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Risk Factors in Financial Services Industry: Application, Threats, Theoretical and Empirical Literature in Management of Risk

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ABSTRACT

The purpose of this paper is to provide a critical study over enterprise risk management. For this, the paper has reviewed theoretical and empirical literature in management of risk. Theoretical literature depicts that no theory can explain about the risk management techniques alone. While empirical literature providesthe importance of enterprise risk management to be used in the organization for managing the risk, exist in portfolio structure of the organization. The paper besides that also provides theoretical and empirical literature and depicts about the effect on working of the organization by implementing the enterprise risk management. The paper has discussed many theories on the implications on organization. The paper briefly discusses about how the performance of organization structure, firm value, default risk perspective, and disclosure requirement would be affected due to implication of enterprise risk management model. The paper has discussed the importance of techniques like correlation, descriptive analysis and regression analysis. At last, the paper provides some recommendations, due to inconsistency in provided theories. For this, the paper considers present and future market conditions to lead to more development in enterprise risk management.

Keywords: Risk, Risk Management, Risk Factors, Enterprise Risk Management
JEL Classifications: G00, G11, G311

1. INTRODUCTION

Risk management involves fulfillment of following things: Measurement, identification and estimation of risk exposures. It helps in assessment of risk exposures. Risk management helps in finding the best instrument, assessing costs of instrument. It provides facility for users to trade or shift the risk of its financial instrument. Besides these benefits, risk management also helps in reducing the risk of instrument, by avoiding, transferring, or by keeping the risk involved in the instrument. Hence by doing such analysis, risk management evaluates the instrument by analyzing its performances (Jalal et al., 2011. p. 34).

The risk factors involved in the instrument can be said to beunpredictable due to changes in return and risk of the selected portfolio by the investor. Here, the risks which are involved in the portfolio are as: Credit risk, operational risk and market risk (Jalal-Karim, 2013. p. 8).

Risk management has resultedin increase in the earnings of the companies. It leads to an extraordinary increase in the growth of the company. The increase has been noticed in the earning and growth of the companies, this was due to managing the portfolio in such a way that it minimizes the risk involved and maximizes the return. One of the examples of risk management is hedging or use of derivatives. The financial crisis faced by banks and financial institution in the period of 2007-2009 was due to not complying with the process of risk management. This has affected the whole banking system (Mikes and Kaplan, 2014. p. 45).

This journal paper provides a contextual and conceptual background of risk management factor and mitigating the factors of risk. For better understanding to the topic, the paper uses enterprise risk management model for management of risk in an organization. The paper provides a brief understanding of research that should be conducted in future by providing conceptual, contextual, methodology and findings that can be applied in the portfolio.

2. INTRODUCTION OF ENTERPRISE RISK MANAGEMENT

Enterprise risk management concept wasintroduced in mid 1990s. It focuses on managerial aspect of risk management. It is an integrated and systematic approach which enables the management of an organization in managing the risk of portfolio (Wuab and David Olson, 2010. p. 45). In the current era, the management of the organization has become very complex and involves a high percentage of risk. Hence risk management has become a crucial process in the organizations. Now enterprise risk management has become a mostly adopted practice by organizations for managing risks. The new rules and regulations of regulatory authorities havelaid a significant impact on risk management factors (Pagach and Warr, 2010. p. 67). The financial crisis of 2007-2009 hasled to a significant pressure on the organizations to strengthen the system of enterprise risk management. By adopting enterprise risk management, it would also provide protection to shareholders by taking some appropriate action so as to mitigate the risk factors (Bank of International Settlements, 2006. p. 32),). This has resulted into rating of theorganization on the basis of its enterprise risk management. For example, standard and poor which is a credit rating agency, provide rating to the organizations on the basis of their risk management system. The pressure to the organizations by regulators was in the form of new requirements and rules (Yazid et al., 2012. p. 75). This is the reason that now credit rating agencies such as standard and poor use to evaluate and rate the organizations on the basis of their risk management factors (Zeghal and Aoun et al., 2016).

By adopting of enterprise risk management in the organization, it has led to increase in the expectations of the regulatory authority to adopt such practices by other organizations as well. It has overcome the ineffectiveness of traditionally methods used for mitigating risk factors. The difference between enterprise risk management and traditionally used method is adaptation of holistic approach in enterprise risk management. By holistic factor the paper means addressing credit, market and operational risk at the same time rather than considering them separately. This has resulted into managing the risk in an efficient manner by the organization. This enables the management in providing protection and increase in the shareholders' value (Bank of International Settlements, 2011. p. 21).

The journal paper provides a theoretical and empirical literature on the enterprise risk management.

The existing literature, discloses about the importance and approaches of enterprise risk management in organization. The literature describes two perspective of enterprise risk management as: First perspective is the determinants of implementations of this model, and the second perspective describes about the impacts of implementation of this model.

The regulatory firms and authorities have provided guidance to the management regarding the implementation of enterprise risk management model (Pagach and Warr, 2011. p. 42). There are different methodologies in the markets like developed market and developing market. The framework of enterprise risk management discusses about the effectiveness in implementations in different markets. There is not wide description of methodologies of enterprise risk factors to be implemented in developing markets. In developing markets, there are a lot of changes in market perspectives, change in degrees of definition, methodological challenges. Hence, it needs to be analyzed in the perspective of the enterprise in relation to risk management so as to identify the trends and consistency in results from both developing and developed markets.

The main objective of this literature paper is to analyze the importance of enterprise risk management. Besides this, another objective is to identify the differences between empirical and theoretical literature. The study assesses and evaluates theories on enterprise risk management. Theliterature also describes and evaluates methodologies used for enterprise risk management. The literature provides some recommendations for enterprise risk management that would be conducted in the future period. At last the literature provides findings and conclusions in empirical studies used for enterprise risk management.

The research discusses about enterprise risk management and risk factors. For better understanding of the topic, the literature describes some theories and evidences that would depict about the common methodologies, theories informing about the topic, and its strengths and weaknesses. Besides this, it also provides help to academicians on the trends and directions that need to be conducted in risk management.

3. LITERATURE REVIEW

3.1. Theoretical Review

In 1950's, the techniques of risk management have been evolved, which are being described in the literature. The major shortcomings founded in risk management technique arein the lack of consistency and theoretical foundation of the firm (Wuab and Olson, 2010. p. 43). Here, the theoretical foundations in implementation of risk management techniques are meaning of assumptions and their implementations.

Markowitz in 1952 has described about the foundations of modern risk analysis. This is considered as relevant in an organization in selecting the best portfolio from the set of alternatives portfolio. According to Markowitz, a rational investor selects the portfolio on the basis of risk and return analysis from the set of best alternatives. However, Markowitz's assumption on retail investor's selection of portfolio fails in real life cases. This is due to involvement of taxes and transaction cost in real portfolios. The Markowitz analysis describes about how the investor decision would be changed in relation to selection of the best portfolio on the basis of risk factor involved in the portfolio. Hence it is said that according to Markowitz, the investor would select the portfolio on the basis of risk factor, and would change his/her decision if the risk does not match with the desired return (Markowitz, 1959. p. 32). While applying the Markowitz model to the enterprise risk management, it is not apparent whether the individual risk factors would affect the selection of portfolio or not (Markowitz, 1952. p. 40).

However, in 1964 Sharpe and in 1965 Linter introduced a concept of risk free assets in the selection of portfolio. According to them, the concept of risk free assets would lead to a realistic approach of portfolio method as introduced by Markowitz in 1952 (Sharpe, 1964. p. 10).

According to Sharpe and Linder, the combination of risk free assets and market assets would lead to equilibrium in financial market (Fama and French 2004). The model as introduced by Sharpe and Linter is called as capital assets pricing model (CAPM). However, the criticism as in Markowitz model also exists in case of capital asset pricing model (Sharpe, 1970. p. 65). The capital asset pricing model is based on the following assumptions related to the investor and the financial market: According to CAPM model, all the investors have homogeneous expectations, the transactions involved does not have any transaction cost or tax effect. It is also assumed by the CAPM model, that the investor has all the related information regarding the security (Lintner, 1965. p. 16). Hence by applying the CAPM assumptions in the real portfolios it can be said that, all the investors do not lay the same portfolio or same securities. There are differences in the presumptions of investor in relation to selection of the best portfolio. Besides this, trading in financial market would lead to some generation of cost or taxes. The principle of making available the information to the investor or shareholder is not followed, as some of the information is restrained by the organization to maintain the confidentiality (Sharpe, 1964. p. 54).

Fama and French (2004) did an analysis on capital asset pricing model: Theory and evidence. According to them, the approach of CAPM model deprives the way it is used in applications. It has been observed by both of them that the model fails in its empirical test. However, this failing may be due to invested capital, or deficiencies of financial market (Fama and French, 2004. p. 15).

An analysis had been done by Myron Scholes and Fischer Black and Robert Merton on pricing of options (GARP, 2015. p. 12). They have done analysis same as that by Sharpe, Lintner and Markowitz. They also perceive the same assumptions as that by Sharpe, Linter and Markowitz that are: The financial market is perfect, that is investor has all the information regarding the security (Merton, 1972).

However, Fema and French had made some changes and added some new assumptions in their model. According to them, securities are traded continuously. The distributions of the rates of the investment return are assumed as constant. All the three models stated above have some criticism as none of the model has depicted about the dividend payment. As in real life, most of securities contain dividend payment to the investor. There are existence of tax and transaction cost on the trading of securities. Besides this, holding the interest rate as constant is like an imagination. This is because interest rate is treated as avariable, which changes from time to time. However, it can be said that all the market factors cannot be considered while describing a model. Besides this, prices cannot be calculated, efficiently (Blaskovich and Taylor, 2011. p. 22).

Modigiliani and Miller (1958) introduced Modigliani and Miller theorem. According to this theorem, in case of a perfect capital market, there is no involvement of income and corporate taxes. Besides this, the corporate structure of the firm will not affect the value of firm. However, Modigliani and Miller theorem was also criticized on the basis of: The firms and individuals can borrow or lend the money at same interest rates (Merton, 1977. p. 34).

This assumption is criticized because firms have considerable amount of money invested in fixed assets, hence it might be possible that the firms can borrow money at lower rates as that of an individual (GARP, 2015. p. 25). Hence to avoid a situation of financial crises, financial reengineering plays a considerable role. According to Modigliani and Miller, involvement of debt or leverage would not lead to any effect on the firm's value.

The models introduced by Sharpe, Markowitz, Modigilaini and Miller, Linter, Scholes and Black, French and Fema aided in theoretical framework of modern risk management. Howeverby implementing these theories might involve some challenges due to critics, and some unrealistic assumptions.

3.2. Empirical Literature

The empirical literature discusses about the determinants of implementations of Enterprise risk management and the effects of implementation of enterprise risk management on enterprise. A research was conducted on 10-year field project. In these, 250 interviews were takenwith senior officers heading risk. By analyzing over the research, Robert S. Kalpan and Antee Mikesin United States analyzed the importance of enterprise risk management in modern management. However, it is a crucial factor for corporate governance reforms (Wambua, 2010. p. 32). This is due to lack of specifications regarding how enterprise risk management would be applied in the organizational structure. Enterprise risk management is applied in those organizations which have more risky assets as compared to those organizations that have less risky assets. Involvement of risk factors in the capital structure would lead to choosing of employing enterprise risk management in the organization (Nagar and Hayes, 2015. p. 42).

In the perspective of risk factor involved in the capital structure of the company, Taylor and Blaskovich did an analysis over, how to analyze the risk factor in the composition of capital structure. That is, how to calculate those risks which can be managed by the company, and which risks cannot be managed. To answer this, Taylor and Blaskovich said that risk related to financial matters consists of major importance as that of non-financial risks. Hence, a manager should focus on recognizing and addressing the involvement of financial risk in the capital structure of the organization. However, there are some limitations in the analysis of Taylor and Blaskovich that are: It has less implication from the actual world andit cannot be applied in an exact manner in the business practices. This is because of time constraint by the organizational managers, the sample size may affect the accuracy of findings. These limitations have resulted into introduction of new findings and research; however, they too have some limitations as how enterprise risk management can be fitted in the organizational structure, what are the importance of this model for organization, accounting done in enterprise risk management would result into right or wrong, good, bad. Besides this, the research or findings done by the individuals or MBA studentsmight not be useful for academic professionals. This is due to difference in collection of data by the researchers (Paape and Speklé, 2012. p. 18).

From the perspective of implementation of enterprise risk management, a research was conducted by Olalekan and Adebowale in 2014. According to them, there are multiple factors that affect the implementation of enterprise risk management in the organization (Grace et al., 2010. p. 49). They conducted a qualitative research by reviewing and conducting a comparison analysis of factors that would affect the implementation of enterprise risk management. For this Olalekan and Adebowale has conducted analysis on firms over the period of 2005 to 2012 (Grace et al., 2014. p. 27).

Lundquist did an advanced research on implementation of enterprise risk management in the organization. However, the scope of research conducted by Lundquist focused on majorly Nordic firms. The researcher did an exploratory research to identify the implementation factor in enterprise risk factor. The approach used by the researcher here has not been used by any other writer for understanding the implementation factors. Lundquist has identified four pillars or discrete components of enterprise risk management implementation. These four pillars are classified on the basis of two internal environments, one risk management activities of the firm and the last pillar describes the attributes of the enterprise risk management implementation. Here the attributes can be classified as: Holistic organization of risk management, general objective setting and internal environment, general control information, activities, communication and information and the last attribute is identification of specific risk and activities related to risk assessment. For successful implementation of enterprise risk management, an organization must comply with above stated four pillars or components (Merton, 1977. p. 36). These factors can also be applied at outside the region of Nordic, however there is no proof that the components or pillars are country specific or not.

Another study that was conducted, but it had not done the exploratory research is that by Lundquist. The research has been conducted for identifying the issues of enterprise risk implementation. For research 138 firms were taken from the period of 1992 to 2005. The adoption of enterprise risk management depends upon the decisions of firms on employing (CRO) chief risk officer. The critics of this approach is that, there is no evidence of whether hiring the chief risk officer would result into full implementation of ERM model. The consistencies in the entire model described are as: Complying with regulatory norms, corporate governance, characteristics of industry or firms, vulnerability in success factors, risk occurrence in some of the events. Here vulnerability in success factors can occur in form of availability of internal auditor, chief risk officer, board of directors, and support from top management, size and type of the company or firm, and the pressure from external auditor team (McShane et al., 2011. p. 56).

In relation to the implementation of enterprise risk management, there has been four major themes identified, which are as: Effects on enterprise risk management on firm values, firm performances, disclosure requirement and default risk factors.

In relation to the impact of enterprise risk management on the performance of firms, (Mark et al., 2014. p. 10), in United States designed a survey on enterprise risk management. This survey was conducted to know about the practical aspects of implantation of ERM model. Here the practical values mean: Consideration of components of setting objectives, reaction to risk and its identification, internal management in which management and firm's performance are considered by using an analysis over partial test squares and the results indicating about implementation success of ERM. That means, by implementing ERM, the organization would be able to increase in management harmony. Harmony in management can be ensured by increase in transfer of better informed decision, increase in accountability of management, better communications regarding taking risk. Improvement in internal management of the organization would lead to improvement in harmony between management, taking better informed decisions, increment in accountability. Hence in such ways, the responsibility of management can be ensured by taking better informed decisions, improving in meeting the strategic goals, reducing variations in earnings, and ensure a constant increase in the profitability (Gatzert and Martin, 2015. p. 20). It was found that if the same research would be conducted in future by some other researcher, it would give the same results as in 2004. The advantage of using partial least square methodis that it can handle more descriptive variables. However, using partial least square method also has some limitations which are as: Failing to notice the real correlations and sensitivity of descriptive variables.

A theoretical research was conducted by Lin (2012. p. 8) to determine the risk integration, strategic determinants, and creation of value by ERM. This can be ensured by testing the data from insurance industry, research findings, U.S. property that by implementing ERM practices, do ascertain if there is any increase noticed in return on assets, underwriting return on assets as in comparison to that of companies which have not implemented the practices of ERM. Pagach and Warr in 2010 conducted a research in which they concluded that ERM does not result into creation of value as stated by Gates (Gates et al., 2013. p. 14). Pagach and Warr researched on the effects on firms by adopting enterprise risk management. Here, effects were measured in effect on long term performance of organizations by conducting an examination over market characteristics and financial assets. This means that what is the effect on market characteristics and financial assets by adopting ERM practices. A survey was conducted by Grace in 2010 in United States on insurance industry about the impact of adopting risk management practices on the performance of a firm. The results of this research were to ensure the increase in firm values and performances by adopting the practices of enterprise risk management. According to the research conducted by Pagach and Warr in 2010, hiring of chief risk officer if accompanied by enterprise risk management would lead to help the firm in selecting sample (Waweru and Kisaka, 2011. p. 43). However, the critics of this research are as: There can be existence of biasness in selection of sample. Besides this, there are multiple factors which lead to changes in earnings of the firm. Apart from this, another major critic of this research was that by hiring only enterprise risk management would not lead to effective implementation of ERM. As implementations done by a CRO officer can lead to misleading results if the CRO has failed in complete implementation of ERM. It can lead to a problematic situation, if the CRO has not used ERM. Besides this, if one CRO is replaced by another CRO in the same firm, it will not make any changes in uses of ERM in firm but rather it would only lead to change in title (Grace et al., 2010. p. 25).

Another research was conducted by McShane (2011) in United States, in which the investigation has been done on the relationship of enterprise risk management and the performance of firm. The relationship has been found out by using Standard and Poor's index. Standard and Poor credit rating agency rate the firms on the basis of implementation of enterprise risk management majorly in the case of insurance firms (Sekome and Lemma, 2014). For better analysis, standard and poor conducts a descriptive analysis using multivariate analysis and Pearson correlation. The ratings provided by S&P are sophisticated and comprehensive index as it assesses the culture, processes, systems and practices of risk management as adopted by the insurer. Besides this, S&P provides rating on the basis of increase in levels of risk management, which are as: Three Traditional risk management and two enterprise risk management. It has been founded by McShane in 2011. p. 32, that though there is a positive relationship between increased level of capability of risk management and firm value and performances, it does not lead to further increase in the value and performances of the firm after achieving higher level of enterprise risk management. Theconclusion of this study was to get assured about the positive relationship between enterprise risk management and firm value and performance, but it fails to answer about the reason of not having further increment in firms' value and performances after adaptation of higher level of enterprise risk management.Hence it has been assumed by the researcher that if ERM is implemented in the organization, it would not lead to further increase in the firms' value and performances.

Another investigation was done by Baxter et al. (2013), in United States, indicating about the measures that are related to providing high quality of ERM. As quality in ERM can be ensured by recognizing theincrease in the quality of program, and reduction in the uncertainties of risk, these are calculated by using logistic regression and descriptive analysis. Besides this, Karim in 2013 also did further analysis on the effect on competitive advantages by adopting enterprise risk management practices. Karimdid analysis on Bahrain firms that have adopted ERM practices. However, it also did analysis on the firms which uses regression and correlation analysis and Cronbach alpha test.it calculated the impact on firms by analyzing the level of adoption.

Gatzert and Martin (2015. p. 16) addressed the questions about the factors that lead to implementation of ERM system and whether implementation of ERM practices can lead to increase in the value of business. Farrell and Gallagher (2015) in United Kingdom analyzedthe values of implication in maturity of ERM by using data from risk maturity model of insurance management society and leading risk in the industry from the period of 2006 to 2011. The main objective of this research is to find out the effects on organization effectivenessdue to implications ofERM maturity. Thereafter Lechner and Gatzertin in Germany, analyzed empirically the valuation of maturity of ERM and valuing the impact on values of the firm listed in the German stock exchange. The conclusion of these studies shows that by adopting the practice of ERM results in increasing the firm values (Farrell and Gallagher, 2015. p. 23).

Lundqvist and Vilhelmsson in 2016 had done analysis on effect of implementation of enterprise risk management on default risk. For this analysis, the researcher covered 78 world's largest banks. The researcher adopted correlation analysis, regression analysis and descriptive statistics. It was found that adopting higher risk of risk management would negatively affect the level of default risk from the point of bank as creditor (Hudin and Hamid, 2014. p. 32). However, it was not assured by the researcher, whether this study can be applied to other industries or whether it had to be applied for banks. Besides this, the appointment of chief risk officer is also used as a proxy for identification on implementation of enterprise risk management.

Zeghal and Aoun (Lechner and Gatzert, 2016. p. 53), in Canada had laid an investigation in the effect on disclosure requirement from the implementation of enterprise risk management. The researcher mentioned the financial crises of the period 2007-2009, in relation to the values and quality of disclosure requirements in annual reports of the company. The disclosure requirement of companies is positively related tobank size, crises, independence of board members. However, disclosure requirements are negatively correlated to leverage, profitability, and board size. This concludes that the financial crises lay a considerable effect on quality and volume of disclosure requirement of Enterprise risk management. This has laid a considerable effect on United States banks. For this, the study considered 59 largest banks of United States of America. The conclusion of the study is that the disclosure requirement changes with the size of bank. The results of this finding were same in case of an investigation conducted for small banks of United States of America. However, it has still not cleared that whether these findings will apply to other than banking industries like insurance sector firms. Hence it can be said that, these stated theories majorly focus on theoretical aspects of enterprise risk management which is less expensive in terms of implementation. This is the reason there is no direct evidence that by implementing enterprise risk management practice would lead to increase in the performances and values of the management.

In relation to finding out the relationship between organizational structure and enterprise risk management practices a study was conducted by Nagar and Hayes in 2015 in South Africa. Thestudy highlighted the principles of enterprise risk management and typology of organization culture. According to the methodology done by Nagar and Hayes, there are two types of organizational structure. These organizational cultures are sociability and solidarity. While analyzing these organizational cultures with the ERM practices, marks have been allotted to organization culture for the purpose of ranking and averages. After the successful results of allotting marks on one organization culture, this was implemented to all the components of organizational culture and then averages plotted to the framework of Double S cube so as to determine the best organizational culture. It has been analyzed by the researcher that the common organizational culture that is Sociability is an overall culture adopted in insurance industry of South Africa (Hoyt and Liebenberg, 2011. p. 63). The sociability organizational culture helps the organization in implementing ERM practices. Before Nagar and Hayes, no researchers haveanalyzed enterprise risk management implementation in such a way. However, this study also had some limitations, those are: The study only took 27 studies in their methodology. Furthermore, there was a little number of participants as out of 135 firms only 23 had participated in the research effectively. This has made an impact over credibility of the study. Besides this, it was quite apparent that the firms which were taken for sampling had 89% of the market share. According to previous studies, the firm's size plays a considerable role in the implementation of ERM practices (Hudinand Hamid, 2014. p. 29). This applies only to insurance companies. Hence by this it is not clear, that if these circumstances had been faced by thenon-insurance industry, whether the limitations like in case of insurance industry would be applied or not.

Many researchers haveresearched to find out the relationship of enterprise risk management from the organization's point of view. Jalal et al. conducted a research in 2011, on measurement of financial sector of ERM of Bahrain. Whether the company gives relevance to risk management, it can be found out by checking that whether the company has enabled the enterprise risk management in an effective manner or not. Here, effective manner means that whether the company is using regression and correlation analysis in its risk management or not. However, there is not a standard list of types of risk in the market or organization. The study categorizes some of the risk as faced by majorly financial institutions (Jalal-Karim 2013. p. 36). These risks are as: Operational risk, financial risk, compliance risk and strategic risk. There can be other types of risks too depending upon the market situation and industry. Other risks which can exist in a financial industry according to Basel 2 treaty are credit risk and market risk (BIS, 2006, pg. 40). Here the financial industry can be divided into insurance, banking, stock broking and many other related services (Lundqvist, 2014. p. 20).

To find the relationship of enterprise risk management implementation and firms' value in Africa, Waweru and Kisaka (2011) conducted a study. This study is based on the research conducted by Hoyt and Liebenerg (2011), but this was for Kenyan organizations which are listed on the Nairobi stock exchange. The main objective of their study was to assess whether the level of enterprise risk management lays an implementation on the values and performance of the organization (Hoyt and Liebenberg, 2011. p. 87). The results of their study werethat most of the firms which were sampled by the researchers, had taken enterprise risk management as a strategic business initiative rather than just considering it as a regulatory compliance (Baxter et al., 2013, pg. 33). Besides this, another result which was noticed was that there is a positive relationship between appointment of CRO officer and implementation of enterprise risk management in organization. But the study did not answer the relationship between the implementation of enterprise risk management and variables of organizational structure such as: Level of board independence, operations of industry, growth rate of the firm and size of the firm (Baxter et al., 2013. p. 47).

On the basis of previousstudies and research, a significant relationship can be assured between the implementation of enterprise risk management and organizational value. According to this, there was a positive relationship between organizational value and enterprise risk management. That is, if there is an increase in the implementation level of enterprise risk management, it would positively increase in the organizational value and performances. This concept was analyzed on the basis of companies listed on the Nairobi stock exchange. Hence there is no evidence whether this concept would be applied to other companies other than Nairobi companies. The research had been conducted for other than Nairobi companies, but the response rate was low at 49% of the targeted population. Hence it can be said that there was a probability of biasness in the industry in relation to research findings. Besides this, there had been criticism that enterprise risk management should be implemented as a business initiative rather than as acompliance requirement. There are some highly regulated banks which prescribe ERM approach to manage risk. Hence, it cannot be said that it was a business initiative; rather it was prescribed by highly regulative banks.

Wambua conducted a research in 2010 to analyze the practices of risk managementas implemented in the financial institutions, commercial banks. The researcher analyzed the impact of implementation of risk management on the performances of banks. Hence the result of research was thatthere was a positive relationship between implementation of risk management and the performances. This was because there had been increase in the efforts of commercial banks and financial institutions in terms of management of liquidity, operations, foreign and interest risk (Lundqvist and Vilhelmsson, 2016. p. 65). However, the research did notfocus on regulatory compliance, operational risk and strategic risk management. The criticism of this research was that there were no specific strategies to manage or measure the enterprise risk management (Wambua, 2010).

4. DISCUSSIONS OF FINDINGS

The theoretical aspects of the findings of the study focused on individual assets and liabilities management and portfolio management. The concentration of the research is on specific risk factor. In risk management, there had been various research conducted and various strategies introduced by researchers like Sharpe and Linter has introduced the concept of risk free assets, Markowitzhas introduced the concept of portfolio theorem, and capital asset pricing model while Fama and French introduced the concept of risk free assets. This made the research in risk management conductedin an advanced way. Fisher black has introduced the concept of derivatives and hedging; by this, the risk can be reduced to a greater extent by investing in diversified assets. Furthermore, Modigiani and miller, Scholes, and Marton introduced the concept of use of three theories in capital structure of a firm. The theories of capital structure have a viewof evaluating the impact of including leverages in the capital structure of the firm in terms of its risk and profitability to entity. The theories laid by Modigilani, miller, schools, Linter, Sharpe, French and Fema formed the backbone of managing risk in an organization (Markowitz, 1952. p. 54).

From the perspective of empirical study, enterprise risk management is a new aspect for managing the level of risk in the organization. This is done by forming the relationship between the organizational values with the level of implementations of management of risk.

From the finding of empirical study, it has been analyzed that the concept of positive relationship between organizational values and risk management was because of slow development in enterprise risk management. Besides this, it was foundthat the determinantsof implementation of risk management techniques and what would be the impact of risk management on organizational structure (Sharpe, 1970. p. 35). The effects of implementing the risk management techniques have been found from the organizational point of view in terms of their risk, values and requirement of disclosure. It was found that the three should be changed in the disclosure requirement according to the levels of implementations.

In relation to organizational perspective, there was only one research conducted by Olalekan and Adebowale in 2014, for enterprise risk management (Quon et al., 2012. p. 44). But the research which was conducted, levied some limitations, as there was no assurance whether it would be applied to other countries which are located at other region, if they came in the same conditions as that of which were considered while doing the research. Besides this, the assumptions laid by various researchers also become void if the market condition changed. Though the theories stated by the researcher became like a backbone for the enterprise risk management, but there were no evidences that they can be applied to other industries or not. Besides this, it is only a qualitative aspect that by implementing enterprise risk management in the company, it would lead to increase in the organizational value. This is because there is no quantitative research conducted for such analysis. Apart from this question like, what would beconsiderable determinate that has led to implementations of enterprise risk management in the organization. Here the key determinants of an organization are as: Like issues of corporate governance, compliance to rules and regulations, occurrence of risk events, characteristics of firm and industry, and vulnerabilities factors like appointment of chief risk officer, internal audit, and support from top management and board of directors, requirement of external audits and disclosure requirements and the size and type of the firm and its respective industry.

In relation to implementation of enterprise risk management, there is lot many studies conducted, out which four themes were drawn as: What would be the effects on performance of firm on implementing the enterprise risk management, what would be the impact on firm's value by implementation of enterprise risk management, effects of default risk due to implementation of enterprise risk management, and the effect on the requirement of disclosure due to such implementation (Olalekan et al., 2014. p. 55).

In relation to the effect on performance of the firm, Yikia, Quon, Pagach, Warr, Grace conducted a study over various firms to analyze the differences on the firms which have implemented the enterprise risk management and those which have not implemented the enterprise risk management in their organization (Lin et al., 2012. p. 22).

In relation to find out the effects on change in firms' performances due to enterprise risk management implementation McShane, Karim, Gatzert, Martin, Farell, Gallagher, Lechner, Gatzert conducted a study, in which they explained how the firm can increase its value by adopting enterprise risk management strategies.

While in relation to changes in the level of default risk, due to implementation of enterprise risk management, Lundquist and Vilhemsson conducted a study in 2016, in which they described about the relationship of degrees of enterprise risk management and default risk of the management. It was found that there was a negative relationship between both of them. That is, as the degree of enterprise risk management increases, the probability of default risk in the organization got reduced. However, there was no specific evidence whether the findings of this study can be applied to another country or not. This study applies only to commercial banks or other financial institutions. Besides this, the appointment of the chief risk officer has just acted like a proxy in implementation of enterprise risk factors. As there are many other factors which affects the implementation of this model and its results. The factors are as: What is the level of implementation, market in which the organization works, and whether the organization is fully aware of the enterprise risk management factors or not (Yazid et al., 2012. p. 42).

In the context of disclosure requirement to be done in case of implementation of enterprise risk management, Zeghal and Aoun conducted an analysis in 2016, to find out the relationship between disclosure requirement and enterprise risk management implementation. According to the researcher, there was a positive relationship in the degree of implementation and disclosure. This is becauseit is related in terms of bank size, independence of board, impact on profitability, leverages. As these are the factors, if not taken care in an effective manner can lead to a situation of bank crises. Hence it can be said that the disclosure requirement can affect the organizationalstructure in terms of qualitative as well as quantitative terms (GARP, 2015. p. 67).

Only Nagar and Hayyeshave done and analysis over the implementation of risk management techniques in relation to organization. The study was conducted in Africa. According to researchers like Waweru, Kisaka, and Wambua there was a positive relationship between enterprise risk management and firms' performances and values (Waweru and Kisaka, 2011. p. 44).

In context to methodology, techniques which are suggested in implementing enterprise risk management are correlation, regression and descriptive analysis. The criticism to descriptive analysis is that it only does summation, and gives a generalized view. As it is not assured from the researcher, that whether this finding can be applied to other industries or not. Besides this, correlation analysis also not covers the quantitative aspect, as it only finds out the relationship between the two variables and how they affect each other. That is, how changes in variable can make an effect in other variables. But it does not find which variable would affect the other variable and in what manner. In context, regression analysis, finds out the relationship between the variables that can be quoted in a linear model. The assumption of regression analysis is to find out the cause and effect relationship between the variables (Sekome and Lemma, 2014. p. 60). But this assumption is not effective in real market, as the estimations on one model, due to changes in other model can lead to misleading or enormous results. In the above research, only two studies have adopted component analysis and exploratory analysis. The component analysis uses Lorenz curve, Monte Carlo simulation, Qualitative studies in reviewing literature, PSI (population stability index), and Tobin Q component analysis. Here Tobin Q analysis was the most considerable tool as used for analyzing the firms' performance and values (Quon et al., 2012. p. 50).

There are no specific findings that the result of empirical study would lead to same result in case of other industries or market. Hence there was no unanimous agreement between the modern approaches of risk management withseveral markets and industry. A new perspective has been noticed due to effective implementation of risk management techniques, as management has started considering risk management approach as holistic view, as it was considered as Silo based perspective before. The criticism of these studies is that, as the market and industry would change the result of the study would also got changed; hence there is not nay standard rule of implementing such technique (Wuab and Olson 2010).

5. CONCLUSION AND RECOMMENDATION

Enterprise risk management has laid a new concept in management of risk. The paper describes how the modern technique of enterprise risk management can be applied in case of African companies. The paper has considered samples of majorly African firms, so as to find out the effect of implementation of enterprise risk management. Markowitz, Linter, Sharpe, Black, Modigliani and Miller, Scholes did a theoretical analysis, which is considered as backbone in managing risk of enterprise. But these theories are not effective when applied to the real life, as these theories levies some assumptions which are not relevant or do not exist in real market. There are very limited researches that have been conducted on the management of risk in organizations. Besides this there are no standard methodologies to be followed. As change factors, can lead to changes in the results of the outcome. For example, if the same findings as of developed market are applied to the developing market, it can lead to misleading results. Besides this few techniques are used to analyze the relationship between implementation of risk management and performances and values of the firm. The research conducted by Kenya has only used correlation, regression and descriptive analysis. Hence the recommendations are as: The scope of research should be extended to get more assured about the finding of impact of implementing the enterprise risk management model and values and performances of the organization. The samples should be broadened by taking foreign companies, government owing companies so as to get more assured about the regulatory and compliance requirements. While taking samples, the researcher must do an analysis about the variation in the sample, as privately-owned companies have distinct structure apart from the government owned company. Hence it is very necessary for the researcher to focus on the similar features in the sample of the study to arrive at effective results.

It has to be ensured by the researcher that whether the company has unique feature ofenterprise risk management or not. It can be ensured by analyzing the companies which had not applied this model and the companies which have applied this model. It has to be considered that if the management has not applied the risk management technique in an effective manner it can lead to crises, which can further impact the working of other organizations.

Hence, there should be advanced research conducted to know whether implementing the risk management technique would lead to increase in the performance and values of the organization. Besides this, the effect of risk management technique should be analyzed in relation to internal management of the organization. There should be introduction of providing the rating as done by Standard and Poor credit rating agency. Here the credit rating should be done by considering the unique features of enterprise risk management, so that it can be suggested to use this as yard stick in other markets and industry.

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