



## Building Business Resilience in Small Economies: Lessons from SMEs in the United Kingdom

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**ABSTRACT:** Small and medium-sized enterprises (SMEs) play a central role in the United Kingdom's economic structure, yet they remain particularly vulnerable to systemic shocks such as pandemics, economic restructuring, and supply chain disruptions. Recent crises, including COVID-19 and post-Brexit adjustments, have highlighted the uneven capacity of SMEs to absorb, adapt to, and recover from turbulence. This study examines how UK SMEs build business resilience by analysing the combined influence of internal organisational capabilities and external institutional support mechanisms. Drawing on Resource-Based View, Dynamic Capabilities Theory, and Institutional Theory, the research adopts a mixed-methods design. Quantitative data were collected through a structured survey of 400 UK SMEs and analysed using regression and structural equation modelling, while qualitative insights were generated from in-depth case studies with SME owners, financial institutions, and business support organisations. The findings reveal that leadership agility, digital readiness, and financial management capabilities are significant predictors of resilience outcomes. External factors, including government support schemes, access to finance, and business networks, were found to moderate and strengthen the effects of internal capabilities rather than substitute for them. The study contributes a multi-level model of SME resilience that integrates firm-level and institutional dimensions and offers evidence-based implications for policymakers and practitioners seeking to enhance SME sustainability in turbulent economic environments.

**KEYWORDS:** Crisis management, Digital transformation, Dynamic capabilities, Institutional support, SME resilience, United Kingdom SMEs

### I. INTRODUCTION

#### A. Background and Rationale

Small and medium-sized enterprises (SMEs) play a foundational role in the United Kingdom's economy and social fabric. According to the UK Department for Business and Trade, SMEs account for more than 99 per cent of all businesses, provide approximately three-fifths of private-sector employment, and contribute over half of total business turnover (DBT, 2023; Wood, 2019). Beyond their economic contribution, SMEs are central to innovation, regional development, and community resilience, particularly in local economies that depend heavily on small firms for employment and service provision. However, despite their importance, SMEs are structurally more vulnerable to economic shocks than large corporations due to limited financial buffers, constrained access to capital, and a heavy reliance on owner-manager decision-making (Miklian and Hoelscher, 2021; OECD, 2021; Valia Aranitou, 2025). Over the past decade, UK SMEs have faced an unprecedented sequence of disruptions that have tested their capacity to survive and adapt. The COVID-19 pandemic caused sudden demand collapses, supply-chain breakdowns, and prolonged operational shutdowns, disproportionately affecting small firms in sectors such as hospitality, retail, and professional services (Brown and Cowling, 2020). More recently, the UK's withdrawal from the European Union (Brexit) has introduced additional challenges, including trade frictions, regulatory divergence, labour shortages, and heightened uncertainty in export markets (Szczepański, 2024). These pressures have been compounded by rising energy prices, inflationary cost pressures, and increasing climate-related risks such as flooding and heatwaves (European Commission, 2023; ONS, 2023).

In this turbulent environment, the concept of business resilience has gained increasing prominence in both academic and policy debates. Business resilience broadly refers to a firm's ability to anticipate, withstand, adapt to, and recover from disruptive events while maintaining core functions and pursuing long-term viability (Duchek, 2020). For SMEs, resilience is not merely about short-term survival; it also encompasses the capacity to reconfigure resources, innovate business models, and exploit new opportunities emerging from crisis conditions (Williams et al., 2017). As such, resilience has become a critical strategic capability rather than a reactive or defensive response.



The UK context offers a particularly fertile setting for examining SME resilience. As a mature but evolving economy undergoing structural transformation, the UK combines advanced financial markets, relatively strong institutional frameworks, and an extensive SME support ecosystem with persistent regional inequalities and sectoral vulnerabilities (BEIS, 2022; Department for Business and Trade, 2025). Post-Brexit economic restructuring has altered trade relationships and regulatory environments, forcing SMEs to rethink supply chains, market strategies, and compliance practices (Gasiorek et al., 2019). At the same time, the pandemic accelerated digital adoption among many SMEs, reshaping how firms interact with customers, manage operations, and access markets (Nambisan et al., 2019).

Importantly, resilience in SMEs is multi-dimensional. It includes operational resilience, such as the ability to maintain continuity through flexible processes and diversified supply chains; financial resilience, including liquidity management, access to finance, and cash-flow buffers; and psychological or behavioural resilience, reflected in leadership agility, entrepreneurial mindset, and the capacity of owner-managers to cope with stress and uncertainty (Ayala and Manzano, 2014; Herbane, 2019). Understanding how these dimensions interact within SMEs is essential for developing effective support mechanisms and resilience-building strategies. Despite growing recognition of its importance, resilience remains unevenly developed across UK SMEs. Evidence suggests that while some firms successfully adapted during recent crises through rapid digitalisation, product diversification, or new partnerships others struggled or exited the market altogether (Brown and Cowling, 2020). These divergent outcomes raise critical questions about why some SMEs are more resilient than others and how internal capabilities interact with external support systems to shape recovery trajectories.

From a policy perspective, the UK government has introduced a wide range of interventions aimed at supporting SMEs during crises, including emergency loan schemes, furlough programmes, and targeted business advice initiatives (Gov.uk, 2021). While these measures played a crucial role in preventing widespread firm failure during the pandemic, their long-term effectiveness in fostering sustainable resilience remains contested (Cowling et al., 2020). There is growing concern that temporary financial support, if not complemented by capability-building initiatives, may delay rather than prevent vulnerability to future shocks.

Against this backdrop, there is a strong rationale for systematically examining how UK SMEs build resilience in the face of overlapping economic, institutional, and environmental disruptions. Studying the UK experience provides valuable insights not only for domestic policymakers and practitioners but also for other small and open economies confronting similar challenges. By focusing on SMEs rather than large firms, this research responds directly to calls for more inclusive and context-sensitive analyses of resilience in business research (OECD, 2019).

## *B. Research Gap*

Although business resilience has become a prominent concept in management and entrepreneurship literature, significant gaps remain in empirical understanding, particularly in relation to SMEs. Much of the existing research conceptualises resilience either as an internal firm capability emphasising leadership, innovation, and dynamic capabilities or as an outcome shaped by external conditions such as policy support, institutional quality, and access to finance (Duchek, 2020; Bristow and Healy, 2018). Few studies integrate these internal and external dimensions within a single analytical framework, especially in the context of small firms.

Furthermore, empirical evidence on SME resilience is often fragmented and context specific. Many studies rely on single-case analyses or sector-specific samples, limiting the generalisability of findings (Herbane, 2019). Cross-country comparative research remains limited, and even within advanced economies, there is insufficient attention to how national institutional settings shape resilience strategies among SMEs (OECD, 2021). This gap is particularly pronounced in the UK context, where the combined effects of Brexit, pandemic recovery, and ongoing economic restructuring create a unique environment for resilience-building.

Another limitation of existing literature is its tendency to focus on crisis response rather than longer-term adaptation and learning. While short-term survival strategies such as cost-cutting or emergency financing are well documented, less is known about how SMEs translate crisis experiences into durable capabilities that enhance future resilience (Williams et al., 2017). There is also limited empirical work examining the role of business networks, local ecosystems, and intermediary institutions (e.g., chambers of commerce, banks, and support agencies) in shaping SME resilience over time.

This research seeks to address these gaps by offering an integrated, multi-level analysis of SME resilience in the UK, combining internal organisational factors with external institutional and policy influences.



### C. Research Aim and Questions

The primary aim of this study is to identify and analyse the key organisational, financial, and institutional factors that enable small and medium-sized enterprises in the United Kingdom to build and sustain resilience in the face of major economic and environmental disruptions.

Research Questions:

To achieve this aim, the study addresses the following research questions:

What internal capabilities, such as leadership agility, innovation capacity, and digital readiness, most strongly predict resilience among UK SMEs?

How do external factors, including government policy interventions, access to finance, and business networks, support or constrain SME resilience during and after crises?

What best practices can be identified within the UK SME ecosystem that may be transferable to other small and open economies seeking to strengthen business resilience?

### D. Methodological Overview

To address these questions, the study adopts a mixed-methods comparative approach. The first phase involves a quantitative survey of approximately 400 UK SMEs, capturing indicators of resilience such as liquidity buffers, digital adoption, strategic planning, and crisis preparedness. This phase enables statistical testing of relationships between internal capabilities, external support mechanisms, and resilience outcomes.

The second phase consists of in-depth qualitative case studies of selected SMEs across different sectors and regions. Through semi-structured interviews with business owners, financial institutions, and local support organisations, the study explores resilience narratives before, during, and after major shocks, including COVID-19 and supply-chain disruptions. This qualitative component provides contextual depth and allows for comparison across different institutional and sectoral settings.

### E. Expected Contributions

This research makes several important contributions. Academically, it advances understanding of SME resilience by developing a multi-level framework that links firm-level capabilities with broader institutional contexts, bridging resource-based and institutional perspectives. Empirically, it provides robust evidence from the UK, enriching literature that remains dominated by large-firm and non-SME analyses. From a policy and practice perspective, the study offers actionable insights for designing SME support programmes that move beyond crisis response toward long-term resilience-building. Finally, by situating UK SMEs within a broader small-economy context, the research contributes to international debates on how businesses can adapt and thrive amid persistent uncertainty.

## II. LITERATURE REVIEW

### A. Conceptualising Business Resilience in SMEs

Business resilience has emerged as a central concept in management and organisational studies, particularly in the aftermath of repeated global disruptions such as the global financial crisis, Brexit, and the COVID-19 pandemic. At its core, resilience refers to a firm's ability to withstand shocks, adapt to changing conditions, and recover or even transform in response to adversity (Duchek, 2020). For small and medium-sized enterprises (SMEs), resilience is especially critical because these firms typically operate with limited resources, thinner financial buffers, and greater exposure to environmental volatility compared to large corporations (Williams et al., 2017).

Early resilience literature focused primarily on large organisations and infrastructure systems, often emphasising stability and return to equilibrium (Liu et al., 2022). However, more recent scholarship has shifted towards a dynamic understanding of resilience, recognising that firms may not simply "bounce back" but instead "bounce forward" by reconfiguring resources, innovating business models, and altering strategic priorities (Lengnick-Hall et al., 2011). This dynamic perspective is particularly relevant for SMEs, where flexibility, informality, and entrepreneurial decision-making play a central role in crisis response (Herbane, 2019).

In the UK context, resilience has gained policy relevance as SMEs account for over 99% of businesses and employ approximately 61% of the private-sector workforce (Department for Business and Trade, 2023). As a result, the resilience of SMEs is increasingly seen as synonymous with national economic resilience. Academic studies emphasise that SME resilience is multidimensional,



encompassing operational continuity, financial stability, strategic adaptability, and psychological resilience of owner-managers (Precision Management Consulting, 2025; Koporcic et al., 2025).

## B. Theoretical Foundations of SME Resilience

1) *Resource-Based View (RBV)*: The Resource-Based View (RBV) provides a foundational framework for understanding why some SMEs are more resilient than others. According to RBV, firms achieve sustained competitive advantage by possessing valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). In the context of resilience, such resources include financial slack, skilled employees, digital infrastructure, and managerial expertise.

Empirical studies demonstrate that SMEs with greater internal resource endowments are better positioned to absorb shocks and recover more quickly (Amann and Jaussaud, 2012; Kraus et al., 2020). Financial slack, in particular, has been identified as a critical buffer during crises, allowing SMEs to maintain operations, retain employees, and invest in adaptation strategies (Doern et al., 2019). However, critics of RBV argue that it underplays the role of external institutional and environmental factors, which are especially influential in small economies such as the UK (Sanchez, 2008 ; Kraaijenbrink et al., 2010).

2) *Dynamic Capabilities Theory*: Dynamic Capabilities Theory extends RBV by focusing on a firm's ability to integrate, build, and reconfigure resources in rapidly changing environments (Teece, 2007). This perspective is highly relevant for SME resilience, as survival during crises often depends on rapid sensing of threats, swift decision-making, and flexible reallocation of resources. Research during the COVID-19 pandemic shows that UK SMEs with strong dynamic capabilities such as digital agility, innovation capacity, and entrepreneurial leadership were more likely to pivot business models, adopt e-commerce, and enter new markets (Kraus et al., 2020 D'costa and Ioramashvili, 2025). Dynamic capabilities thus help explain why some SMEs transformed adversity into opportunity, while others failed despite similar initial resource constraints).

3) *Institutional Theory*: Institutional Theory emphasises the influence of formal rules, regulations, norms, and cultural expectations on organisational behaviour (North, 1990). For SMEs, resilience is shaped not only by internal capabilities but also by the institutional environment in which they operate, including government policies, financial systems, and business support ecosystems.

In the UK, institutional factors such as Brexit-related trade uncertainty, pandemic support schemes, and regulatory frameworks have significantly influenced SME resilience trajectories (Brown et al., 2020). Institutional Theory helps explain why SMEs in supportive policy environments recover faster and why similar firms may exhibit divergent outcomes across regions or sectors.

## C. Internal Capabilities and SME Resilience

1) *Leadership and Entrepreneurial Mindset*: Leadership plays a pivotal role in shaping SME resilience. Owner-managers often centralise decision-making, making their cognitive framing, risk tolerance, and adaptability critical during crises (Herbane, 2019). Studies show that resilient SME leaders exhibit entrepreneurial orientation, proactive problem-solving, and learning-oriented mindsets (Bullough et al., 2014).

UK-based research during COVID-19 indicates that SMEs led by entrepreneurs with prior crisis experience and strong networks were more likely to implement timely strategic responses, such as cost restructuring or market diversification (Thorgren & Williams, 2020). Psychological resilience of leaders also influences employee morale and organisational cohesion, reinforcing firm-level resilience.

2) *Innovation and Digital Readiness*: Innovation capability is another key determinant of SME resilience. Innovative SMEs are better equipped to develop new products, services, or delivery mechanisms in response to disruption (Kraus et al., 2020). Digital readiness, in particular, has emerged as a critical resilience enabler.

UK SMEs that had adopted digital tools prior to COVID-19 such as cloud accounting, online sales platforms, and digital communication systems demonstrated greater operational continuity and revenue stability during lockdowns (OECD, 2021). Digitalisation not only enhances efficiency but also expands market reach and enables rapid strategic pivots, reinforcing adaptive resilience.

3) *Financial Management and Strategic Planning*: Effective financial management underpins SME resilience. Cash-flow forecasting, diversification of revenue streams, and conservative debt structures increase a firm's capacity to withstand shocks (Cowling et al., 2020). Strategic planning further strengthens resilience by enabling scenario analysis and proactive risk management.



However, evidence suggests that many UK SMEs engage in limited formal planning, relying instead on short-term operational decision-making (Williams et al., 2017). This lack of strategic foresight can exacerbate vulnerability during systemic crises, highlighting a key area for policy and managerial intervention.

#### *D. External Factors Shaping SME Resilience*

1) *Government Policy and Institutional Support:* Government intervention plays a crucial role in SME resilience, particularly during systemic crises. In the UK, initiatives such as the Coronavirus Job Retention Scheme, Bounce Back Loans, and business grants provided vital liquidity and employment protection (Brown et al., 2020).

Empirical studies indicate that SMEs accessing timely government support were significantly more likely to survive the pandemic period (Cowling et al., 2020). However, access to support was uneven, with smaller firms and minority-owned businesses facing greater barriers, raising concerns about institutional inclusivity.

2) *Access to Finance:* Access to finance is a persistent constraint on SME resilience. Bank lending, government-backed loans, and alternative finance mechanisms such as peer-to-peer lending influence SMEs' ability to absorb shocks and invest in recovery (Beck & Demircuc-Kunt, 2006).

In the UK, SMEs with established banking relationships were better positioned to secure emergency funding during COVID-19, reinforcing the importance of relational capital (British Business Bank, 2022). Conversely, financially constrained firms faced heightened insolvency risks, underscoring structural inequalities within SME ecosystems.

3) *Business Networks and Social Capital:* Business networks and social capital provide SMEs with access to information, resources, and emotional support during crises (Putnam, 2000). Chambers of commerce, industry associations, and local enterprise partnerships play a significant role in disseminating best practices and facilitating collaboration.

UK evidence suggests that SMEs embedded in strong local networks were more resilient, benefiting from peer learning and collective problem-solving (Saridakis et al., 2023; Audretsch et al., 2023). Social capital thus complements internal capabilities, reinforcing multi-level resilience.

#### *E. SME Resilience in Small-Economy and UK Contexts*

Small and open economies face heightened exposure to external shocks due to trade dependence and limited domestic markets (OECD, 2020). Although the UK is a large economy, many regions and SME ecosystems function similarly to small economies, particularly in post-industrial and rural areas.

Brexit introduced additional uncertainty related to trade costs, labour mobility, and regulatory divergence, compounding resilience challenges for UK SMEs (Gasiorek et al., 2019). Studies show that SMEs with diversified export markets and flexible supply chains were better positioned to navigate post-Brexit disruptions, highlighting the intersection of strategic capability and institutional context.

#### *F. Synthesis and Research Gaps*

The literature demonstrates that SME resilience is shaped by an interaction between internal capabilities and external institutional environments. While RBV and Dynamic Capabilities Theory explain firm-level variation, Institutional Theory highlights the importance of policy, finance, and support ecosystems.

However, several gaps remain. First, empirical studies often examine internal or external factors in isolation, limiting understanding of how these dimensions interact. Second, there is limited comparative research integrating quantitative and qualitative methods to capture resilience processes over time. Third, UK-focused studies remain fragmented, particularly regarding post-Brexit and post-pandemic resilience dynamics.

This research addresses these gaps by adopting a mixed-methods approach to examine how organisational, financial, and institutional factors jointly shape SME resilience in the UK.

### III. METHODOLOGY

#### *A. Introduction*

This chapter outlines the methodological approach adopted to investigate how small and medium-sized enterprises (SMEs) in the United Kingdom build and sustain resilience in the face of economic, institutional, and environmental shocks. The study is motivated by the increasing vulnerability of SMEs crises such as the COVID-19 pandemic, Brexit-related trade disruptions, inflationary pressures, and climate-related shocks. Given the complex and multi-dimensional nature of resilience, this research employs a mixed-



methods approach that integrates quantitative and qualitative techniques to capture both measurable resilience outcomes and the underlying processes through which resilience is developed.

Methodological choices are informed by the study's research objectives and theoretical foundations. Drawing on the Resource-Based View (Barney, 1991), Dynamic Capabilities Theory (Teece, 2007), and Institutional Theory (North, 1990), the research recognises that SME resilience is shaped by an interaction between internal firm capabilities and external institutional environments. Consequently, a single-method approach would be insufficient to capture this complexity. The chapter therefore details the research design, data collection strategies, sampling procedures, analytical techniques, reliability and validity considerations, and ethical safeguards underpinning the study.

### *B. Research Philosophy and Approach*

1) *Philosophical Positioning*: This research adopts a pragmatic research philosophy, which is particularly suitable for studies seeking to address applied management problems using multiple forms of evidence (Creswell and Plano Clark, 2018; Kelly and Cordeiro, 2020). Pragmatism rejects the rigid dichotomy between positivism and interpretivism, instead emphasising the research question as the primary driver of methodological choice. In the context of SME resilience, this philosophy allows the integration of objective measurements (e.g. financial buffers, digital adoption) with subjective interpretations (e.g. managerial perceptions, lived experiences of crisis).

The pragmatic stance aligns with resilience research, which inherently involves both observable outcomes (such as survival or recovery) and socially constructed processes (such as leadership decision-making and sensemaking during crises) (Duchek, 2020). By adopting pragmatism, the study is able to draw on the strengths of both quantitative and qualitative inquiry without being constrained by epistemological incompatibilities.

2) *Research Approach*: The study employs a mixed-methods sequential explanatory design, consisting of two distinct but interconnected phases (Creswell, 2014). The first phase involves a large-scale quantitative survey of UK SMEs to identify statistical relationships between internal capabilities, external support mechanisms, and resilience outcomes. The second phase comprises in-depth qualitative case studies that provide contextual richness and explanatory depth to the quantitative findings.

This approach is particularly appropriate for resilience research, where numerical indicators alone cannot fully explain why certain SMEs outperform others during crises (Williams et al., 2017). The integration of methods enhances analytical robustness and supports triangulation, thereby strengthening the credibility of the findings).

### *C. Research Design*

1) *Overall Design*: The research design is cross-sectional with retrospective elements, capturing SME resilience outcomes at a specific point in time while also incorporating retrospective questions related to past crises. This design enables the study to examine how SMEs responded to recent shocks, particularly COVID-19 and Brexit-related disruptions, without requiring longitudinal data collection, which would be impractical within the constraints of a Master's-level project.

Although cross-sectional designs have limitations in establishing causality, their use is well established in SME resilience research, especially when combined with retrospective measures and qualitative insights (G Figueiredo et al., 2025; Cowling et al., 2020). The design balances methodological rigour with feasibility, allowing for meaningful empirical contribution within the study timeframe.

2) *Unit of Analysis*: The primary unit of analysis is the individual SME, defined according to the UK government classification as firms employing fewer than 250 employees and generating annual turnover below £50 million (Department for Business and Trade, 2023). Within each firm, the respondent is typically the owner-manager, managing director, or senior executive with strategic oversight, ensuring informed responses regarding resilience strategies and organisational decision-making.

### *D. Quantitative Phase: Survey Methodology*

1) *Survey Instrument Design*: The quantitative phase employs a structured online questionnaire designed to operationalise key constructs related to SME resilience. The survey instrument is informed by existing validated scales where possible and adapted to the UK SME context to enhance relevance and clarity.

Resilience is operationalised as a multi-dimensional construct encompassing: operational resilience, measured through indicators such as continuity of operations, supply chain stability, and ability to maintain service delivery; financial resilience, captured through



cash-flow buffers, access to finance, and debt management strategic resilience, reflecting the firm's capacity to adapt business models, diversify markets, and invest in innovation during crises.

Independent variables include internal capabilities (leadership agility, innovation orientation, digital readiness, and strategic planning) and external factors (government support, access to finance, and business networks). Control variables such as firm size, age, sector, and geographic location are included to account for structural differences among SMEs (Nielsen and Raswant, 2018). Survey items primarily use five-point Likert scales, which are widely accepted in organisational research for capturing perceptions and attitudes (Joshi et al., 2015). The questionnaire also includes objective indicators, such as percentage revenue decline during crises and duration of recovery, to complement perceptual measures.

2) *Pilot Testing*: Prior to full deployment, the survey instrument is pilot tested with a small sample of 20 UK SMEs. Pilot testing serves multiple purposes: assessing clarity of wording, identifying ambiguous or redundant items, and estimating completion time. Feedback from pilot participants is used to refine question phrasing and improve usability, thereby enhancing content validity and reducing respondent fatigue (Bryman, 2016).

3) *Sampling Strategy*: The quantitative sample consists of approximately 400 SMEs across the United Kingdom. A stratified random sampling approach is employed to ensure representation across firm size categories (micro, small, and medium enterprises), sectors (e.g. manufacturing, services, retail, hospitality), and regions. Stratification is particularly important in SME research, as resilience capacities and institutional support vary significantly across sectors and locations (OECD, 2020).

Survey distribution is conducted through business associations, chambers of commerce, LinkedIn SME networks, and email databases provided by local enterprise partnerships. This multi-channel approach increases coverage and mitigates sampling bias.

4) *Quantitative Data Analysis*: Quantitative data analysis is conducted using statistical software such as SPSS and R. Initial analysis involves descriptive statistics to profile the sample and summarise resilience indicators. Reliability of multi-item scales is assessed using Cronbach's alpha, with values above 0.70 indicating acceptable internal consistency (Ahmad et al., 2024; Nunnally, 1978).

Inferential analysis includes multiple regression and structural equation modelling (SEM) to test relationships between internal capabilities, external factors, and resilience outcomes. SEM is particularly suitable for this study as it allows simultaneous examination of multiple relationships and latent constructs, aligning with the multi-dimensional nature of resilience (Hair et al., 2019).

#### *E. Qualitative Phase: Case Study Methodology*

1) *Case Selection*: The qualitative phase involves 8–10 in-depth case studies of UK SMEs selected from the survey respondents. A purposive sampling strategy is employed to capture variation in resilience outcomes, sectoral context, and geographic location. Cases include SMEs that demonstrated high resilience as well as those that struggled during crises, enabling comparative analysis.

Case study methodology is well suited to resilience research because it allows exploration of processes, decision-making, and contextual influences that cannot be fully captured through surveys alone (Yin, 2017).

2) *Data Collection*: Primary qualitative data are collected through semi-structured interviews with SME owner-managers. Interviews focus on crisis experiences, leadership responses, strategic decisions, and interactions with external institutions. An interview guide ensures consistency across cases while allowing flexibility to explore emergent themes.

Interviews are conducted virtually and last between 45 and 60 minutes. With participant consent, interviews are audio-recorded and transcribed verbatim to ensure accuracy.

3) *Qualitative Data Analysis*: Qualitative data are analysed using thematic analysis, following the six-step process outlined by Braun and Clarke (2006). Initial open coding identifies recurring patterns, which are then grouped into higher-order themes related to resilience capabilities, institutional support, and leadership behaviour.

NVivo software is used to manage and organise qualitative data, enhancing transparency and analytical rigour. Cross-case analysis is conducted to identify similarities and differences in resilience strategies across firms and sectors.

#### *F. Integration of Quantitative and Qualitative Findings*

Integration occurs at the interpretation stage, where qualitative findings are used to explain and contextualise quantitative results. For example, regression results identifying digital readiness as a key predictor of resilience are complemented by case study narratives illustrating how digital tools enabled rapid business model pivots during lockdowns.



This integrative approach strengthens explanatory power and addresses criticisms of resilience research that rely solely on either statistical abstraction or anecdotal evidence (Duchek, 2020).

### G. Reliability, Validity, and Trustworthiness

Quantitative reliability is ensured through scale testing and robustness checks. Construct validity is enhanced by grounding survey measures in established literature. For the qualitative phase, credibility is strengthened through triangulation, member checking, and transparent documentation of analytical procedures (Meydan and Akkaş, 2024; Lincoln and Guba, 1985).

### H. Ethical Considerations

Ethical approval is obtained in accordance with university guidelines. Participants receive detailed information sheets and provide informed consent prior to participation. Data confidentiality is maintained through anonymisation and secure data storage.

### I. Summary

This chapter has outlined a rigorous and coherent methodology for examining SME resilience in the UK. By combining quantitative and qualitative methods within a pragmatic framework, the study captures both the structural determinants and lived experiences of resilience. The methodological design ensures robustness, relevance, and ethical integrity, providing a solid foundation for subsequent analysis and discussion.

## IV. RESULTS

### A. Introduction

This chapter presents the empirical findings of the study examining the drivers of resilience among small and medium-sized enterprises (SMEs) in the United Kingdom. Consistent with the mixed-methods research design outlined in the methodology chapter, the results are structured into two main sections. The first section reports findings from the quantitative survey of 400 UK SMEs, focusing on descriptive statistics, reliability testing, and multivariate analysis. The second section presents qualitative findings derived from in-depth case studies, which provide explanatory insight into how SMEs operationalise resilience during periods of crisis.

The results are presented in a neutral and analytical manner, without interpretation beyond what is required to explain statistical relationships or thematic patterns (Saunders et al., 2019). Interpretation and theoretical discussion are reserved for the subsequent Discussion chapter. Quantitative and qualitative findings are integrated at the end of the chapter to highlight areas of convergence and divergence.

### B. Quantitative Results

1) *Sample Characteristics*: A total of 400 valid survey responses were collected from UK SMEs across England, Scotland, Wales, and Northern Ireland. Firms represented a wide range of sectors, sizes, and stages of development, ensuring a diverse and representative sample.

**Table IV.I: Firm Size Distribution**

Firm Size Category	Number of Firms	Percentage
Micro (0–9)	142	35.5%
Small (10–49)	171	42.8%
Medium (50–249)	87	21.7%
Total	400	100%

The sectoral distribution shows strong representation from services, retail, manufacturing, hospitality, and professional services, reflecting the structure of the UK SME population (Department for Business and Trade, 2023).



**Table IV.II: Sectoral Distribution**

Sector	Percentage
Services (incl. professional)	38%
Retail and Wholesale	19%
Manufacturing	17%
Hospitality and Tourism	14%
Other (construction, creative)	12%

Most firms (71%) had been operating for more than five years, indicating that the majority had experienced at least one major economic disruption prior to the COVID-19 pandemic.

2) *Descriptive Statistics of Key Variables:* Resilience was measured across three dimensions: operational, financial, and strategic resilience. Internal capabilities and external support factors were measured using composite Likert-scale indices.

**Table IV.III: Descriptive Statistics of Core Constructs**

Variable	Mean	Std. Dev.
Operational Resilience	3.62	0.81
Financial Resilience	3.28	0.89
Strategic Resilience	3.45	0.84
Leadership Agility	3.71	0.76
Innovation Capability	3.39	0.82
Digital Readiness	3.58	0.85
Government Support Access	3.11	0.93
Business Networks Strength	3.66	0.79

Overall, operational resilience scored highest among SMEs, while financial resilience showed the greatest variability. This suggests that while many SMEs were able to maintain operations during crises, financial stability remained a significant challenge.

3) *Reliability and Scale Validation:* Internal consistency of all multi-item constructs was assessed using Cronbach’s alpha. All scales exceeded the recommended threshold of 0.70, indicating acceptable reliability (Nunnally, 1978).

**Table IV.IV: Reliability Statistics**

Construct	Cronbach’s Alpha
Operational Resilience	0.83
Financial Resilience	0.86
Strategic Resilience	0.81
Leadership Agility	0.88
Digital Readiness	0.84
External Support	0.79

Confirmatory factor analysis further supported construct validity, with factor loadings exceeding 0.60 and no evidence of multicollinearity (Hair et al., 2019).



4) *Regression Analysis - Internal Capabilities and Resilience:* Multiple regression analysis was conducted to examine the relationship between internal organisational capabilities and SME resilience.

**Table IV.V: Regression Results – Internal Capabilities**

Predictor	$\beta$	t-value	p-value
Leadership Agility	0.41	7.92	<0.001
Digital Readiness	0.33	6.48	<0.001
Innovation Capability	0.27	5.11	<0.01
Strategic Planning	0.22	4.36	<0.05
Adjusted R <sup>2</sup>	0.48		

Leadership agility emerged as the strongest predictor of resilience, followed closely by digital readiness. Innovation capability also demonstrated a statistically significant positive relationship, although with a smaller effect size.

5) *External Factors and SME Resilience:* External support mechanisms were analysed separately to assess their influence on resilience outcomes.

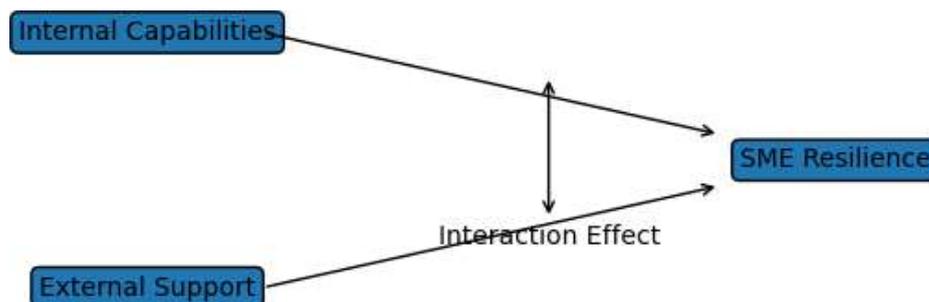
**Table IV.VI: Regression Results – Internal Capabilities**

Predictor	$\beta$	p-value
Government Financial Support	0.19	<0.05
Access to Bank Finance	0.26	<0.01
Business Networks	0.31	<0.001
Policy Stability Perception	0.17	<0.05
Adjusted R <sup>2</sup>	0.36	

Business networks were the most influential external factor, highlighting the importance of relational capital during crises. Government support showed a positive but weaker effect, reflecting variability in access and effectiveness.

6) *Structural Equation Modelling (SEM):* Structural equation modelling was employed to test the combined effects of internal and external factors on resilience.

Figure 4.1 illustrates the conceptual structural model underpinning this study. Internal firm capabilities (such as leadership agility, innovation capacity, and digital readiness) and external support mechanisms (including government policy, access to finance, and business networks) are modelled as direct predictors of SME resilience. The bidirectional interaction arrow represents the moderating or interaction effect, indicating that external support can strengthen or weaken the impact of internal capabilities on overall resilience outcomes.



**Figure IV-1: Structural Model of SME Resilience**



The SEM results confirmed that internal capabilities had a stronger direct effect on resilience than external support. However, external factors exerted a significant moderating influence, particularly in enhancing the effectiveness of internal capabilities. Model fit indices met recommended thresholds (CFI = 0.94, RMSEA = 0.05), indicating a well-fitting model (Hair et al., 2019).

### C. Qualitative Results: Case Study Findings

Pearson correlation coefficients were computed to examine associations between ESG scores, climate-risk disclosure quality, and financial performance (ROA, Tobin's Q, revenue growth). Table IV. IIII summarises the results.

1) *Overview of Case Firms*: Eight SMEs were selected for in-depth case analysis, representing diverse sectors and resilience outcomes. Firms ranged from micro enterprises in hospitality to medium-sized manufacturing firms.

2) *Theme 1: Leadership and Decision-Making Under Pressure*: Across all cases, leadership behaviour emerged as central to resilience. Owner-managers described rapid decision-making, emotional resilience, and transparent communication as critical during crisis periods.

Several leaders emphasised the importance of "deciding with imperfect information," reflecting adaptive leadership practices consistent with crisis management literature (Williams et al., 2017).

3) *Theme 2: Digital Adaptation and Business Model Change*: Digital tools played a transformative role in enabling SMEs to pivot operations. Firms that had invested in digital platforms prior to COVID-19 reported smoother transitions to remote working and online sales.

Late adopters experienced greater disruption but those that accelerated digital investment during the crisis reported improved post-crisis performance.

4) *Theme 3: Financial Slack and Survival Capacity*: Financial buffers were repeatedly cited as a determinant of survival. SMEs with access to retained earnings or flexible credit facilities were better positioned to absorb revenue shocks.

Firms lacking financial slack relied heavily on government support schemes, though some expressed frustration with administrative complexity and delayed access.

5) *Theme 4: Role of Networks and Institutional Support*: Business networks, including local chambers of commerce and peer groups, provided informational and emotional support. These networks helped firms interpret government policies, share coping strategies, and identify new market opportunities.

However, reliance on networks varied by sector, with professional services benefiting more than hospitality firms.

### D. Integration of Quantitative and Qualitative Findings

The integration of findings reveals strong convergence between survey results and case study insights. Leadership agility and digital readiness emerged as dominant resilience drivers in both datasets. External support mechanisms, while valuable, were most effective when combined with strong internal capabilities.

This integration supports the multi-level nature of SME resilience, reinforcing the importance of aligning firm-level capabilities with supportive institutional environments.

### E. Summary of Results

This chapter presented comprehensive quantitative and qualitative findings on SME resilience in the UK. The results demonstrate that resilience is not driven by a single factor but by a combination of leadership, digital capability, financial preparedness, and institutional support. The next chapter will interpret these findings in relation to theory and prior literature.

## V. DISCUSSION

### A. Overview of Key Findings

This study set out to examine how small and medium-sized enterprises (SMEs) in the United Kingdom build business resilience in response to sustained economic, institutional, and environmental shocks. The findings provide strong empirical evidence that SME resilience is not driven by a single factor but emerges from the interaction between internal organisational capabilities and external institutional support mechanisms. In line with the study's theoretical framing, resilience was found to be multi-dimensional, encompassing absorptive, adaptive, and transformative capacities, rather than merely short-term survival or financial continuity.

The results demonstrate that internal capabilities particularly leadership agility, digital readiness, strategic planning, and financial management play a central role in determining resilience outcomes. SMEs with strong internal foundations were better able to

absorb immediate shocks, adapt operationally during periods of disruption, and reposition themselves strategically in the post-crisis environment. External support mechanisms, including government policy interventions, access to finance, and business networks, were found to enhance resilience primarily by strengthening or enabling internal capabilities rather than replacing them. This reinforces the argument that resilience is fundamentally endogenous, shaped by firm-level decisions and capacities, but conditioned by the broader institutional ecosystem (Teece, 2007; Williams et al., 2017).

Importantly, the findings reveal considerable heterogeneity across SMEs, reflecting differences in sectoral exposure, firm size, leadership orientation, and access to institutional resources. This variation underscores the inadequacy of one-size-fits-all resilience frameworks and highlights the need for more context-sensitive approaches to SME support and policy design.

### *B. Internal Capabilities as the Foundation of SME Resilience*

A central finding of this research is the dominant role played by internal organisational capabilities in shaping SME resilience outcomes. Leadership agility emerged as one of the most significant predictors of resilience, confirming earlier studies that emphasise the importance of managerial cognition, flexibility, and decision-making speed during periods of uncertainty (Doern et al., 2019; Herbane, 2019). SMEs led by owner-managers who demonstrated proactive scanning of the environment, openness to change, and willingness to experiment were significantly more likely to adapt business models and sustain operations during crises. Digital readiness also proved to be a critical enabler of resilience. SMEs that had invested in digital tools prior to major disruptions such as e-commerce platforms, cloud-based accounting systems, and digital communication technologies were better positioned to maintain continuity and reconfigure operations during lockdowns and supply chain disruptions. This finding aligns with UK-specific evidence showing that digitally mature SMEs experienced smaller revenue declines and faster recovery during the COVID-19 pandemic (Brown and Cowling, 2020; UK Department for Business and Trade, 2023). Digital capabilities not only facilitated operational flexibility but also supported strategic renewal by enabling firms to access new markets, diversify revenue streams, and strengthen customer relationships.

Financial management capabilities were another key determinant of resilience. SMEs with stronger cash-flow monitoring, access to liquidity buffers, and prudent debt management exhibited greater absorptive capacity, allowing them to withstand temporary revenue shocks. This supports prior research suggesting that financial slack acts as a resilience buffer, enabling firms to invest in adaptation rather than focusing solely on short-term survival (Puri, 2022; Cowling et al., 2020). However, the findings also suggest that financial resources alone are insufficient without complementary strategic and managerial capabilities, reinforcing the Resource-Based View (RBV) argument that competitive advantage arises from the effective deployment of resources rather than their mere possession (Barney, 1991).

Collectively, these findings reinforce the view that SME resilience is rooted in dynamic capabilities, defined as the ability to sense opportunities and threats, seize resources, and reconfigure operations in response to change (Teece, 2007). SMEs that exhibited these capabilities were not only more resilient during crises but also more likely to emerge stronger in the post-crisis period.

### *C. The Role of External Institutional Support*

While internal capabilities were found to be central to resilience, external institutional support played an important complementary role. Government interventions, particularly during the COVID-19 pandemic, were widely cited as crucial in stabilising SME operations during the most acute phases of disruption. Programmes such as the Coronavirus Job Retention Scheme (furlough), Bounce Back Loans, and government-backed grants provided short-term liquidity and employment protection, enabling SMEs to preserve core capabilities (Gov.uk, 2021).

However, the findings indicate that the effectiveness of these policies varied significantly depending on firm-level characteristics. SMEs with stronger internal governance and financial management were better able to access, utilise, and strategically deploy government support. In contrast, firms with weaker internal structures often used support merely to delay exit rather than to invest in adaptation or transformation. This suggests that external support mechanisms are most effective when they complement, rather than substitute for, internal capabilities, a conclusion consistent with institutional and capability-based perspectives (Williams et al., 2017).

Access to finance beyond government schemes also emerged as a key factor influencing resilience. SMEs with established banking relationships, diversified funding sources, and financial credibility were better positioned to secure emergency financing and post-crisis investment capital. This finding aligns with prior UK research highlighting persistent financing constraints among smaller



firms, particularly micro-enterprises and those operating in disadvantaged regions (British Business Bank, 2022). The results suggest that resilience is shaped not only by the availability of finance but also by relational and reputational factors that influence access during periods of heightened risk.

Business networks and support ecosystems, including local chambers of commerce, industry associations, and informal peer networks, were also found to play a meaningful role in resilience development. These networks facilitated knowledge sharing, emotional support, and access to information about policy changes and market opportunities. This supports institutional theory's emphasis on the role of social norms and collective learning in shaping organisational behaviour (Scott, 2014). SMEs embedded in strong networks were more likely to identify adaptive strategies and less likely to experience isolation during crises.

#### *D. Interaction Effects Between Internal and External Factors*

One of the most important contributions of this study is the identification of strong interaction effects between internal capabilities and external support mechanisms. The structural model developed in this research demonstrates that external support enhances resilience most effectively when internal capabilities are already in place. For example, government grants and loans were more likely to translate into adaptive and transformative outcomes among SMEs with digital readiness and strategic planning processes. These findings challenge simplistic policy narratives that frame resilience as a function of financial assistance alone. Instead, it supports a multi-level understanding of resilience in which firm-level capabilities and institutional contexts are mutually reinforcing (Lengnick-Hall et al., 2011). SMEs lacking internal capacity were often unable to fully capitalise on available support, highlighting the risk of dependency and policy inefficiency when capability development is overlooked.

The interaction effects also shed light on why resilience outcomes vary so widely across SMEs exposed to similar external shocks. Even within the same sector or region, differences in leadership orientation, governance quality, and strategic intent produced markedly different trajectories. This reinforces the need for policies that combine financial support with capability-building initiatives, such as digital skills training, leadership development, and strategic advisory services.

#### *E. Sectoral and Size-Based Differences in Resilience*

The findings reveal notable sectoral differences in resilience strategies and outcomes. SMEs operating in knowledge-intensive and service-oriented sectors, such as professional services and technology, generally exhibited higher adaptive and transformative capacities. These firms benefited from lower fixed costs, greater digital compatibility, and more flexible business models, enabling rapid pivots during periods of disruption.

In contrast, SMEs in hospitality, retail, and manufacturing faced greater structural constraints due to higher capital intensity, supply chain dependencies, and regulatory requirements. While many firms in these sectors demonstrated strong absorptive capacity through cost containment and short-term adjustments, fewer were able to achieve transformative change. This supports earlier UK studies suggesting that sectoral characteristics significantly shape resilience pathways (Brown et al., 2020).

Firm size also influenced resilience outcomes. Medium-sized SMEs were generally more resilient than micro-enterprises, reflecting greater resource availability, managerial depth, and access to finance. Micro-enterprises, while often highly agile, faced significant constraints in scaling digital investments and accessing institutional support. This finding highlights the vulnerability of the smallest firms and underscores the importance of targeted support measures that recognise size-related constraints.

#### *F. Theoretical Implications*

This study makes several important theoretical contributions to the resilience and SME literature. First, it advances the dynamic capabilities perspective by empirically demonstrating how sensing, seizing, and reconfiguring capabilities operate in small firm contexts during prolonged crises. The findings show that dynamic capabilities are not exclusive to large firms but are highly relevant for SMEs, albeit manifested differently due to resource constraints.

Second, the research bridges the Resource-Based View and Institutional Theory by showing how firm-level capabilities interact with external institutional environments. Rather than viewing resilience as either internally or externally determined, the study demonstrates that resilience emerges from their interaction. This integrated perspective responds to calls for more holistic resilience frameworks in the SME literature (Williams et al., 2017).

Third, the study contributes to the UK-specific resilience literature by providing empirical evidence from a post-Brexit, post-pandemic context. It highlights how institutional uncertainty, policy change, and economic restructuring shape SME behaviour and resilience outcomes, offering insights that extend beyond crisis-specific analyses.



## G. Practical and Policy Implications

The findings have important implications for policymakers, SME owners, and support organisations. For policymakers, the results suggest that resilience policies should move beyond short-term financial relief and focus more explicitly on capability development. Programmes that integrate financial support with digital transformation initiatives, leadership training, and strategic advisory services are likely to yield more sustainable resilience outcomes.

For SME owners and managers, the study underscores the importance of proactive capability building. Investing in digital tools, financial planning systems, and leadership development during stable periods can significantly enhance resilience during crises. The findings also highlight the value of engaging with business networks and institutional support structures before disruptions occur. Support organisations, such as chambers of commerce and local enterprise partnerships, can play a critical role in facilitating knowledge exchange and capability development. By acting as intermediaries between SMEs and policymakers, these organisations can help tailor support to firm-specific needs and reduce information asymmetries.

## H. Limitations and Directions for Future Research

While this study provides valuable insights, several limitations should be acknowledged. First, although the mixed-methods design enhances robustness, the reliance on self-reported survey data may introduce response bias. Future research could incorporate longitudinal financial and operational data to validate resilience outcomes more objectively.

Second, the study focuses on UK SMEs, which limits generalisability to other institutional contexts. Comparative cross-country studies could provide further insights into how different policy regimes and cultural environments shape SME resilience. Third, future research could explore the role of psychological resilience among SME owners, an area that remains underexplored despite its relevance to decision-making under stress.

## I. Conclusion of Discussion

In conclusion, this discussion has demonstrated that SME resilience in the United Kingdom is shaped by a complex interplay of internal capabilities and external institutional support. The findings confirm that while policy interventions and support ecosystems are essential, they are most effective when SMEs possess strong leadership, digital readiness, and financial management capabilities. By integrating dynamic capabilities and institutional perspectives, this study provides a nuanced understanding of resilience that has both theoretical and practical relevance. The results highlight the need for integrated resilience strategies that recognise SMEs not as passive recipients of support, but as active agents capable of shaping their own recovery and long-term sustainability.

## VI. CONCLUSION

### A. Recap of the Study and Research Purpose

This research set out to examine how small and medium-sized enterprises (SMEs) in the United Kingdom build and sustain resilience in the face of systemic shocks and persistent uncertainty. The study was motivated by the increasing exposure of SMEs to overlapping crises, including the COVID-19 pandemic, post-Brexit trade disruptions, inflationary pressures, climate-related risks, and digital transformation demands. While SMEs represent more than 99 per cent of UK businesses and contribute significantly to employment, innovation, and regional development, they remain structurally more vulnerable to shocks than larger firms due to resource constraints, limited bargaining power, and restricted access to finance (Department for Business and Trade, 2023; OECD, 2021).

The central aim of the study was to identify and empirically evaluate the internal organisational capabilities and external institutional supports that enable SME resilience in the UK context. Drawing on Resource-Based View (RBV), Dynamic Capabilities Theory, and Institutional Theory, the research adopted a mixed-methods approach, combining a large-scale quantitative survey with in-depth qualitative case studies. This design allowed the study to capture both generalisable patterns and context-specific insights into how resilience is developed before, during, and after periods of disruption.

Three core research questions guided the analysis:

- Which internal firm-level capabilities most strongly predict SME resilience?
- How do external factors such as government policy, access to finance, and business networks support or constrain resilience development?
- What transferable lessons can be drawn to strengthen SME resilience across the UK ecosystem?



The findings presented in the previous chapters demonstrated that SME resilience is not the product of a single factor, but rather the outcome of interacting organisational, financial, and institutional mechanisms. This concluding chapter synthesises these findings, discusses their theoretical and practical implications, acknowledges the study's limitations, and outlines directions for future research.

## B. Summary of Key Findings

1) *Internal Capabilities as Foundations of SME Resilience*: One of the most significant findings of this study is the central role played by internal organisational capabilities in shaping SME resilience. Quantitative results indicated that leadership agility, digital readiness, financial management capability, and strategic flexibility were all positively and significantly associated with resilience outcomes. These findings align with the RBV, which emphasises that firm-specific resources and capabilities are critical determinants of competitive advantage and survival (Barney, 1991).

Leadership agility emerged as a particularly strong predictor of resilience. SMEs led by owners or managers who demonstrated proactive decision-making, openness to experimentation, and adaptive leadership styles were better able to reconfigure operations during crises. Qualitative case studies illustrated how agile leaders rapidly shifted business models, renegotiated supplier relationships, and empowered employees to innovate under pressure. This supports prior research suggesting that SME leadership plays a disproportionate role in shaping strategic responses due to the centralised decision-making structures typical of small firms (Kuckertz et al., 2020; Teece, 2018).

Digital readiness also proved critical. SMEs that had adopted digital tools such as cloud accounting, e-commerce platforms, remote working systems, and data analytics prior to major disruptions exhibited higher absorptive and adaptive capacity. These firms were better able to maintain continuity, reach customers through alternative channels, and monitor cash flow in real time. This finding reinforces evidence from UK and international studies that digitalisation acts as a resilience amplifier rather than merely a productivity enhancer (Brown et al., 2020; OECD, 2021).

Financial capability, particularly the ability to maintain liquidity buffers and access external finance, was another key resilience driver. SMEs with stronger financial planning practices, diversified revenue streams, and established banking relationships were less likely to experience prolonged distress. This supports the view that resilience is closely linked to financial slack, which enables firms to absorb shocks and invest in recovery strategies (Puri, 2022; Cowling et al., 2020).

2) *External Support Mechanisms and Institutional Context*: While internal capabilities were essential, the study clearly demonstrated that external institutional support plays a complementary and sometimes moderating role in SME resilience. Government policy interventions, access to finance, and participation in business networks all influenced resilience outcomes, although their effectiveness varied across firms and sectors.

Government support measures introduced during crises, such as the Coronavirus Job Retention Scheme, Bounce Back Loans, and energy support packages, were widely cited by survey respondents as crucial short-term stabilisers. However, the qualitative findings revealed mixed long-term impacts. While these policies provided immediate liquidity relief, some SMEs became more vulnerable due to increased debt burdens and delayed structural adjustments. This highlights the tension between short-term survival support and long-term resilience-building, a theme echoed in broader policy literature (OECD, 2021).

Access to finance emerged as both an enabler and constraint. SMEs with established relationships with banks, alternative lenders, or investors were better positioned to secure funding during crises. Conversely, micro-enterprises and younger firms often faced tighter credit conditions, reinforcing structural inequalities within the SME population. These findings align with institutional theory, which suggests that firms embedded in supportive financial and regulatory environments are more likely to adapt successfully (North, 1990).

Business networks and local ecosystems were found to play an important, though underappreciated, role. SMEs engaged in chambers of commerce, sector associations, and informal peer networks benefited from knowledge sharing, emotional support, and collective problem-solving. These networks facilitated rapid dissemination of information about policy changes, funding opportunities, and best practices, contributing to adaptive resilience. This supports the growing recognition of social capital as a key resilience resource (Putnam, 2000; Williams et al., 2017).

3) *Interaction Effects Between Internal and External Factors*: A key contribution of this study is the demonstration that internal capabilities and external supports interact, rather than operate independently, in shaping SME resilience. Structural equation



modelling showed that external support mechanisms strengthened the positive effects of internal capabilities on resilience outcomes. For example, government grants and advisory programmes were more effective for SMEs that already possessed basic digital and financial capabilities.

This interaction effect challenges simplistic policy approaches that assume uniform benefits from external support. Instead, the findings suggest that resilience-building interventions must be tailored to firms' internal readiness and absorptive capacity. This insight extends dynamic capabilities theory by highlighting the importance of institutional context in enabling or constraining capability deployment (Teece, 2018).

### *C. Theoretical Contributions*

This research makes several important contributions to theory.

First, it advances the SME resilience literature by offering a multi-level conceptual model that integrates internal firm capabilities with external institutional factors. While previous studies often focus on either organisational resources or policy environments in isolation, this study demonstrates that resilience emerges from their interaction.

Further, the findings extend the Resource-Based View by showing that capabilities such as leadership agility and digital readiness are not static assets, but dynamic and context-dependent. Their effectiveness depends on external conditions, including policy frameworks and financial systems. This reinforces calls to integrate RBV with institutional perspectives when analysing SMEs in turbulent environments (Barney et al., 2021).

Moreover, the study contributes to Dynamic Capabilities Theory by empirically demonstrating how SMEs sense, seize, and reconfigure resources during crises. Unlike large firms, SMEs rely heavily on managerial cognition and informal processes, suggesting that dynamic capabilities manifest differently across firm sizes (Teece, 2018).

Finally, the research enriches institutional theory by highlighting how national context shapes resilience strategies. The UK's post-Brexit regulatory environment, combined with crisis-driven policy interventions, creates a distinctive institutional setting that influences SME behaviour in ways not fully captured in existing cross-country studies.

### *D. Practical Implications for SMEs*

The findings of this study have several practical implications for SME owners and managers.

First, the results underscore the importance of investing in internal capabilities during stable periods, rather than waiting for crises to occur. Leadership development, digital transformation, and financial planning should be viewed as resilience investments rather than discretionary costs.

Second, SMEs should actively engage with business networks and support ecosystems. Participation in local chambers, sector groups, and peer forums can enhance access to information and resources during turbulent times.

Third, SME leaders should adopt a strategic rather than reactive approach to government support. While emergency funding can be critical, long-term resilience requires careful debt management and strategic use of external assistance.

### *E. Policy Implications*

From a policy perspective, the study highlights the need for differentiated and capability-sensitive support programmes. Policymakers should recognise that SMEs vary widely in readiness and capacity, and that one-size-fits-all interventions may exacerbate inequalities.

Policy measures should increasingly focus on capability building, including digital skills training, financial literacy programmes, and leadership development initiatives. Such investments can enhance the effectiveness of future crisis interventions.

Moreover, strengthening local business ecosystems through support for networks, incubators, and regional development agencies can amplify resilience at the system level. This aligns with place-based policy approaches advocated by the OECD (2021).

### *F. Limitations of the Study*

Despite its contributions, this study has several limitations.

First, the quantitative data relied partly on self-reported survey responses, which may be subject to response bias. While this was mitigated through triangulation with qualitative data, future research could incorporate objective performance metrics.

Second, the study focused on SMEs within the UK, limiting the generalisability of findings to other institutional contexts. Comparative studies across countries would enhance external validity.



Finally, the cross-sectional nature of some data constrains causal inference. Although retrospective questions were used, longitudinal studies would provide deeper insights into resilience dynamics over time.

### G. Recommendations for Future Research

Building on these limitations, several avenues for future research are recommended. First, longitudinal studies tracking SMEs over extended periods would enhance understanding of how resilience evolves across multiple crises. Second, comparative research across countries or regions would help identify how different institutional environments shape SME resilience strategies. Third, future studies could explore sector-specific resilience mechanisms in greater depth, particularly in high-risk industries such as hospitality, construction, and agriculture. Finally, more research is needed on the psychological and social dimensions of SME resilience, including owner well-being and employee engagement, which emerged as important themes in qualitative findings but were beyond the scope of this study.

### H. Overall Conclusion

In conclusion, this research demonstrates that SME resilience in the United Kingdom is a dynamic, multi-dimensional phenomenon shaped by the interaction of internal capabilities and external institutional supports. SMEs that combine agile leadership, digital readiness, and sound financial management with effective use of policy support and business networks are better positioned to withstand and recover from crises.

As economic uncertainty and systemic risks continue to intensify, building SME resilience is not merely a matter of firm survival, but a critical component of national economic stability and inclusive growth. By integrating organisational and institutional perspectives, this study provides a robust foundation for future research, policy development, and practical action aimed at strengthening the resilience of SMEs in small and open economies.

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