



# A Literature Survey on Risk Management by Start-ups and Small and Medium Enterprises (SMEs)

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## ABSTRACT:

This paper gives a comprehensive literature review on risk management practices adopted by start-ups and SMEs. As these operate in an uncertain and dynamic highly environment, facing various risks that can crucially impact their survival, growth and success. The paper explores various scholarly methodologies, perspectives and strategies adopted by start-ups and SMEs to identify, assess, and minimize risks. By synthesizing various theoretical framework and findings, this review focus to give insights into effective risk management practices and their applications for the sustainable growth of start-ups and SMEs.

**Key Words:** Start-ups, SMEs, Risk management

## INTRODUCTION

### ➤ Start-ups

A start-up is a newly founded commercial undertaking, which is often characterized by having high aims but little early income and money. These enterprises often start off with significant costs and looks forward for funding from a various sources, like venture capitalists. While referring to a company that is in its starting phases and is working for fast innovation and growth, the term "start-up" is used and this term is not specific to any particular industry.

To a great extent, technological progress, economic growth and innovation may be traced back to the activities of start-ups. They often deal with obstacles, the most usual of which is a high percentage(%) of failure attributable to the inseparable risky nature of starting new enterprise. Start-up India is an initiative that focuses on by helping and encouraging potential entrepreneurs by giving assistance and financial aid in order to foster economic development and job creation in the India.

When they are successful, start-ups have the capability to disrupt complete industry and entirely establish a new markets, having a positive and remarkable impact on society. Entrepreneurs rely on, strategic planning, mentorship and making responsible financially decisions in order to successfully operate the complicated landscape of launching an enterprise.

### ➤ Small and Medium-Sized Enterprises

The term "small and medium-sized enterprises" (SMEs) refers to companies that do not meet certain criteria in terms of their number of employees, annual revenue, or total assets. These businesses have a considerable impact on the economy of a number of countries, helping to foster economic growth and the creation of new jobs. Small and medium-sized businesses (SMEs) typically have between 50 and 250 employees, although this number can vary widely depending on the region and the industry.

In both developed and developing countries, small and medium-sized businesses (or "SMEs") are extremely important and frequently serve as the economic backbone of their respective nations. These companies are absolutely necessary for the growth of the economy as a whole, as well as the creation of new jobs and other opportunities. They have specific obstacles, such as access to financial resources, competition in the market, and compliance with regulatory requirements. It is possible for the definition and classification of small and medium-sized enterprises (SMEs) to vary from country to country and sector to sector, highlighting the importance of SMEs in global business landscapes.

## RISK MANAGEMENT

The act of identifying, evaluating, and mitigating possible risks is an essential part of risk management for small and medium-sized businesses, such as start-ups and SMEs. In order to effectively face and overcome these problems, entrepreneurs adopt a variety of tactics. Some of these tactics include evaluating potential dangers before acting on them, keeping a careful eye on cash flow, instituting cybersecurity measures, and reaching conclusions based on empirical evidence and accurate projections of future financial conditions. In addition, business owners have a responsibility to formulate comprehensive risk management plans that are in line with the strategic objectives of the organization. This technique assists in overcoming challenges and assuring the continued expansion of these companies in a sustainable manner.

Risk management is a necessary area that entails the finding, appraisal and elimination of potential risks that could have a significant influence over a organization's objectives. This consist of both external and internal threats. It entails being aware of a various type of risks, including legal obligations, monetary unpredictability, technology challenges, accidents, errors in strategic management, and others more. It is extremely important to manage these risks effectively in order to maintain the enterprise stable and make progress toward its goals. Risk management involves the following significant steps:

- **Identification**- The process of identification possible risks across a various operating domains is termed risk identification.
- **Assessment**- The process of ascertain the severity and likelihood of potential dangers is termed as risk assessment.
- **Mitigation**- The process of creating solutions to eliminate, minimize or transfer risks is termed as risk mitigation.
- **Monitoring**- Monitoring risks enables doing the ongoing analyses and making changes in response to emerging threats.

It is an important component of the decision making process in financial and commercial aspects, with the motive of enhancing potential positive results while minimizing the risk of unfavourable ones. Risk management is necessary aspect in various different spheres, as it entails readiness for unanticipated events and contributes to overall growth and success.

## TYPES OF RISKS:

1. **Market Risk** - Includes uncertainties with respect to the market demand for the changes in consumer preferences, goods/service, or unexpected change in the market dynamics.
2. **Execution Risk** - Concerns about the ability to implement plans effectively, execute business strategies and manage resources, Poor implementation of plans can lead to failure despite of having a sound idea.
3. **Technology Risk** - Relates to challenges faced in developing or leveraging technology, includes issue deal with security, scalability, or adapting to new technological changes.
4. **Customer Acquisition Risk** - points on the start-up's ability to attract and retain customers, build a substantial customer base and convert leads.
5. **Lack of Differentiation** - risk of having a goods/service that lacks unique selling points or doesn't stand out in the market or facing difficulty in competing.
6. **Financial Risk** - Includes the threat of insufficient funding, cash flow problems financial instability or budget mismanagement, which can hinder business operations and growth [6].
7. **Regulatory and Legal Risks** - Encompasses legal challenges, compliance issues, and unexpected regulatory changes that affects the start-up's finances and operations.
8. **Reputational Risk** - related to potential damage to the start-up's reputation or brand because of negative publicity, ethical lapses or customer dissatisfaction.
9. **Operational Risk**- The risk of a loss as a consequence of ineffective or failed internal processes, people, or systems as well as the risk of loss as a result of external events that can disrupt the flow of corporate operations is known as operational risk.

## LITERATURE REVIEW

This paper will go through some past studies discussing the challenges and risks that any start-up business might face. Lastly, the researcher discussed risk management for start-up businesses and SMEs:

Dvorsky, J., Belas, J., Gavurova, B., & Brabenec, T. (2021) study shows that how entrepreneurs' perceptions on business risks may impact the small and medium-sized businesses' (SMEs) examined in the Czech Republic. In order to determine linkages, 454 (SMEs) small and medium-sized businesses participated in the study, which used structural equation modelling (SEM) and factor analysis. The results indicate that entrepreneurs' perception about company failure have a beneficial effect on SMEs' future. The greatest influence on future business comes from how employees of a company view the financial exposure as a normal aspect of their work. The use of the resources of company, lowering complaints from client, and business's autonomy from suppliers are all parameters of operational risk. Appropriate sales volume has the third powerful positive impact on future business in the small and medium-sized businesses (SMEs) group, making it a part of market risk.

Bolat, H.B., Yaşlı, F., & Temur, G.T. (2021) Their durability and success are mainly dependent on factors like team experience, investment, management leadership, technology advancements, inventiveness, community, target marketing strategy, future vision and market analysis. Risk identification is mandatory to build strategies that work as of the high failure rate of start-ups. This study analyses start-up project failure by applying Fuzzy Failure Mode and Effect Analysis (FMEA) within the framework of a business model canvas. The Fuzzy Failure Mode and Effect Analysis (FMEA) associates the quantifiable factors and gave priority to the main causes of project failure. Exposed the factors that lead to failure and offered managerial techniques to minimize these risks, the findings support start-up success.

Zhang, D. (2021) The trade-off between innovation benefit and risk control is much more predictable for technological start-ups, and further research is warranted. The dynamic processes that underpin innovative behaviour and the business-chosen strategy are rarely studied. This research examines the interconnection between risk management techniques and company's innovativeness with prime focus on small start-up businesses. Using a large start-up dataset from a scientific park in Beijing, China, we discover that the risk-averse levels of small firms respond differently to innovation investment and employing skilled people. This research highlights how important it is to balance the optimization of corporate structures with business expansion, noting that small enterprises face more financial restraints when making financial decisions.

Kaszuba-Perz, A., & Czyżewska, M. (2020) this paper emphasizes on small and medium-sized (SMEs) businesses in the Podkarpackie Province that have been in performing its operation for less than five years in order to identify the importance of risk management in innovative, young organizations, especially start-ups. The reason of the study is to understand how business owners identify dangers in their external and internal surroundings of their organizations. This article also covers the use of risk identification and mitigation techniques used by start-ups in the Province of Podkarpackie. The mindset of the firm owner influences identification of risk, mitigation strategies for risk, and application of these risk management strategies. Examines the enterprise management approaches available for risk management in new technology-based start-ups, emphasizing the advantages of lean start-up, design thinking and customer development. Result shows that for start-ups, risk assessment and management is essential as it helps in foster entrepreneurial skills while navigating uncertainty. Risk management solutions are mainly shaped by entrepreneurs, with investors and business accelerators and mentors and sharing risks with founders. They guides in finding creative solutions that, while being economically beneficial, either meet or surpass the client expectations. Using analysis and identification methods, adopting techniques to reduce the negative impact of risks, individual risk analysis by entrepreneurs conducting internal risk analysis, conducting risk analysis in the firm environment, and so on are some of the actions applied by studied start-ups.

Nordal, Y. A. B. (2020) Frameworks for enterprise risk management associates risks to organizational goals and distinguish risks as potential events that indicate both negative and positive from expectations. But in order to identify their risks, start-ups mostly rely on blog posts—which do not have a definite risk classification system. In adherence with ISO 31000:2018, a scenario-based model that examines

opportunities and hazards is presented. The model points out four major areas or complex risk dimensions, each having ten parts and sixty possible outcomes. A probability barometer, which shows whether opportunities and risks are concentrated on one risk dimension or distributed across multiple dimensions, is used to describe the results of scenario analysis. Next, a conventional risk matrix is used to assess and prioritize the opportunities and risks that have large impact on the failure or success of the start-up.

Priskila, L. R., & Rina, A. (2019) Entrepreneurs must be aware of business risks as they affect the profits and can lead to fail. There are various factors that have an adverse impact on the company, either directly or indirectly. So, it is necessary to estimate and manage risks. The risks encompass the potential for loss, volatility, and missed opportunities. The goal of the study was to identify Start-up Company's risk management and assess potential future threats. Risk management. The results demonstrated how significant risk management is in various fields including marketing, operation, financial components of any new food manufacturer, restaurant as well as human resources to avoid losses in terms of expenses, project timelines and quality. The methods used to carry out the action response to the possibility of risk (risk response) are retention, reduction, transfer, and avoidance risks. Risk assessment includes risk identification, understanding needs or taking risks into consideration, analyzing the impact of risks or evaluating risks, and assigning responsibility for particular risks.

Pukala, R., Sira, E., & Vavrek, R. (2018) This paper contributes to a scientific conversation about risk management strategies and start-ups' usage of risk financing tools. Since traditional statistics do not normally cover start-ups, it is challenging to analyze their surroundings without conducting focused research. By investigating how these creative businesses employ finance strategies and risk management tools, the study seeks to close this knowledge gap. In-depth interviews with experts were utilized in the research, along with questionnaires. Expert synthesis was completed utilizing a multi-criteria Analytic Hierarchy Process. 25 start-ups that were housed at Poland's Podkarpacki Science and Technology Park were the subject of the study. Ten specialists who represented the scientific, financial, and start-up industries took part in the study. The empirical investigation showed that start-ups view risk as an essential

component of their operations without making any attempts to minimize it, and they mostly approach it as self-insured retentions. As a result, they do not use risk management tools in their business activities. For this class of organizations, insurance was determined to be the most effective risk financing tool. The findings can be applied in practice to reduce business risk and also support more in-depth research on start-up activities vulnerable to variable business risk.

Koziol, Karolina & Pitera, Rafal. (2018) The risks of commercial enterprises, especially start-ups, are covered in this paper. It shows what a start-up is, what qualities it has, and how necessary risk assessment techniques are. The four major risk assessment techniques covered in this paper are direct tax assessment (DTA), deferred action (DEA), net present value (NPV) and internal rate of return (IRR). Enterprises select these techniques on the basis of their usability and dependability using data from representatives of start-up environments. As initiators of start-up frequently lack this information, the paper highlights the importance of having the skills and knowledge to understand risk assessment results. Also, this study presents additional in-depth options for project management in the future by discussing two user-friendly methodologies—net present value (NPV) and internal rate of return (IRR)—as well as the more sophisticated direct tax assessment (DTA) and deferred action (DEA) methods. Every approach is appropriate for analysing risk in connection with particular business enterprises, such as new ventures.

Abreu, A., Ricardo, W., Zotes, L. P., & Ferreira, K. M. (2018) The aim of this study is to investigate if Brazilian start-up entrepreneurs' implementation of risk management minimizes uncertainty for investors evaluating their projects. To accomplish this, the study primarily involved establishing a theoretical foundation by reviewing literature related to risk and start-up management. Additionally, the research included two participant groups: a) representatives from investors, accelerators, and support organizations, and b) start-up founders. The field survey, which employed a purposeful sample, aimed to understand respondents' perspectives on seven common risk categories in these projects and whether entrepreneurs' management strategies reduced these uncertainties. The results indicated that: a) there was a lack of information regarding risk management; b) there was a moderate alignment between the groups in terms of the importance of each risk category; and c) three risk categories had lower utilization of management strategies by entrepreneurs.

Teberga, P.M.F., Oliva, F.L. and Kotabe, M. (2018) The volatile nature of technological innovation underscores the essentiality of implementing risk management protocols to ensure its longevity. To offer recommendations for enhancing this process, this research introduces a conceptual framework for risk management concerning the introduction of new technologies by start-up ventures. This study formulates conceptual categories, primarily drawing from the NPVR approach, for risk management within start-ups. The research methodology encompasses two comparative case studies, examining MercadoPago and GuiaBolso. Data for these case studies was collected through interviews with key managers and documents provided by the companies. The analysis of data follows the model outlined by Miles, Huberman, and Saldana (2014), involving data condensation, visualization, and the formulation and validation of results. Among the key findings is the proposition of a deductive-inductive matrix for addressing uncertainties and risks in start-up enterprises. This matrix includes components for calculating the net present value (NPV) adjusted for the risk associated with developing a new product (NPVR), process, or service, along with an evaluation of the companies' level of risk management maturity, thus establishing the Risk Management Matrix (RMM).

Todeschini, B. V., Boelter, A. S., de Souza, J. S., & Cortimiglia, M. N. (2017) It is necessary to choose the appropriate tools for proper environment for start-up, the objective of the study was to illustrate how risk management practices and idea plays a role in start-ups. For the purpose to examine how entrepreneurs perceive and manage risks, data were collected in two ways: one, through in-person interviews, and other, through online survey. To analyse trends in risk analysis procedures of the company a Pearson correlation was created. Lastly, a risk management approach related to start-up environments was proposed to make application in such business more easier. The finding revealed that start-ups have different perspectives on risk, and their existed lack of experience and lack of empiricism. However, it was also observed that start-ups having consolidated strategies have better and more organized risk management practices as compared to others.

Kelkar, G. S., Pundir, A. K., & Ganapathy, L. (2017) as start-up initiatives plays a crucial role in a developing countries like India, in creating a robust ecosystem that enhance new ideas, innovation and creates more employment. However, there are a various obstacles that arise in a changing global business environment and hinder in the success of start-up projects. The aim of the study is to uncover various risk indicators particularly related to Indian start-up units. Thirty case studies including industrial initiatives and chosen NGOs were conducted to analyse various factors that hinder India's start-up businesses. Our research identifies specific strategic and operational risk variables that are important to the start-up's success. It is intended that by accessing different risks earlier, the success rate of start-up enterprises can be increased.

Verbano, C., & Venturini, K. (2013) the growing interest in risk management for SMEs (small and medium-sized businesses) is the main objective of this study's by examining the literature from 1999 to 2009. Majority of the researches follow an exploratory investigation's case study methodology and are experimental in nature. The financial risk is the most important one, and creating a device to identify financial stability of small business's and to avoid insolvency is the most worked-over issue. According to Keizer et al.'s definition of risk involves early risk diagnosis and its management. The Scholastics primarily created methods for determining and evaluating these threats. Also on the other hand, risk treatment as a general view and for a particular industrial sector is not given sufficient attention. Only about 6% of the publications focus on treatment of risk, and many examine the entire process but identify only four potential types of solution i.e., reduction, avoidance retention & sharing without giving advice on how to select and implement the most effective set of strategies. There is a lack of interest in the risk associated with the presence of the key individual in personnel management, which is especially significant for SMEs.

Agarwal, R. (2010) Small and medium-sized businesses (SMEs), which dispense GDP, jobs for nations like India income, and income are important to economic growth. Operational risk includes those related to liquidity, foreign exchange (forex), interest rates, credit and competition from multinational companies (MNCs). Analysing the weak points and lowering their effects on the whole business are made possible only by effective risk management. This study looks at the exposures that Small and medium-sized businesses (SMEs) faces and how they manage them, with laying emphasis on whether or not risk management tools and techniques and theoretical risk actually exist. As per the report, risk management techniques can vary even if threats in the textile industry are similar for all businesses. Finds that businesses employ various risk management tools to address related exposures, and that theoretical frameworks found in academic literature are compatible with real-world applications.

Blanc Alquier, A. M., & Lagasse Tignol, M. H. (2006) For companies, the management of risk holds significant importance. Nonetheless, in this modern context, the concepts of risk and its management remain somewhat nebulous, posing considerable difficulties for enterprises, particularly small and medium-sized ones. Drawing from foundational assumptions, the research we present introduces a fresh and universally applicable perspective: Risk serves as the primary driver and central concern in industrial operations, with risk management acting as an all-encompassing managerial approach that aligns with all other business considerations. Risk management constitutes a comprehensive process that fosters ingenuity within business procedures. To facilitate its implementation, a synergy between a knowledge repository and decision support system is essential. A notable European initiative that contributed to shaping this approach is known as PRIMA (Project Risk Management)."

Ekwere, N. (1894) This research examines and contextualizes the use of risk management strategies in the reference to small businesses and demonstrate that the goal of building sustainable economy is not possible simply by giving entrepreneurs easier access to capital; but it is rather important that, small business owners must understand the importance of management techniques and use them, if they want to see their companies success through to the longer than expected three- to five-year survival period. It was observed that there was lack of a well-structured risk management tool and approach within their organizations.

## CONCLUSION:

The comprehensive literature survey on risk management in start-ups and SMEs provides a cohesive understanding of identification of risk, assessment of risk, mitigation strategies, and the application of effective risk management for start-ups' and SMEs sustainable growth. Various types of risks faced by them are financial, operational, market, regulatory, strategic risks focusing on the diverse challenges within their environment. Identification of risk and its assessment methodologies are crucial for start-ups and SMEs, highlighting early recognition's significance in the lifecycle. Risk mitigation strategies encompass risk transfer, avoidance, acceptance and reduction, emphasizing the requirement for adaptability and resilient structures among them. Challenges like uncertain markets, limited resources and balancing risk aversion with innovation are main obstacles in effective risk management. Effective risk management mainly influences success, contributing to sustainable growth and success and differentiating successful start-ups or enterprise from their counterparts and focusing on the practical applications of robust risk strategies.

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