. Data was collected on 41 Chinese enterprises operating in Kenya. The study found out that management practices under transaction exposure had a positive effect on the financial performance (ROA) of the

enterprises. Conversely, economic exposure management practices had a negative influence on performance (both on ROA and Net profit). No relationship was found between translation exposure practices, policy and regulatory requirements and financial performance. The study suggested a comparative relook on the foreign risk management practices between locally owned multinationals and there foreign counterpart's practices.

Nelson & John (2016) tried to analyze the effect of foreign hedging practices on financial performance of non-financial firms listed at the Nairobi Securities Exchange. The study targeted a population of all 39 listed non-financial firms at NSE in Kenya. The study findings indicated that employees were concerned about the financial performance so as to enhance the whole organizations performance. This was demonstrated by the extent of agreement with the statements in the questionnaire in support of the financial performance. Results indicated that swaps, currency futures, options and forward contracts influenced financial performance of non- financial firms positively The study recommends that the firms listed in the Nairobi Stock Exchange should explore avenues to enhance capacities within firms for managing foreign currency risk exposure.

Gregory W. Brown (2000) carried out an investigation on foreign exchange risk management program of HDG Inc. (pseudonym), a US-based manufacturer of durable equipment. Data on 3,110 foreign-exchange derivative transactions was used. The results from the last two sections suggest that HDG takes its forex risk management seriously and manages other financial risks as well. The study concluded that many common explanations for risk management (such as minimizing expected taxes, avoiding costs of financial distress, managerial risk aversion, and coordination of cash flows and investment) do not mesh with the evidence from HDG, nor are they espoused by management.

Talat & Mian (2006) carried out an investigation of the relative relationship between the aggressive/conservative working capital policies and profitability as well as risk of firms for 208 public limited companies listed at Karachi Stock Exchange for the period of 1998-2005. The impact of aggressive/conservative working capital investment and financing policies was examined through cross-sectional regression models between working capital policies and profitability as well as risk of the firms. They found a negative relationship between the profitability measures of firms and degree of aggressiveness of working capital investment and financing policies. The firms yield negative returns if they follow an aggressive working capital policy.

Ireri (2010) investigated the effect of working capital financing policies on profitability of SACCOs in Nairobi. The study found that working capital management is important because of its effects on the firm's profitability and risk, and consequently its value. The study established that SACCOs adopted working capital hedging policies designed to increase sales and used minimizing working capital investment. The study concluded that conservative policy reduced supply costs and protects against price fluctuations, allows customers to check that the merchandise they receive is as agreed, and reduces the cost of possible interruptions in the production process.

Afza & Nazir (2007) investigated the relationship between the aggressive/conservative working capital policies for seventeen industrial groups and a large sample of 263 public limited companies listed at Karachi Stock Exchange for a period of 1998-2003. Using ANOVA and LSD test, the study found significant differences among their working capital investment and financing policies across different industries. Moreover, rank order correlation confirmed that these significant differences were remarkably stable over the period of six years of study. Finally, ordinary least regression analysis found a negative relationship between the profitability measures of firms and degree of aggressiveness of working capital investment and financing policies.

RESEARCH FINDINGS

Studies identified in this paper show that there is a significant positive relationship between financial risk hedging practices and debt capacity. However studies on management strategies show that there is a negative relationship between the degree of aggressiveness by managers and debt capacity. This leads to the suggestion that firms should practice hedging so as to manage their debt capacity as the two are related.

CONCLUSION

Empirical studies in this paper show that little has been done on debt capacity and financial risk hedging yet they are important components that have an effect on firm performance. This study will therefore contribute more to the existing literature and such a study would therefore be important not only to key stakeholders such creditors and owners, but also to potential investors who are interested in assessing firms' debt capacity in order to avoid investments in companies with little or no unused debt capacity and thus a high risk of default. Therefore, this review provides a platform to fill this contextual gap and provide an understanding of the relationship between financial risk hedging practices, management strategies debt capacity.

REFERENCES

Afza T and MS Nazir (2007). Working Capital Management Policies of Firms: Empirical Evidence from Pakistan. Presented at 9th South Asian Management Forum (SAMF) on February 24-25, North South University, Dhaka, Bangladesh.

Allayannis, George & Lel, Ugur & Miller, Darius P., 2012. "The use of foreign currency derivatives, corporate governance, and firm value around the world," Journal of International Economics, Elsevier, vol. 87(1), pages 65-79.

Al-Tally, Hasan Ahmed (2014). *An investigation of the effect of financial leverage on firm financial performance in Saudi Arabia's public listed companies,* Victoria University.

Aretz, K., Bartram, S.M., & Dufey, G. (2007). Why hedge? Rationales for corporate hedging and value implications. Journal of Risk Finance, 8 (5), 434 – 449

Athar I, Irfan H. & Naveed R. (2012). The Impact of Debt Capacity on Firm's Growth, American Journal of Scientific Research.ISSN 1450-223X Issue 59, pp. 109-

115

Bernabe L., Julio L. & Andre M. (2017). Commodity price risk management and fiscal policy in a sovereign default model. Bank for International Settlements, ISSN 1682-7678

Calabrese, T. D. (2011). Testing Competing Capital Structure Theories of Nonprofit Organizations. Public Budgeting & Finance, 119-143

Cao D. (2013). Interest Rate Risk Management: Practices and Solutions in a Vietnamese Joint Stock Commercial bank.

CBK (2017). The Kenya Financial Sector Stability Report. Issue: 8

Chen N. (2016). Foreign exchange risk management practices and financial performance of Chinese owned enterprises operating in Kenya.

Chua, Shen Hwee (2012). Cash holdings, capital structure and financial flexibility. PhD thesis, University of Nottingham.

Christopher M. (2017). Determinants of Financial Risks Hedging Practices by Non-Financial Firms Listed At Nairobi Securities Exchange, Kenya

Darush Y. & Peter O. (2015). Debt financing and firm performance: an empirical study based on Swedish data, The Journal of Risk Finance, Vol. 16 Issue: 1, pp.102-118

Feenstra. Robert c.; Taylor. Alan M. (2008).Internafional Macroeconomics. New York, NY: Worth Publishers. ISBN 978-1-4292-0691-4.

Graham, J.R. and Rogers, D.A. (2002) Do Firms Hedge in Response to Tax Incentives? The Journal of Finance, 57, 815-839.

Gregg S. Woodruff, (2007). Factors explaining debt capacity, Management Research News, Vol. 30 Issue: 4, pp.240-251.

Ismail B. (2016). Effect of financial leverage on financial performance of non-financial firms listed at Nairobi Securities Exchange

Ivo S. & Zoran T. (2015). Hedging as a business risk protection instrument UDK: 336.764.21

Jankensgård, H. (2008). Cash-Flow-at-Risk and Debt Capacity. Lund Institute of Economic Research.

Jingjing H. (2015). The determinants of corporate hedging for U.S. and U.K. non-financial firms.

Joonas H. (2017). Jet fuel price risk management and exposure in small airlines : Evidence from the Nordic Countries

Joseph M. & Jagongo A. (2017). Financial Risk Hedging Practices and Performance of Firms, International Journal of Scientific Research and Innovative Technology ISSN: 2313-3759 Vol. 4 No. 1

Joseph N.M (2014). The effects of hedging strategies on financial performance of total PLC, Kenya

Jun c. & Dolly K. (2013). Corporate Hedging and the Cost of Debt. University of North Carolina at Charlotte

Mishkin, Frederic S. (2006).Ecol1oll1ics ofMoney, Banking, and Financial Markets, Sth edition. Boston. MA: Addison- Wesley. ISBN 978-0-321-28726-7.

Myers, D., Smith, C. W. (1987), "Corporate Insurance and the Underinvestment Problem",

The Journal of Risk and Insurance, Vol. 54, No. 1, pp. 45-54.

Myers, S. C, and N. S. Majluf (1984). "Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have." Journal of Financial Economics, Vol. 13, pp. 187-221.

Nyamita, M. O. (2014). Factors Influencing Debt Financing and Its Effects on Financial Performance of State Corporations in Kenya. Doctorate Thesis. Durban University of Technology

Slim M. & Fathi A. (2010). "Corporate hedging strategy and firm value". International resesarch journal of finance and economics.

Smith, C. W., Stulz, R. M. (1985), "The Determinants of Firm's Hedging Policies", Journal of Finance and Quantitative Analysis, Vol. 20, No. 4, pp. 391-405.