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CORPORATE HEDGING STRATEGIES IN THE FINANCIAL SECTOR IN KENYA

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Abstract

Corporate hedging is a risk management strategy used in limiting or offsetting probability of loss from fluctuations in the prices of commodities, currencies, or securities. In effect, hedging is a transfer of risk without buying insurance policies. Hedging can reduce underinvestment costs since it reduces the probability of financial distress by shielding future stream of cash flows from the changes in the exchange rates. Variability in cash flows will result in variability in the amount of investment. A decrease in planned investment means that the firm is foregoing positive net present value projects and since it has insufficient internal funds the firm is forced to raise costly external finance. This study established that there is a positive relationship between hedging practices used by companies listed in Nairobi Security Exchange and liquidity ratio, growth option and cash volatility. The study also found that long-term debt negatively influences hedging practices used by companies listed in Nairobi Security Exchange. This study established that most of the companies in Nairobi Security Exchange had experienced liquidity problems in the last 5 years. In addition, the study found that most of the companies in this study had not used hedging practices in the past. This study therefore recommends that companies listed in NSE should make use of hedging practices whenever they are facing liquidity problems

Keywords: Liquidity Ratio, Growth Option, Long-Term debt ratio, Cash flow volatility, Company and Hedging Strategies

Background of the Study

Financial distress is another factor identified by Smith and Stulz (2007) that can justify corporate hedging. They argue that hedging can reduce the expected transaction costs of financial distress by reducing the probability of actually incurring these costs. Most studies use the leverage ratio as an indicator of the likelihood of financial distress to measure expected costs of distress. The leverage ratio, however, fails to allow for the level of cash, or negative debt, held by a firm. This is important because, *ceteris paribus*, a firm with high levels of cash holdings is less financially constrained than a firm with low levels (Trueman & Titman, 2004). Thus, besides the raw leverage ratio, we also use debt net of cash and short-term investments as a proxy for financial distress. To account for the fact that a high level of debt (gross or net) does not necessarily imply a higher probability of financial distress, we use two alternative proxy measures - the interest coverage ratio and a dummy variable indicating whether a firm has net interest payable. As mentioned in the previous footnote the tax loss dummy might be associated with financial distress rather than the corporate tax function. Higher leverage, lower interest cover, net interest

payments and tax losses should reflect a higher probability of financial distress (Solomon et al., 2000).

Corporate hedging is a risk management strategy used in limiting or offsetting probability of loss from fluctuations in the prices of commodities, currencies, or securities. In effect, hedging is a transfer of risk without buying insurance policies. Financial risks, for the most part, can be hedged due to the existence of large, efficient markets through which these risks can be transferred. Derivatives are financial instruments whose values are derived from the values of other basic underlying assets (for example, stocks, bonds, realestate property among others), rates or other variables (Stulz, 2005). These financial instruments includes: swaps, futures and options (Hull, 2008). Derivative are used by firms to hedge against risks ranging from foreign exchange risks, interest rate risk, commodity price risk, equity to credit risks. Risk manager should completely understand the firm's exposure and risk policy before applying hedging techniques. Derivatives are important risk management tools. They allow investors to trade exposures, diversifying risk and reducing earnings volatility. Today derivatives have moved beyond the more familiar instruments used for managing interest rate, currency, commodity, equity and credit market risk to instruments used to mitigate risks such as catastrophe, pollution, electricity, weather and inflation (Berkman, Bradbury, Hancock, and Lunes, 2002).

Equity derivatives are generally over-the-counter (OTC) structured financial products, and include equity swaps, options, and futures. Derivatives markets can facilitate the management of financial risk exposure, since they allow investors to unbundle and transfer financial risk. Derivatives markets are divided into two; the over the counter (OTC) and the exchange markets. Though both exchange-traded and OTC derivative contracts offer many benefits, the exchange traded contracts have rigid structures compared to the OTC. The exchange-traded derivatives market works through a clearinghouse or exchange which is central to its operation and with standardized contracts. OTC derivatives, on the other hand, are private contracts between two parties, typically either between the proprietary trading desks of two banks, or between a bank and one of its customers and these contracts are heterogeneous (González-Hermosillo, 1994).

Many Asian currency and interest rate derivatives markets are still in the very early stages of development, while others boast a relatively broad range of derivative products. We find that there exists a strong inverse relationship between market sophistication and regulatory restrictions (Bartram, 2008). The two top financial centres in the region, Hong Kong SAR and Singapore, undoubtedly have the most advanced derivatives markets with the least regulation, while at the other end of the spectrum are China and Indonesia who lag behind most of their Asian neighbors. The development of the underlying bond market is surely one of the key factors in the growth of the derivatives market. Since the financial crisis, Asian local bond markets have grown rapidly and the size of nine East Asian local bond markets was estimated to be USD

1.2trn at the end of 2002 (Glaum, 2008). In comparison with the more developed economies, however, bond markets remain small. The total East Asian bond market, in fact, amounts to only about 20% of the Japanese market. The average size of the bond market in those countries was 46% of GDP, compared to 169% in Japan and 156% in the United States, suggesting continued high growth potential in the years to come.

In order to grow an institutional investor base, particularly an international one, the depth and breadth of the bond market will need to increase, inevitably entailing improvements in the liquidity and diversity of available hedging tools (Lien & Yang, 2008). Regulators in many countries have been moving toward increasing support for derivative products, but there are still apparent inconsistencies in policy approaches. In many countries, the ability to maintain currency stability has been an important regulatory consideration since the 1997 Asian crisis. Different policy reactions to the currency speculation during the crisis and the subsequent high level of FX volatility have set the pace for the capital market liberalization (Hagelin, 2003). For example, under the strict IMF program, Korea has been aggressive in liberalising capital flows while Malaysia reversed its policy to a tightly controlled capital account regime. Although several countries still maintain strict FX regulations, strong regional recovery and rapid accumulation of the FX reserves bode well for further liberalisation of the Asian currency markets.Different policy reactions to the currency speculation during the crisis and the subsequent high level of FX volatility have set the pace for the capital market liberalisation. For example, under the strict IMF program, Korea has been aggressive in liberalising capital flows while Malaysia reversed its policy to a tightly controlled capital account regime.

Statement of the problem

When capital markets are perfect, hedging at the corporate level does not add to firm value and, thus, cannot be justified. The positive theory of corporate hedging developed by Smith and Stulz (2007) shows, however, that when capital markets are less than perfect, circumstances do arise where corporate hedging can add value and, thus, can be justified. The decision of whether and how to hedge then depends on firm-level attributes that determine the benefits derived from hedging that accrue to either shareholders or managers (Fok, Carroll and Chiou, 2006). Hedging against foreign currency exposure is increasingly becoming important because of volatile exchange rates that in one swing turn profit into loss and vice versa as companies settle financing and purchase obligations incurred in various hard currencies (Chalmers, 2001).

According to Bessembinder, (2006) shareholders in Kenyan firms are losing billions of shillings each year due to directors' failure to shop for appropriate hedging instruments. For instance, throughout the 1990's, Uchumi Supermarkets spearheaded the hypermarket concept in Kenya. Initial restructuring of Uchumi did not forestall the deteriorating performance of the Company

and as a result, the Company ceased its operations in the year 2006. Simultaneously, the Capital Markets Authority (CMA) suspended the Company's listing on the Nairobi Stock Exchange (NSE) due to bankruptcy (NSE, 2006). Further, Uchumi Supermarket was put under receivership due to leverage (Ministry of Finance, 2012). According to Otieno (2010), Kenya Airways in the year 2009 reported an annual loss of KES5.6 billion as its fuel-hedging loss ballooned to KES 8.9 billion for the fiscal year ending March 31. This was KQ's first losing fiscal-year after thirteen years of profitability. Kenya Airways lost KES 8.9 billion equivalent to KES 8.8 per share, in the 2009 fiscal year, compared with a profit of KES 6.5 billion, or KES 9.9 per share, a year earlier.

The widespread use of derivatives for hedging is well documented in the corporate hedging literature. Thus, why firms hedge and whether hedging creates value are important questions. Several research studies have been conducted on determinants of corporate hedging practices. However, none of these studies was conducted in Kenya on the determinants of corporate hedging practices, research gap. This study aimed at filling this research gap by investigating on corporate hedging strategies in the financial sector in Kenya.

Objectives

The general objective of this study was to investigate on corporate hedging strategies in the financial sector in Kenya.

LITERATURE REVIEW

Liquidity ratio

Liquidity management is very important for every organization that means to pay current obligations on business, the payment obligations include operating and financial expenses that are short term but maturing long term debt (Bartram, 2008). Liquidity ratios are used for liquidity management in every organization in the form of current ratio, quick ratio and Acid test ratio that greatly affect on profitability of organization. So business has enough liquid assets (Cash, Bank) to meet the payment schedule by comparing the cash and near-cash with the payment obligations (Hagelin, 2003). Liquidity ratios work with cash and near-cash assets (together called "current" assets) of a business on one side, and the immediate payment obligations (current liabilities) on the other side. The near-cash assets mainly include receivables from customers and inventories of finished goods and raw materials. The payment obligations include dues to suppliers, operating and financial expenses that must be paid shortly and maturing installments under long-term debt (Allayannis and Ofek, 2001)

Liquidity ratios measure a business' ability to meet the payment obligations by comparing the cash and near cash with the payment obligations. If the coverage of the latter by the former is insufficient, it indicates that the business might face difficulties in meeting its immediate financial obligations (Géczy et al. 2006). This can, in turn, affect the company's business operations and profitability. The Liquidity versus Profitability Principle: There is a trade-off between liquidity and profitability; gaining more of one ordinarily means giving up some of the other.

Operating cash flows generate by assets will affect continuing firm liquidity. It is not only because of the value of liquidation. Firms with fewer current assets will having problem in continuing their operations while if the current assets are too much, it shows the return on investment is not in perfect condition (Carcano and Foresi, 2006). Since optimum cash levels are influenced by the factors outside the preventive concept of treasury, the company must think broad and take serious operational decisions on how to the profit opportunities that is available in cash flow process..

In terms of liquidity policies, the predominant approach to understanding corporate cash reserves is the precautionary saving motive, which was introduced by Keynes (1936). Under this view, firms maintain cash reserves as a safety cushion, to protect themselves against the deadweight costs associated with adverse cash flow shocks. Consistent with the precautionary saving theory, the evidence presented in the cash literature suggests that firms with riskier cash flows hold more cash, and that cash plays an important role when market frictions might force firms to forego

valuable future investments (e.g., Almeida, Campello, and Weisbach (2004), and Opler, Pinkowitz, Stulz, and Williamson (2004)). Moreover, Duchin, Ozbas, and Sensoy (2009) provide ex-post evidence on the benefits of holding cash, showing that cash-rich companies cut investment less than cash-poor companies amid the subprime mortgage credit crisis that began in 2007.

Growth option

Myers (2003) stated that issuing risky debt creates incentives for the firm's shareholders to underinvest because the benefits from new investments are shared with creditors. Underinvestment incurs costs in the form of lost growth opportunities from positive NPV projects. Bessembinder (2006) argued that hedging can mitigate the underinvestment problem because hedging reduces the probability of default, thus creditors' sensitivity to investment risk. This allows equity holders to capture a larger portion of the benefits from new investments. Since underinvestment costs are most severe for firms with attractive investment opportunities (Graham & Rogers, 2002) and hedging can mitigate the underinvestment problem, the relationship between hedging and growth opportunities should be positive. This relationship is especially strong when external finance is costly because hedging ensures sufficient internal funds for undertaking attractive investment opportunities (Froot, Scharfstein, & Stein, 2008). However, empirical evidence has been inclusive. While Nance, Smith, and Smithson (2008), Gay and Nam (2008), and Singh and Upneja (2007) found a positive relationship between hedging and growth opportunities. Graham and Rogers (2002) further showed that the direction of this relationship depends on the choice of proxies for growth opportunities: a negative relationship for research and development (R&D) expenses and a positive relationship for market-to-book ratio.

The conflict between theories and empirical evidence may be explained by reconsidering the application Bessembinder's (2006) theory under high financial distress. Consider the case of high financial distress when creditors' claim is larger than firm value including new investments. Even if hedging can effectively reduce creditor's sensitivity to investment risk, shareholders' share of the investment benefits is still zero because creditors have a senior claim to all value of the firm. The logical response of shareholders would be reducing hedging in order to increase the expected value of equity (Stulz, 2009). Also, for firms under a high level of financial distress, external finance might not be available. In such case, growth opportunities should provide an even stronger incentive for financially distressed firms to hedge (Froot, et al., 2008). Therefore, when the level of financial distress is high, growth opportunities and hedging would be negatively correlated.

Long-term debt ratio

Although the issue of the maturity structure of debt is important for both developed and developing countries, there are some aspects of the problem that have been more often (although not exclusively) raised with respect to the latter (Lien and Yang, 2008). In particular, there has been a widespread perception both by domestic and international policymakers that asymmetric information and contract enforcement problems may lead to a shortage of long-term finance (Graham and Rogers, 2000). This shortage is thought to have a cost in terms of productivity growth and capital accumulation and it may justify some form of government intervention. The setting up in most developing countries of long-term credit institutions (development banks) and/or of programs to foster the provision of long-term credit was indeed the policy response to this problem (Carcano and Foresi, 2006).

The emphasis on long-term finance and on the potentially adverse consequences when it is in short supply is somewhat at odds with recent theoretical contributions that emphasize the fact that the use of short-term debt may be associated with higher-quality firms and may have better incentive properties (Alizadeh, Nomikos, and Pouliasis, 2008). In particular, the possibility of premature liquidation may act as a discipline device that improves firms' performance. A re-thinking of the role of long-term debt, particularly when heavily subsidized, has also been prompted by the problems encountered in many countries by development banks in terms of non-performing loans and by doubts about the selection criteria used in allocating funds.

Cash flow volatility

Corporate risk management theory argues that shareholders are better off if a firm maintains smooth cash flows. For example, Froot, Scharfstein, and Stein (2008) argue that smooth cash flows can add value by reducing a firm's reliance on costly external finance. Empirically, Minton and Schrand (2004) show that cash flow volatility is costly as it affects a firm's investment policy by increasing both the likelihood and the costs of raising external capital. One recurring theme in this literature is that, ceteris paribus, firms with smoother financial statements should be more highly valued. While previous research finds that cash flow volatility is costly, no direct evidence exists linking financial statement volatility to firm value. Such a link is important because, in order for risk management to matter, smooth financials must be valued at a premium to more volatile ones (Linsley and Shrives, 2006).

Given investors', analysts', and managers' apparent focus on earnings, rather than cash flows, we further investigate whether earnings volatility also plays a role as a signal of financial smoothness, in addition to cash flow volatility (Smith & Stulz, 2007). There are a number of reasons why earnings volatility may matter to the firm, independent of cash flow volatility. For

example, prior empirical work suggests that analysts tend to avoid covering firms with volatile earnings, as it increases the likelihood of forecast errors (Myers, 2003). Institutional investors avoid companies that experience large variations in earnings. High earnings volatility also increases the likelihood of negative earnings surprises; in response, managers have engaged in extensive earnings smoothing. Trueman and Titman (1988) suggest that earnings smoothing reduces a firm's perceived probability of default and therefore a firm's borrowing costs. Goel and Thakor (2003) suggest that a firm may smooth earnings so as to reduce the informational advantage of informed investors over uninformed investors, and therefore protect these investors who may need to trade for liquidity reasons. Finally, Francis, Lafond, Olsen, and Schipper (2004) find firms with greater earnings smoothing have a lower cost of capital even after accounting for cash flow volatility.

The market does not value earnings smoothing behavior after accounting for the volatility in the underlying cash flows. In fact, under certain specifications the market appears to punish firms for undertaking smoothing behavior preferring earnings volatility mirror cash flow volatility (Allayannis and Ofek, 2001). These results are important and suggest managers focus their actions on smoothing cash flows rather than necessarily utilizing accruals to smooth earnings.

Of course, there are a number of other ways in which financial uncertainty interacts with firm value. According to the CAPM, systematic risk should be negatively related to value, since higher discount rates yield a lower value, ceteris paribus (Carcano and Foresi, 2006). Further, recent empirical work suggests that not only does systematic risk affect value, but also idiosyncratic risk may be priced (Shin and Stulz, 2000). We find a negative relation between systematic risk and firm value, as well as a negative and significant association between unsystematic risk and firm value

Critique of Existing literature

Derivatives are an integral part of firms' risk management policy. Market risk is defined as the risk of loss arising from the adverse changes in the market rates and prices such as the interest rates, currency exchange rates, commodity prices, or equity prices (Smith and Stulz, 2007) propose that for value maximizing firms hedging is part of overall corporate financing policy. They suggest that hedging can affect firm value, through changes in tax liabilities, changes in stakeholder contracting costs, or interdependencies between the choice of financial policy and future real investment decisions (Smith and Stulz, 2007). This implies that hedging can increase a firm's value by simultaneously reducing external claims such as taxes paid to government; bankruptcy costs (both direct and indirect); and/or agency costs to align managerial interests with the interests of capital suppliers. Hedging can reduce underinvestment costs since it reduces the probability of financial distress by shielding future stream of cash flows from the changes in the exchange rates.

According to Froot, Scharfstein, and Stein (2008) hedging ensure that a firm has sufficient internal funds which would enable it to avoid unnecessary fluctuations in either investment spending or external financing and so increases firm value. Froot et al. (2008) argue that variability in cash flows will result in variability in the amount of investment. A decrease in planned investment means that the firm is foregoing positive net present value projects and since it has insufficient internal funds the firm is forced to raise costly external finance. In both Bessembinder (2006) and Froot et al. (2008) analysis the costs of underinvestment will be greater for those firms with more growth options.

Alternatively, firm could lower the likelihood of financial distress by possessing more liquid assets ensuring that funds will be available to pay debt claims. Also firms with higher levels of liquidity will have less need to access costly external financing to fund their investment programme. Nance, Smith, & Smithson (2008), however, posit that corporations can mitigate expected costs of financial distress and agency costs by maintaining a larger short-term liquidity position in terms of having a lower dividend payout ratio or a higher quick ratio. In order to test financial distress cost (underinvestment) and growth option (Nance, Smith, & Smithson, 2008)

Cash flow models of foreign exchange exposure suggest that the foreign exposure should be related to net foreign currency revenues (total revenues minus costs) – higher foreign sales would lead to higher use of currency derivatives. Firms with greater variation in cash flows or accounting earnings resulting from exposure to exchange rate risk have greater potential benefits of foreign currency hedging. The degree to which a firm's cash flows are affected by exchange rate changes should depend on the nature of its activities, such as the level of export and import activity, its involvement in foreign operations, its competitors currencies, and the competitiveness of its input and output markets. Thus, given the exchange rate uncertainty associated with the value of cash flows at a future data that is denominated in the foreign currency can be hedged perfectly in the forward market if the foreign currency value of the cash flow is known with certainty (Nance, Smith, & Smithson, 2008).

It has been argued that if a firm faces a convex tax function, then hedging reduces the volatility of taxable income and the firm's expected tax liability. For a firm facing some form of tax progressivity, when taxable income is low, its effective marginal tax rate will be low; but when income is high, its tax rate will be high. If such a firm hedges, the tax increase in circumstances where income would have been low is smaller than the tax reduction in circumstances where income would have been high, thus lowering expected taxes (Nance, Smith, & Smithson, 2008).

Research Design

The research design is a blueprint for conducting the research that specifies the procedures

necessary to obtain the information needed to structure and solve the research problems (Cooper and Schindler, 2003). This study used a descriptive design. Descriptive research portrays an accurate profile of persons, events, or situations (Kothari, 2000). Descriptive design allows the collection of large amount of data from a sizable population in a highly economical way. The method was chosen since it is more precise and accurate since it involves description of events in a carefully planned way (Babbie, 2004). Therefore, the descriptive research design was deemed the best strategy to fulfil the objectives of this study.

Target Population

A population is the group that the research focuses on (Cooper and Schindler, 2003). Target population in statistics is the specific population from which information is desired. The target population for this study was financial managers, development managers, human Resource managers, production/operations managers and ICT managers working in commercial banks in kenya. There were 46 commercial banks in Kenya.

Data Collection Instrument

The study collected both primary and secondary data. Primary data was collected using questionnaires. On the other hand secondary data was collected from newspapers, published books, journals and magazines as well as other sources such as the companies' prospectus. Primary data was collected using questionnaires that were distributed to the respective respondents. Kothari (2004) observed that questionnaire is a cost effective method to acquiring information especially from a large group of respondents. It also allows for anonymity. Questionnaires were used in this research because of the element of anonymity as some of the information required is sensitive.

Regression Analysis

The researcher conducted a multiple linear regression analysis so as to establish the determinants of corporate hedging strategies in the financial sector in Kenya. The independent variables included long-term debt ratio, growth option, liquidity ratio and cash flow volatility while the dependent variable was hedging corporate hedging strategies in the financial sector in Kenya. The multivariate regression model was:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where: Y = corporate hedging strategies in the financial sector in Kenya;

β_0 = Constant Term;

$\beta_1, \beta_2, \beta_3$ and β_4 = Beta coefficients;

X_1= liquidity ratio;
X_2= growth option;
X_3= long term debt ratio;
X_4= cash flow volatility;
ε = Error term

The four independent variables that were studied, explain 75.7% of corporate hedging strategies in the financial sector in Kenya as represented by the R^2. This therefore means that other factors not studied in this research contribute 24.3% of the hedging corporate hedging strategies in the financial sector in Kenya. These findings clearly show that there are other factors that influence the use of hedging practices that were not studied in this study. This is because the four variables (liquidity ratio, growth option, long term debt ratio and cash flow volatility cater for 75.7% of all the variables that influence the use of hedging practices.

Table 4. 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.863	0. 757	0.774	0.4238

The significance value is 0.0251 which is less that 0.05 thus the model is statistically significance in predicting how long-term debt ratio, growth option, liquidity ratio and cash flow volatility contribute to corporate hedging strategies in the financial sector in Kenya. The F critical at 5% level of significance was 2.353. Since F calculated is greater than the F critical (value = 2.2141), this shows that the overall model was significant.

Table 4. 8: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.431	3	1.247	2.353	.0241
	Residual	8.312	53	2.316		
	Total	3.532	56			

The regression equation will be;

$Y=2.332+ X_1 0.752 + X_2 0.698 - X_3 0.699 + X_4 0.542$

The regression equation above has established that taking all factors into account (liquidity ratio, growth option, long term debt ratio and cash flow volatility) constant at zero, determinants of corporate hedging strategies in the financial sector in Kenya 2.332. The findings presented also shows that taking all other independent variables at zero, a unit increase in liquidity ratio will lead to a 0.752 increase in the scores of determinants of corporate hedging strategies in the financial sector in Kenya; a unit increase in growth option will lead to a 0.698 increase in the scores of determinants of corporate hedging strategies in the financial sector in Kenya; a unit increase in long-term debt ratio will lead to a 0.699 decrease in the scores of determinants of corporate hedging strategies in the financial sector in Kenya, a unit increase in cash flow volatility will lead to a 0.542 increase in the scores of determinants of corporate hedging strategies in the financial sector in Kenya.

Table 4. 9: Coefficient of determination

		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	Sig.
1					
	(Constant)	2.332	1.335		0.022
	liquidity ratio	0.752	0.128	0.265	0.023
	growth option	0.698	0.241	0.076	0.024
	long term debt ratio	-0.699	0.222	0.186	0.021
	cash flow volatility	0.542	0.134	0.199	0.023

Summary of the Findings

This study found that most of the financial managers in companies listed in Nairobi Security Exchange were male. In addition majority of the respondents were aged between 35 and 40 years and had bachelors' degree as their highest level of education and hence they had the information required in this study on the determinants of corporate hedging strategies in the financial sector in Kenya. According to Berkman et al. (2006) most important concern in relation to dealing with derivatives in Denmark companies was the lack of knowledge (especially for small firms), followed by concerns about the accounting treatment and transaction costs.

The study also found that most of the respondents had a working experience of between 5 and 10 years and hence they had been in their companies enough to know whether their companies had ever used hedging practice or needed to use hedging practices.

Corporate Hedging practices

In relation to corporate hedging practices, the study found that most of the companies in this study had not used hedging practices in the past. Bessembinder, (2006) had earlier argued that shareholders in Kenyan firms are losing billions of shillings each year due to directors' failure to

shop for appropriate hedging instruments. In addition, Berkman et al. (2006) had earlier indicated that considering the reason of derivatives usage for foreign exchange exposure, the sample firms stated to aim at hedging anticipated transactions below one year. The study also found that foreign Ratio influences hedging practices in corporation in Kenya most followed by liquidity, growth options, tax losses, cash flow, institutional ownership and long-term debt ratio while managerial ownership was found to influence hedging practices in corporation in Kenya least. According to Bartram (2008), many Asian currency and interest rate derivatives markets are still in the very early stages of development, while others boast a relatively broad range of derivative products.

Liquidity Ratio

This study established that most of the commercial bankshad experienced liquidity problems in the last 5 years. According to Allayannis and Ofek (2001) the payment obligations include dues to suppliers, operating and financial expenses that must be paid shortly and maturing installments under long-term debt In addition, the study established that liquidity ratio affects the determinants of corporate hedging strategies in the financial sector in Kenyato a great extent. Géczy et al. (2006) had earlier indicated that liquidity ratios measure a business' ability to meet the payment obligations by comparing the cash and near cash with the payment obligations. If the coverage of the latter by the former is insufficient, it indicates that the business might face difficulties in meeting its immediate financial obligations. In relation to form of liquidity ratio used in liquidity management, the study found that companies listed in Nairobi Security Exchange were using acid test ratio most in the liquidity management of their companies followed by quick ratio and current ratio. These findings correlate with Bartram (2008) argument that liquidity ratios are used for liquidity management in every organization in the form of current ratio, quick ratio and Acid test ratio that greatly affect on profitability of organization. Further, the study found that liquidity ratio affects the company's business operations and profitability. In addition, firms with fewer current assets will have problem in continuing their operations. . This is in accordance with Géczy et al (2006) argument that liquidity ratio affect the company's business operations and profitability. The study also established that firms with higher levels of liquidity will have less need to access costly external financing to fund their investment programme. Carcano and Foresi (2006) had earlier indicated that firms with fewer current assets will having problem in continuing their operations while if the current assets are too much, it shows the return on investment is not in perfect condition. The study also found that corporations can mitigate expected costs of financial distress by maintaining a larger short-term liquidity position in terms of having a lower dividend payout ratio or a higher quick ratio This is in line with Nance, Smith, & Smithson (2008) argument that firms with higher levels of liquidity will have less need to access costly external financing to fund their investment programme. Nance,

Smith, & Smithson (2008), posit that corporations can mitigate expected costs of financial distress and agency costs by maintaining a larger short-term liquidity position in terms of having a lower dividend payout ratio or a higher quick ratio.

Growth option

This study established that growth option affect the determinants of corporate hedging strategies in the financial sector in Kenyato a great extent. Bessembinder (2006) had earlier argued that hedging can mitigate the underinvestment problem because hedging reduces the probability of default, thus creditors' sensitivity to investment risk. The study also revealed that the growth of the most of the companies listed in Nairobi Security Exchange was steady. The study further revealed that hedging allows equity holders to capture a larger portion of the benefits from new investments. Further, it was established that hedging ensures sufficient internal funds for undertaking attractive investment opportunities. The study also found that hedging can mitigate the underinvestment problem because hedging reduces the probability of default, thus creditors' sensitivity to investment risk. The study also found that the relationship between hedging and growth opportunities is positive. These findings correlate with Bessembinder (2006) argument that hedging can mitigate the underinvestment problem because hedging reduces the probability of default, thus creditors' sensitivity to investment risk. The findings are also in line with Graham & Rogers (2002) argument that hedging allows equity holders to capture a larger portion of the benefits from new investments. Since underinvestment costs are most severe for firms with attractive investment opportunities and hedging can mitigate the underinvestment problem, the relationship between hedging and growth opportunities should be positive.

Cash flow volatility

The study established that cash flow volatility affects the hedging practices in companies listed in Nairobi Security Exchange to a great extent. According to Linsley and Shrives (2006) in order for risk management to matter, smooth financials must be valued at a premium to more volatile ones. This clearly shows that cash flow volatility affects the hedging practices in companies listed in Nairobi Security Exchange to a great extent. Froot, Scharfstein, and Stein (2008) argue that smooth cash flows can add value by reducing a firm's reliance on costly external finance. Empirically, Minton and Schrand (2004) show that cash flow volatility is costly as it affects a firm's investment policy by increasing both the likelihood and the costs of raising external capital.

The study also revealed that higher foreign sales would lead to higher use of currency derivative. In addition, cash flow models of foreign exchange exposure suggest that the foreign exposure should be related to net foreign currency revenues. The study further revealed that firms with

greater variation in cash flows or accounting earnings resulting from exposure to exchange rate risk have greater potential benefits of foreign currency hedging. The findings are in line with Nance, Smith, & Smithson (2008) argument that cash flow models of foreign exchange exposure suggest that the foreign exposure should be related to net foreign currency revenues (total revenues minus costs) – higher foreign sales would lead to higher use of currency derivatives. Firms with greater variation in cash flows or accounting earnings resulting from exposure to exchange rate risk have greater potential benefits of foreign currency hedging.

The study established that involvement in foreign operations influences hedging practices in companies listed in Nairobi Security Exchange to a great extent. In addition, competitors currencies influences hedging practices in companies listed in Nairobi Security Exchange to a great extent.

Further, the level of export and import activity influences determinants of corporate hedging strategies in the financial sector in Kenya to a great extent. The study further revealed that the competitiveness of its input and output markets influences hedging practices in companies listed in Nairobi Security Exchange to a great extent. Nance, Smith, & Smithson (2008) had earlier indicated that the degree to which a firm's cash flows are affected by exchange rate changes should depend on the nature of its activities, such as the level of export and import activity, its involvement in foreign operations, its competitors currencies, and the competitiveness of its input and output markets. Thus, given the exchange rate uncertainty associated with the value of cash flows at a future data that is denominated in the foreign currency can be hedged perfectly in the forward market if the foreign currency value of the cash flow is known with certainty.

Long-term debt ratio

The study established that long-term debt ratio affects the determinants of corporate hedging strategies in the financial sector in Kenyato a great extent. Lien and Yang, (2008) argues that although the issue of the maturity structure of debt is important for both developed and developing countries, there are some aspects of the problem that have been more often (although not exclusively) raised with respect to the latter. Further, the study found that asymmetric information and contract enforcement problems may lead to a shortage of long-term finance. In addition, the study revealed that shortage of long-term finance has a cost in terms of productivity growth and capital accumulation. According to Graham and Rogers (2000).there has been a widespread perception both by domestic and international policymakers that asymmetric information and contract enforcement problems may lead to a shortage of long-term finance. This shortage is thought to have a cost in terms of productivity growth and capital accumulation and it may justify some form of government intervention.

Conclusion

This study concludes that there is a positive relationship between liquidity ratio and determinants of corporate hedging strategies in the financial sector in Kenya. The study found that a unit increase in liquidity ratio will lead to a 0.752 increase in the scores of determinants of corporate hedging strategies in the financial sector in Kenya. Bartram (2008) argument that liquidity ratios are used for liquidity management in every organization in the form of current ratio, quick ratio and Acid test ratio that greatly affect on profitability of organization. The study also found that liquidity ratio affects the company's business operations and profitability, firms with fewer current assets will have problem in continuing their operations, firms with higher levels of liquidity will have less need to access costly external financing to fund their investment programme and corporations can mitigate expected costs of financial distress by maintaining a larger short-term liquidity position in terms of having a lower dividend payout ratio or a higher quick ratio. This is in accordance with Géczy et al (2006) argument that liquidity ratio affect the company's business operations and profitability

The study also concludes that there is s positive relationship between growth option and determinants of corporate hedging strategies in the financial sector in Kenya. The study found that a unit increase in growth option will lead to a 0.698 increase in the scores of determinants of corporate hedging strategies in the financial sector in Kenya. Bessembinder (2006) had earlier argued that hedging can mitigate the underinvestment problem because hedging reduces the probability of default, thus creditors' sensitivity to investment risk.The study also found that hedging allows equity holders to capture a larger portion of the benefits from new investments, hedging ensures sufficient internal funds for undertaking attractive investment opportunities, hedging can mitigate the underinvestment problem because hedging reduces the probability of default, thus creditors' sensitivity to investment risk and the relationship between hedging and growth opportunities is positive. These findings correlate with Bessembinder (2006) argument that hedging can mitigate the underinvestment problem because hedging reduces the probability of default, thus creditors' sensitivity to investment risk.

The study also concludes that there is s negative relationship between long-term debt and determinants of corporate hedging strategies in the financial sector in Kenya. The study established that a unit increase in long-term debt ratio will lead to a 0.699 decrease in the scores of determinants of corporate hedging strategies in the financial sector in Kenya. Lien and Yang, (2008) argues that although the issue of the maturity structure of debt is important for both developed and developing countries, there are some aspects of the problem that have been more often (although not exclusively) raised with respect to the latter. Asymmetric information and contract enforcement problems may lead to a shortage of long-term finance. In addition, shortage

of long-term finance has a cost in terms of productivity growth and capital accumulation. According to Graham and Rogers (2000).there has been a widespread perception both by domestic and international policymakers that asymmetric information and contract enforcement problems may lead to a shortage of long-term finance.

The study further concludes that there is a positive relationship between cash flow volatility and determinants of corporate hedging strategies in the financial sector in Kenya. The study also found that a unit increase in cash flow volatility will lead to a 0.542 increase in the scores of determinants of corporate hedging strategies in the financial sector in Kenya. According to Linsley and Shrives (2006) in order for risk management to matter, smooth financials must be valued at a premium to more volatile ones. The study also found that Cash flow models of foreign exchange exposure suggest that the foreign exposure should be related to net foreign currency revenues. Firms with greater variation in cash flows or accounting earnings resulting from exposure to exchange rate risk have greater potential benefits of foreign currency hedging. The study also revealed that involvement in foreign operations, competitors' currencies, the level of export and import activity and the competitiveness of its input and output markets influences hedging practices in companies listed in Nairobi Security Exchange to a great extent. Froot, Scharfstein, and Stein (2008) argue that smooth cash flows can add value by reducing a firm's reliance on costly external finance. Empirically, Minton and Schrand (2004) show that cash flow volatility is costly as it affects a firm's investment policy by increasing both the likelihood and the costs of raising external capital.

Recommendations

This study established that most of the commercial banks had experienced liquidity problems in the last 5 years. In addition, the study found that most of the companies in this study had not used hedging practices in the past. This study therefore recommends that commercial banks should make use of hedging practices whenever they are facing liquidity problems

The study also established that hedging ensures sufficient internal funds for undertaking attractive investment opportunities and can mitigate the underinvestment problem because hedging reduces the probability of default, thus creditors' sensitivity to investment risk. This study therefore recommends that in order to reduce underinvestment problems and to undertake attractive investment opportunities commercial banks should make use of hedging practices.

The study also found that long-term debt ratio negatively influences hedging practices. This study therefore recommends that if a company is to use hedging practices it should avoid long-term debt ratio.

Further, the study established that involvement in foreign operations influences hedging practices. This study therefore recommends that when a company is having imports and exports it should make use of hedging practices

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