

## Analyzing Risk Factors of Start-up Business in SMEs: A Qualitative Approach and ATLAS ti. Procedure

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### Abstract

Even though Small and Medium Enterprises (SMEs) have become the most popular sector in Malaysia, many start-up entrepreneurs struggle to survive in the first five years due to challenges and risks. Therefore, the risk identification step in risk management becomes one of the critical steps and must be addressed by entrepreneurs. This paper aims to identify the risk factors of start-up businesses in Small and Medium Enterprises and evaluate their weightage by interviewing experts in this sector. The data collected were analysed using a thematic analysis procedure in ATLAS. ti. It is found that there are five main risk factors in a start-up business in SMEs: Strategic Risk, Financial Risk, Operational Risk, Entrepreneurial Traits and Political Risk. Additionally, Strategic Risk is given the highest weightage, while Political Risk is given the lowest. The finding is significant for developing a mathematical risk management index and can be a guideline for new start-up businesses.

**Keyword:** Risk Factors, Start-up Business, Small and Medium Enterprises, Qualitative Approach, Atlas ti.

### Introduction

Most businesses worldwide are small and medium enterprises, contributing significantly to job creation and increasing market economic growth. Small and medium-sized businesses account for 90 per cent of all enterprises and more than 50 per cent of all economic activity. The contribution of SMEs to the gross domestic product (GDP) of developing countries ranges

from 30 per cent to 40 per cent (Nimfa et al., 2021). Due to these facts, many Malaysians, especially the younger generation, are interested in SMEs. Aside from that, the Malaysian government provides financial funding and organises many entrepreneurial-related programs to encourage people to participate.

Personality characteristics and motives of individual entrepreneurs determine the business environment. Business situations are often unique in their unpredictability, complexity and changing requirements during the business process (Ahmed et al., 2022). Entrepreneurs must have the features of several personalities at once and as one person to demonstrate the ability to act as investors, inventors, accountants, dispute investigators, leaders, technologists, marketing specialists and top sellers. For this reason, the more knowledge and skills the entrepreneur can demonstrate, the better.

Even though SMEs are mushrooming, many still struggle to survive in their first five years of business. Start-up businesses faced many risks, resulting in many of them struggling for the first five years and some of them failing. SMEs need a new risk management method, tool, and approach and deserve to leverage and manage risks more effectively (Lima et al., 2020; Fauzi et al., 2022). Risk identification is one of the standard and essential processes in risk management (Hamir & Md. Sum, 2021). Hence, this paper aims to identify risk factors involved in SMEs' start-up business.

### **Literature Review**

Identifying and assessing risks is essential as a vital step in the risk management process. Various techniques and methods, such as SWOT analysis, risk matrix, literature review, and interviews, have been utilised by previous researchers to identify and measure risks in SMEs. In prior research conducted by Hirawati & Sijabat (2020), the objective was to examine the existing business conditions and analyse the sources of risk encountered by the bamboo handicraft industry in Sendari. The researchers employed SWOT analysis and a risk assessment matrix as their methodologies. The findings of this study revealed that market risk and operational risk were identified as the primary risks, with financial risk ranking as the second most critical risk within this industry. One of the foremost challenges start-ups face is financial instability, as highlighted by (Zubair et al., 2020). Resources, adequate funding, and high operational expenses must be needed to ensure the business's survival. Entrepreneurs must diligently manage their finances, encompassing cash flow, revenue generation, and expense control. The absence of financial planning and unforeseen market conditions can result in cash shortages, accumulation of debts, and potential bankruptcy. Therefore, financial literacy holds excellent significance for entrepreneurs, serving as a crucial element for their business survival and success, as Nohong et al (2019); Xu (2017) emphasised.

According to Khumpaisal et al (2020), Thailand's real estate development industry can be categorised into four types of risks: financial risk, strategy/business risk, operational risk, and compliance risk. Through distributing questionnaires to SME developers, the study identified several high-impact risks within the industry. These risks include incomplete work per specifications, utilisation of incorrect planning strategies, staff corruption or conflicts of interest, insufficient financial liquidity, employees lacking adequate work experience and skills, and project delays. Furthermore, Khumpaisal et al (2020) developed key indicators and risk levels for the risk management process in SMEs. In another study, Adam et al (2021) conducted face-to-face interviews with eleven entrepreneurs in Kota Kinabalu, Sabah. The findings revealed that financial issues, marketing strategies, human resources problems, supply-related challenges, and issues with facilities, appliances, and layout were identified as

risk sources affecting SMEs' growth in Sabah. The authors also concurred that outdated marketing strategies posed a risk to the survival of Malaysian SMEs during the Covid-19 outbreak (Adam et al., 2021). Even though many previous papers emphasized the importance for entrepreneurs to implement supplementary risk management measures, such as risk mitigation or transfer, even when an existing system is already in place (Ghazali et al., 2015, 2018, 2017, 2012; Azhar et al., 2017).

A significant attribute in the selection of entrepreneurial ventures and the decision-making process is the inclination of entrepreneurs to take risks. Entrepreneurs willing to take risks are better equipped to facilitate free-market dynamics and foster competition (Shahzad et al., 2021). Entrepreneurs know they must be responsive in uncertain situations, even if they occasionally misjudge the risks associated with specific business procedures. Hoogendoorn et al. (2019) emphasised that entrepreneurship necessitates embracing risks and uncertainty, despite the knowledge that these factors influence individuals' career choices. By acknowledging and addressing the risks associated with start-ups in SMEs, entrepreneurs can effectively navigate the path towards sustainable growth and prosperity.

### **Methodology**

This study uses a qualitative approach to identify the significant risk factors facing start-up businesses in Malaysian SMEs. This qualitative technique examines in-depth data collected through an empirical research technique, such as a semi-structured interview (Abdul Ghani et al., 2023). The semi-structured questionnaire was used to conduct in-depth interviews with nine entrepreneurs. This study involved participants who are experts in SMEs from the east coast of Malaysia. This study focuses on SMEs since they drive Malaysia's economy (*Small and Medium Enterprises (SMEs) Finance*, 2023). According to Rabiee (2004), six to eight participants are sufficient for obtaining multiple perspectives. In this study, we used the concept of saturation to calculate the sample size needed for a qualitative investigation. The saturation point is reached when more data do not provide new information (Braun & Clarke, 2021). Interview sessions lasted between 30 and 45 minutes and were audiotaped with both parties' consent. Then, the data collected were analysed using a thematic analysis procedure in ATLAS.ti, developed by (Abdul Ghani et al., 2023). The thematic analysis revealed themes, subthemes, and categories that can be used to answer the objective of this paper. Besides, weightage for each risk factor was also discovered using Sankey Diagram and Code-Document Table in Atlas.ti.

### **Results**

Figure 1 below shows the visualisation of the risk factors for start-up businesses after identifying the association between themes and subthemes using a network diagram. Risk factors for start-up businesses are the underlying theme of this study, while the subthemes are strategic risk, financial risk, operational risk, entrepreneurship traits, and political risk. The description of each risk factor is shown in Table 1.

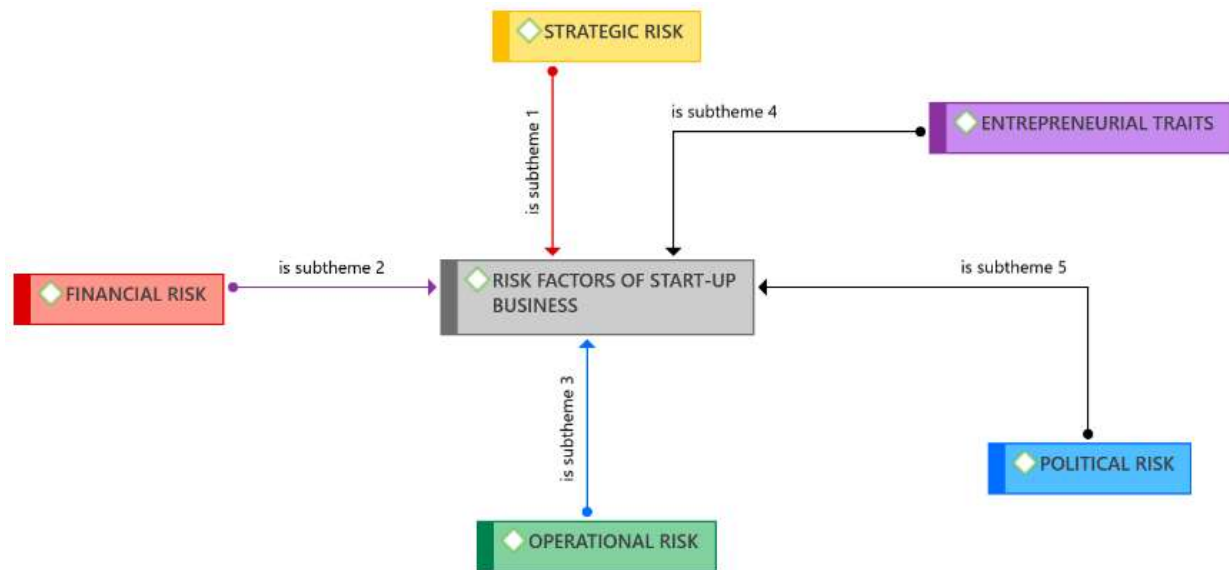


Figure 1. Risk Factors of Start-up Business in SMEs  
 (Source: Authors' elaboration, developed using ATLAS.ti)

Table 1  
 Description of emerging subthemes from the first-level coding

Subthemes	Descriptions
Strategic Risk	Strategic risk is the risk of potential failures in strategic planning, which may lead to a company not achieving its core objectives and risk related to the future.
Financial Risk	Financial risk refers to a business's ability to manage debt and fulfil financial obligations. It consists of two factors: external factors, including economic downturns and market/ industry changes, and internal factors, including underperformance, poor financial management and bad investments.
Operational Risk	Operational risk is the loss resulting from ineffective or failed internal processes, people, systems, or external events that can disrupt business operations.
Entrepreneurial Traits	Entrepreneurial Traits are entrepreneurial characteristics, beliefs, attitudes, and personalities, including knowledge, management skill, risk appetite and risk tolerance.
Political Risk	Political risk is the risk that an investment's returns could suffer because of political changes or instability in a country.

Source: Authors' elaboration

In addition, the study also discovered seven categories under the subtheme strategic risk, six categories under the subtheme financial risk, four categories under operational risk, and six categories under entrepreneurial traits. All the subthemes and categories are visualised, as shown in Figure 2 below.

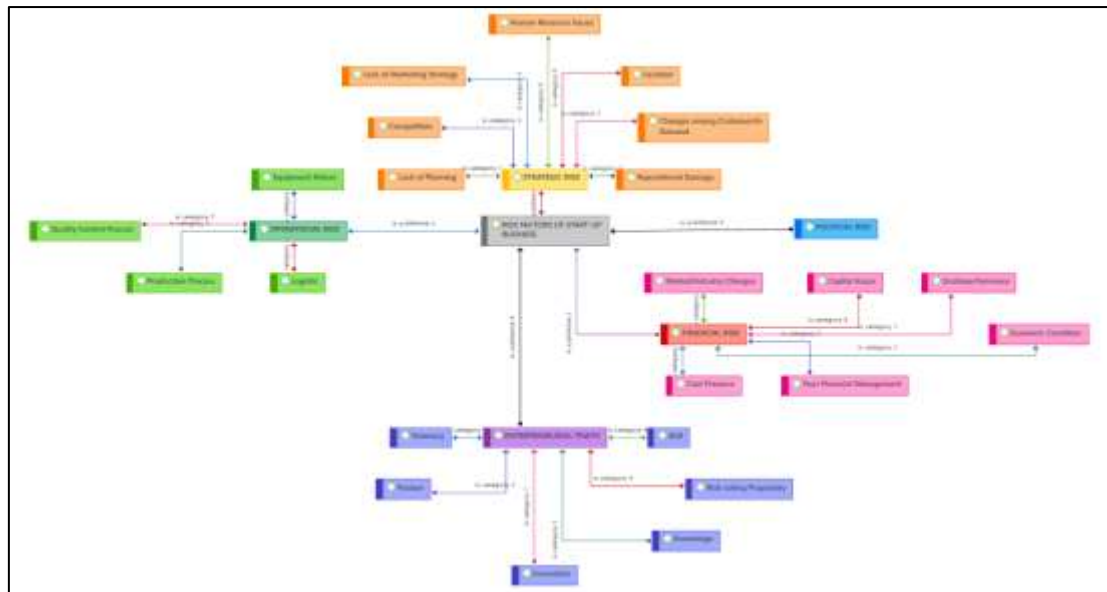


Figure 2. Emergent subthemes and categories of the study  
(Source: Authors' elaboration, developed using ATLAS.ti)

**Evidence of Subtheme 1: Strategic Risk**

Figure 3 depicts the evidence for subtheme 1, which is about strategic risk. The study identified seven categories under this subtheme: changes among customers/in demand, reputational damage, competition, location, lack of marketing strategy, human resource issues, and lack of planning. This diagram depicts seventy-seven quotations obtained from the coding process using ATLAS.ti software.

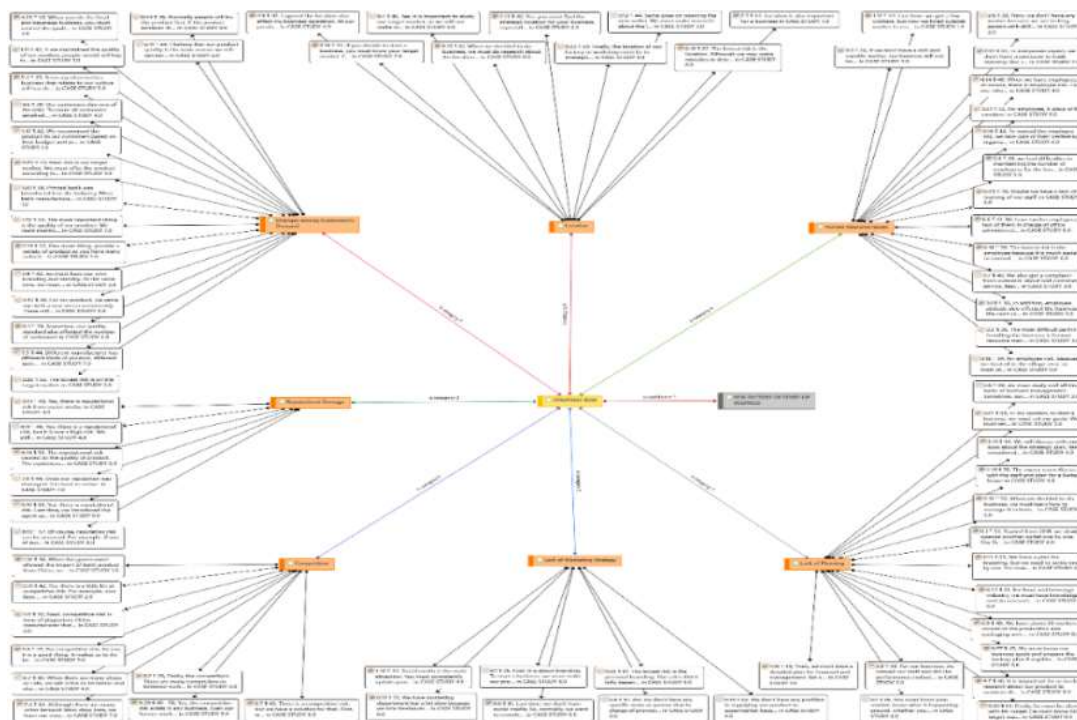


Figure 3. List of quotations for subtheme 1  
(Source: Authors' elaboration, developed using ATLAS.ti)

**Evidence of Subtheme 2: Financial Risk**

The evidence for subtheme 2, which pertains to financial risk, is shown in Figure 4. This subtheme has six categories: underperformance, economic risk, poor financial management, capital issues, cost pressure and market/industry changes. This illustration displays forty-three quotations that are related to this subtheme.

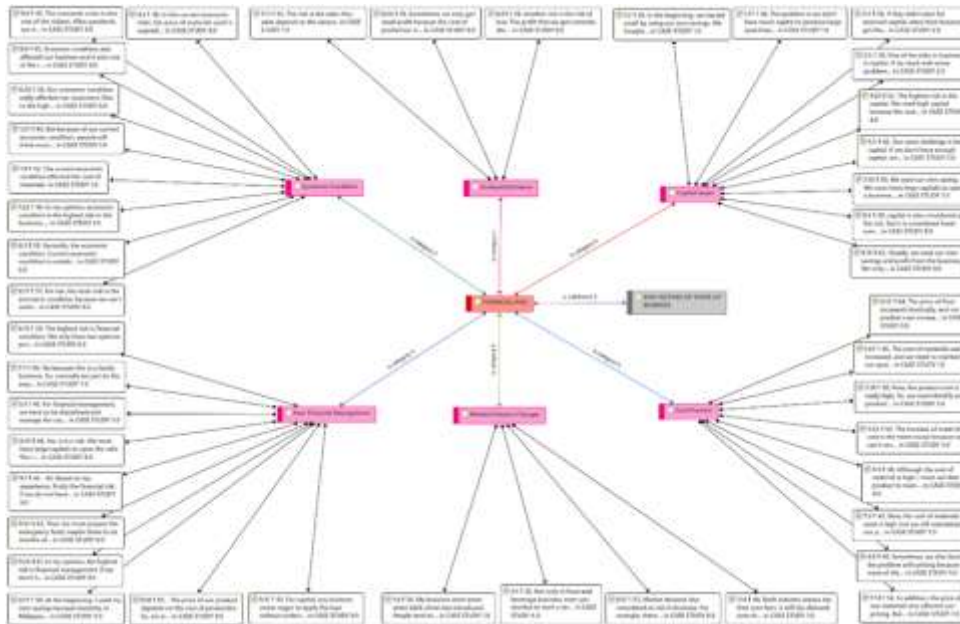


Figure 4. List of quotations for subtheme 2  
(Source: Authors' elaboration, developed using ATLAS.ti)

**Evidence of Subtheme 3: Operational Risk**

The illustration in Figure 5 shows the evidence for subtheme 3, which deals with operational risk. This study discovered four categories within this subtheme: quality control process, production process, equipment failure and logistics. This picture displays twelve quotations connected to this subtheme.

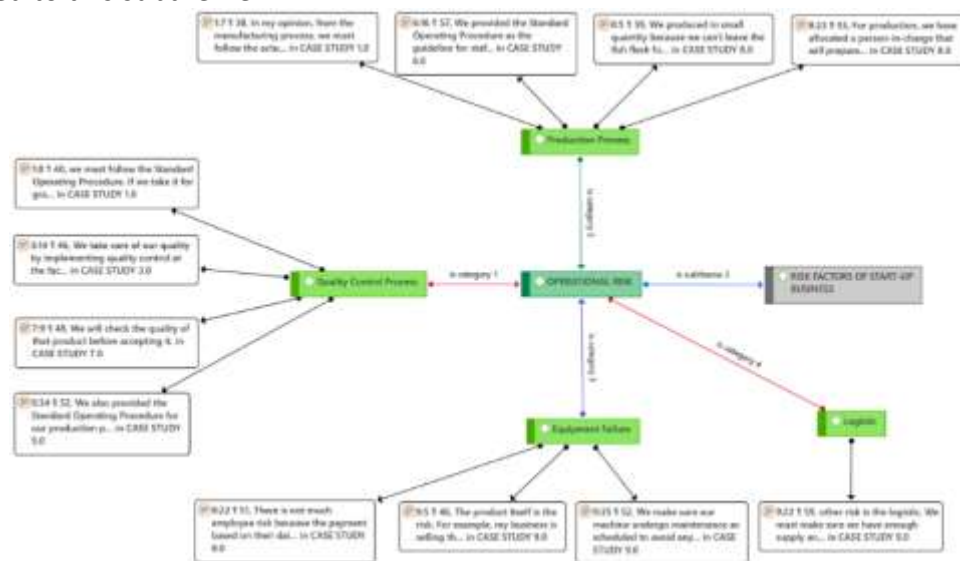


Figure 5. List of quotations for subtheme 3  
(Source: Authors' elaboration, developed using ATLAS.ti)

**Evidence of Subtheme 4: Entrepreneurial Traits**

Figure 6 below represents the findings of subtheme 4, which investigates the issue of entrepreneurial traits. Under this subtheme, there are six categories: visionary, passion, innovation, knowledge, risk-taking propensity, and passion. The analysis process resulted in identifying thirteen quotations relating to this subtheme.

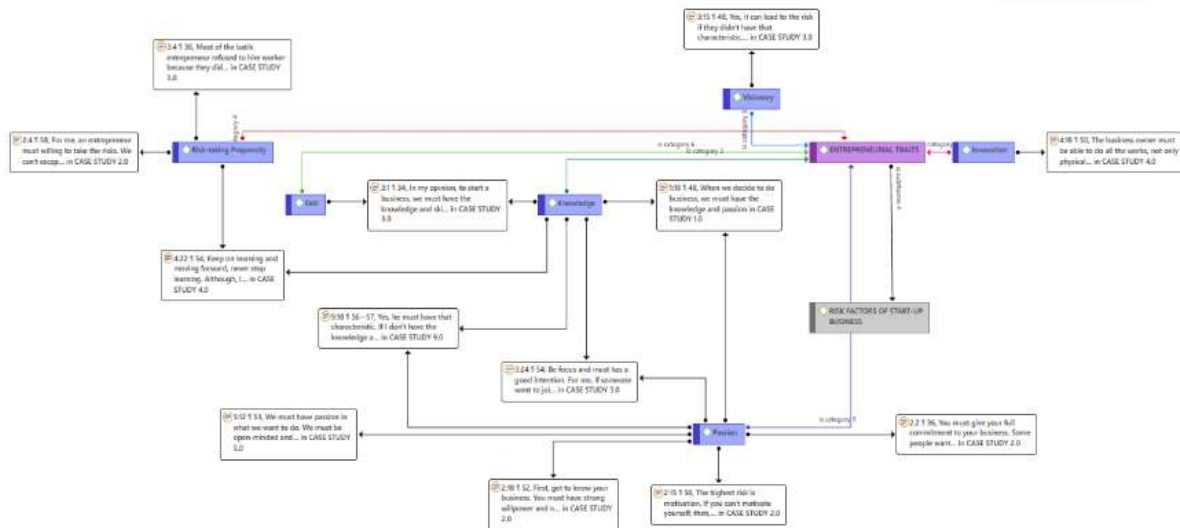


Figure 6. List of quotations for subtheme 4  
(Source: Authors' elaboration, developed using ATLAS.ti)

**Evidence of Subtheme 5: Political Risk**

Figure 7 demonstrates the final subtheme discovered in this study, which is a political risk encompassing four quotations.

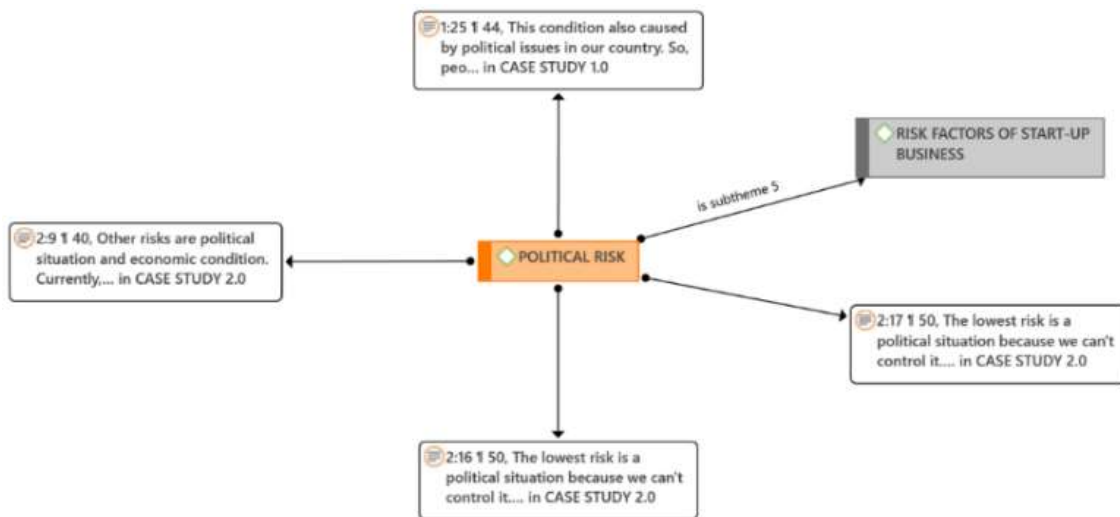


Figure 7: List of quotations for subtheme 5  
(Source: Authors' elaboration, developed using ATLAS.ti)

In addition, this study also discovered the frequency of each risk factor based on the results of the Sankey Diagram and Code-Document Table in ATLAS ti. The Sankey Diagram and Code-Document Table are shown in Figure 8 below. This frequency result represents the risk factors' ranking and significance level.

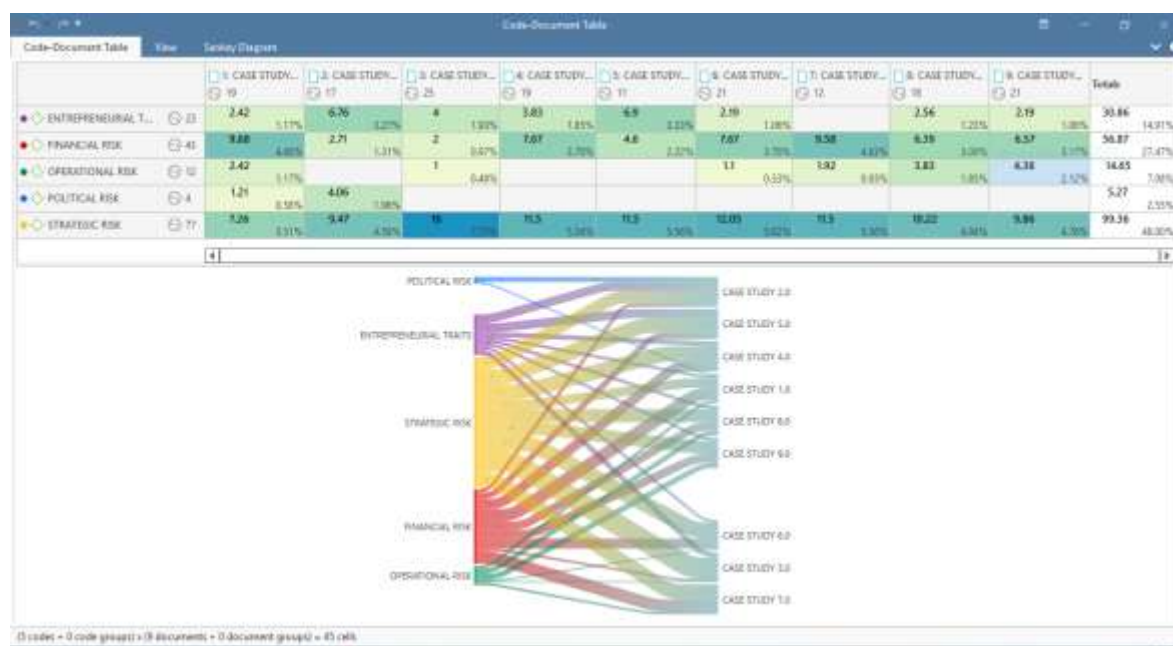


Figure 8. Sankey Diagram and Code Document Table  
(Source: Authors' elaboration, developed using ATLAS.ti)

Sankey Diagram in Figure 8 illustrates that the most extensive area conquered is Strategic Risk, while the smallest area conquered is Political Risk. This result means that the most significant risk factor of start-up business in SMEs is Strategic Risk, while the least significant risk factor is Political Risk. The frequency in Code-Documents Table revealed the ranking of each risk factor. The risk factor with the highest frequency is placed in the first ranking, while the risk factor with the lowest frequency is placed in the last. The summarisation of frequency and ranking is shown in the table below.

Table 2  
*Ranking and Relative Frequency for Risk Factors of Start-up Business in SMEs based on CDT Analysis*

Ranking	Risk Factors of Start-up Business in SMEs	Relative Frequency
1	Strategic Risk	99.36
2	Financial Risk	56.87
3	Entrepreneurial Traits	30.86
4	Operational Risk	14.65
5	Political Risk	5.27

Source: Authors' elaboration

**Discussion**

Five main risk factors for start-up businesses in SMEs were revealed in this study: strategic risk, financial risk, operational risk, entrepreneurial traits, and political risk. Besides, it is found that there are categories under each risk factor. In addition, frequency and ranking for each risk factor also discovered in this study.

**Strategic Risk**

Eight out of nine participants stated that a lack of planning could be a risk in business. Participants 1, 3 and 9 mentioned that entrepreneurs must have detailed planning for



finances and management, such as setting a goal and mission for short- and long-term targets. Participant 9 highlighted how planning and research could affect product manufacturing and quality.

“It is important for us to do research about our product to maintain the quality. We also enforced strict and clean process during production to our staff. For product innovation, we must do the research and development to improve it... We must know our business goals and prepare the backup plan if anything happened during the early phase of our business operation... Firstly, he must be clear with his target. He must know his target market, business operation plans and employee management...”

Based on this response, participant 9 also agreed that studying their target markets is crucial to business planning. This opinion is similar to participants 2, 3 and 4. They stated that they always have meetings with their team and manager to discuss their strategic planning, particularly to learn about the current demand and trends so that they can have a brighter future for their company. This comment also indicates that management plays a vital role in business success and can be risky if the business has a poor management team. They also comment on human risk, especially human resource issues, lack of staffing, and lousy customer service. This result is also consistent with a previous study by Oduoza (2020), who highlighted human and organisational risks as two risk factors in SMEs.

All the issues highlighted above by the participants can be categorised into strategic risks. Thus, one of the findings in this study suggests that strategic risk is one of the risk factors in start-up businesses in SMEs. This finding aligns with previous researchers who studied strategic risk as a critical risk faced by entrepreneurs (Belás et al., 2021; Jobo & Phyllis, 2020).

### ***Financial Risk***

The second risk factor of start-up business in SMEs is financial risk which includes six categories. Six participants (participant 1, 2, 4, 5, 7, and 8) agreed that capital issues are one of the risks in business. It includes short on capital, lacks sufficient or reserved capital, and is difficult to obtain a loan.

“The highest risk is the capital. We need high capital because the cost of material is very unpredictable, and the expenses are really high”.

“Our most challenge is the capital. If we don't have enough capital, we can't run the business. Without money, we can't manage the business, we can't pay the employees' salary and we can't restock our product”.

Furthermore, 5 participants (participants 1, 3, 4, 7, and 9) stated that they face cost pressures. They must cover the higher materials costs while maintaining product quality and price. Participant 3 said that high material costs become a big issue for him because they cannot control them.

“Now, the product cost is really high. So, we must identify our product price and determine the discount that we can give to the customer. We can't increase our product price drastically. So, to solve this problem, we can reduce the percentage of our normal discount. We must be strategic in planning our budget because most of our material is from another country. So, material cost depends on the currency. Thus, owner must be great in budget planning... The increase of material cost is the most crucial because we can't control it...”

“Although the cost of material is high, I must use that product to maintain the quality standard. Quality is very important for my products. I must manage the costing and slightly increased our price...”

These two comments also highlighted the importance of good financial management. SMEs face financial risks due to poor financial management, according to seven participants. Previous researchers also highlighted financial risk as one of the risks in SMEs (Hudakova et al., 2018; Zubair et al., 2020).

### ***Operational Risk***

The following risk factors found in this study are operational risks, including quality control, production, equipment failure, and logistics. Four participants highlighted the importance of implementing quality control and following standard operating procedures. Thus, every business should provide standard operating procedures and quality standards as a guideline for their staff so that they can control the quality of the product and avoid any possibility of mistakes and waste of raw material. As mentioned by Participant 6, "We provided the Standard Operating Procedure as the guideline for staff..."

Similar to the comment by Participant 8, "For production, we have allocated a person-in-charge that will prepare the ingredients based on the recipe. We also have the Standard Operating Procedure for the machine operating system. If we do not follow the Standard Operating Procedure, it will affect the taste and quality".

Further, Participants 8 and 9 said that equipment failure is a risk businesses face because it can result in a loss. It is therefore recommended that all equipment undergoes regular maintenance.

“The product itself is the risk. For example, my business sells frozen products, so we need electricity to run our freezer. If we had no electricity for about a week, our product will be affected, and we will incur a loss”.

“...if the machine got a problem, it would affect the production. We must make sure the machine and other equipment undergo maintenance frequently as scheduled to avoid any problem occurring”.

Hence, operational risk should be highlighted by entrepreneurs as one of the risk factors for start-up businesses in SMEs. The operational risk was also studied by other researchers as one of the types of risk in SMEs (Hirawati & Sijabat, 2020; Kumar, 2020).

### ***Entrepreneurial Traits***

Eight of the nine individuals discussed the risk of lacking entrepreneurial qualities and their importance. It includes visionary, passion, innovation, knowledge, risk-taking propensity and skills. They said that knowledge is essential to start a business. Entrepreneurs must know how to manage their business operations, how to deal with their staff, and know about their products. Participant 8 mentioned,

“When we decide to make certain product or business, we must know well the product that we want to sell. We must have the knowledge, so we are able to explain things to our staff

and customers. The owner must have the basic knowledge in managing the business, financial and operational”.

In addition, entrepreneurs must know how to deal with the risk they face, as every business cannot escape risks. Participant 2 said, “For me, an entrepreneur must be willing to take the risks. We can't escape from risks.”

Hence, this study found that problem-solving is one of the crucial skills entrepreneurs should have. It agrees with the comment of Participant 9.

“So, we must be careful and be prepared for any consequence. The owner must be able to make quick decisions and manage the conflict well”.

Even though almost all participants mentioned entrepreneurial traits, a few studies identified entrepreneurial traits as a risk factor. Despite this, in other studies, entrepreneurial traits were identified as a key success factor for business success (Mashuda & Laily, 2021; Vega-Gómez et al., 2020).

### ***Political Risk***

The political risk was indicated by two participants as the final risk factor identified in this study (Participants 1 and 2). Participant 1 stated that political risk could have an economic impact. As a result of rising living costs, people will become thriftier.

“This condition is also caused by political issues in our country. So, people need to be more economical in this kind of economic situation”.

This statement is similar to the comment by Participant 2:

“Other risks are political situation and economic condition. Currently, our political situation is unstable. This situation affected the economy”.

Previous researchers also recognised political risk in SMEs (Oduoza, 2020; Sutrisno et al., 2019) indicate that this risk is important and cannot be ignore by entrepreneurs.

### ***Ranking and weightage of risk factors***

Additionally, from the result of CDT analysis, this study revealed the ranking of all the risk factors found in this study. This ranking is important as a guideline to indicate the weightage of each risk factor and one of the crucial steps for risk assessment (Ghazali et al., 2023). The highest weightage is given to the first ranking, and the lowest weighting is given to the last. The summarisation of the risk factors and their ranking is shown in Table 3 below. This weighting factor is important in constructing a risk index for small and medium-sized businesses as a result of using composite index formulas (Ghazali et al., 2022).

Table 3

*Ranking and weightage for risk factors and its categories.*

Ranking	Risk Factors	Categories of Risk Factors	Weightage
1	Strategic Risk	Changes among customer/ in demand	5
		Reputational Damage	
		Competition	
		Location	
		Lack of marketing strategy	
		Human resource issues	
		Lack of planning	
2	Financial Risk	Underperformance	4
		Economic condition	
		Poor financial management	
		Capital issues	
		Cost pressure	
		Market/ industry changes	
3	Entrepreneurial Traits	Visionary	3
		Passion	
		Innovation	
		Knowledge	
		Risk-taking propensity	
		Skills	
4	Operational Risk	Quality control process	2
		Production process	
		Equipment failure	
		Logistic	
5	Political Risk	-	1

*(Source: Authors' elaboration)***Conclusion & Recommendations**

This study aimed to identify significant risk factors of start-up businesses in SMEs. There are five risk factors in start-up businesses in SMEs with their categories. Besides, according to the result of CDT analysis, the most significant risk factor is Strategic Risk, and the least significant risk factor is Political Risk. This study also demonstrates the ranking and weightage of risk factors for start-up businesses in SMEs. Evaluating these risk factors quantitatively using survey methodology for future studies is recommended. So that future studies can compare the results obtained from qualitative and quantitative approaches to verify risk factors for start-up businesses in SMEs. As a next step in risk assessment, the weightage can be used to develop a mathematical formulation and key indicator index that can measure the readiness of entrepreneurs to start businesses. Furthermore, researchers suggest developing a questionnaire for entrepreneurs to answer regarding risks they face based on the results in Table 3. Thus, a new system for start-up business risk factors in SMEs can be built as an alternative to risk management tools in SMEs.

### Contribution

This study contributes to the literature on entrepreneurship risk management and the survival of start-up businesses in SMEs by shedding light on its importance. In theory, this study provides insight into new developments in start-up risk factors for small and medium-sized businesses. In addition, this study offers a new weighting system for each risk factor. This weightage is beneficial for future studies in developing a mathematical risk index for start-up businesses in SMEs. It is a crucial indicator and guide for future researchers who aim to develop questionnaires addressing risk factors in SMEs. For entrepreneurs, especially new start-ups, the study provides practical insights that can be extremely useful in preparing them for any risks and challenges they may face in the first five years of their business and enabling them to survive. They will benefit significantly from this finding since it can be used as a guideline to measure their readiness to start a business. As a result, they can avoid failure and ensure the survival of their business. In addition, these risk factors can help entrepreneurs implement risk management for their companies. Entrepreneurs, policymakers and governments can benefit from these findings to improve the performance of Malaysia's SMEs.

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### References

- Abdul Ghani, M. T., Abdul Halim, B., Abdul Rahman, S. A., Abdullah, N. A., Afthanorhan, A., & Yaakub, N. (2023). Overconfidence Bias Among Investors : A Qualitative Evidence From Ponzi Scheme Case Study. *Corporate & Business Strategy Review*, 4(2), 59–75. <https://doi.org/10.22495/cbsrv4i2art6>
- Adam, A., Hassan, R., & Abdullah, H. (2021). Maintaining The Survival of Malaysian SMEs During Covid-19 Outbreak: Challenges and Suggestion for Management. *ASEAN Entrepreneurship Journal* |, 7(1), 27–33. <https://www.smeinfo.com.my>
- Azhar, A. N. N. Z., Ghazali, P. L., Mamat, M., Abdullah, Y., Mahmud, S., Lambak, S., Sulong, Z., Mohammed Foziah, N. H., & A. Latif, A. Z. (2017). Acceptance of integrated modification model of auto takaful insurance in Malaysia. *Far East Journal of Mathematical Sciences*, 101(8), 1771–1784. <https://doi.org/10.17654/MS101081771>
- Ahmed, M. A., Khattak, M. S., & Anwar, M. (2022). Personality traits and entrepreneurial intention: The mediating role of risk aversion. *Journal of Public Affairs*, 22(1), 1–15. <https://doi.org/10.1002/pa.2275>
- Belas, J., damborsky, M., Metzker, Z., & Suler, P. (2021). Perception Of Selected Strategic MANAGEMENT Factors Of SME In V4 Countries. *Serbian Journal of Management*, 16(2), 437–452. <https://doi.org/10.5937/SJM16-33274>
- Braun, V., & Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*, 13(2), 201–216. <https://doi.org/10.1080/2159676X.2019.1704846>
- Ghazali, P. L., Abdul Hadi, A. A., Fauzi, M. S. N., Lambak, S., Mahmud, M. S., Foziah, M. N. H., Mohamed, M. A., & Mohamad Zain, E. N. (2023). Weighting a Start-up Business Index for Edible Bird Nest Swiftlet Ranching Industry : A Qualitative Method Approach. *International Journal of Academic Research in Business and Social Sciences*, 13(4), 451–468. <https://doi.org/10.6007/IJARBS/v13-i4/16870>

- Ghazali, P. L., Abdul Hadi, A. A., Foziah, M. N. H., Lambak, S., Mohammed, I. S., Mamat, M., Mohamad Zain, E. N., Abdul Rohim, R. A., & Sukono. (2022). Analysis of Interviewing Experts in Weightage for Start-Up Business Factors of Edible Bird Nest Swiftlet Ranching Industry. *International Journal of Academic Research in Business and Social Sciences*.
- Ghazali, P. L. B., Mamat, M., Omar, L. Bin, Foziah, N. H. M., Guci, D. A., Abdullah, Y. Bin, & Sazali, N. E. S. B. (2017). Medical Integration Model Of Family Takaful For Blue Collar. *Far East Journal of Mathematical Sciences*, 101(6), 1197–1205. <https://doi.org/10.17654/MS101061197>
- Ghazali, P. L., Ghani, P. P. S. A., Mamat, M., Salleh, Z., & Ismail, S. A. (2015). Integration Model In Auto Takaful Insurance. *Far East Journal of Mathematical Sciences*, 98(5), 599–611. [https://doi.org/10.17654/FJMSNov2015\\_599\\_611](https://doi.org/10.17654/FJMSNov2015_599_611)
- Ghazali, P. L., Mamat, M., Mohamed, S. B., Ahmad, W. M. A. W., & Rashid, N. (2018). Analysis of the Acceptance of Newly Constructed Takaful Education Plan for Learning Disabled Children among Public. *International Journal of Academic Research in Business and Social Sciences*, 8(11), 1413–1420. <https://doi.org/10.6007/ijarbss/v8-i11/5200>
- Ghazali P. L., Mohd, I., Ahmad, W. M. A., and Mustafa, M. (2012). Integration Model of Education Plan Takaful: A case Study in Terengganu, Kelantan and Perlis, States in Malaysia. *Far East Journal Mathematical Sciences*. 2012;65(1): 97- 117.
- Hamir, H., & Md. Sum, R. (2021). An Analysis of Risk Management Processes and Comparison with ISO31000:2018. *Asian Journal of Research in Business and Management*, 3(4), 16–30. <https://doi.org/10.55057/ajrbm.2021.3.4.3>
- Hirawati, H., & Sijabat, Y. P. (2020). Analysis of Risk Management on MSMEs (Case Study of The Bamboo Handicraft Industry). *Jurnal Riset Ekonomi Manajemen (REKOMEN)*, 4(1), 56–65. <https://doi.org/10.31002/rn.v4i1.2977>
- Hoogendoorn, B., van der Zwan, P., & Thurik, R. (2019). Sustainable Entrepreneurship: The Role of Perceived Barriers and Risk. *Journal of Business Ethics*, 157(4), 1133–1154. <https://doi.org/10.1007/s10551-017-3646-8>
- Hudakova, M., Masar, M., Luskova, M., & Patak, M. R. (2018). The Dependence Of Perceived Business Risks On The Size Of Smes. *Journal of Competitiveness*, 10(4), 54–69. <https://doi.org/10.7441/joc.2018.04.04>
- Jobo, D., & Phyllis, C. (2020). Entrepreneurial Risk Management Challenges Within The Maritime Smes Subsector Of South Africa. *Academy of Entrepreneurship Journal*, 26(2), 1–19.
- Khumpaisal, S., Bunnag, K., & Jamieson, I. A. (2020). Risk Perceptions among SME Developers : A Case Study of Thailand ' s. *International Journal of Real Estate Studies*, 1(14), 17–27.
- Kumar, V. (2020). Risk Management in ERP Implementation: In Context to Indian SME. *Worldwide Journal of Research*, 1(2), 3–7.
- Mashuda, A., & Laily, N. (2021). Entrepreneurial Skills dan Entrepreneurial Attitude Mahasiswa Akuntansi. *Jurnal Pendidikan Ekonomi (JUPE)*, 9(2), 72–76. <https://doi.org/10.26740/jupe.v9n2.p72-76>
- Fauzi, M. S. N., Ghazali, P. L., Foziah, M. N. H., Mahmud, M. S., Muhammad, N., & Abdul Rohim, R. A. (2022). The Role of Enterprise Risk Management on SMEs Performance: A Review Paper. *The Journal of Management Theory and Practice (JMTP)*, 3(1), 73–77. <https://doi.org/10.37231/jmtp.2022.3.1.214>
- Nimfa, D. T., Shaharudin, A. L., & Sazali, A. W. (2021). Theories Underlying Sustainable Growth of Small and Medium Enterprises. *African Journal of Emerging Issues (AJOEI)*, 1(3), 43–66.

- Nohong, M., Ali, M., Sohilauw, M., Sobarsyah, M., & Munir, A. (2019). Financial literacy and competitive advantage: SME strategy in reducing business risk. *Espacios*, 40(32).
- Oduoza, C. F. (2020). Framework for sustainable risk management in the manufacturing sector. *Procedia Manufacturing*, 51(2019), 1290–1297.  
<https://doi.org/10.1016/j.promfg.2020.10.180>
- Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the Nutrition Society*, 63(4), 655–660. <https://doi.org/10.1079/pns2004399>
- Shahzad, M. F., Khan, K. I., Saleem, S., & Rashid, T. (2021). What Factors Affect The Entrepreneurial Intention To Start-Ups? The Role Of Entrepreneurial Skills, Propensity To Take Risks, And Innovativeness In Open Business Models. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3), 173.  
<https://doi.org/10.3390/JOITMC7030173>
- Small and Medium Enterprises (SMEs) Finance*. (2023). The World Bank.
- Sutrisno, A., Kumar, V., Handayani, D., Arief, R. K., Virdhian, S., & Punuhsingon, C. (2019). A Classification And Framework For Measuring Sustainability Supply Chain Risk Indices In Small And Medium Enterprises. *AIP Conference Proceedings*, 2097(April).  
<https://doi.org/10.1063/1.5098176>
- Vega-Gomez, F. I., Miranda Gonzalez, F. J., Mera, C. A., & Perez-Mayo, J. (2020). Antecedents of Entrepreneurial Skills and Their Influence on the Entrepreneurial Intention of Academics. *SAGE Open*, 10(2). <https://doi.org/10.1177/2158244020927411>
- Xu, H. (2017). Research on financing mode and risk prevention of supply chain in small and medium-sized enterprises. In *2017 2nd International Conference on Modern Management, Education Technology, and Social Science (MMETSS 2017)* (pp. 138-145). Atlantis Press.
- Zubair, S., Kabir, R., & Huang, X. (2020). Does the financial crisis change the effect of financing on investment? Evidence from private SMEs. *Journal of Business Research*, 110, 456–463. <https://doi.org/https://doi.org/10.1016/j.jbusres.2020.01.063>