



EFFECT OF ENTERPRISE RISK MANAGEMENT IMPLEMENTATION ON FIRM VALUE OF COMPANIES LISTED AT NAIROBI SECURITIES EXCHANGE

TASLIM Mueni Wason

MBA, Jomo Kenyatta University of Agriculture and Technology, Kenya

Email of corresponding author: muenitas@yahoo.com

ABSTRACT

Enterprise risk management (ERM) has gained increased media and regulatory attention in the recent years. The objective of this study was to ascertain the effect of Enterprise Risk Management implementation on firm value of companies listed at the Nairobi Securities Exchange (NSE). The research design that was employed in this study was descriptive research design in form of a survey. The population of this study comprised of 60 companies listed at the Nairobi Securities Exchange and has implemented the ERM. A census survey was used owing to the small number of NSE listed companies. Data was collected through a self-administered questionnaire which was distributed among sampled respondents. Descriptive statistics such as mean, median, mode and standard deviation was used for data analysis. Tables and other graphical presentations as deemed appropriate was used to present the data collected for ease of understanding and analysis. Inferential statistics regression was done to establish the effect of enterprise risk management implementation on the firm value of companies listed at Nairobi Securities Exchange. From the findings the study concludes that ERM contributes to increased consistency and communication of risks within the organization, enhanced reporting and analysis of corporate risks, improved focus, attention and perspective to risk data, more efficient and effective activities related to regulatory, compliance and audit matters, more cost-effective management and monitoring of risk among others. Firms which have low dividend payout ratio in the NSE have low value compared with firm with high pay out ration.

Keywords: enterprise risk management, dividend, Nairobi Securities Exchange, firm value

INTRODUCTION

Interest in enterprise risk management (ERM) has continued to grow in recent years. Increasing numbers of organizations have implemented or are considering ERM programs, consulting firms have established specialized ERM units, rating agencies have begun to consider ERM in the rating process and universities have developed ERM-related courses. Unlike traditional risk management where individual risk categories are separately managed in risk 'silos', ERM enables firms to manage a wide array of risks in an integrated, enterprise-wide fashion. Academics and industry commentators argue that ERM benefits firms by decreasing earnings and stock-price volatility, reducing external capital costs, increasing capital efficiency, and creating synergies between different risk management activities (Miccolis and Shah, 2000; Cumming and Hirtle, 2001; Lam, 2001; Meulbroek, 2002; Beasley, Pagach, and Warr, 2006). More broadly, ERM is said to promote increased risk awareness which facilitates better operational and strategic decision-making.

Enterprise Risk Management (ERM) shows a different meaning than traditional Risk Management. ERM means to integrate or aggregate all types of risks; using integrated tools and techniques to mitigate the risks and to communicate across business lines or level compared to Traditional Risk Management. Meulbroek (2002) suggested that integration refers to both combination of modifying the firm's operations, adjusting its capital structure and employing targeted financial instruments.

There are various definitions of Enterprise Risk Management. In the middle of 2004, the Committee of Sponsoring Organization of the Tread way Commission (COSO) released the Enterprise Risk Management Integrated Framework. COSO defined Enterprise Risk Management as a process, affected

by an entity's board of directors, management and other personnel, applied in strategy-setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

As for firm value, the basic approach to value the firm comes from discounted cash flow valuation. From discounted cash flow valuation, the value of the firm can be determined by four factors: firstly, the firm is able to generate positive cash flow from investment of assets; secondly, the expected growth rate of its cash flows; thirdly the length of time that firm takes to reach stable growth and finally the cost of capital. From the perspective of Enterprise Risk Management, one of its objectives is to create value for stakeholders. Stakeholders consist of investors, lenders, employees, customers, government and their agencies, suppliers and other trade creditors, the public; board of directors, regulators, stock analysts, rating agencies and business partners (Lam, 2000).

The most popular tool to measure value is Tobin's Q. The founder of the theory is James Tobin in 1969 (Miller, 2000) which is used in traditional economic theory. It is a percentage of firm's market value (i.e. assets) to the replacement cost of the firm's assets. The "q" is an alternative solution for firms to measure performance since it contains a combination of accounting and market information (Lovero, 2000). The most important fact is that it is free from managerial manipulation (Hoyt and Liebenberg, 2006). According to Chung and Pruitt (1994), the approximate Q derived is from the product of a firm's share price and the number of common stock shares outstanding plus firm's preference stock plus total net debt; then divided by the book value of the total assets of the firm.

Many researchers used Tobin's Q as a standard proxy to measure value (See Hoyt and Liebenberg, 2008; Abdelgalil, 2004; and Chung et. al., 1998). This mathematical model has been used in determining some economics decisions such as the cross-sectional studies of differentiation between investment and diversification; connection between managerial equity ownership and firm value; relationship between managerial performance and tender offer gains; relationship between investment opportunities and tender offer responses, financing, dividend and issues in compensations policies (Chung and Pruitt, 1994).

Under q theory, the firm or company is said to "create value" if any return of the investment is greater than the cost of investment. Therefore, marginal q is exceeding one. However, if the firm fails to meet the value-maximizing objectives, the marginal q should be less than one. Normally in the equilibrium state, marginal q should always equal to unity (Miller, 2000; Sang, 1998).

Literatures in finance are rich in terms of variables that influence firm value but few have been written about the effect of ERM to firm value. Studies on the effect of ERM on firm value are still considered scarce especially in the Kenyan scenario. Thus, this study aims to fill this gap. The objective of this study is to examine the effect of ERM on firm value which is proxied by Tobin's Q. Other variables such as size, leverage, profitability, dividends, sales growth and return on assets are included in this study. The study focused on companies listed on the Nairobi Securities Exchange in order to be able to access the market based measures of value and are more likely to observe disclosure of ERM implementation.

The recent financial crisis, started in 2007 in the US, brought the risk management issue to the forefront. Organizations, government regulators, stock exchanges, consulting firms, rating agencies and universities have all begun to consider ERM (Enterprise Risk Management) as a way to tackle the economic complexity. As opposed to Traditional Risk Management (TRM), where individual risk categories are managed separately in risk "silos", ERM allows firms to manage a wide array of risks in an integrated, enterprise-wide fashion (Hoyt and Liebenberg, 2006). Starting from the early 2000, much has been done to induce companies, mainly operating in the financial industry to adopt ERM. In 2004, for example, the Committee of Sponsoring Organization of the Tread way Commission (COSO) released the Enterprise Risk Management Integrated Framework.

In February 2010, the Securities and Exchange Commission (SEC) promoted new rules for an enhanced risk-related disclosure in proxy and annual statements, in particular with respect to the relationship of a company's compensation policies and practices to risk management and the board of director's leadership

structure. ERM has been targeted also by rating agencies. Since 2007, Standard and Poor's (S&P) has included a risk management rating as a key factor in its overall rating of insurance companies. Despite this increasing interest in risk management, academic research in this area is still scanty. Moreover, the majority of the empirical studies undertaken concern the financial industry, in particular the insurance industry (done by Hoyt in 2008).

Locally studies done on risk management includes; Odipo (2000) who did an empirical study on accounting determined measures of systematic risk at NSE, Sang (2001) who did a study on a computer security risk analysis of firms quoted in the Nairobi Stock Exchange, Kibara (2007) who did a survey of internal auditors risk management practices in the banking industry in Kenya and Weru (2010) who did a study on an assessment of information systems risk management practices: a case of practical action (international). From the empirical studies undertaken by researchers there is clearly limited empirical evidence on the effect of enterprise risk management implementation on the firm value of companies listed at Nairobi Securities Exchange. This study will therefore endeavor to fill the existing research gap by conducting a study to determine the effect of enterprise risk management implementation on the firm value of companies listed at Nairobi Securities Exchange. The objective of the study was to establish the effect of enterprise risk management implementation on the firm value of companies listed at Nairobi Securities Exchange. Specifically the study aims:

- i. To determine the effect of dividend on value of companies listed at Nairobi Securities Exchange
- ii. To assess the effect of size of the firm on value of companies listed at Nairobi Securities Exchange
- iii. To examine the effect of leverage on value of companies listed at Nairobi Securities Exchange
- iv. To establish the effect of profitability on value of companies listed at Nairobi Securities Exchange

Theoretical Review

Institutional Theory

Burns and Scapens (2000) have observed that the social sciences have taken an increasing interest in institutional theory, and that the accounting literature reflects this interest in at least two ways: new institutional sociology (NIS); and old institutional economics (OIE). According to Burns (2000), analytical studies of changes in management-accounting routines are founded on OIE – which is a heterogeneous body of theory. Authors who can be considered within the paradigm of OIE include Karl Marx and Vilfredo Pareto. Others include various empiricists who were influenced by Darwinist biology and who were affiliated with the German school in the last quarter of the nineteenth century – such as Gustav Schmoller, Adolph Wagner, and Wilhelm Roscher (Santos, 2003). Given the difficulty of defining an “institutionalist author” with any precision, Santos (2003) decided to restrict the term to those authors about whom there is a relative consensus – such as Thorstein Veblen, Gunnar Myrdal, Charles Lindblom, and Douglass C. North.

Modern Portfolio Theory (MPT)

Modern Portfolio Theory (MPT) is a theory of investment which tries to maximize portfolio expected return for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected return, by carefully choosing the proportions of various assets. Although MPT is widely used in practice in the financial industry and several of its creators won a Nobel Prize for the Theory, in recent years the basic assumptions of MPT have been widely challenged by fields such as behavioural economics (Sharpe, William 1964). In conventional portfolio theory one typically seeks to minimize portfolio variance for a given expected portfolio return (Elton and Gruber, 1995). The Centerpiece of this theory is the capital asset pricing model (CAPM) devised by Markowitz (1952). In spite of criticism and ongoing concerns about its validity and testability, concepts in CAPM such as efficient frontier, security market lines, asset “betas” and so-on are still considered relevant in the selection and management of portfolios of assets.

Theory of Finance

The theory of finance is concerned with how individuals and firms allocate resources through time. In particular, it seeks to explain how solutions to the problems faced in allocating resources through time are facilitated by the existence of capital markets (which provide a means for individual economic agents to exchange resources to be available at different points in time) and of firms (which, by their production-investment decisions, provide a means for individuals to transform current resources physically into resources to be available in the future). Numerous economists have explained the role of finance in the market with the help of different finance theories. The concept of finance theory involves studying the various ways by which businesses and individuals raise money, as well as how money is allocated to projects while considering the risk factors associated with them. The theory argues that resources should be allocated to the lowest risk areas.

Conceptual Framework

Independent variables

Dependent variable

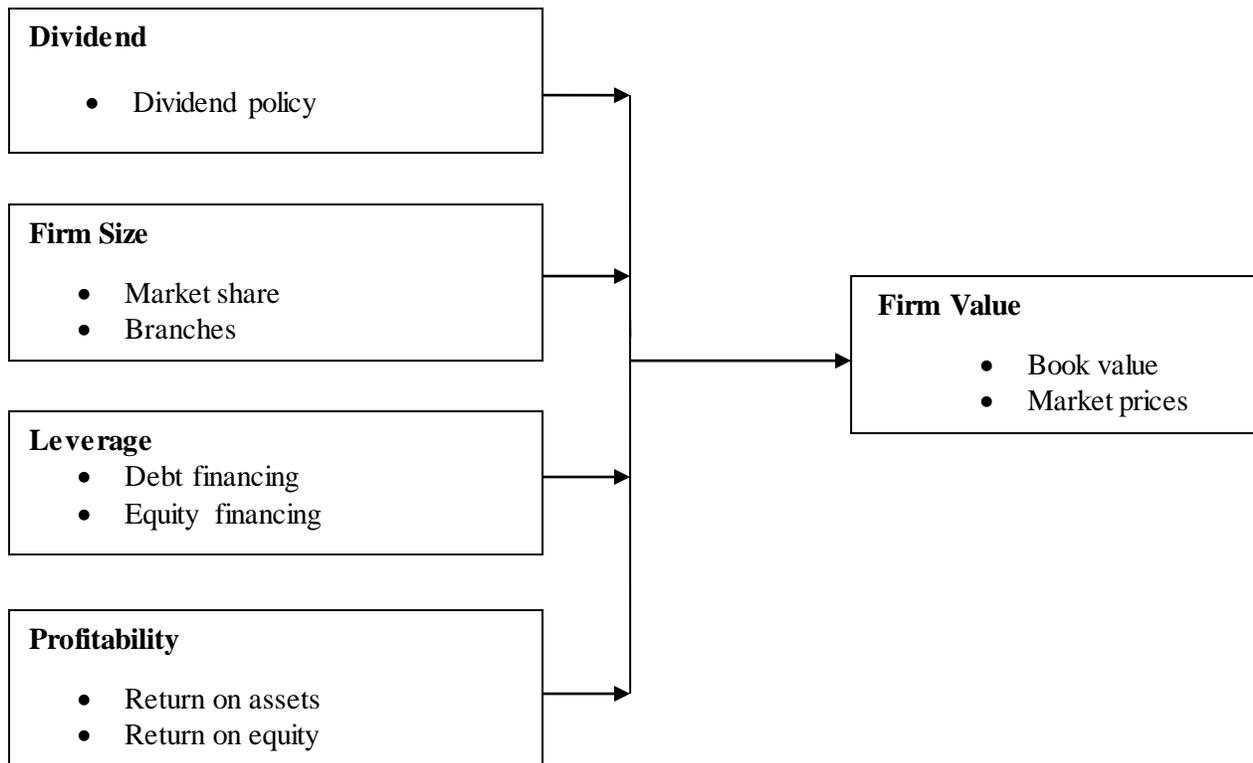


Figure 1. Conceptual framework

Research Gap

The literature reviewed has shown that successful ERM implementation can be of great benefit to companies. However, most of the research were undertaken in the developed markets and may not clearly portray the effect of enterprise risk management in an emerging or developing market. Further to this the studies undertaken in Kenya did not focus on the effect of the implementation of enterprise risk management on the firm value, instead they were aimed at establishing accounting determined measures of systematic risks, computer risk analysis for firms quoted at the NSE and internal auditors risk management practices in the banking industry. This study endeavored to fill the existing research gap by

conducting a study to determine the effect of enterprise risk management implementation on the firm value of companies listed at Nairobi Securities Exchange.

RESEARCH METHODOLOGY

The study employed this design because it perfectly fits in the above description. The population of interest of this study comprised of 60 companies listed at the Nairobi Securities Exchange (NSE, 2012). The study employed purposive sampling to select one respondent (Finance Manager) from each company. The study sampled 60 respondents who were the respondent for this study. A structured questionnaire was used to collect data from the sampled companies listed at the NSE. Validity may be defined as the ability of a test to measure what it purports to measure. A content analysis and descriptive analysis was employed. The content analysis was used to analyze the respondents’ views about the effect of Enterprise Risk Management implementation on the value of companies listed at Nairobi Securities Exchange. The data was then coded to enable the responses to be grouped into various categories. Descriptive statistics such as mean, median, mode and standard deviation was used to help in data analysis. Tables and other graphical presentations as appropriate were used to present the data collected for ease of understanding and analysis. Inferential statistics regression was done to establish the Effect of Enterprise Risk Management implementation on the value of companies listed at Nairobi Securities Exchange.

Data Analysis, Presentation And Interpretation

The research targeted employees of firm listed at the Nairobi Securities Exchange. Descriptive, inferential statistics and content analysis have been used to discuss the findings of the study. The study targeted a sample size of 60 respondents from which 55 filled in and returned the questionnaires making a response rate of 91.6%. This response rate was satisfactory to make conclusions for the study.

Reliability Analysis

Reliability of the questionnaire was evaluated through Cronbach’s Alpha which measures the internal consistency. Cronbach’s alpha was calculated by application of SPSS for reliability analysis. The value of the alpha coefficient ranges from 0-1 and may be used to describe the reliability of factors extracted from dichotomous and or multi-point formatted questionnaires or scales. A higher value shows a more reliable generated scale. Cooper & Schindler (2008) has indicated 0.7 to be an acceptable reliability coefficient. Table 1 below shows that size had the highest reliability ($\alpha=0.897$) followed by leverage ($\alpha=0.813$), then dividend ($\alpha = 0.812$) and profitability ($\alpha=0.724$). This illustrates that all the four scales were reliable as their reliability values exceeded the prescribed threshold of 0.7.

Table 1. Reliability Coefficients

| Scale | Cronbach's Alpha | Number of Items |
|---------------|------------------|-----------------|
| Dividend | 0.812 | 6 |
| Size | 0.897 | 4 |
| Leverage | 0.813 | 4 |
| Profitability | 0.724 | 5 |

RESULTS AND DISCUSSION

Effect of Enterprise Risk Management on the value of companies

Table 2. Statements that relating to effects of a chief risk officer on organization performance

| Statement | Mean | Standard Deviation |
|---|------|--------------------|
| My company has an ERM | 1.71 | 0.31 |
| The ERM has improved the value of the company | 1.36 | 0.30 |
| The implementation of ERM has mitigated most risks that affect the value of the company | 1.82 | 0.27 |
| The project analysis or decision making involving investments incorporates ERM | 1.69 | 0.24 |

The study sought to establish the level at which respondents agreed with the above statements relating to the effects of a chief risk officer on organization performance. From the findings as indicated in Table 2, majority of the respondents strongly agreed that: The ERM has improved the value of the company as shown by a mean of 1.36, others agreed that The project analysis or decision making involving investments incorporates ERM as shown by a mean of 1.69, their company has a ERM as shown by a mean of 1.71 and finally that The implementation of ERM has mitigated most risks that affect the value of the company as shown by a mean of 1.82. The above findings concurs with the study conducted by Liebenberg and Hoyt (2003) on the determinants of ERM as evidenced by the appointment of a Chief Risk Officer and observed that though there was an absent explicit disclosure for ERM implementation, the appointment of a CRO can be taken as a strong signal of ERM implementation in the companies. The study established that ERM has contributed to increased consistency and communication of risks within the organization, enhanced reporting and analysis of corporate risks (risk data) Improved focus, attention and perspective to risk data , more efficient and effective activities related to regulatory, compliance and audit matters, more cost-effective management and monitoring of risk among others. The study also revealed that organizations can improve their ERM processes by using Six Sigma methodologies. These methods can aid an organization in taking a proactive approach to addressing upside and downside risks and creating stakeholder value. Six Sigma solutions can help internal auditors by providing new ways of addressing difficult measurement challenges and unsolved problems in the ERM processes of their organizations.

Dividend Decision

The study sought to determine the level at which respondents agreed or disagreed with the above statements relating to effects of dividend decision on the value of companies listed at Nairobi Securities Exchange. From the findings, as shown in Table 3 the study established that majority of the respondents agreed that, Firms which have low dividend payout ratio in the NSE have low value compared with firm with high pay out ratio as shown by a mean of 1.42, In a perfect market dividend payment affects the firm market prices at NSE as shown by a mean of 1.67, Dividend policy of the company’s strongly influence the firm value, clientele effects matter in dividend policy as shown by a mean of 1.69 in each case, respondents also agreed that Dividend payout ratio affects the firm market prices in the NSE, as shown by a mean of 1.76, and finally The patterns of corporate payout policies has an effect on the firm value as shown by a mean of 2.04 All the cases were supported by a low mean which implies that respondents were of similar opinion

Table 3. Level of agreement on effects of dividend decision on the value of companies

| Statements | Mean | Standard deviation |
|--|------|--------------------|
| Dividend payout ratio affects the firm market prices in the NSE | 1.76 | 0.24 |
| Dividend policy of the company's strongly influence the firm value | 1.69 | 0.23 |
| In a perfect market dividend payment affects the firm market prices at NSE clientele effects matter in dividend policy | 1.67 | 0.25 |
| Firms which have low dividend payout ratio in the NSE have low value compared with firm with high pay out ration | 1.42 | 0.28 |
| The patterns of corporate payout policies has an effects on the firm value | 2.04 | 0.28 |

Leverage

Table 4. Level of agreement on Effects of leverage on value of firms listed at NSE

| | Strongly disagree | Mean | Standard deviation |
|--|-------------------|------|--------------------|
| Debt creates an opportunity for company to create value for its stakeholders if it is able to generate profits | 0 | 1.98 | 0.27 |
| Increasing leverage actually creates tax saving because a firm could deduct interest payments against its corporate income taxes | 0 | 2.04 | 0.21 |
| Leverage can increase firm value because debt forces the managers to pay out funds that might otherwise have been invested in negative net present value project | 0 | 2.20 | 0.23 |
| Optimal capital structure helps a firm to reduce the overall cost of capital and increases the firm's value | 0 | 2.02 | 0.21 |

The study sought to determine the level at which respondents agreed or disagreed with the above statements relating to the effects of leverage on value of firms listed at Nairobi Securities Exchange (Table 4). From the findings, majority of the respondents agreed that Debt creates an opportunity for company to create value for its stakeholders if it is able to generate profits as shown by a mean of 1.98, Optimal capital structure helps a firm to reduce the overall cost of capital and increases the firm's value as shown by a mean of 2.02, Increasing leverage actually creates tax saving because a firm could deduct interest payments against its corporate income taxes as shown by a mean of 2.04 and finally that, Leverage can increase firm value because debt forces the managers to pay out funds that might otherwise have been invested in negative net present value project ones as shown by a mean of 2.20. The above findings concur with the findings in the study conducted by Aggrawal et.al. (2008), who reported that leverage can increase firm value because debt forces the managers to pay out funds that might otherwise have been invested in negative net present value project. The study established that when dividends and

distributions are paid, the share price of the fund declines by the amount of the per share distribution to shareholders. The charts and pricing on various internet sites do not adjust for these distributions. As a result, price declines will generally be misrepresented as an absolute decline on the charts even though there has been no change in the total return of the fund.

Profitability

Table 5. Statement relating to the effects of profitability on value of firms listed at NSE.

| Statement | Mean | Standard deviation |
|---|------|--------------------|
| the ability of a company to make a profit after any costs influence their market values | 1.89 | 0.23 |
| Profitable firms will employ more debt since they are more likely to have a high tax burden and low bankruptcy risk | 1.84 | 0.27 |
| Profitable firm in the NSE has higher value compared to other firms in the NSE | 1.91 | 0.26 |
| increase in profits could influence rising in market price | 1.98 | 0.29 |
| profitability of firm shows good return, this will attract more investments | 1.78 | 0.26 |

From Table 5, the study sought to determine the level at which respondents agreed or disagreed with the above statements relating statements to the effects of profitability on value of firms listed at Nairobi Securities Exchange. From the findings, the study established that majority of the respondents agreed that profitability of firm shows good return.. this will attract more investments as shown by a mean of 1.78, Profitable firms will employ more debt since they are more likely to have a high tax burden and low bankruptcy risk as shown by a mean of 1.84, the ability of a company to make a profit after any costs influence their market values as shown by a mean of 1.89, Profitable firm in the NSE has higher value compared to other firms in the NSE as shown by a mean of 1.91, and finally that increase in profits could influence rising in market price a shown by a mean of 1.98. the above findings concurs with the unguent by Naccur and Goaid (2002) based on the study on the Tunisian stock exchange, profitability factor is one of the factor that creates future value to attract new investors.

Size of the firm

Table 6. Statements that relating to size of the firm effect on the value of firms listed at the NSE

| Statement | Mean | Standard deviation |
|---|------|--------------------|
| larger firms can increase their current size very quickly due to past performance, and this relates to the firm value | 1.44 | 0.28 |
| Increased size results into good results which positively influence shareholders value | 1.65 | 0.24 |
| Firms with relatively higher operating risk will have incentives to have lower leverage than more stable earnings firms | 1.45 | 0.28 |
| There is a negative relationship between risk and leverage of small firms | 1.27 | 0.25 |

The study sought to determine the level at which respondents agreed or disagreed with the above statements relating statements that relating to size of the firm effect on the value of firms listed at the NSE. From the findings majority of the respondents agreed that, there is a negative relationship between risk and leverage of small firms, as shown by a mean of 1.27 , larger firms can increase their current size very quickly due to past performance, and this relates to the firm value as shown by a mean of 1.44, Firms

with relatively higher operating risk will have incentives to have lower leverage than more stable earnings firms as shown by a mean of 1.45, and finally that Increased size results into good results which positively influence shareholders value as shown by a mean of 16.5 the finding above supports the augment by Tongli et. (2005), size is related to firm performance. It is because larger firms can increase their current size very quickly due to past performance

Regression Analysis

Table 7. Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---------|----------|-------------------|----------------------------|
| 1 | .892(a) | .796 | .763 | .2467 |

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.763 an indication that there was variation of 76.3% on value of firm listed in the NSE due to changes in dividend, firm size, leverage and profitability at 95% confidence interval . This shows that 76.3% changes in value of firms listed in the NSE could be accounted for by changes in dividend, firm size, leverage and profitability. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above there was a strong positive relationship between the study variables as shown by 0.892.

Table 8 ANOVA

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|-------|------|
| 1 | Regression | 2.232 | 6 | 0.372 | 2.884 | .041 |
| | Residual | 6.192 | 48 | 0.129 | | |
| | Total | 8.424 | 54 | | | |

From the ANOVA statistics in table 8 above, the processed data, which is the population parameters, had a significance level of 0.041 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. The calculated value was greater than the critical value (2.005 < 2.884) an indication that dividend, firm size, leverage and profitability were significantly influencing the value of firm listed at the NSE. The significance value was less than 0.05 an indication that the model was statistically significant.

Table 9. Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | .654 | .155 | | 2.939 | .010 |
| Dividend | .560 | .148 | .554 | 3.794 | .001 |
| Firm Size | .295 | .140 | .308 | 2.109 | .042 |
| Leverage | -.162 | .133 | -.113 | -1.085 | .033 |
| Profitability | .158 | .100 | .183 | 1.583 | .017 |

The established regression equation was

$$Y = 0.654 + 0.560 X_1 + 0.295X_2 - 0.162 X_3 + 0.158 X_4$$

From the above regression equation it was revealed that holding dividend , firm size , leverage and profitability to a constant zero , value of firm listed at the NSE would stand at would stand at 0.654, a unit increase in dividend would lead to increase in value of firm listed at the NSE by a factors of 0.560, a unit increase in firm size would lead to increase in value of firm listed at the NSE by factors of 0.295 , a unit increase in leverage would lead to decrease in value of firm listed at the NSE by a factor of 0.162 ,a

unit increase in profitability would lead to increase in value of firm listed at the NSE by a factors of 0.091.

CONCLUSION

From the findings the study concludes that ERM contributes to increased consistency and communication of risks within the organization, enhanced reporting and analysis of corporate risks (risk data) improved focus, attention and perspective to risk data, more efficient and effective activities related to regulatory, compliance and audit matters, more cost-effective management and monitoring of risk among others.

The further study concludes that, firms which have low dividend payout ratio in the NSE have low value compared with firm with high pay out ratio. In a perfect market dividend payment affects the firm market prices at NSE, dividend policy of the company strongly influence the firm value, clientele effects matter in dividend policy, dividend payout ratio affects the firm market prices in the NSE.

The study also concludes that; debt creates an opportunity for company to create value for its stakeholders if it is able to generate profits, optimal capital structure helps a firm to reduce the overall cost of capital and increases the firm's value, increasing leverage actually creates tax saving because a firm could deduct interest payments against its corporate income taxes and finally that, Leverage can increase firm value because debt forces the managers to pay out funds that might otherwise have been invested in negative net present value project ones.

The study determined that profitability affects the value of companies listed at Nairobi Securities Exchange to a great extent. Profitable firms will employ more debt since they are more likely to have a high tax burden and low bankruptcy risk, the ability of a company to make a profit after any costs influence their market values, Profitable firm in the NSE has higher value compared to other firms in the NSE, and finally that increase in profits could influence rising in market price.

The study concludes that the larger firms can increase their current size very quickly due to past performance, and this relates to the firm value, firms with relatively higher operating risk will have incentives to have lower leverage than more stable earnings firms. Finally increased size results into good results which positively influence shareholders value.

RECOMMENDATION

From the above discussion and conclusion the study recommends that companies at Nairobi Securities Exchange (NSE) implement the Enterprise Risk Management in order to reduce the amount of business risk they face in their industry.

The study also recommends that companies must take note that ERM implementation increases the firm value. ERM implementation level influence the firm value, this will assist firm inherent to risk by reducing the business risk they face.

It is recommended that financiers of companies including both shareholders and debt issuers keep a watch on ERM implementation as it help firm reduce the risk they face in their industry as they increase their firm value.

There is need for regulatory agency like Capital Market Authority to design policies that will guide firms in implementation of ERM. The study will help in understanding the critical success factors in enterprise risk management in Firms Listed in NSE.

SUGGESTIONS FOR FURTHER STUDIES

This study provides an initial base that can trigger additional research on ERM. The academic community is positioned to greatly contribute to this growing public policy need for more effective enterprise risk management and corporate governance in both the private and public sector organizations.

From the findings and conclusion, the study recommends and in-depth study to be carried out on the critical success factors influencing the implementation of Enterprise Risk Management. This will help to

allow more insight not only on the factors influencing the implementation of Enterprise Risk Management.

REFERENCES

- Abrams, C., von Känel, J., Müller, S., Pfitzmann, B., & Ruschka-Taylor, S. (2007). Optimized Enterprise Risk Management. *IBM Systems Journal*, 46 (2), 219-234.
- Acharyya, M. (2008). In Measuring the Benefits of Enterprise Risk Management in Insurance: An Integration of Economic Value Added and Balanced Score Card Approaches. Working paper for the Society of Actuaries.
- Aebi, V., Sabato, G., & Schmid, M. (2011). Risk management, corporate governance, and bank performance in the financial crisis. *Journal of Banking and Finance*, forthcoming.
- Ai, J., & Brockett, L. (2008). Enterprise risk management. In B. Everitt, & E. Melnick, *Encyclopedia of quantitative risk assessment* (2 Ausg.). Hoboken: John Wiley.
- Barley, S.R., Tolbert, P.S. (1997), "Institutionalization and structuration: studying the links between action and institution", *Organization Studies*, Vol. 18 No.1, pp.93-117.
- Baxter, R., Bedard, J., Hoitash, R., & Yezegel, A. (2011). Enterprise risk quality, determinants, value relevance and the financial crisis. *Bentley University Working Paper*.
- Beasley, P., Pagach, D., & Warr, R. (2008). Information conveyed in hiring announcement of senior executives overseeing enterprise-wide risk management process. *Journal of Accounting, Auditing and Finance*, forthcoming.
- Burns, J. (2000), "The dynamics of accounting change: inter-play between new practices, routines, institutions, power and politics", *Accounting, Auditing & Accountability Journal*, Vol. 13 No.5, pp.566-96.
- Burns, J., Scapens, R.W. (2000), "Conceptualizing management accounting change: an institutional framework", *Management Accounting Research*, Vol. 11 pp.3-25.
- Commission of Committee of Sponsoring Organizations of the Treadway. (2004). Enterprise risk management - An integrated framework. *Executive summary* .
- Cowherd, J. L. & Manson, D. P. (2003) 'Enterprise / Operational risk management', *The Cal Poly Pomona Journal of Interdisciplinary Studies* (Fall), 16.
- Cumming, C. M., & Hirtle, B. J. (2001) 'The Challenges of Risk Management in Diversified Financial Companies', *Economic Policy Review* (March), 7 (1), pp. 17.
- D'Arcy, S. P. & Brogan, J. C. (2001) 'Enterprise Risk Management', *Journal of Risk Management of Korea* (May), 12 (1).
- Ellul, A., & Yerramilli, V. (2010). Strong risk controls, lower risk: evidence from U.S. bank holding companies. *Indiana University* , Working Paper.
- Elton, E.J., Gruber, M.J. (1995), *Modern Portfolio Theory and Investment Analysis*, 5th Ed., Wiley, New York, NY.
- Fiocca, R. (1982), Account Portfolio analysis for strategy development, *Industrial Marketing Management*, Vol.11 pp.53-62
- Fonseca, V., Machado da Silva, C.L. (2002), "Conversação entre abordagens da estratégia em organizações: escolha estratégica, cognição e instituição", *Organizações e Sociedade*, Vol. 9 No.25, pp.93-109.
- Hamilton, W.H. (1932), "Institution", in Seligman, E.R.A., Johnson, A. (Eds), *Encyclopaedia of the Social Sciences*, Vol. 73, No. 4, pp. 560-95, .
- Harrel, G., Kiefer, R. (1993), Multinational market portfolios in global Strategy development, *International Marketing Review*, Vol. 10 No.1, pp.60-72
- Hoyt, R. E. & Liebenberg, A. P. (2008). The Value of Enterprise Risk Management: Evidence from the U.S. Insurance Industry. Working paper, University of Georgia.
- Kaplan, S., & Garrick, J. (1981). On the quantitative definition of risk. *Risk Analysis* , 1 (1), 11-27.

- Lhabitant, F., & Tinguely, O. (2001). Financial risk management: an introduction. *Thunderbird International Business Review* , 43 (3), 343-363.
- Liebenberg, A., & Hoyt, R. (2003). The determinants of enterprise risk management: evidence from the appointment of chief risk officers. *Risk Management and Insurance Review* , 6 (1), 37-52.
- Markowitz, H. (1952). Portfolio Selection. *The Journal of Finance* , 7 (1), 77 - 91.
- Markowitz, H. (1991), Portfolio Selection: Efficient Diversification of Investment, Blackwell, Cambridge,MA.
- McShane, M., Nair, A., & Rustambekov, E. (2011). Does enterprise risk management increase firm value? *The Journal of Accounting, Auditing and Finance* , 26 (4), 641-658.
- Meulbroek, L. (2002). Integrated risk management for the firm: a senior manager's guide. *The Journal of Applied Corporate Finance* , 14 (4), 56-70.
- Minton, B., Taillard, J., & Williamson, R. (2010). Do independence and financial expertise of the board matter for risk taking and performance? *Fisher College of Business Working Paper* .
- Nance, D., Smith, C., & Smithson, C. (1993). On the determinants of corporate hedging. *The Journal of Finance* , 48 (1), 267-284.
- Oliver, C. (1997), "Sustainable competitive advantage: combining institutional and resource-based views", *Strategic Management Journal*., Vol. 18 No.9, pp.697-713.
- Rowell, K., Berry, T. (1993), "Leadership, vision, values and systemic wisdom", *Leadership & Organization Development Journal*, Vol. 14 No.7, pp.18-22.
- Santos, R.S. (2003), "As contribuições dos economistas ao estudo da administração política: o institucionalismo, o gerencialismo e o regulacionismo", *Organizações e Sociedade*, Vol. 10 No.28, pp.99-116.
- Schneier, R., & Miccolis, J. (1998) 'Risk: Enterprise Management', *Strategy & Leadership* (March/April), 26 (2), pp. 10-16.
- Selznick, P. (1957), *Leadership in Administration*, Harper & Row, New York, NY, .
- Simkins, B. (2008) 'Enterprise Risk Management: current Initiatives and Issues', *Journal of Applied Finance* (spring/summer), 18 (1), pp. 115.
- Stulz, R. (1996). Rethinking risk management. *The Journal of Applied Corporate Finance* , 9 (3), 8-25.