

EFFECTIVENESS OF RISK MANAGEMENT IN THE MSME SECTOR: A SYSTEMATIC REVIEW

Amarnath Kulkarni, Research Scholar
Allana Institute of Management Studies
Savitribai Phule Pune University, Pune,
amarnath.1307@gmail.com

Dr Sunil Ujagare, Professor
RMD Sinhgad Management School, Kondhapuri
Pune and PhD Research Guide under Savitribai Phule Pune University
sunilu707@gmail.com

ABSTRACT

Enterprise Risk Management (ERM) has come a long way over the past two decades. While the concept has always existed, it has now emerged as an important function in the organizational management matrix. In North America and Europe, studies have been undertaken in the field of Enterprise Risk Management for the sustainability and growth of the MSME sector. Emerging markets and developing countries have also begun empirical research in this field in recent years. Though regarded as the engine for economic growth worldwide, the sector is highly susceptible to risks and is still observed to be vulnerable to business disruptions. In a highly globalized business environment, the impacts of several issues keep hampering businesses; their repercussions span rapidly across continents. In light of the above, this paper is an attempt to understand the effectiveness of ERM techniques deployed by MSMEs so as to avoid business disruptions and achieve their business objectives without deflection.

Keywords: MSMEs, Risk, Enterprise Risk Management(ERM), ERM Practices, Performance

Introduction

The Indian MSME sector has always been an important pillar of the country's economy. Since India's economic liberalization in 1991, the sector has grown by leaps and bounds. Currently, it accounts for nearly 31% of the country's GDP and also accounts for nearly half of Indian Exports. Over the past decade, this sector has always outperformed the overall Indian economy in terms of growth. Still, the sector is not without its own set of problems. Predominantly family owned and conservative-minded, it is struggling to develop a robust business model (Annual Report 2021-22, MSME Ministry, Govt of India).

Growth rarely happens without problems and more often than not, the costs to be paid for growth are irrecoverable. For instance, industrial growth has almost always happened at the cost of the environment, no matter whether the economy is capitalistic or socialistic, rich or poor, developed or emerging. As the developed economies rely more and more on developing/emerging economies for their manufacturing and service-related activities, the technological, economic, and social disparity between them appears to be widening rather than shrinking (Gao, 2001). Needless to say, these factors have also impacted the organizational management scenario to a very large extent.

ERM is now a globally accepted practice across economies for the sustainable growth of businesses. Over the past couple of decades, a lot of research has been conducted all over the world to build successful and sustainable business models among the MSMEs through it. Due to its potential to generate employment at lower costs and its ability to transform the rural economic landscape, governments have always tried to support this sector (Bhatnagar, 2013). Yet, it is observed to be the most susceptible sector to risks as well as business disruptions. As a result, ERM has emerged as an important area of focus for all stakeholders. The key to developing a robust ERM framework is its proper implementation. This research paper is an attempt to identify and review the existing literature pertaining to the effect of ERM practices on the performance of MSMEs.

Objectives of the Study

The main objective of this study is to pinpoint the advantages derived from the effective implementation of ERM as well as the challenges involved in it that are relevant to a broader area of study, viz Effectiveness of Risk Management in the MSME Sector. Overall, the objectives can be listed as:

1. To understand the ERM processes in the MSMEs
2. To study their impact on the ERM practices
3. To identify and review the existing literature pertaining to the impact of ERM on the performance of MSMEs

Research Methodology

This study is based on secondary data and the outputs derived are based largely on the studies undertaken in recent years. As very little research is undertaken in India in this field and also in keeping with the rapid globalization of the MSMEs, studies from abroad obviously form the focus of this study. The major share is claimed by papers from emerging economies in recent years. The biggest advantages of studying recent papers include:

- a) They cover recent risks like COVID-19 and Climate Change
- b) They give insights into the assessment, evaluation, and treatment with the latest techniques
- c) They are recent enough so the issues raised therein are still prevalent

From among 60 odd papers, 30 were selected for their content, topicality, and relevance. I have included papers from North America, Europe, Asia, Africa, and China. Interestingly, the biggest contribution comes from Southeast Asia, Africa, and the Czech Republic with Malaysia, Iran, and China being the biggest contributors from Asia. As a result, the core of these studies is dominated by the norms followed by export aspiring emerging economies as strict regulations dictated by developed economies are more often than not the main reason for MSMEs to engage in ERM practices.

Having selected the papers, the next task was to tabulate them so as to have an overview, thereby giving a snapshot of the literature along with the chronology and relevance. The literature having direct relevance to the topic was categorized with the relevance as High, the ones which address a part of the topic were categorized as Medium and those that formed the context or background of the study were categorized as Low.

Categorization was followed by a detailed study of the literature followed by its analysis. The analysis is aimed at deciphering the effectiveness of ERM practices in the respective researchers' areas of study – both geographical and scholastic. Through this, I have also attempted to follow the evolution of ERM and its effectiveness over the past couple of decades. This analysis is presented in the subsequent chapter followed by the conclusions derived therefrom.

Literature Review

The concept of ERM is relatively new to the Indian MSME sector; hence, very little literature is available on the subject in the academic as well as industrial world. As a result, I have had to rely largely on literature from across the world. I have tried to focus on the ERM practices implemented among the developing countries and as those in the developed economies more or less form the guidelines for emerging economies, I have included the studies therein – spanning across several years - as setters of precedents for the Indian MSMEs.

While reviewing the existing literature on this topic, the two most valuable inputs received were:

Firstly, the process should include

- i. Planning the review
- ii. Conducting the review and
- iii. Reporting and disseminating the review (Tranfield, 2003).

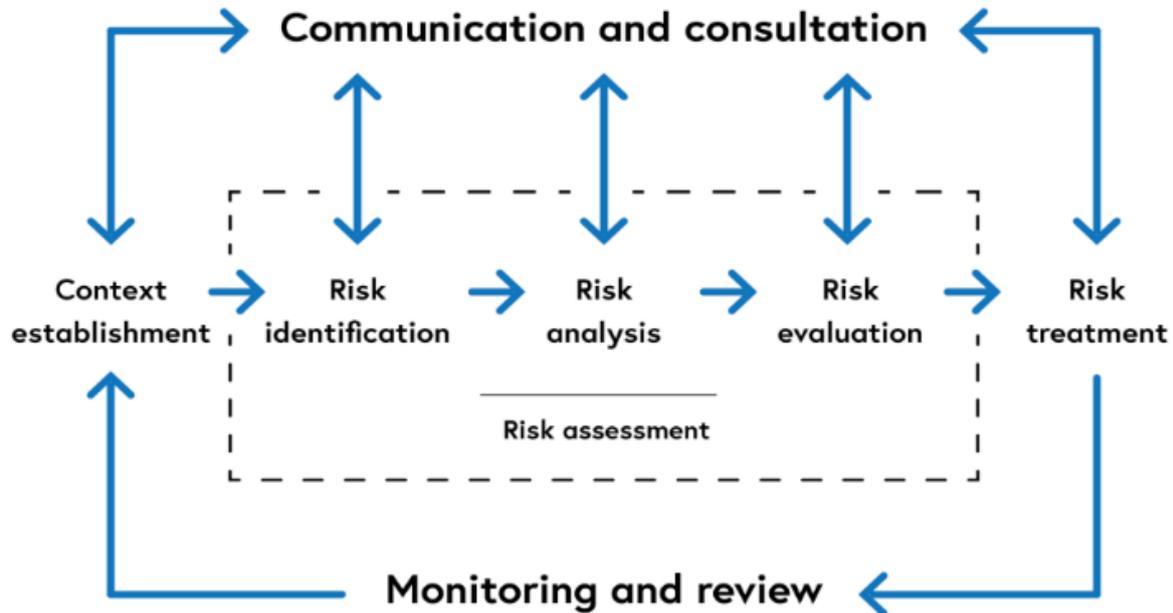
I have followed these steps in assessing the existing literature in this field. Due to the limitations in the quantity of comprehensive literature on the topic, I have also covered studies covering parts of the study and have included the relevant contents thereof as references.

Methods of selection as well as exclusion criteria are extremely important for the literature under review. The majority of the literature is from developed countries in spite of developing countries being more reliant on MSMEs for their industrial and economic development (Falkner, Hiebel 2017). On this background, it is not at all surprising that studies have also percolated across emerging economies recently as developing countries are always reluctant to allow their image and the quality of their products/services to suffer.

Enterprise Risk Management (ERM) is an integrated process to predict, mitigate, handle, and reduce the impact of various risks (D'Arcy, 2001). All experts agree that risk is the product of the Frequency of Occurrence of an event and the Severity of its Impact (Henschel, 2008). Lately, there has been a lot of research in ERM in Europe and North America; however, in spite of the crucial role played by MSMEs in industrial, economic, and social development, little research has been undertaken in developing countries toward building a sustainable model for MSMEs' growth and success (Kanu, 2021).

Typically, ERM takes the following form (Figure 1):

Figure 1: Risk Management Process



With the changing nature of risks, the ERM process has also undergone a lot of changes. This obviously is a continuous process as more and more challenges keep emerging every now and then.

Emerging risks are the risks that may develop or are detected anew; these are the risks that are difficult to quantify or may culminate into huge losses. Frequent occurrences of natural calamities & disasters, climate change, product/service liabilities, genetic engineering, and nanotechnology are seen as emerging risks (Kapoor, 2018). Application of Artificial Intelligence, monitoring and managing the Internet of Things, high-risk innovation, vigilance, and flexibility to complement prevention is seen as the major areas to be focussed on in the ERM process over the coming years. Disruption risk, Reputation risk, and Collective risk management due to a networked economy as the emerging areas of focus in ERM. It is also observed that the advent of technology in decision-making and behavioral aspects is a new area of focus related to ERM in the future (Deloitte, 2021). Data-driven risks, the involvement of top management in ERM decision-making, and ever-increasing regulatory compliance requirements have a bigger role to play in organizations (Unnikrishnan, 2022).

As this study concentrates on the effectiveness of ERM in the MSME sector, I have zeroed in on the literature giving insights into that aspect of ERM. I have selected studies that show the evolution of ERM, the implementation strategies thereof, and necessarily depict the effectiveness achieved therefrom.

Thus, the selected literature has rendered a lot of insights into the topic under study. The major gap observed herein is the lack of literature pertinent to the Indian MSME sector.

As mentioned earlier, the purpose of this study is to pinpoint the papers for the broader study in analysing the effectiveness of ERM practices. As the data used are secondary, papers were selected on the basis of the depth of their content, their relevance to this study, and their originality. It was pertinent that the selected literature covers the impact of the ERM process.

In the analysis of secondary data, the biggest hindrance is that the data referred to are usually compiled with a different intention and possibly be just partially relevant to the study undertaken. Their inclusion not resulting in the disorientation of the intended result was seen as an important factor during this study. From the selected

papers, this study has attempted to pinpoint the papers as references for the larger study. At the same time, I have also attempted to find the gaps in the existing research space.

The initial studies in this field presented mixed evidence of ERM being beneficial to a firm's performance. 'No effect' was attributed to the data being noisy, the ERM practices still in a nascent stage, and most importantly, the absence of an ERM performance matrix (Pagach & Warr, 2009). It was observed later that environmental uncertainty, industry competition, size of the enterprise, complexities in product/service, and monitoring by the top management were decisive factors in ERM producing the intended results (Gordon, 2010). Involvement on part of the top management led to palpable improvements in the performance of ERM. It also identified significant gaps in the implementation of ERM on part of the firms and proposed separation of functional risks as regards their assessment, evaluation, treatment, and monitoring. (Di Serio, 2011). Control of unfavourable conditions resulting from exposure to risks, investment in intellectual capital & development of key resources, and focus on innovation was seen as important factors relating ERM to a firm's performance (Jafari, 2011). Effective management of Operational Risks was found to have a positive impact on MSMEs' financial performance (Alrashidi, 2012).

Subsequent studies found that the ERM matrix was maturing and had become more result oriented. Early detection of internal & external issues that might result in risks, responding to changes, and a holistic approach to ERM were seen as crucial factors in an effective ERM and monitoring by top management, firm size, and firm complexity was identified as the key factors towards its success. (Ping, 2015). Effective ERM directly led to the improved performance provided the organizations see risk management not only from a defensive approach but also as a key success factor for the sustainability of earnings and improvement in the overall performance of the business. Here too, higher investment in intellectual capital was found to play a significant role (Hamdu, 2016). Also, failing to attempt to identify and manage the response to risks throughout a firm was observed to have a significant impact on a firm's performance, hence the role of top management is seen as crucial (Callahan, Soileau, 2017). By now, it was an established fact that companies with well-developed ERM systems are both more profitable and are perceived better by financial markets. Companies with unrefined or no ERM systems are found to be less profitable and less appreciated by investors, thereby demonstrating that an incomplete adoption of ERM components has negligible or no effect on firm performance. Moreover, companies with matured ERM systems have lower firm risk and perform better, suggesting that ERM systems contribute to improving operational and strategic decisions as well as reducing direct and indirect costs of risks (Florio, Leoni, 2017). It was at this stage that entrepreneurial skills in ERM came to the forefront, hence it was proposed that an easy and comprehensive risk management process be followed in MSMEs and once again the importance of Risk Identification at an early stage was stressed. Sharing of risks was seen as an important aspect in Risk Treatment along with the other means for it (Madambu, 2017).

In recent years, studies have shifted towards more of an objective-based approach. The importance of managing risks in the global supply chain has also come under the scanner. Mitigation of risks in the supply chain was found to lead directly to an improvement in an organization's performance. It is also seen as an opportunity for MSMEs to have robust growth (Hariharan, 2018). As for the comprehensive management of risks, a balanced scorecard was proposed and an organization's response to risks, communication & monitoring, and setting objectives for ERM was seen as a critical factor in it. The internal environment within an organization was found to play a major role in the effectiveness of ERM. The age of a firm seemed to have a significant impact on it (Suttipun, 2018). The emergence of third-world countries as manufacturing hubs led to the holistic implementation of ERM among those economies. Here, the role of financial literacy on the part of entrepreneurs came to the fore as it was found to have a strong correlation with the effectiveness of ERM and hence found to result in a competitive advantage for them in an increasingly competitive business environment (Yang, 2019). ERM adoption helps improve internal decision-making and operational efficiency which leads to improved business performance. However, integrating ERM with the organization's overall functioning and ownership of risks are major obstacles in this process. Hiring qualified staff and responding to changes in the business environment play a major role in this (Adeyele, 2019). Thus, it can be safely said that ERM has a positive and significant effect on SME performance. The objective setting has a significant effect on SME performance, while the internal environment, identification of risks, risk assessment, risk treatment, operational control, information & communication, and monitoring were found to make an insignificant impact. This is largely because ERM in MSMEs is yet to mature compared to larger organizations (Yakob, 2019). Most entrepreneurs usually have an understanding of the risks involved in their respective businesses and the most significant gap exists in amalgamating ERM with the overall functioning. Internal factors including ERM have a positive impact on an organization's performance (Hanggraeni, 2019). In small economies, scarcity of capital and credit facilities, a dearth of skilled workers, raw materials-related issues, poor infrastructure, an acute shortage of manpower with the required skills, and the haphazard use of the latest and dynamic technologies were observed as the barriers to MSME performance. The mitigating factor for this was found to be the techno-financial

literacy on part of all the ERM stakeholders (Kalathunga, 2020). The impact of intangible assets and intangible factors on the performance – financial as well as non-financial - of ERM-practicing MSMEs is an interesting factor that cannot be ignored. ERM itself can be seen as an asset for an organization as it is highly organization-specific, not replicable, and not saleable (Saiedi, 2020). It is important to note that ERM's effect on organizational performance depends on the development of risk culture and strategic planning. There is no substantial evidence as of now supporting a linkage among these factors (Kanu, 2021).

Contemporary studies in this area continually concentrate on bridging the several gaps observed by previous researchers. Even for start-ups, it was recommended to have a prior analysis and formulation of their Risk Matrix in advance and to have strict monitoring of the same over the first five years so as to ensure the existence of a sustained business module (Ghazali, 2022). The relationship between internal environments, Monitoring, Event Identification, Risk Response, and Risk Assessment all significantly influenced ERM at a much higher level. The findings indicated that an enterprise's effort in detecting and managing risks has a substantial effect on the performance of SMEs (Ntare, 2022).

Conclusions

Based on the study of selected available literature, many interesting findings have emerged. It can definitely be concluded that ERM does have a positive impact on the performance of MSMEs. There are many significant gaps that entrepreneurs and stakeholders need to bridge so as to achieve their business objectives without deflection.

Broadly, the effective implementation of ERM is observed to result in the following advantages to the MSMEs:

- Sustained business module
- Competitive advantage
- Improved profitability
- Improved operational efficiency
- Better evaluation by financial institutions
- Reduction in direct and indirect cost of risks
- Efficient operational and strategic decision making
- Improved confidence levels among the customers

However, the effective implementation of ERM is a challenging task. The major challenges observed were:

- Entrepreneurs' perception and understanding of ERM
- Lack of skilled manpower
- Identifying and responding to risks
- Integrating ERM with the organization's overall functioning
- Setting functional ERM objectives
- Stringent monitoring of ERM processes
- Technological upgradation
- Detecting Potential Risks

In all, ERM is a well-accepted practice that has evolved over the past decades. It has percolated well across emerging economies and the emergence of new challenges, new markets, and new products have helped the process mature. A large number of gaps continue to exist and will always remain; however, the benefits certainly outweigh the challenges.

This study also had its limitations. Firstly, it is reliant on secondary data, hence the intention of the authors may not match the objective of the study. Secondly, not all the literature covered MSMEs and certainly not all of it covered the MSMEs in emerging economies. As a result, there remains ample room for further studies in this area.

Scope for further study

There is ample room for study in this area. While ERM as a practice needs to be studied, further studies can be undertaken on its impact, the need for guidelines and regulations as regards ERM, and the linkage between ERM and firms' performance can also be studied in detail in the context of the Indian MSME sector. Moreover, the effectiveness of ERM techniques as a whole as well as at the functional level also needs to be studied.

Bibliography

- Adeyele J, University of Jos and Adalakun O. Johnson, *Enterprise Risk Management Awareness and its Implementation on Performance of Service Firms in Nigeria*, 2019, International Journal of Managerial Studies and Research (Vol 5, No 1), 2349-0349
- Alrshidi A and Bakeel O, University of La Verne, CA, *The Impact of Operational Risk management on the Financial Development and Economic Growth: A Case Study of Saudi SME Companies*, 2021, European Journal of Business and Management, (Vol 4, No 5), 2222-1905
- Bhatnagar V, Canara Bank, Moradabad, UP, *Various Risks Involved in SME Units and Measures to Fight Them: A Case Study on SME Units with Special Reference to Moradabad-India*, 2021, International Journal of Application or Innovation in Engineering & Management, (Vol 2, No 11), 2319 – 4847
- Callahan C, University of Louisville , Soileau Jared, *Does Enterprise risk management enhance operating performance?* 2017, Science Direct(Jan 2017), 1137-5019
- D'Arcy S P, University of Illinois at Urbana-Champaign, *Enterprise Risk Management*, Journal of Risk Management of Korea, 2001, (Vol 12, No 1), 1229-103X
- Deloitte, Touche & Tohmatsu Ltd, *The Future of Risk*, Report, 2021
- Di Serio L C, De Oliviera L & Schuch L M, EAESP, Sao Paolo, *Organizational Risk Management – A Case Study in Companies that have won the Brazilian Quatity Award Prize*, Journal of Technology Management & Evolution, 2011, (Vol 2, No 6), 0718-2724
- Falkner E M, Risk control department, Oberbank AG, Linz and Hiebl M R W, Johannes Kepler University, Linz, *Risk management in SMEs: a systematic review of available evidence*, British Journal of Management, 2017, (Vol 16, No 2), 1526-5943
- Florio C, University of Verona , Leoni G, RMIT University, Melbourne, *Enterprise risk management and firm performance: The Italian case*, The British Accounting Review, 2016, (Vol 49, 56-74), 0890-8389
- Gao S, *Economic Globalization: Trends, Risks and Risk Prevention*, United Nations, 2001
- Ghazali P L, Mahmud M S & Mohamed N, University Sultan Zainal Abidin, *The Role of Enterprise Risk Management on SMEs Performance: A Review Paper*, The Journal of Management Theory and Practice, 2022, (Vol 3, No 1), 2716-7089
- Gordon L A, Loeb M P, Tseng C Y, University of Maryland, *Enterprise risk management and firm performance: A contingency perspective*, Journal of Accounting and Public Policy, 2009, Vol 28 (301-327), 0278-4254
- Hamdu K M, Knapkova A, Tomas Bata University, Brno, *The Impact of Total Risk Management on Company's Performance*, Procedia - Social and Behavioral Sciences, ECE 2016, 1877-0428
- Hanggraeni D, Sulung L A K & Subroto A, Universitas Indonesia and Slusarczyc Beata, University of Technology, Czestochowa, *The Impact of Internal, External and Enterprise Risk Management on the Performance of Micro, Small and Medium Enterprises*, Sustainability, 2019, (Vol 11, No 2172), 2071-1050
- Hariharan G, PhD College of Arts & Science and Sivasamy Nagarajan, Karpagam University, *Supply Chain Risk Mitigation Strategies and Its Performance of SMEs*, Management, Knowledge and Learning International, Conference 2018, 1314-3395
- Henschel T, Napier University Edinburgh, UK, *Risk Management Practices in the main Industries of German Enterprises: An Empirical Investigation*, PhD Thesis, 2008
- Jafari M, Azad University, Tehran, Chadegani A A, University Kebangsaan and Biglari Wahid, University of Malaya, *Effective risk management and company's performance: Investment in innovations and intellectual capital using behavioral and practical approach*, Journal of Economics and International Finance, 2011, (Vol 3, No 15), 2006-9812
- Kalathunga KMMCB, Ye J, Sharma S & Weerathunga PR, Wuhan University, *How Does Technological and Financial Literacy Influence SME Performance: Mediating Role of ERM Practices?* Information, 2020, (Vol 11, No 297), 2078-2489
- Kanu M, Open University of Switzerland, *A Theoretical Framework for Enterprise Risk Management and Organizational Performance*, International Business Research, 2021, (Vol 14, No 5), 1913-9012
- Kapur R, Delhi University, *Emerging Issues and Trends to Risk Management*, 2018
- Mademba A W, Namusonge G & Sakwa, Jomo Kenyatta University, *The Role of Risk Management on Financial Performance of Small and Medium Enterprises in Kenya*, International Journal of Science and Research, 2017, (Vol 6, No 1) 2319-7064
- Ministry of MSME's, Govt of India, Annual Report, 2021-22
- Ntare P C, Shau I R and Ojwang E, College of Business Education, *Effects of Enterprise Risk Management Practices on Performance of SMEs: A Case of Dar Es Salaam City, Tanzania*, African Journal of Applied Research, 2022, (Vol 8, No 1), 2040-0713
- Pagach D , Warr R, North Carolina University, *The Effects of Enterprise Risk Management on Firm Performance*, NC State ERM Research Conference, 2008, April 2010, 1556-5068

- Ping T A , Muthuveloo R, University Sains, Penang, *The Impact of Enterprise Risk Management on Firm Performance: Evidence from Malaysia*, Asian Social Science, 2015, (Vol 11, No 22), 1911-2025
- Saiedi P , Guitierrez L, Universidad del Pacifico, Sayyedeh P S, Striemekiene D, Alrasheedi M, Sayedeh P S and Mardani A, *The influence of enterprise risk management on firm performance with the moderating effect of intellectual capital dimensions*, Economic Research-Ekonomska Istraživanja, 2020, 1331677X, 18489664
- Suttipun M, Weerawan S, On-anong S, Jittima W, & Sutira L, Songkla University, *The Influence of Enterprise Risk Management on Firm Performance Measured by the Balanced Scorecard*, CMU Journal of Social Sciences & Humanities, 2018, (Vol 5, No 1), 2408-1469
- Tranfield D, Denyer D, Smart P, Cranfield School of Management, Cranfield University, UK, *Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review*, British Journal of Management, 2003, (Vol 14, Pg Vol. 14, 207-222), 1467-8551
- Yakob S, Universiti Islam Antarabangsa, Hafizuddin-Syah B.A.M. and Rubayah Y, Nur A M R, Universiti Kebangsaan Malaysia, *The Effect of Enterprise Risk Management Practice on SME Performance*, The South East Asian Journal of Management, 2019, (Vol 13, No 2), 2355-6641
- Yang S, Ishtiaq M, Beijing University of Technology, *Enterprise Risk Management Practices and Firm Performance, the Mediating Role of Competitive Advantage and the Moderating Role of Financial Literacy*, Journal of Risk and Financial Management, 2018, June 18, 1911-8074