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Surviving Capital Suppression: Strategies for SMEs in China

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Master in Applied Management

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May 2023



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Acknowledgements

It has been a great honor to be guided by the Professor Leandro Pereira. When I started working on this thesis, Professor Leandro Pereira instructed me a very good direction. He has been very friendly and gave me timely advice throughout the process.

I am very grateful to my friend Mr. Zhou Haiyong who provided me a lot of support especially in foreign languages area. It was his encouragement that helped me to complete this very difficult mission.

Last but not the least I would like to thank my family for their support all the time, they are the driving force for my continuous efforts and motivation.

Resumo

Na China, as PME enfrentaram uma série de desafios, particularmente o cerco e a opressão de capital. A investigação visa identificar estratégias que as PME podem adotar para ultrapassar estes obstáculos ao crescimento e à inovação em vários aspectos das PME, incluindo o risco da cadeia de abastecimento, a sustentabilidade, os modelos de negócio circulares e o financiamento digital inclusivo. O estudo utilizará uma metodologia de investigação qualitativa baseada em entrevistas aprofundadas para recolher dados de 20 PME chinesas que enfrentam o cerco de capital para explorar o problema, o seu impacto, tendências, causas, melhores soluções e os benefícios da resolução do problema. O estudo recomenda que as PME chinesas invistam na criação e no desenvolvimento de redes sociais para apoiar os seus objectivos de inovação e globalização. Os decisores políticos são aconselhados a tomar medidas para aumentar o acesso das PME ao financiamento digital inclusivo, uma vez que tal pode melhorar a sua capacidade de inovação e expansão. As conclusões do estudo sublinham a importância da transformação digital sustentada para melhorar a eficiência das PME. Com base numa conceção de investigação qualitativa e numa análise temática da revisão da literatura, este estudo fornece uma abordagem prática para as PME escaparem ao cerco e à repressão do capital.

Palavras-Chave: PMEs, Desenvolvimento sustentável, Transformação digital, Finanças

Classificação JEL: Mercados Financeiros, Poupança e Investimento de Capital, Finanças Corporativas e Governança (O16); Mudança Tecnológica: Escolhas e Consequências, Processos de Difusão (O33);

Abstract

In China, SMEs faced a variety of challenges, in particular capital encirclement and oppression. The research aims to identify strategies that SMEs can adopt to overcome these barriers to growth and innovation across various aspects of SMEs, including supply chain risk, sustainability, circular business models, and inclusive digital finance. The study will use a qualitative research methodology based on in-depth interviews to collect data from 20 Chinese SMEs facing capital siege to explore the problem, its impact, trends, causes, best solutions, and the benefits of solving the problem. The study recommends that Chinese SMEs invest in building and nurturing social networks to support their innovation and globalization goals. Policymakers are advised to take steps to increase SMEs' access to inclusive digital finance, as this can improve their ability to innovate and expand. The findings of the study emphasize the importance of sustained digital transformation to improve the efficiency of SMEs. Based on a qualitative research design and thematic analysis of the literature review, this study provides a practical approach for SMEs to escape from capital encirclement and repression.

Keywords: SMEs, Sustainable development, Digital Transformation, Finance

JEL Classification: Financial Markets, Saving and Capital Investment, Corporate Finance and Governance (O16); Technological Change: Choices and Consequences, Diffusion Processes (O33);

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Glossary

Artificial intelligence/machine learning.....	AI/ML
Bottom-of-the-pyramid.....	BOP
Confidentiality-based data Classification-as-a-Service.....	C2aaS
Small and medium-sized enterprises.....	SMEs

Chapter 1. Introduction

Small and medium-sized enterprises (SMEs) account for more than 90% of global firms and are an important part of the composition of the world economy. China's economic growth and development depends to a large extent on the success of SMEs (Gherghina et al., 2020). Although SMEs in China play an important role in job creation and innovation, due to their small size, they are relatively more vulnerable and more susceptible to challenges that jeopardize their ability to survive and expand (Su et al., 2022). Especially since the coronavirus epidemic in 2019, the impact on SMEs has been almost fatal as the state has introduced various policies to blockade cities out of concern for the severity of the epidemic and the ability to expand. Under such circumstances, it is important to study how SMEs can break out of this siege on their own.

One of the most pressing challenges facing SMEs in China is capital encirclement and suppression. This refers to the practice of restricting or denying SMEs access to funding, frequently by larger companies or governmental organizations. Different strategies, such as predatory pricing, unfair competition, and legislative impediments, can enclose and reduce capital. These practices can prevent SMEs from accessing the financing they need to expand their businesses, stifling innovation and growth.

Despite the importance of SMEs to the Chinese economy, there is a lack of effective solutions to address this challenge. Previous studies have highlighted the barriers to sustainability for SMEs and reviewed global challenges and survival strategies of SMEs (Álvarez et al., 2019; Naradda et al., 2020). However, few studies have focused specifically on how SMEs in China can break out of capital encirclement and suppression on their own. Álvarez Jaramillo et al.'s (2019; p. 512-524) literature review of barriers to sustainability for SMEs in the context of sustainable development identified several factors that contribute to the sustainability of SMEs. However, the study did not specifically address the issue of capital encirclement and suppression. In their analysis of the worldwide challenges and survival methods of SMEs, Naradda Gamage et al. (2020; p. 79) did not concentrate on the particular problem of capital encirclement and suppression. These studies highlight the gap in the literature on effective strategies for SMEs in China to break out of capital encirclement and suppression. The purpose of this research is to bridge this gap by examining how SMEs in China can independently tackle this challenge effectively.

This study has the potential to offer insights into successful tactics for SMEs to meet this challenge by examining how SMEs might escape capital encirclement and suppression on their own. These findings have wider ramifications for China's economic development than just SMEs in the nation. The goals of this study will be met by using a qualitative research

design. Semi-structured interviews with SME managers and owners in China will be conducted as part of the inquiry, which will also involve a review of pertinent academic literature on the subject. The research's findings will be examined using thematic analysis. And then, this study will be split into four chapters. The literature on SMEs in China will be examined in more detail in the second chapter, with a focus on the challenges they encounter and possible solutions.

The study methodology, including the research design, data collection methods, and analytic strategies, will be covered in the third chapter. The research findings are presented in the fourth chapter, and the significance of the findings for SMEs in China are discussed in the fifth chapter, along with suggestions for additional research.

Chapter 2. Literature Review

China's SMEs confront many difficulties, such as finance encirclement and oppression. SME's must be imaginative and adaptable in order to escape this siege and boost performance. In this overview of the literature, we will examine a number of research areas that are relevant to SMEs, such as inclusive digital finance, sustainable digital transformation, circular business models, green supply chain management, CSR, and internationalization. The goal of this review is to categorize and evaluate these studies in order to determine the best techniques and tactics for SMEs to overcome financial limitations and boost their competitiveness.

2.1. Finance

Gur et al. (2023) looked on how SMEs in Istanbul financed themselves during the COVID-19 epidemic (Gur et al., 2023). The authors discover that during the epidemic, SMEs with greater sizes and stronger financial performance were more likely to acquire bank loans. However, smaller SMEs used alternative finance strategies like crowdsourcing and factoring more frequently.

Li and Pang (2023) explored the relationship between financial mismatch, digital inclusive finance, and the capacity for innovation of SMEs in China. The research suggests that digital inclusive finance may benefit SMEs' capacity for innovation. This impact is, however, diminished by financial mismatch, suggesting that the gap between capital supply and demand is still a problem for Chinese SMEs. The authors suggest that policy makers should consider policies that promote SMEs' access to digital inclusive finance, which can enhance their ability to innovate and support their growth (Li & Pang, 2023; p. 9).

A potential limitation of this study is that it only looked at listed companies in China, which may not be representative of the broader SME population in China. In addition, the authors do not provide a clear definition of what is meant by "digital inclusion finance," which may lead to confusion and misinterpretation of their findings. Despite some constraints, the study provides a valuable perspective on the correlation between digital inclusion finance and the innovation capacity of Chinese SMEs.

2.2. Internationalization

Research in the field of internationalization provides valuable insights into factors that can influence the export performance of SMEs. While Hultman et al. (2023) focus on social

media communication strategies, Do et al. (2023) focus on the moderating role of interpersonal and organizational social networks on the relationship between innovation and internationalization of SMEs in the context of emerging markets, and both studies affirm the positive impact of social organizational networks on the international development of SMEs. Do et al. (2023) revealed that SMEs with strong interpersonal and organizational social networks can leverage these networks to strengthen the positive relationship between innovation and internationalization (Do et al., 2023; p. 29). And Hultman et al. (2023) reaffirmed this and further found that both talk and listening tactics had positive effects and that listening tactics were found to have a greater impact than talk tactics (Hultman et al., 2023; p.159). Therefore, SME's can improve their export performance by investing in developing and maintaining social networks to facilitate their innovation and internationalization strategies, especially in emerging markets, or by actively participating in social media communications and focusing on listening strategies.

Sadeghi et al. (2023) investigated the correlation between the speed of post-entry internationalization and export performance of SMEs from the perspective of capacity building. The researchers found that the faster the post-entry internationalization, the better the export performance. This effect is more pronounced for SMEs with high absorptive capacity and entrepreneurial orientation. This study leads to the finding that SMEs should develop and implement capacity building strategies to improve their export performance (Sadeghi et al., 2023).

Finally, Nguyen et al. (2023) explore the correlation between bottom-of-the-pyramid (BOP) orientation and export performance of Vietnamese SMEs. the BOP model, which is primarily consumer, producer, and business partner oriented, has a favorable impact on export performance by using market mechanisms to help put the poor on a sustainable path out of poverty. For SMEs, who have more severe financial limitations, the impact is less obvious. Additionally, the authors advise SME managers to think about BOP markets as a viable way to boost export performance (Nguyen et al., 2023; p. 154).

These four studies offer insightful information about the variables affecting SMEs' export performance. Nguyen et al. (2023) highlight the importance of the BOP market as a new opportunity to improve export performance. Sadeghi et al. (2023) suggest the importance of improving SMEs' export performance from the perspective of their capacity building strategies. Do et al. (2023) examine the role of social networks on the innovation and internationalization of SMEs moderating role of the relationship between innovation and internationalization of SMEs, while Hultman et al. (2023) explored the effectiveness of social media communication strategies on export performance.

However, it is important to point out some limitations of these studies. The findings of Nguyen et al.'s study may not be generalizable to other countries because it only focuses on Vietnam. Sadeghi et al. measured only one aspect of internationalization, that is, post-entry speed, and did not consider other aspects of internationalization. Do et al. did not examine the specific mechanisms by which social networks affect the relationship between innovation and internationalization. Finally, Hultman neglected to consider the potential negative impact of social media diffusion on export performance.

2.3. Sustainable development

Melo et al. (2023) found that digital transformation, coupled with sustainable practices, has a positive impact on SMEs' performance (Melo et al., 2023; p. 9). Despite the potential benefits, SMEs encounter various difficulties when it comes to implementing sustainable digital transformation, including limited resources and knowledge. Rittershaus et al. (2023) developed a conceptual framework for SMEs to evaluate and adopt circular business models (Rittershaus et al., 2023; p. 390). Their findings suggest that implementing circular business models can improve SMEs' sustainability and economic performance. Dzikriansyah et al. (2023) revealed that the adoption of green supply chain management practices has the potential to enhance the environmental performance of SMEs (Dzikriansyah et al., 2023; p. 6).

Ortiz-Martínez et al. (2023) found that SMEs' non-financial reporting and CSR activities positively influence their sustainability and financial performance (Ortiz-Martínez et al., 2023; p. 349–364). Simmou et al. (2023) found that implementing a CSR strategy and green innovation practices could improve SMEs' environmental performance (Simmou et al., 2023; p. 384). Yang and Deng (2023) investigated the influence of digitalization on the sustainability of Chinese firms from a resilience perspective (Yang & Deng, 2023; p. 6). They found that digitalization can enhance firms' resilience and contribute to their sustainable development. Bui and Le (2023) investigated the correlation between digital and creative capabilities, CSR-based strategy, and firm performance in SMEs (Bui & Le, 2023; p. 9). They found that digital and creative capabilities are critical for SMEs to develop a CSR-based strategy that positively impacts their performance.

The reviewed articles demonstrate the importance of sustainable practices, digitalization, and CSR for SMEs' sustainable development and performance. However, several gaps and limitations need to be addressed. First, most studies focus on the positive impact of sustainable practices, digitalization, and CSR on SMEs' performance without exploring the

potential negative effects. Second, most studies are based on small samples, limiting the generalization of findings. Third, the studies use different methodologies and measurement tools, making it difficult to compare results.

2.4. Digital Transformation

Radicic and Petković's (2023) study explores the influence of digitalization on technological innovations among SMEs. Structural equation modeling was used by the authors to evaluate data from 500 SMEs in the UK (Radicic & Petković, 2023; p.191). Based on their research, Radicic and Petković (2023) came to the conclusion that the quality of digital infrastructure and the size of the company both influence how positively digitalization affects technical advances among SMEs. For policymakers and practitioners who are interested in supporting technology breakthroughs in SMEs, the report offers helpful insights.

Xiong et al. (2023) investigated the association between digital inclusive finance and innovation in enterprises listed in China (Xiong et al., 2023; p. 8). According to a study by Xiong et al. (2023) that used panel regression analysis on data gathered between 2016 and 2021, digital inclusive financing appears to have a favorable effect on business innovation. Firm size, ownership structure, and industry characteristics are a few examples of the variables that regulate the relationship between digital inclusive finance and corporate innovation. These results provide a substantial contribution to the body of knowledge on the role that digital money plays in encouraging innovation in developing nations.

Simone et al. (2023) provide an overview of the use of artificial intelligence/machine learning (AI/ML) in manufacturing MSMEs (Simone et al., 2023; p. 1820–1829) . The authors conduct a review of the literature to determine the constraints, restrictions, and difficulties that surround the application of AI/ML in this setting. According to the article, AI/ML can improve the efficiency, reliability, and adaptability of manufacturing processes in MSMEs. The scarcity of skilled personnel, the high implementation costs, and the ethical problems with AI/ML are some of the difficulties noted by the writers.

It is important to note that all three studies have a particular focus on SMEs and how they could profit from innovation, digitization, and AI/ML. There are some restrictions, nevertheless, that should be taken into account. For instance, it is not obvious whether the findings from Radicic and Petković's (2023) study, which focuses on SMEs in the UK, can be extrapolated to other situations. The study's reliance on self-reported data should be addressed since it could skew the findings.

Xiong et al.'s (2023) study focuses on Chinese listed companies, which may not be representative of all SMEs in China. The study also does not delve into the specific mechanisms through which digital inclusive finance impacts enterprise innovation. Finally, Simone et al.'s (2023) study provides a useful overview of the application of AI/ML in manufacturing MSMEs, but it does not provide a detailed analysis of the empirical evidence.

2.5. Supply Chain Risk

Gurbuz et al. (2023) developed the influence of COVID-19 on global supply chains and suggests that SMEs can mitigate risks by adjusting their supply chain structures. The authors adopted a survey-based research approach to gather data from 324 Turkish SMEs and investigate the correlation between supply chain structure and supply chain risks (Gurbuz et al., 2023; p. 155). The study reveals that SMEs that had more diversified supply chains encountered fewer disruptions amid the pandemic.

Iranmanesh et al. (2023) examines the effect of supply chain transparency, alignment, adaptability, and agility on blockchain adoption in supply chains among SMEs (Iranmanesh et al., 2023; p. 176). The authors use a quantitative research method and collect data from 356 SMEs in Iran. The study finds that supply chain alignment has a significant positive effect on blockchain adoption, while supply chain transparency, adaptability, and agility have no significant effect on blockchain adoption.

Both articles offer insightful information about supply chain management for SMEs. The relevance of supply chain diversification in reducing supply chain risks during crises is emphasized by Gurbuz et al. (2023). The study's findings support other studies on the subject and highlight the necessity for SMEs to have more adaptable supply chain systems. The study's narrow geographic reach and use of a survey-based methodology, however, might make its conclusions less generalizable.

Iranmanesh et al (2023).s study focuses on how SMEs are using blockchain technology to manage their supply chains. The study's conclusions imply that supply chain alignment has a favorable impact on blockchain adoption, suggesting that SMEs should emphasize integrating blockchain technology into their supply chains to boost acceptance. The sample of the study is restricted to SMEs in Iran, and the use of a cross-sectional research methodology may limit the generalizability of its findings.

2.6. Others

Istipliler et al. (2023) use the example of flower exporting businesses in Ethiopia to examine the relationship between institutional restrictions and innovative behavior of SMEs in transition economies (Istipliler et al., 2023; p. 154). The authors conclude that institutional barriers including corruption, lax property protections, and bureaucratic red tape prevent SMEs from acting in a creative manner. Some SMEs can, however, get beyond these limitations by developing their social capital and utilizing unofficial networks.

In their study, Peter et al. (2023) look into how Industry 4.0 concepts are being used in the sub-Saharan African SME manufacturing sector (Peter et al., 2023; p. 846-855). While SMEs are interested in implementing Industry 4.0 concepts to increase their efficiency and competitiveness, the authors find that adoption rates are still low in the region. In order to encourage the adoption of Industry 4.0 ideas, the authors advise policymakers to promote SMEs.

The knowledge, attitudes, and practices of food SMEs in Mauritius with regard to food additives are examined by Etwaroo et al. (Etwaroo et al., 2023; p. 19). The majority of SMEs, according to the authors, have decent awareness about food additives, but they typically have a negative attitude toward their use. According to the authors, education and awareness campaigns could change how SMEs think about and use food additives.

Adomako et al. (2023) investigate the relationship between corporate political activity, corporate social responsibility, and firm competitiveness among SMEs in emerging markets (Adomako et al., 2023; p. 160). The authors find that corporate political activity positively influences firm competitiveness, but the effect is moderated by corporate social responsibility. SMEs with higher levels of corporate social responsibility can better leverage their political activity to enhance their competitiveness.

Ali et al. (2023) propose a Confidentiality-based data Classification-as-a-Service (C2aaS) for cloud security (Ali et al., 2023; p. 749-760). The authors argue that C2aaS can improve the confidentiality of data in cloud environments, which is a critical issue for SMEs that lack the resources to develop their own security solutions. The authors provide a technical description of the proposed solution and evaluate its performance using simulation experiments.

Overall, these five papers address different issues related to SMEs, including their innovative behavior, adoption of new technologies, knowledge and practices related to food additives, corporate political activity, and cloud security. The papers use different research methods and provide insights from different geographical regions. A common theme across

these papers is that SMEs face various challenges and constraints, but they also have the potential to overcome these challenges and enhance their competitiveness.

Table 2.1. Details of the relevant literature

Author, Year	Main Topics (Actual Research)	Main Issues (Future Research)
Li, W., and Pang, W. (2023)	Financial inclusion, financial mismatch, and innovation capacity in SMEs	Further research can be conducted to explore the impact of digital inclusive finance on SMEs in other countries.
Nguyen, N. P. et al.(2023)	Base-of-the-pyramid orientation and export performance of Vietnamese SMEs	Further research is needed to determine the specific capabilities that Vietnamese SMEs need to succeed in international markets.
Sadeghi, A.et al. (2023)	Post-entry speed of internationalization and export performance of SMEs	Future research can examine the moderating role of other factors such as organizational culture, ownership structure, and managerial capacity.
Do, H. et al.(2023)	Innovation and internationalization in emerging markets	Future research can explore how SMEs can effectively use social media to support their internationalization efforts.
Melo, D. I. C. et al. (2023)	Sustainable digital transformation in SMEs	Further research can examine the role of digital transformation in enhancing SME sustainability in other industries and regions.

Rittershaus, P. et al. (2023)	Screening and adopting circular business models in SMEs	Future research can focus on how to best implement circular business models in SMEs, especially in terms of the regulatory and policy environment.
Dzikriansyah, M. A. et al. (2023)	Green supply chain management practices and environmental performance of Indonesian SMEs	Future research can explore the potential barriers to adopting green supply chain management practices among SMEs in Indonesia.
Ortiz-Martínez, E. et al. (2023)	Sustainability, corporate social responsibility, and company performance in Spanish SMEs	Further research can examine the mediating mechanisms between sustainability, CSR, and SME performance.
Simmou, W. et al. (2023)	Corporate social responsibility strategy, green innovation, and environmental performance in SMEs	Future research can investigate how to effectively measure the impact of CSR strategies on SME performance.
Yang, G., and Deng, F. (2023)	Digitalization and enterprise sustainability in China	Further research can explore the role of digitalization in enhancing SME resilience in different sectors and regions of China.

<p>Bui, M.-T., and Le, H.-L. (2023)</p>	<p>Digital capability and creative capability to boost firm performance and formulate differentiated CSR-based strategy</p>	<p>Future research can examine how digital and creative capabilities can be effectively integrated into SME CSR strategies.</p>
<p>Radacic, D., and Petković, S. (2023)</p>	<p>Impact of digitalization on technological innovations in small and medium-sized enterprises (SMEs)</p>	<p>Addressing the challenges that SMEs face in adopting digital technologies, exploring how digitalization can lead to innovation in SMEs, and identifying the factors that affect the impact of digitalization on technological innovation in SMEs.</p>
<p>Xiong, M.et al. (2023)</p>	<p>Digital inclusive finance and enterprise innovation</p>	<p>Investigating the effects of digital inclusive finance on enterprise innovation, exploring the mechanisms underlying these effects, and identifying the factors that affect the relationship between digital inclusive finance and enterprise innovation.</p>
<p>Simone, V. D.et al. (2023)</p>	<p>The use of AI/ML in Manufacturing MSMEs</p>	<p>Identifying the challenges and limitations of using AI/ML in manufacturing MSMEs and exploring the potential solutions to address these challenges and limitations.</p>

<p>Gurbuz, M. C.et al. (2023)</p>	<p>Global supply chains risks and COVID-19</p>	<p>Investigating how the structure of the supply chain can mitigate the risks posed by global supply chain disruptions, such as those caused by COVID-19, and identifying the factors that affect the effectiveness of these mitigation strategies.</p>
<p>Iranmanesh, M.et al. (2023)</p>	<p>Blockchain adoption in supply chain among SMEs</p>	<p>Examining the effects of supply chain transparency, alignment, adaptability, and agility on blockchain adoption in supply chain among SMEs.</p>
<p>Gur, N.et al. (2023)</p>	<p>Firm Size and Financing Behavior during COVID-19 Pandemic</p>	<p>Investigating the financing behavior of SMEs during the COVID-19 pandemic and identifying the factors that affect the financing decisions of SMEs, particularly those related to firm size.</p>
<p>Istipliler, B.et al. (2023)</p>	<p>Innovative SMEs in transition economies</p>	<p>Exploring the institutional constraints faced by innovative SMEs in transition economies and identifying the strategies that can help these firms overcome these constraints.</p>

<p>Peter, O.et al. (2023)</p>	<p>Industry 4.0 concepts within the sub-Saharan African SME manufacturing sector</p>	<p>Identifying the key challenges that SMEs face in adopting Industry 4.0 concepts in the sub-Saharan African context, exploring the potential solutions to address these challenges, and investigating the factors that affect the effectiveness of these solutions.</p>
<p>Etwaroo, D. H.et al. (2023)</p>	<p>Knowledge, attitude and practices regarding food additives of food SMEs in Mauritius</p>	<p>Examining the knowledge, attitudes, and practices of food SMEs regarding food additives in Mauritius and identifying the factors that affect these attitudes and practices.</p>
<p>Adomako et al., 2023</p>	<p>Nonmarket strategy in emerging markets: The link between SMEs' corporate political activity, corporate social responsibility, and firm competitiveness</p>	<p>- How SMEs can effectively balance corporate political activity and corporate social responsibility in emerging markets - The influence of cultural factors on the relationship between corporate political activity, corporate social responsibility, and firm competitiveness - The impact of different types of corporate social responsibility on firm competitiveness in emerging markets</p>

<p>Ali et al., 2023</p>	<p>Confidentiality- based data Classification-as- a-Service (C2aaS) for cloud security</p>	<p>- Evaluation of the performance and scalability of the proposed C2aaS system - Investigation of the security and privacy risks associated with outsourcing data classification to a third-party service provider - Exploration of the potential of using machine learning algorithms for improving the accuracy of data classification in C2aaS systems</p>
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Source: *author*

Chapter 3. Methodology

3.1 Research Design

In China, SMEs frequently experience capital encirclement and oppression, which hinders their ability to develop and compete in the market. The goal of this study is to examine the issue and identify the most effective strategies to address it.

This study will employ a qualitative research methodology based on in-depth interviews in order to comprehend the manner in which Chinese SMEs break out from the siege when confronted with capital encirclement and repression. The participants' viewpoints and experiences with the issue of capital encirclement and repression experienced by Chinese SMEs can be better understood by the collection of precise, descriptive information from them. As new themes and insights emerge, the qualitative approach will also give the chance to extensively investigate the issue and alternative solutions.

3.2 Research Questions and Objectives

The study's main research questions and objectives were formulated in light of the major issues identified in the literature review. These problems include the inability of SMEs to access capital and high borrowing costs that limit their ability to grow and compete (Gur et al., 2023; Li & Pang, 2023; p. 9), as well as the need for SMEs to adapt to new environmental regulations and consumer preferences for sustainable products and practices (Melo et al., 2023; p. 9; Yang & Deng, 2023; p. 6). Additionally, the importance of SMEs adopting digital platforms and technologies to enhance their operations, marketing, and customer engagement will also be considered, despite the common lack of funds and knowledge to do so (Radicic & Petković, 2023; p.191; Simone et al., 2023; p. 1820–1829; Xiong et al., 2023; p. 8).

The research questions aim to explore the problem, its impact, trend, causes, best solutions, and benefits of solving the problem. The research objectives aim to frame and understand the problem in detail, understand its main impacts, trend, and real causes, discover the best solution, and understand the main benefits of solving the problem.

3.3 Research Tool

A planned interview guide will be the research tool. To clear up any questions, the interview guide will provide the title, a summary of the research, the research institution, and the research contact information. Eight questions covering the research topics and objectives will be included in the interview guide.

3.4 Population and Sample

The research will collect data from 20 participants who are SMEs in China facing capital encirclement and suppression. The sample will be selected using purposive sampling to ensure that the participants have experience and knowledge of the problem. The sample will include SME owners, managers, and employees who have a role in the problem.

3.5 Interview Questions

According to the requirements for the research problem, the following questions are designed:

Question #1: Years of experience

Question #2: Function/role

Question #3: Has your business had difficulty in obtaining capital and borrowing, expanding overseas, sustainability, Digital Transformation, or supply management while operating? What is the number of years of experience your business has in this area?

Question #4: What is the main impact of the above issues, if any, on your business?

Question #5: What do you see as the trend of these issues in the coming years? What is your attitude towards the resolution of these issues?

Question #6: What do you think are the main causes of these problems? What efforts has your company made to address these issues?

Question #7: What do you think is the best solution in terms of solving these problems? Who do you think should be responsible for solving these problems?

Question #8: What benefits would your business receive if the above issues were addressed? How would you assess the importance and priority of these benefits?

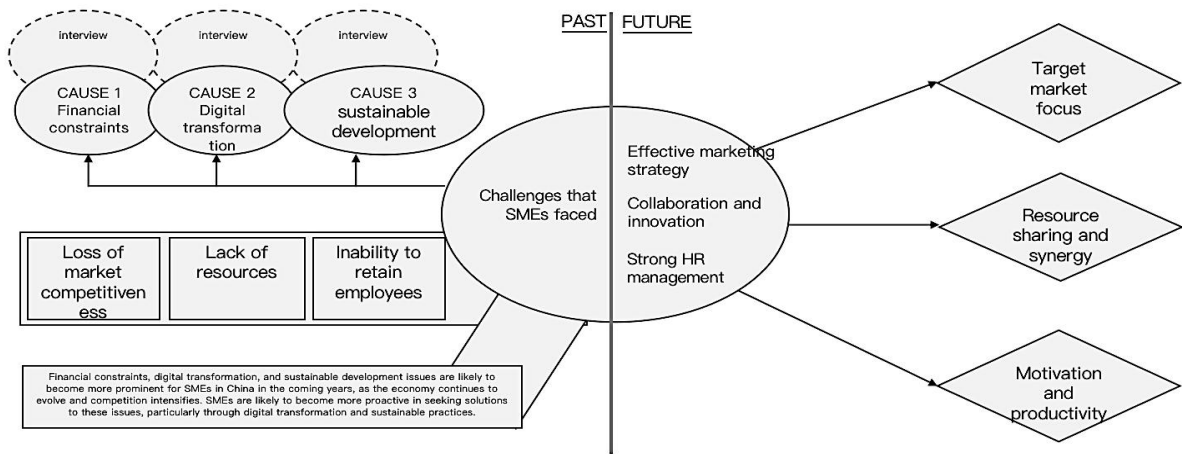


Figure 3.1. Pereira Problem Solving “Research Design Methodology”

Source: author

	faced	expanding overseas, implementing sustainability practices, digital transformation, and supply management were all mentioned as challenges. Some businesses had several years of experience in dealing with these issues, while others were just starting to face them.
4	Impact on business	The main impact reported was financial, with decreased profits and revenue, as well as increased costs. Reduced competitiveness, constrained expansion potential, and reputational harm were among further effects.
5	Trends and Attitudes	The majority of respondents anticipated that these difficulties will persist in the years to come, with some forecasting even more fierce competition and pressure. Businesses had varying perspectives on solutions, with some being upbeat and pro-active and others feeling overwhelmed and unsure of how to go.
6	Causes and Efforts	The main causes of the issues were shown to be internal organizational limits, market competitiveness, regulatory obstacles, a lack of resources, and resource constraints. Businesses had undertaken a number of initiatives to address these issues, such as introducing new technologies, looking for outside investment, and enhancing internal procedures.
7	Best Solutions and Responsibility	Respondents suggested various solutions, such as increasing government support for SMEs, fostering international partnerships, and investing in employee training and development. When it came to responsibility, some felt that the government should take the lead, while others believed that SMEs themselves needed to be proactive in finding solutions.
8	Benefits and Priority	Businesses expected various benefits if the challenges were addressed, such as increased profitability, improved reputation, and greater competitiveness. The priority of these benefits varied depending on the business, with some prioritizing financial benefits and others prioritizing long-term sustainability and growth.

Source: author

- 1) From Figure 4.2, the highest level of contribution to the overall results of the challenges encountered by the SMEs is Digital Transformation with 27.7% of the overall contribution, followed by capital and borrowing with 16.0%, while the lowest percentage of both or Sustainability and Digital Transformation experienced simultaneously, with a contribution of almost 0.

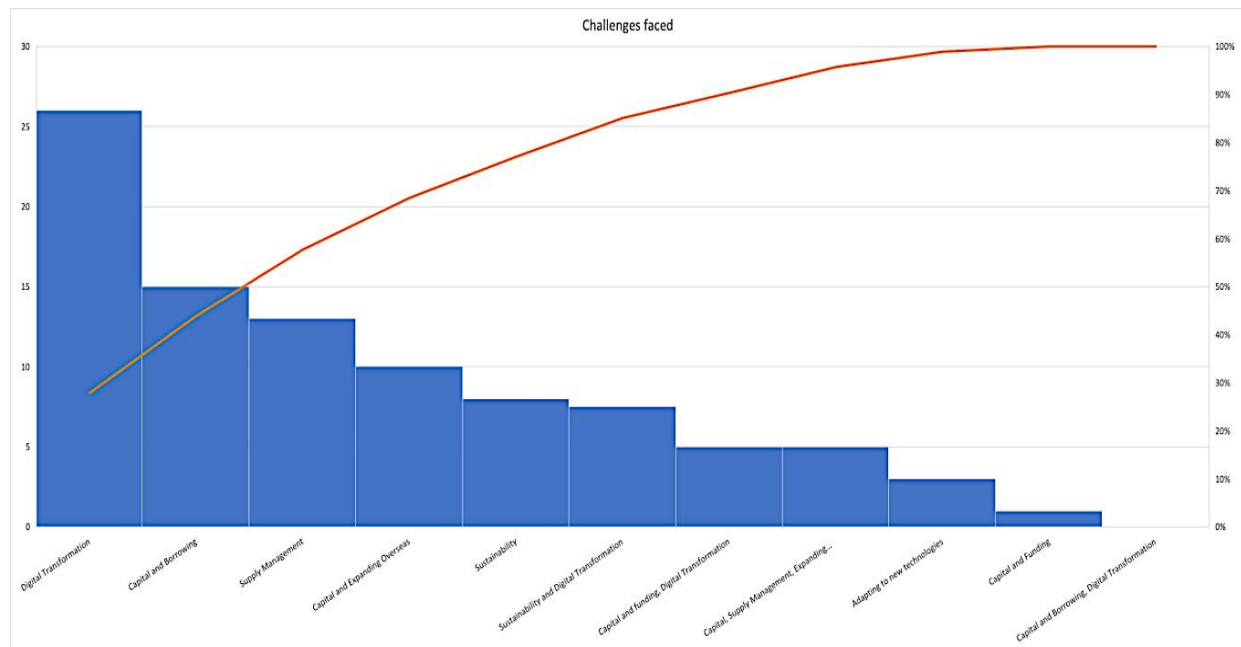


Figure 4.2. Pareto chart of challenges faced

Source: author

- 2) As seen in Figure 4.3, the challenges faced by SMEs will have significant implications. These impacts are broadly divided into six points, which are articulated in terms of competitive factors, Operational Efficiency, Resource and Funding, Digital Transformation, Brand and Reputation, and Growth and Profitability. These are broadly divided into six points: competitive factors, Operational Efficiency, Resource and Funding, Digital Transformation, Brand and Reputation, and Growth and Profitability.

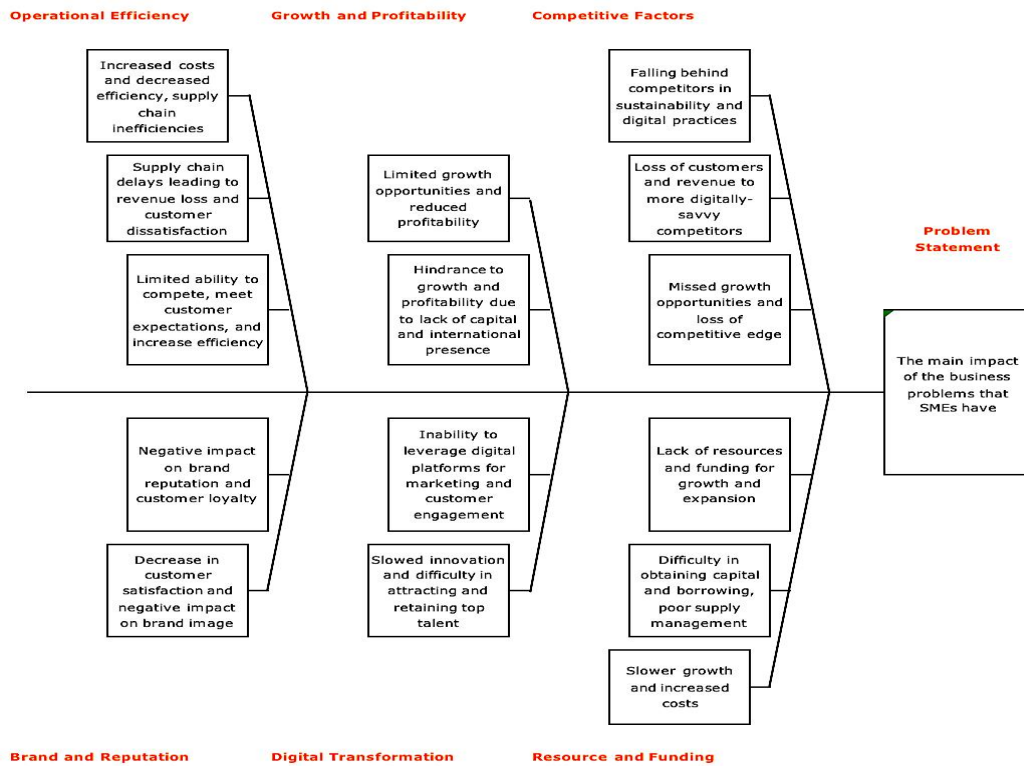


Figure 4.3. fishbone diagram of Impact of business problems

Source: author

- The word cloud diagram shows that the terms that appear most frequently in relation to the impact of the challenges suffered by the SMEs are digital transformation and sustainability.



Figure 4.4. problem trend of SMEs

Source: author

- Figure 4.5 shows the main reasons why SMEs encountered the previously mentioned problems from the financial, strategic, cultural, technological, resource, and market perspectives, respectively.

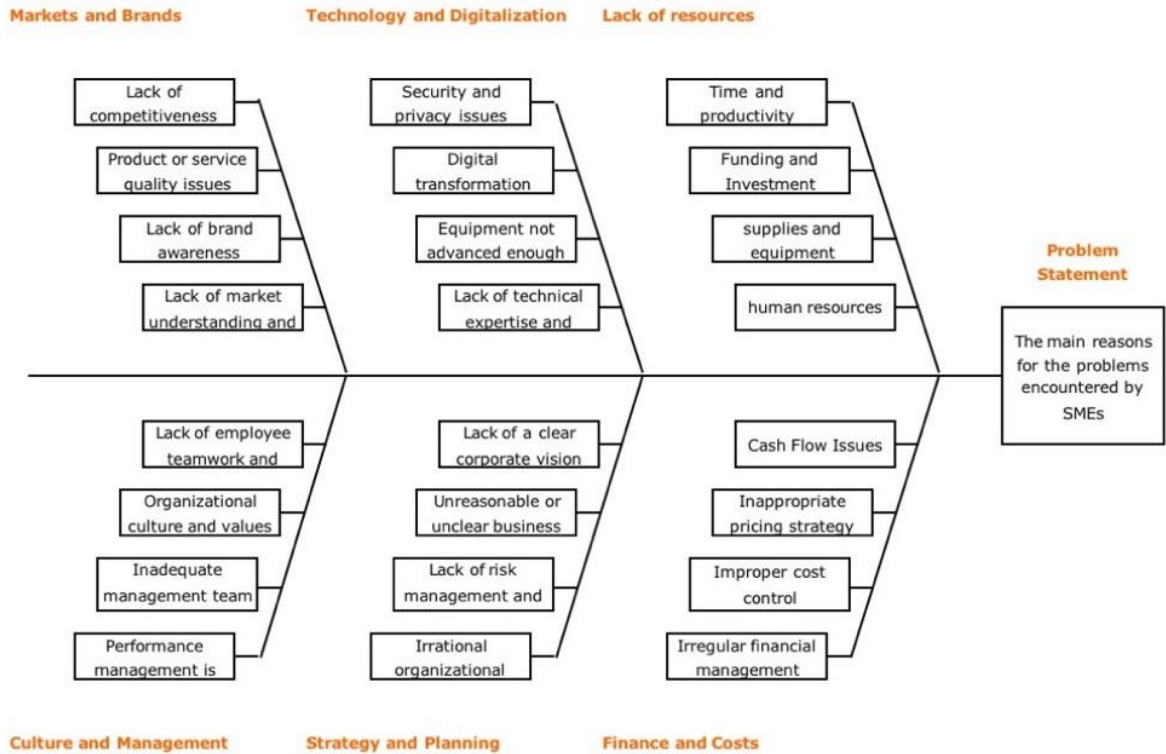


Figure 4.5. fishbone diagram for main causes of the problems faced by SMEs

Source: author

4) Figure 4.6 shows 20 solutions that companies consider feasible to address the challenges of SMEs, and almost every one of them mentions accountability.



Presented with xmind

Figure 4.6. Solutions of challenges SMEs faced

Source: author

5) Figure 4.7 shows that the benefits of addressing the various issues related to digital transformation, customer engagement, operational efficiency and sustainability are numerous and critical to the long-term success and competitiveness of the business. These benefits include increased revenue and profitability, improved brand reputation and customer loyalty, access to capital and growth opportunities, better supply chain management, and the ability to remain relevant and competitive in a rapidly changing marketplace. In addition, addressing these issues can reduce costs, increase efficiency and productivity, improve online presence and customer engagement, and gain a positive reputation.

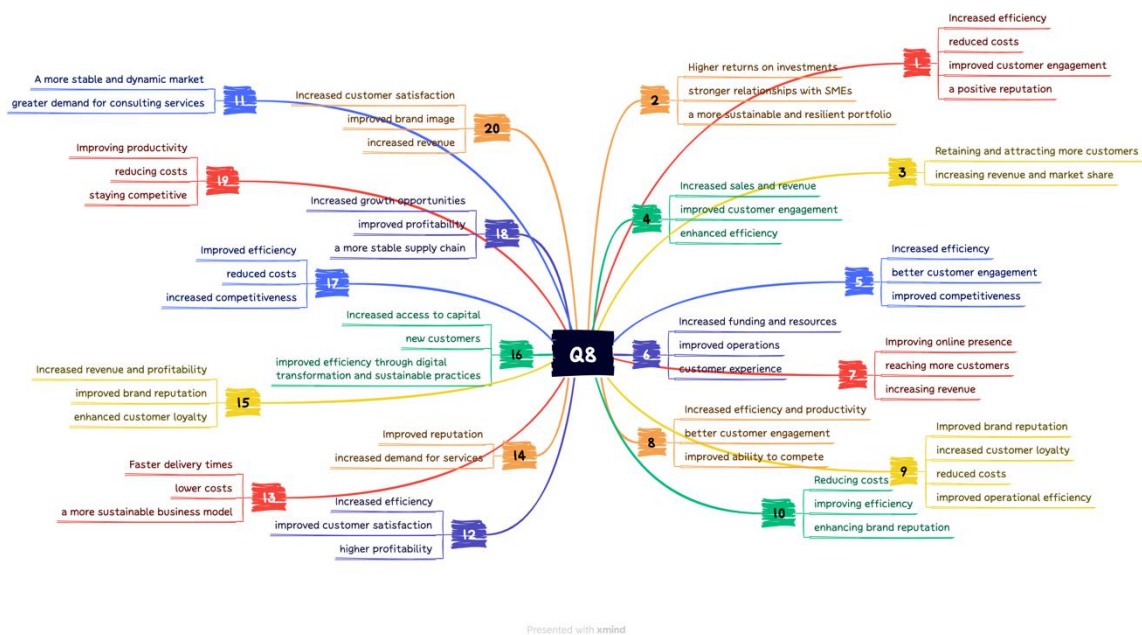


Figure 4.7. Main benefits of solving challenges SMEs faced

Source: author

Chapter 5. Discussion and Findings

The findings, which are supported by literature review, show that SMEs have difficulties with sustainability, digital transformation, and funding. These issues include having insufficient resources and expertise, integrating new technology with outdated systems, and having trouble getting funding. For SMEs, the quick development of digital technology presents a persistent issue. However, a lot of companies are actively looking for methods to be more socially and environmentally responsible. The fundamental effect of these problems is that they make it harder for companies to compete in the market and match consumer expectations, which has a negative impact on efficiency, raises costs, and causes customer churn. The respondents predict issues in supply chain management, access to cash and credit, and the importance of sustainability and digital transformation will grow in the future. It will take investments in new technologies, personnel training, strategic alliances, and sustainability practices to overcome these challenges. Success depends on coordinated efforts from all stakeholders as well as an innovation and change-friendly culture. While the answer will vary depending on the particulars of each business, SMEs encounter a variety of complex problems that call for a comprehensive strategy.

According to the literature study, the survey results for Q3 show that the SMEs confront problems and challenges in a variety of areas, with an emphasis on sustainability, digital transformation, and financing, including access to capital and borrowing. SMEs range in size from over five years to less than a year, with varying degrees of experience in overcoming these barriers. The challenge of keeping up with the rapid advancement of digital technologies is one reoccurring issue. Limited resources and skills, integrating new technologies with old systems, and the time and effort needed for website construction, payment gateway integration, and online customer service are some of the challenges associated with digital transformation. These difficulties hinder the implementation of new technologies and platforms to enhance operations and customer engagement. Furthermore, some SMEs have encountered challenges in accessing capital, especially from traditional banks, and have explored alternative financing options. Nevertheless, many businesses are actively seeking ways to become more environmentally and socially responsible.

The primary impact of the issues highlighted in the Q4 responses is that they impede businesses' ability to compete in the marketplace and meet customer expectations. Specifically, these issues can lead to reduced efficiency, increased costs, slower growth, customer and revenue loss, damage to reputation, and a negative impact on brand image. Additionally, companies may miss growth opportunities, lose their competitive advantage, and experience decreased return on investment, which could affect future support for other

SMEs. However, companies can overcome these challenges by seeking new opportunities, investing in new technologies, and adapting to changes in the marketplace. Ultimately, it is crucial for companies to prioritize sustainable and digital practices to remain competitive and meet the demands of customers and investors.

Regarding the Q5 responses, the views of the respondents regarding future trends indicate that sustainability and digital transformation will become increasingly important in the coming years as technology continues to evolve, and customers become more environmentally conscious. They also think that businesses will continue to face significant challenges related to supply chain management, digital transformation, and access to cash and credit. However, respondents are upbeat that these difficulties may be addressed and solved with the appropriate methods and investments. Resources, training, and departmental coordination should all be prioritized, it was said.

SMEs confront obstacles for a variety of reasons, according to the Q6 replies, including economic issues, obsolete systems and processes, a lack of understanding, resistance to change, and insufficient investment in technology. Poor financial planning, a bad credit history, and a lack of funding sources are further contributing factors. SME's can attempt to overcome these obstacles by putting money into new technologies, hiring and developing staff, collaborating with other groups, implementing sustainable practices, creating fresh tools and methods, and looking into alternative funding options.

To overcome these challenges, companies should invest in new technologies, train and upskill employees, seek external partners and consulting services, adopt sustainable practices, improve financial planning, diversify revenue sources, and explore alternative sources of funding. By doing so, companies can keep up with changing market conditions and gain a competitive advantage.

Based on the Q7 responses, there were diverse opinions on the best solution to the given problem, but some common themes emerged. Most answers suggested investing in technology, employee training, and sustainable practices. Collaboration with technology companies, strategic partnerships, and hiring consultants were also mentioned. In terms of responsibility, most responses indicated that addressing these challenges is a shared responsibility among different departments and stakeholders, including management, IT, operations, government agencies, financial institutions, investors, and employees at all levels of the organization. Some responses emphasized the need for a clear strategy, accountability, and metrics for success. Overall, the solutions depend on the company's specific situation, but a holistic approach involving all stakeholders and a culture of innovation and change are necessary.

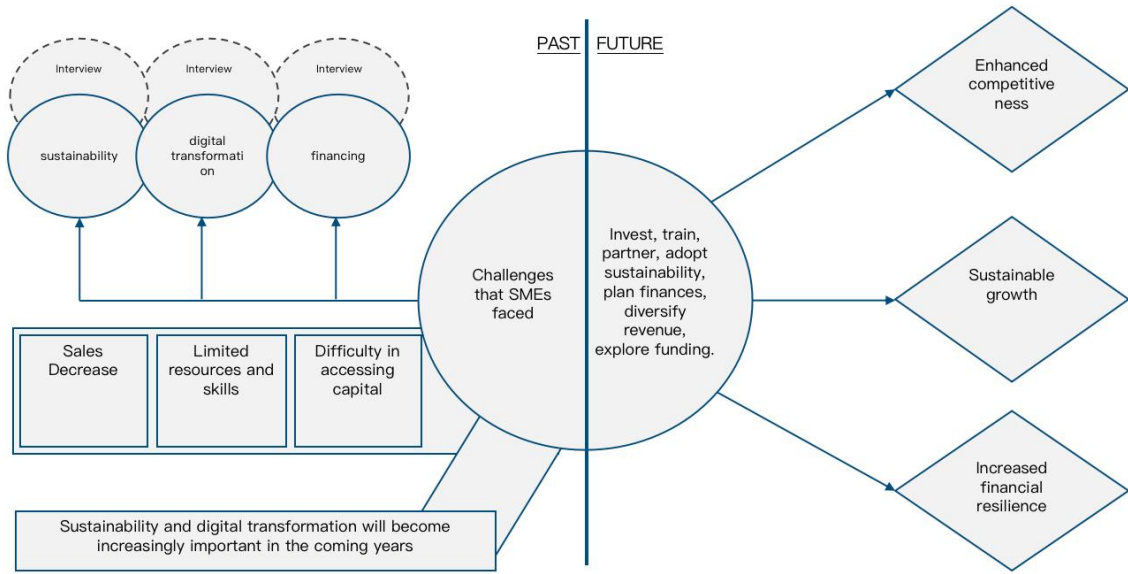


Figure 5.1. Pereira Problem Solving "Findings"

Source: author

Table 5.1. Solution that got from the field research

Author, Year	Main Topics	Main Theoretical / Practical Contribution
Gur, N.et al. (2023)	Finance	Diversifying funding sources, optimizing working capital management, leveraging government support programs, or exploring digital transformation opportunities
Li and Pang (2023)	Finance	digital inclusive finance can compensate for the “long-tail effect” in the financing process and help enterprises obtain financing loans
Ortiz-Martínez, E. et al (2023)	Sustainable Development	Implementing policies encouraging CSR practices and sustainability strategies will create a better society and positively impact SMEs’ performance
Rittershaus, P. et al (2023)	Sustainable Development	SMEs can benefit from adopting circular business models by improving their resource efficiency and reducing their environmental impact.
Simmou, W. et al (2023)	Sustainable Development	external (Environment and Community) and internal (Employees) CSR-related approaches significantly impact environmental performance; a mediation effect of GI on the CSR-EP nexus
Yang and Deng (2023)	Sustainable Development	resource allocation efficiency and information accessibility play a mediating effect in the impact of digitization on enterprise resilience
Bui and Le (2023)	Sustainable Development	digital and creative capabilities can help SMEs overcome external challenges
Radicic, D., and Petković, S. (2023)	Digital transformation	the impact of digitalization on innovation activities is heterogeneous among SMEs; the innovation effects of digitalization depend on firm size, forms of digitalization, and internal R&D; Internal R&D has a moderating effect on product and process innovations

Source: author

Chapter 6. Conclusions

The findings from the literature review indicate that SMEs face challenges in various domains, with a particular focus on sustainability and digital transformation. These challenges include difficulties in accessing capital and borrowing, expanding overseas, implementing sustainable practices, and managing digital transformation and supply chains. Such challenges can hinder SMEs' ability to compete in the market and meet customer expectations. Looking ahead, sustainability and digital transformation will become increasingly important as technology continues to advance and consumers become more environmentally conscious.

Despite these challenges, respondents remain optimistic and believe that with the right strategies and investments, these obstacles can be addressed and overcome. Collaboration among departments and investments in training and resources are key to tackling these issues. The reasons behind the challenges faced by SMEs are diverse, and overcoming them requires investing in new technologies, upskilling employees, seeking external partnerships and consulting services, adopting sustainable practices, improving financial planning, diversifying revenue sources, and exploring alternative funding options. The specific solution depends on each company's unique circumstances, but a clear strategy, accountability, and measurable success metrics are essential.

Addressing issues related to digital transformation, supply chain management, and customer engagement brings about a range of benefits for businesses. These benefits, including increased efficiency, reduced costs, improved customer engagement, enhanced reputation, higher returns on investment, stronger relationships with SMEs, and sustainable growth, are vital for long-term success, growth, and competitiveness.

It is important to note that the sample size of this study was small, comprising only 20 small and medium-sized enterprises, which may introduce limitations. Additionally, the survey conducted through interviews may be influenced by subjective factors of the interviewees, which could introduce some uncertainty regarding the reliability and validity of the data.

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