Reframing Strategic Alliances as Transformative Strategies for SMEs: An ADO-TCM Integrative Review

Akinlemi Omololu Akinson, Sundara Rajan C. R. *

VIT Business School, Vellore Institute of Technology, Vellore, India
Email: akinlemi.omololu2023@vitstudent.ac.in
*Corresponding author E-mail: crsundararajan@vit.ac.in

Abstract

Strategic alliances have become imperative for small and medium-sized enterprises (SMEs) to mitigate the challenges of continuous constraints in resources, innovation, and market growth. However, scholarly research on SME alliances is disjointed and isolated and does not often connect why SMEs enter alliances, how alliances are structured, and what outcomes they provide. This study fills this gap by offering an integrated, theory-informed synthesis of alliance processes in SMEs. The SPAR-4-SLR protocol was used in a systematic literature review (SLR) of 61 peer-reviewed articles published between 2014 and 2025. Data was retrieved from the Scopus and Web of Science databases. The Theory-Context-Method (TCM) in conjunction with the Antecedents-Decisions-Outcomes (ADO) framework was applied in the study, which offered contextual and analytical depth. This review uncovers the multilayered dynamics of SME alliances. SMEs seek alliances for resource access, develop adaptive capacities, venture into digital ecosystems, and pursue sustainable objectives. Strategic decisions range from governance to innovation and knowledge integration. The outcomes extend beyond firm performance to innovation capacity, value creation, internationalization, and sustainability. The literature for the study is, however, dominated by resource-based theory, so also is the methodology adopted by most studies which concentrate on cross-sectional quantitative approaches for most of the studies. This review uniquely bridges the fragmented alliance literature through a coherent TCM-ADO synthesis that explores alliance antecedents, strategic choices, and performance outcomes, advancing an agenda that positions alliances as transformative tools and not compensatory tactics for SME competitiveness in dynamic business environments.

Keywords: *Strategic Alliances; SMEs; Competitiveness; TCM-ADO Framework; Collaboration; Systematic Literature Review.*

1. Introduction

Small and medium-sized enterprises (SMEs) are the pillars of the global economy, promoting innovation, employment, and economic growth in various markets. Responsible for more than 90% of firms worldwide, SMEs contribute significantly to gross domestic product (GDP) and employment generation, especially in emerging and developed economies (OECD, 2023; World Bank, 2024). However, SMEs face serious challenges because of their resource disadvantages, such as a lack of economies of scale, poor bargaining power, limited financial resources, and a lack of managerial skills and expertise (Sen et al., 2018; Pu et al., 2020). Strategic alliances have proven to be a strong yet underutilized instrument through which SMEs can overcome these limitations. Collaborative alliances can be formed, by which companies can pool their resources, knowledge, and expertise to overcome these limitations, raise their competitiveness, and attain sustainable growth (Ghezzi et al., 2022; Sucena et al., 2025). Such alliances enable companies to co-create innovations, improve supply chain integration, and react accordingly to rapidly changing market demands (Oyedele and Firat, 2020; Cozzolino et al., 2023; Siagian et al., 2024). Strategic alliances encompass a broad spectrum of inter-firm relationships, ranging from informal knowledge-sharing partnerships to formal joint ventures, international collaborations, vertical supply chain linkages, and network-based collaborations. In the case of SMEs, such collaborations grant them exposure to third-party competencies at large cost savings in terms of knowledge acquisition and market power that cannot be independently accessed (Ferreira and Franco, 2017; Findikoglu et al., 2020). In addition, alliance-centric strategic approaches assume ever-greater importance in the face of global disruptions such as the pandemic-induced lockdowns of the COVID-19 pandemic, which exposed the vulnerability of SMEs operating in isolation and highlighted the imperative of cooperative resilience (European Commission 2020; ILO 2022). Recent research has shown different forms of alliances, such as horizontal collaborations, vertical partnership alliances, and coopetitive collaborations in manufacturing, information technologies, tourism, construction, food, and across regions (da Silva and Marques Cardoso, 2024; Cozzolino et al., 2023). These alliances result in tangible impacts, such as increased competitiveness, better firm performance, higher innovation, and higher international orientation, more often than not underpinned by theory, such as the Resource-Based View (RBV), Network Theory, Open Innovation Theory, and Social Network Theory (Kumalasari, 2025; Milanesi et al., 2020; Albats et al., 2021; Li and Shafait, 2025).

The strategic alliance literature is vast and almost entirely centered on large multinational corporations, with small and medium-sized businesses (SMEs) receiving relatively little attention (Yang et al., 2013). Moreover, the research available often explores specific elements,

such as motivations or outcomes of strategic alliances, in complete isolation without providing a holistic view of how the different antecedents and decision procedures affect the performance of alliances within the SME context. Strategic alliances are essential to SMEs, but no comprehensive review has systematically investigated their antecedents, motivators, and consequences in the industry and geographical context. This fragmented state of research creates difficulties in advancing an integrated understanding of the numerous aspects of strategic alliances and their specific role in enhancing the competitiveness of SMEs. Over the last decade, a few reviews on strategic alliances have shown diverse focuses. The study conducted by Mamedio et al. (2019) examined it alongside dynamic capabilities. Their objective was to understand how organizations adapt their capabilities to take advantage of alliances as a strategic choice that enables them to cope with an unstable environment. He et al. (2020) viewed strategic alliances in the era of digital transformation and exposed the challenges contemporary firms face in the formation, evolution, and dissolution of strategic alliances. Similarly, Ghorbani et al. (2020) reviewed 85 articles focusing on the formation, management, and optimization of strategic alliances. However, Wang and Rajagopalan (2014) emphasize alliance capabilities. They classified capabilities in terms of the level of analysis and alliance stages to identify the most widely studied and understudied capabilities. Capabilities were distinguished based on their effects on value creation and capture. Their framework provides a holistic conceptual treatment of capabilities and identifies the different mechanisms through which different capabilities impact outcomes. However, much of the existing research frames strategic alliances as a compensatory means by which SMEs address resource shortages or access external capabilities; this view is too narrow, as Strategic alliances can play a far more strategic and transformative role. They can help small firms develop new capabilities, stimulate innovation, enter new markets, and ensure they maintain their competitiveness. The transformative impact of strategic alliances lies in their capacity to alter SMEs' resource limitations and create competitiveness through alliances (Khouroh et al., 2019; Kwakye et al., 2025). Through such collaborations, SMEs gain privileged access to valuable assets, such as the latest technologies, marketing knowledge, and sales channels, which otherwise remain out of their reach (Cozzolino et al., 2023; da Silva and Marques Cardoso, 2024). In this sense, positioning strategic alliance as a transformative strategy views alliance as a mechanism for strategic renewal that generates positive outcomes beyond the immediate partnerships and collaborations which strengthen the SME's adaptive capacity in dynamic and fast-changing environments (Eisenhardt and Martin, 2000; Dyer and Singh, 1998). To unpack all the aforementioned, the current study offers an integrative review that systematically maps the antecedents, drivers, and outcomes of strategic alliances in different industries and geographic locations in the SMEs sector, which has hardly been studied compared with the high attention given to large firms. This important gap stems from the lack of integrative frameworks that systematically chart how SMEs make strategic decisions about alliances, what antecedents influence these decisions, and what outcomes are achieved as a result. Much of the existing literature either concentrates on one dimension (e.g., antecedents or performance outcomes) or offers descriptive overviews without connecting conceptual inputs and decision-making processes, as in Ghorbani et al. (2020). To address these challenges, this study offers a framework-guided systematic literature review (SLR) of strategic alliances and SME competitiveness. Based on 61 peer-reviewed articles from 2014 to 2025, we employed the antecedent-decisions-outcomes (ADO) framework in line with the theory-context-methods (TCM) approach by Paul and Criado (2020) to organize and interpret the findings. The ADO framework enables us to follow the logical sequence of why SMEs engage in alliances (antecedents), how they structure and manage them (decisions), and what benefits or harms they ultimately derive (outcomes). The TCM framework enables the contextualization of findings by specifying the theoretical lenses used, the empirical context studied, and the methodological tools employed.

To guide this review, this study responds to the following research questions:

1) RQ1: Which are the most influential theoretical frameworks that account for the relationship between strategic alliances and SME competitiveness?
2) RQ2: What are the dominant industry-focused and geographic contexts in which SME's strategic alliances are examined today?
3) RQ3: What are the drivers, antecedents, and consequences of strategic alliances for increasing SME competitiveness, and how do contextual factors relate to them?
4) RQ4: What are the principal research gaps and future research directions regarding strategic alliances in the context of SME competitiveness?

2. Methodology

This study uses a systematic literature review (SLR) to analyze how strategic alliances drive the competitiveness of small and medium-sized enterprises (SMEs). In terms of methodological rigor and transparency, the review adheres to the SPAR-4-SLR protocol introduced by Paul et al. (2021), which is illustrated with a flow diagram (Figure 1), detailing the assembling, arranging, and assessing steps. To facilitate the analysis of the study, we employed the Antecedent-Decisions-Outcomes (ADO) framework in line with the Theory-Context-Methods (TCM) approach by Paul et al. (2023) guidelines for impactful SLRs and theory building (Paul et al. 2017) also concurs with recent SLR works (e.g., Mishra and Kiran 2025; Rahat et al. 2024) with the ADO-TCM framework. The integration of ADO and TCM enables a comprehensive analysis of the literature. ADO assimilates research findings but overlooks theories, contexts, and methodologies. Lim et al. (2021) suggested that the integration of the two frameworks produces synergy. ADO resolves ambiguities in themes, and TCM fills in research gaps for an integrative, future-oriented approach and comprehension of the literature, which makes the research process clear and unambiguous. The dataset comprises 61 peer-reviewed studies between 2014-2025, downloaded from Scopus and Web of Science (WOS) at a specific period of time through a focused Boolean search. A structured meta-sheet was used to extract bibliometric and thematic variables. The studies were coded manually, enabling the creation of thematic clusters and analytical insights consistent with the ADO model.

2.1. Assembly stage

Identification of Research Scope and Questions

The primary aim of this systematic literature review (SLR) examine the role of strategic alliances in increasing the competitiveness of small and medium-sized enterprises (SMEs) and determine the key mechanisms, theoretical frameworks, and contextual factors. The review focused on four research questions: (1) Which primary theoretical frameworks explain the relationship between strategic alliances and SME competitiveness? (2) What industry-based and geographic contexts dominate studies on strategic alliances in SMEs? (3) What are the antecedents, decisions, and consequences of strategic alliances that lead to enhanced SME competitiveness, and how do contextual factors influence these interactions? (4) What are the most important research gaps and directions for research on strategic alliances in the context of SME competitiveness? The questions were framed to progress towards the scope of the existing literature and to provide an integrated perspective on the topic. The scope of the review was established as strategic alliances in the terms "business alliances,"

"collaborations," and "partnerships," and more specifically, in the SME literature. Competitiveness has been theorized to encompass competitive advantage, firm performance, innovation, and internationalization outcomes. Peer-reviewed English-language journal articles published between 2014 and 2025 were the focus of this review.

2.2. Data collection

To ensure full coverage in the literature search in all aspects necessary, two of the largest academic databases, Scopus and Web of Science (WOS), were selected because they comprehensively cover the areas of business, management, and social sciences. The above search was conducted on the 21st of July 2025 via the Boolean search query: "Strategic alliance*" OR "business alliance*" OR "collaboration*" OR "partnership*" AND "sme*" OR "small and medium scale enterprises" OR "small firms" AND "Competitive*" OR "competitive advantage." A Boolean search query was designed to capture the necessary research related to strategic alliances in small- and medium-scale businesses.

The initial search returned 970 and 849 records in Scopus and WOS, respectively. The inclusion and exclusion criteria were systematically applied to restrict the datasets. The inclusion criteria mandated that studies should: (1) have been published between 2014 and 2025; (2) be published in business, management, economics, or social sciences; (3) be peer-reviewed journal articles; (4) be written in English; and (5) be in the final publication stage. Non-journal articles (e.g., conference articles and books), non-English articles, and articles that were not fully accessible were excluded. After applying the filters, the dataset was reduced to 617 records in Scopus and 548 in WOS by publication year, 425 and 231, respectively, after subject area filtering, 298 and 168 after document type filtering, 285 and 158 after language filtering, and 277 and 158 after publication stage filtering, to provide an aggregated total of 435 unique studies.
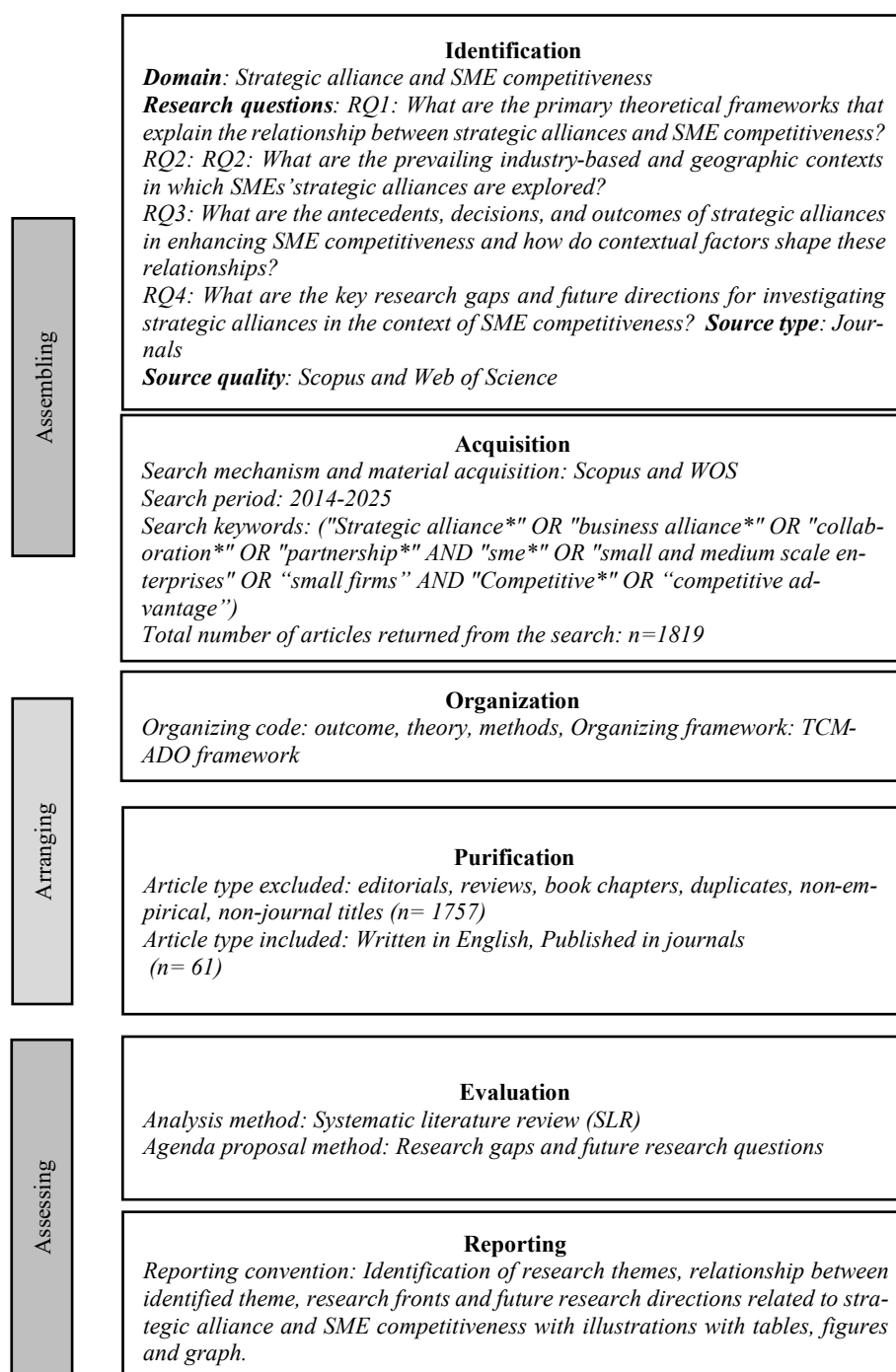
Identification
Domain: Strategic alliance and SME competitiveness
Research questions: RQ1: What are the primary theoretical frameworks that explain the relationship between strategic alliances and SME competitiveness?
RQ2: RQ2: What are the prevailing industry-based and geographic contexts in which SMEs'strategic alliances are explored?
RQ3: What are the antecedents, decisions, and outcomes of strategic alliances in enhancing SME competitiveness and how do contextual factors shape these relationships?
RQ4: What are the key research gaps and future directions for investigating strategic alliances in the context of SME competitiveness? *Source type*: Journals
Source quality: Scopus and Web of Science

Acquisition
Search mechanism and material acquisition: Scopus and WOS
Search period: 2014-2025
Search keywords: ("Strategic alliance" OR "business alliance*" OR "collaboration*" OR "partnership*" AND "sme*" OR "small and medium scale enterprises" OR "small firms" AND "Competitive*" OR "competitive advantage")*
Total number of articles returned from the search: n=1819

Organization
Organizing code: outcome, theory, methods, Organizing framework: TCM-ADO framework

Purification
Article type excluded: editorials, reviews, book chapters, duplicates, non-empirical, non-journal titles (n= 1757)
Article type included: Written in English, Published in journals (n= 61)

Evaluation
Analysis method: Systematic literature review (SLR)
Agenda proposal method: Research gaps and future research questions

Reporting
Reporting convention: Identification of research themes, relationship between identified theme, research fronts and future research directions related to strategic alliance and SME competitiveness with illustrations with tables, figures and graph.

Assembling · Arranging · Assessing

Fig. 1: SPAR-4-SLR Protocol.

2.3. Arranging stage

Organization and Purification

A total of 435 articles were exported to a spreadsheet for processing and secondary screenings. An automated deduplication tool was used to identify and remove 54 duplicates, leaving 381 articles remaining. The remaining articles were screened using a two-stage process. In the first stage, titles and abstracts were screened to evaluate their relevance to strategic alliances and SME competitiveness, and 270 studies were excluded because they were not thematically focused. To increase the reliability of the analysis and, at the same time, maintain the quality standards, the authors selected only those papers that have been published in Q1 and Q2 journals and those published in journals that belong to the ABDC category. Subsequently, 88 papers remained out of 111 papers. In the second stage, full-text assessments were conducted on the remaining 88 articles to evaluate their methodological rigor, empirical or theoretical contributions, and relevance to the research questions. This excluded 21 studies for lack of focus on SMEs or competitiveness, and six studies for inaccessible full texts. The final dataset consisted of 61 articles used for bibliometric and thematic analyses. Figure 2 shows the annual number of publications.

The data were filtered through a meta-sheet that included three main components: (1) description of the search and screening process; (2) bibliometric information (e.g., title, author, year, affiliation, country, journal, and citations); and (3) extensive analysis of content (theories, variables, methodologies, findings, limitations, and research gaps). The structure facilitated systematic coding and aggregation, and hence, traceability and reproducibility.
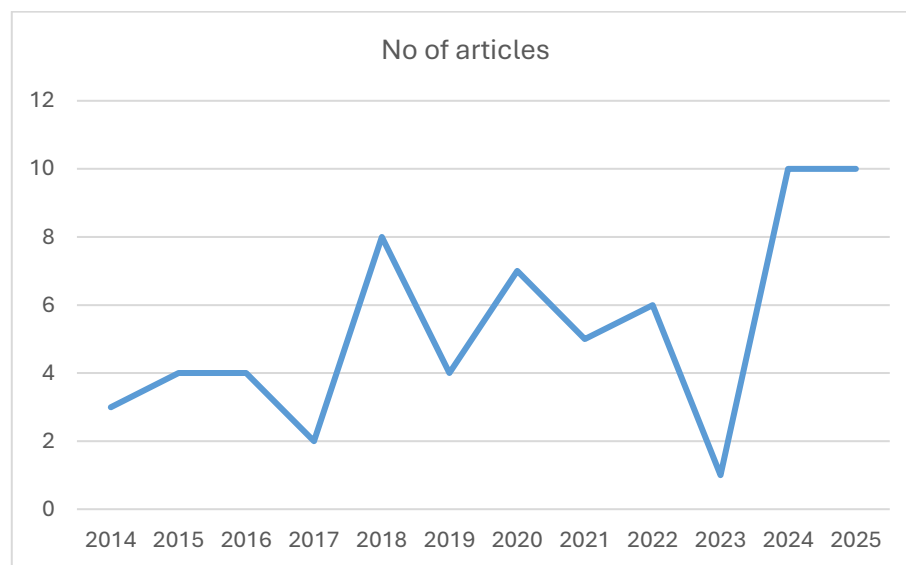

Fig. 2: Articles Selected for the Review (N = 61). Note: as of July 21st, 2025.

2.4. Assessing phase

Evaluation and Analysis

A total of 61 articles were analyzed using a mixed-method approach that combined bibliometric and qualitative content analyses. A bibliometric analysis was conducted to map the publication trends, geographic distributions, and citation patterns. For instance, the dataset revealed a diverse geographic spread, with contributions from countries such as the USA, Italy, Indonesia, India, and Portugal dominating the areas where most work has been conducted. The Sustainability journal has six articles, and Competitiveness Review: An International Business Journal has two, making them the most prominent, as other journals contributed only one article to the study. The citation counts ranged from 0 to 309, indicating varying levels of impact (Table 1). Qualitative content analysis was used to synthesize the findings related to the research questions of this study. A coding framework was developed based on the meta-sheet's content analysis section, focusing on (1) theoretical frameworks (e.g., Resource-Based View, Network Theory); (2) independent, dependent, mediating, and moderating variables; (3) methodologies (e.g., Structural Equation Modeling, case studies); (4) key findings; (5) research gaps; and (6) limitations and research agenda. This process identified recurring themes such as strategic partnerships, horizontal collaboration, innovation, and internationalization. Also. Contextual factors, such as industry type, were also identified in line with the findings. The coding process was conducted in three stages. The first author coded the entire article selected for the review. Subsequently, the second author checked and reviewed the codes, providing additional input and suggesting changes. Then, both authors discussed and finalized the coding, resulting in the final code for the research paper. This process ensured that the coding was not left in the hands of one individual and ensured the reliability of the codes used for the study (Paul et al., 2021).

Table 1: Most Cited Articles in Strategic Alliance Literature

Citation	Context	Journal	Total citations
Della Corte and Aria (2016)	Coopetition and Sustainable Competitive Advantage: The Case of Tourist Destinations	Tourism Management	309
Singh et al (2019)	Applications of Information and Communication Technology for Sustainable Growth of SMEs in the India Food Industry	Resources, Conservation & Recycling	219
Pérez-Bernabeu et al (2015)	Horizontal Cooperation in Road Transportation: A Case Illustrating Savings in Distances and Greenhouse Gas Emissions	International Transactions in Operational Research	156
Albats et al (2021)	Open Innovation in SMEs: A Process View Towards Business Model Innovation	Journal of Small Business Management	134
Benitez et al (2022)	Industry 4.0 Technology Provision: The Moderating Role of Supply Chain Partners to Support Technology Providers	Technological Forecasting and Social Change	115

McAdam et al (2014)	Development of Small and Medium-Sized Enterprise Horizontal Innovation Networks: UK Agri-Food Sector Study	International Small Business Journal	105
Hung et al (2015)	Are alliances a panacea for SMEs? The achievement of competitive priorities and firm performance	Total Quality Management & Business Excellence	91
Ferreira and Franco (2017)	The Mediating Effect of Intellectual Capital in the Relationship Between Strategic Alliances and Organizational Performance in Portuguese Technology-Based SMEs	European Management Review	86
Emami et al (2022)	Examining the relationship between strategic alliances and the performance of small entrepreneurial firms in telecommunications	International Entrepreneurship and Management Journal	80
Jones et al (2014)	Can Small Firms Gain a Relational Advantage? Exploring Strategic Choice and Trustworthiness Signals in Supply Chain Relationships	International Journal of Production Research,	73
Zhao (2014)	A Holistic and Integrated Approach to Theorizing Strategic Alliances of Small and Medium-Sized Enterprises	Business Process Management Journal	71
Ghezzi et al (2022)	Opening up to Startup Collaborations: Open Business Models and Value Co-Creation in SMEs	Competitiveness Review: An International Business Journal	62
Kumar et al (2016)	Study on Collaboration and Information Sharing Practices for SCM in Indian SMEs	International Journal of Business Information Systems	59
Carraresi et al (2016)	Can Strategic Capabilities Affect Performance? Application of RBV to Small Food Businesses	Agribusiness: An International Journal	59
Sen et al (2022)	Strategic Flexibility in Small Firms	Journal of Strategic Marketing	42
Kolade. et al (2019)	Technological constraints to firm performance: the moderating effects of firm linkages and cooperation	Journal of Small Business	42
Adamik et al (2018)	Openness to Co-Creation as a Method of Reducing the Complexity of the Environment and Dynamizing Companies' Competitive Advantages	Management & Marketing: Challenges for the Knowledge Society	40
Oyedele and Firat (2020)	Institutions, Small Local Firms' Strategies, and Global Alliances in Sub-Saharan Africa Emerging Markets	International Marketing Review	32
Soriano et al (2019)	What's Driving Innovation in Small Businesses in Australia? The Case of the Food Industry	Australian Journal of Agricultural and Resource Economics	29
Rahnama et al (2022)	Collaboration in Value Constellations for Sustainable Production: The Perspective of Small Technology Solution Providers	Sustainability	20
Gutiérrez et al (2020)	Analysis of Competitiveness Factors for the Sustainable Productivity of SMEs in Trujillo (Peru)	Revista de Métodos Cuantitativos para la Economía de la Empresa	19
Takyi et al (2022)	Government Support, Strategic Alliance, and Internationalization: Evidence from Indigenous Ghanaian Exporters	Journal of International Entrepreneurship	19
Kafigi (2015)	Strategic Alliance Typology and Survival Chances Among Medium-Sized Manufacturing Firms in Tanzania	Journal of Competitiveness	19
Gerlitz et al (2021)	Marketing and Branding Strategy for the South Baltic Sea Region: Reinforcing Regional Innovation in SMEs through Cross-Border Collaboration Models in the Age of Transformation	Entrepreneurship and Sustainability Issues	17
Andres et al (2022)	The Influence of Collaboration on Enterprises' Internationalization Process	Sustainability	16
Findikoglu et al (2020)	Partnering for Prosperity: Small IT Vendor Partnership Formation and the Establishment of Partner Pools	European Journal of Information Systems	13
Hariastuti et al (2021)	Analyzing the Drivers of Sustainable Value Creation, Partnership Strategies, and Their Impact on Business Competitive Advantages of Small & Medium Enterprises: A PLS-Model	Eastern-European Journal of Enterprise Technologies	12
Milanesi et al (2020)	Exploring SMEs' Qualitative Growth and Networking through Formalization	Competitiveness Review: An International Business Journal	12
Prabhu and Srivastava (2024)	Modeling Transformational Leadership, Supply Chain Collaboration, and Firm Performance – A Case of India	International Journal of Emerging Markets	12
Cozzolino et al (2023)	Horizontal Network Collaboration by Entrepreneurial Ventures: A Supply Chain Finance Perspective	Journal of Small Business and Enterprise Development	9
Khouroh et al (2019)	The Role of Strategic Alliance in Mediating the Relationship Between Environmental Dynamism and Sustainable Competitive Advantage	International Journal of Scientific & Technology Research	9

2.5. Quality assurance

To further improve the overall reliability and soundness of the review, various quality assurance measures were implemented. First, the SPAR-4-SLR protocol was used, which ensured that an open and systematic process was utilized at every step of the review, with proper documentation carefully noted in the given meta-sheet for ready reference and comprehensibility. Second, to further improve the integrity of the results, only peer-reviewed journal articles retrieved from highly rated and reputable databases were used, thereby reducing the potential for publication bias. Finally, the selected review articles were published in Q1 and Q2 journals and journals that belong to the ABDC category.

2.6. Reporting

The reporting stage is a critical step in synthesizing findings using the TCM-ADO framework as an organizational framework. Reporting during this stage presents the findings in a neat narrative format, further complemented by tables and figures that depict and represent major themes, theoretical directions, and empirical observations gathered from the study. Additionally, the explicit data provided by the meta-sheet also served effectively in facilitating a strong and effective integration of the prevailing literature, addressing the primary research question effectively, and identifying fundamental areas of future research studies.
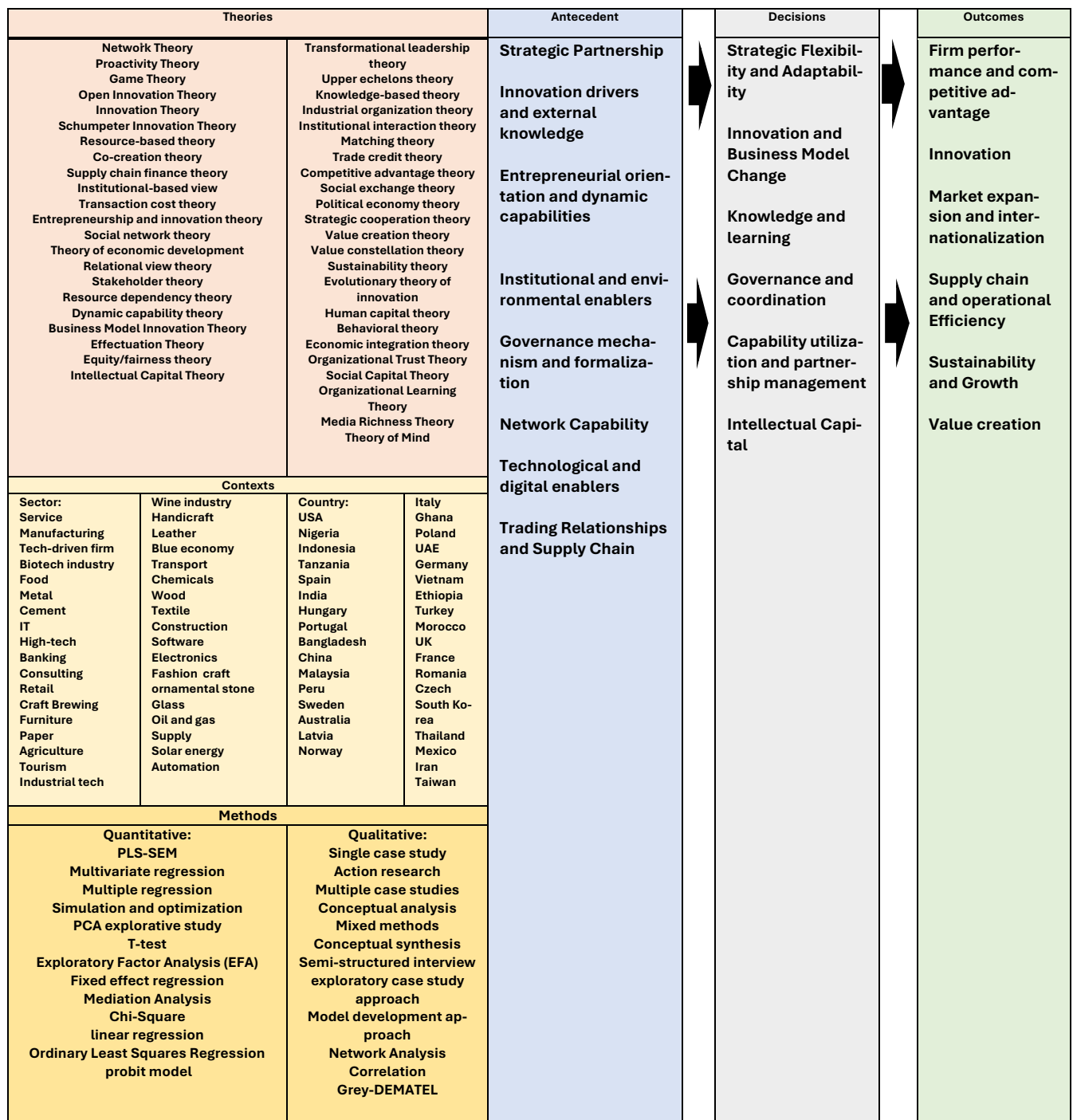
Theories

Network Theory	Transformational leadership theory
Proactivity Theory	Upper echelons theory
Game Theory	Knowledge-based theory
Open Innovation Theory	Industrial organization theory
Innovation Theory	Institutional interaction theory
Schumpeter Innovation Theory	Matching theory
Resource-based theory	Trade credit theory
Co-creation theory	Competitive advantage theory
Supply chain finance theory	Social exchange theory
Institutional-based view	Political economy theory
Transaction cost theory	Strategic cooperation theory
Entrepreneurship and innovation theory	Value creation theory
Social network theory	Value constellation theory
Theory of economic development	Sustainability theory
Relational view theory	Evolutionary theory of innovation
Stakeholder theory	Human capital theory
Resource dependency theory	Behavioral theory
Dynamic capability theory	Economic integration theory
Business Model Innovation Theory	Organizational Trust Theory
Effectuation Theory	Social Capital Theory
Equity/fairness theory	Organizational Learning Theory
Intellectual Capital Theory	Media Richness Theory
	Theory of Mind

Antecedent

- Strategic Partnership
- Innovation drivers and external knowledge
- Entrepreneurial orientation and dynamic capabilities
- Institutional and environmental enablers
- Governance mechanism and formalization
- Network Capability
- Technological and digital enablers
- Trading Relationships and Supply Chain

Decisions

- Strategic Flexibility and Adaptability
- Innovation and Business Model Change
- Knowledge and learning
- Governance and coordination
- Capability utilization and partnership management
- Intellectual Capital

Outcomes

- Firm performance and competitive advantage
- Innovation
- Market expansion and internationalization
- Supply chain and operational Efficiency
- Sustainability and Growth
- Value creation

Contexts

Sector:		Country:	
Service	Wine industry	Italy	
Manufacturing	Handicraft	USA	Ghana
Tech-driven firm	Leather	Nigeria	Poland
Biotech industry	Blue economy	Indonesia	UAE
Food	Transport	Tanzania	Germany
Metal	Chemicals	Spain	Vietnam
Cement	Wood	India	Ethiopia
IT	Textile	Hungary	Turkey
High-tech	Construction	Portugal	Morocco
Banking	Software	Bangladesh	UK
Consulting	Electronics	China	France
Retail	Fashion craft	Malaysia	Romania
Craft Brewing	ornamental stone	Peru	Czech
Furniture	Glass	Sweden	South Korea
Paper	Oil and gas	Australia	Thailand
Agriculture	Supply	Latvia	Mexico
Tourism	Solar energy	Norway	Iran
Industrial tech	Automation		Taiwan

Methods

Quantitative:	Qualitative:
PLS-SEM	Single case study
Multivariate regression	Action research
Multiple regression	Multiple case studies
Simulation and optimization	Conceptual analysis
PCA explorative study	Mixed methods
T-test	Conceptual synthesis
Exploratory Factor Analysis (EFA)	Semi-structured interview
Fixed effect regression	exploratory case study approach
Mediation Analysis	Model development approach
Chi-Square	Network Analysis
linear regression	Correlation
Ordinary Least Squares Regression	Grey-DEMATEL
probit model	

Fig. 3: Comprehensive Overview of the Literature on Strategic Alliances and SME Competitiveness Using the TCM-ADO Framework.

2.6.1. Theories (RQ1)

Numerous theoretical frameworks shape the relationship between strategic alliances and SME competitiveness in the literature. However, the review covers a wide range of theoretical lenses in all 61 studies (see Table 2). The most common was the Resource-Based View (RBV), evident in 24 studies, which considered alliances as a means through which SMEs have access to valuable, rare, inimitable, and non-substitutable resources, including advanced technology, financial capital, and market knowledge, which will enhance their performance (Kafigi, 2015; Emami et al., 2022; Sucena et al., 2025). Network Theory was utilized in eight studies that emphasized the role of relational ties, trust, and social capital in enabling the sharing of resources and collaboration within SME alliances (Milanesi et al., 2020; Takyi et al., 2022). Open Innovation Theory, evident in seven studies, emphasizes alliances as value co-creation and innovation stimulation platforms, especially in technology-based sectors such as biotechnology and information technology (Albats et al., 2021; Ghezzi et al., 2022). The Dynamic Capabilities Theory, used in six studies, emphasizes how alliances allow SMEs to respond to dynamic market environments by sensing, seizing, and reconfiguring capabilities and resources, especially to overcome resource constraints and manage transformation (Febriani et al., 2025; Kwakye et al., 2025).

Relational view theory emphasizes trust-based partnerships to attain collaborative advantages that arise from such relationships (Jones et al., 2014), and resource dependency theory shows how small firms are interdependent; they either supplement or complement their resources and capabilities via partnerships (Findikoglu et al., 2020). These two theories were applied in four studies in this review. Other theoretical frameworks, including competitive advantage Theory, Innovation theory, and Transaction Cost Economics, were discussed in three studies that examined competitive rivalry, value creation, and cost savings in alliance formation (Ghezzi et al., 2022; Takyi et al., 2022; Kafigi, 2015). However, one of the trends noted was the growing use of Open Innovation Theory since 2020, reflecting the rise of

digital ecosystems and collaborative innovation models, especially in the information technology (IT) and biotechnology industries. However, the integration of various theoretical approaches was limited, with only three studies utilizing frameworks such as the Resource-Based View (RBV) and Network, and RBV and Dynamic Capability Theory, to provide a comprehensive view of alliance dynamics. Other theories discussed in this review have been utilized in a single study, with theories such as Business Model Innovation Theory, Organizational trust theory, Institutional-based view, Co-creation theory, and Knowledge-Based View used in two studies.

Table 2: Theories in the study

Theories	articles	Author
Resource-based view	24	Cozzolino et al (2023); Ghezzi et al (2022); Kafigi (2015); Milanesi et al (2020); Zhao (2014); Al-Hanakta et al (2021); Carraresi et al (2016); Chebo and Wubetie (2021); Findikoglu et al (2020); Sucena et al (2025); Kumalasari (2025); Li and Shafait (2025);Siagian et al (2024); Faizan ul Haq and Mohd Suki (2024); Khouroh et al (2019); Sultan et al (2021); Tyll et al (2020); Rodrigues et al (2021); Soriano et al (2019); Ferreira and Franco (2017); Yoon et al (2017); Emami et al (2022); Peng (2025); Hung et al (2015)
Network theory	8	Sen et al (2018); Takyi et al (2022); Milanesi et al (2020); Zhao (2014); Li and Shafait (2025); Israel (2024); McAdam et al (2014); de la Garza and Cuevas Contreras (2016)
Open innovation theory	7	Ghezzi et al (2022); Albats et al (2023); Febriani et al (2025); Izotova and Bolívar-Ramos (2024); Benitez et al (2022); Soriano et al (2019); McAdam et al (2014)
Dynamic capability theory	6	Febriani et al (2025); Siagian et al (2024); Rodrigues et al (2021); Kwakye et al (2025); Qiu et al (2025); Peng (2025)
Resource dependency theory	4	Findikoglu et al (2020); Ramjaun et al (2024); Oyedele and Firat (2020); Yoon et al (2017)
Relational view	4	Chebo and Wubetie (2021); Ramjaun et al (2024); Jones et al (2014); Franco et al (2024)
Innovation theory	3	Zhao (2014); Arora (2015); Soriano et al (2019)
Transaction cost theory	3	Kafigi (2015); Chebo and Wubetie (2021); Yoon et al (2017)
Competitive advantage theory	3	Gârdan et al (2020); Gutiérrez et al (2020); Tyll et al (2020)
Business model innovation theory	2	Ghezzi et al (2022); Albats et al (2023)
Co-creation theory	2	Ghezzi et al (2022); Adamik et al (2018)
Organizational trust theory	2	Jones et al (2014); Qiu et al (2025)
Knowledge-based view	2	Izotova and Bolívar-Ramos (2024); Ferreira and Franco (2017)
Institutional-based view	2	Takyi et al (2022); Kwakye et al (2025)
Intellectual Capital theory	1	Rapaccini et al (2024)
Supply chain finance theory	1	Cozzolino et al (2023)
Stakeholder theory	1	Chebo and Wubetie (2021)
Effectuation theory	1	Alam et al (2024)
Game theory	1	Della Corte and Aria (2016)
Equity and Fairness theory	1	Yao et al (2024)
Transformational leadership theory	1	Prabhu and Srivastava (2024)
Upper echelons theory	1	Prabhu and Srivastava (2024)
Industrial organization theory	1	Khouroh et al (2019)
Institutional interaction theory	1	Oyedele and Firat (2020)
Matching theory	1	Oyedele and Firat (2020)
Social exchange theory	1	Idris et al (2020)
Political economy theory	1	Idris et al (2020)
Value creation theory	1	Hariastuti et al (2021)
Value constellation theory	1	Rahnama et al (2022)
Sustainability theory	1	Rahnama et al (2022)
Human capital theory	1	Soriano et al (2019)
Behavioral theory	1	Della Corte and Aria (2016)
Economic integration theory	1	Siriphattrasophon (2018)
Social capital theory	1	Li Peng and Yu (2025)
Mind Theory	1	Qiu et al (2025)

Organizational learning theory	1	Peng (2025)
Media Richness Theory	1	Franco et al (2024)
Technological innovation systems	1	Kolade et al (2019)

2.6.2. Contexts (RQ2)

The empirical studies included in the literature review demonstrate a strong focus on the manufacturing sector, which has become the most common sector for observing strategic alliances among small and medium-sized enterprises (SMEs). Most studies have focused on traditional manufacturing companies, emphasizing alliance strategies to optimize production efficacy, rationalize resources, and improve innovation capabilities. Outside the manufacturing sector, a substantial portion of the literature explores SMEs in other sectors, such as food, furniture, fashion, services, information technology, tourism, electronics, and technology-driven SMEs. These industries are typically defined by network dependence, knowledge sharing, and scalability, making them conducive to alliance formation. Figure 4 shows the distribution of studies across these sectors. Geographically, a large share of the reviewed studies focuses on SMEs in Asian economies, with Indonesia as the leading country (n = 8), followed by China (n = 5). This trend is consistent with the strategic importance of alliances in fast-growing resource-scarce markets, where SMEs are defined by structural and institutional constraints. From the Western world, Italy has six studies, Portugal with five studies, followed by the United States at four. Four other nations had at least two studies each, while the remaining contributed one study to the corpus. This trend is further described in Figure 5, which shows a clear mapping of the national representation across the corpus. Notably, although the review achieves high geographic diversity, most studies are still single-country oriented, thus limiting the comparative analysis of how differences in institutions, culture, or regulation affect SME strategic alliances. Moreover, some high-growth regions, such as the Middle East, Eastern Europe, and Sub-Saharan Africa, are underrepresented, highlighting the need for studies in these areas. This divergence offers an opportunity for subsequent research to engage in cross-national comparative analyses and examine alliances in varying institutional and economic situations.
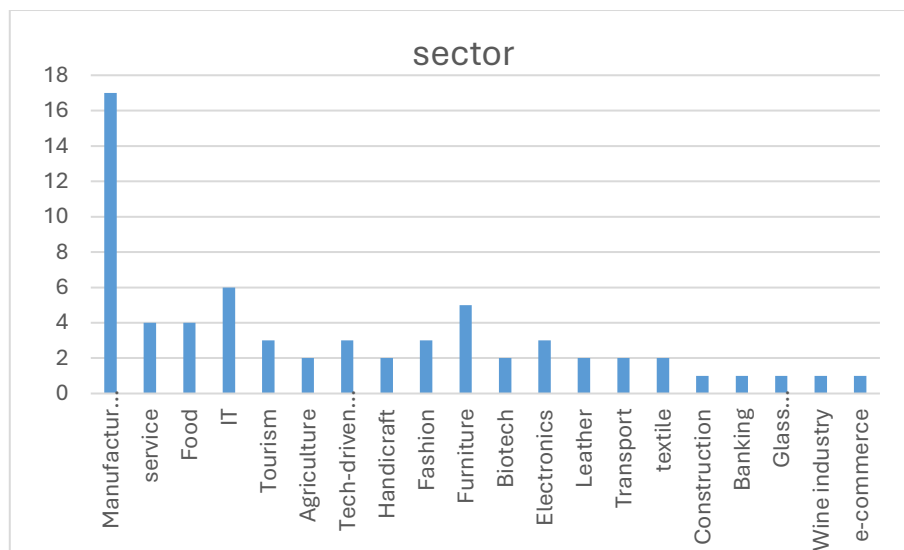
Fig. 4: Study Context.
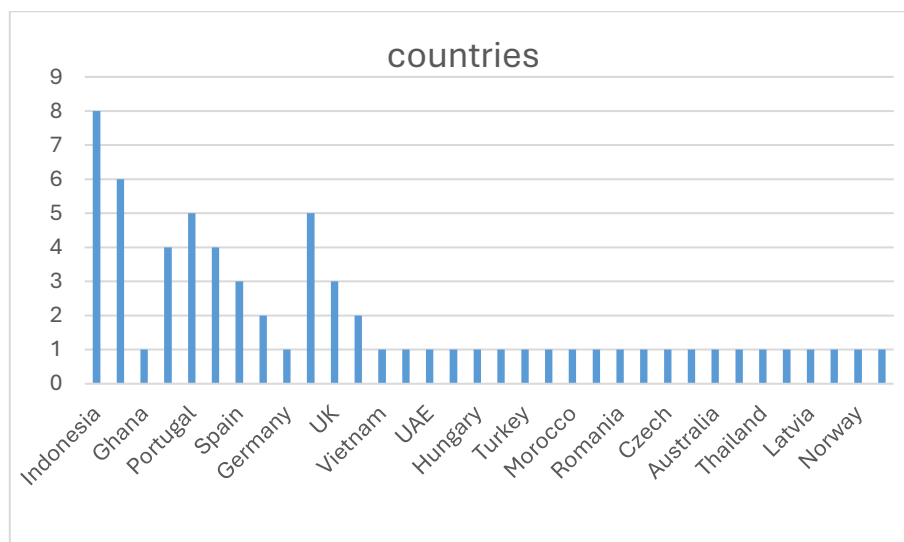
Fig. 5: Study Context.

2.6.3. Methodological frameworks (M in TCM)

The methodological analysis of the included studies, as shown in Table 4, strongly inclined towards quantitative research methods, with a large majority making use of survey-based methods analyzed using advanced statistical methods, such as Structural Equation Modeling, Partial Least Squares (Structural Equation Model), and regression analysis. These methodologies are largely applied to test hypotheses related to alliance antecedents, strategic decision-making, and the performance consequences of strategic alliances in the context of small and medium-sized enterprises (SMEs). Other methodologies included in the study were used in one or two studies each. Although quantitative methods are dominant in these studies, qualitative methods are also present to a certain degree. Qualitative methods, such as multiple case studies, single case studies, conceptual and theoretical analysis, and semi-structured interviews, are the most common qualitative contributions. Although mixed-methodological studies are fewer in number, they are found in two studies, showing a promising trend towards a deeper understanding of the phenomenon. Overall, although the current methodological landscape provides strong empirical evidence, it is largely biased towards quantitative cross-sectional studies. Future studies should concentrate on mixed methods, including the use of longitudinal designs and mixed-method triangulation. Such diversification would further enhance the field's ability to demonstrate the dynamic and context-dependent nature of strategic alliances in the competitiveness of SMEs.

Table 4: Methodology Used in the Study

Data analysis	Type	No of article	Studies
Quantitative	Structural equation modelling	16	Takyi et al., 2023, Le et al., 2021, Chebo and Wubetie, 2021, Sucena et al., 2025, Kumalasari, 2025, Yao et al., 2024, Izotova and Bolívar-Ramos, 2024, Israel, 2024, Idris et al., 2020, Ferreira and Franco, 2017, Jones et al., 2014, Emami et al., 2022, Sari et al., 2024, Kwakye et al., 2025, Qiu et al, 2025, Peng, 2025
	Partial Least Squares SEM	7	Sen et al., 2018, Carraresi et al., 2016, Alam et al., 2024, Li and Shafait, 2025, Siagian et al., 2024, Khouroh et al., 2019, Hariastuti et al., 2021,
	Regression analysis	6	Izotova and Bolívar-Ramos, 2024, Gutiérrez et al., 2020, Benitez et al., 2022, Della Corte and Aria, 2016, Kumar et al., 2016, Kolade et al., 2019
	Principal component analysis	1	Kafigi, 2015
	t-tests	2	Kumar et al., 2016
	Survey research	1	Adamik et al., 2018
	Multiple regression analysis	1	Kafigi, 2015
	Simulation and optimization	1	Pérez-Bernabeu et al., 2015
	Experimental longitudinal study	1	da Silva and Marques Cardoso, 2024
	Hayes process macro	1	Israel, 2024
	Chi-square	1	Gutiérrez et al., 2020
	Cramer's V	1	Gutiérrez et al., 2020
	Phi coefficient	1	Tyll et al, 2020,
	standard random-effects probit model	1	Soriano et al., 2019
	Network analysis	1	Della Corte and Aria, 2016
	Correlation	1	Kumar et al., 2016
	Grey-DEMATEL	1	Singh et al., 2019
	GMM estimation	1	Li et al., 2025
	Path of an analytic approach	1	Hung et al, 2015
Qualitative	Multiple case studies	8	Milanesi et al., 2020, Findikoglu et al., 2020, Albats et al., 2021, Ramjaun et al., 2024, Febriani et al., 2025, Rahnama et al., 2022, Rodrigues et al., 2021, Franco et al., 2024
	Single case study	5	Ghezzi et al., 2022, Cozzolino et al., 2023, Thelisson and Jacquemot, 2025, McAdam et al, 2014, Yoon et al., 2017,
	Conceptual and theoretical analysis	5	Zhao, 2014; Arora, 2015; Yao et al., 2024; Siriphattrasophon, 2018; Vanags et al., 2018
	Exploratory case study	2	de la Garza and Cuevas Contreras, 2016, Oyedele and Firat, 2020
	Semi-structured interview	6	Ghezzi et al., 2022, Milanesi et al., 2020, Findikoglu et al., 2020, Gârdan et al., 2020, Rahnama et al., 2022, Rapaccini et al., 2024
	Action research	1	Cozzolino et al., 2023
	Total interpretive structural modeling	1	Prabhu and Srivastava, 2024
Mixed method	Mixed-method survey	2	Yao et al., 2024, Andres et al., 2022

3. Antecedents Decisions Outcomes (RQ3)

3.1. Antecedents (A)

SMEs adopt strategic alliances in response to a complex set of antecedents that capture internal and external environmental resources. Eight broad themes were identified in the coded variables across the studies. Each theme captures distinct but related motivations and facilitators of alliance formation, as shown in Figure 3 and Table 5.
1) Strategic partnerships

SMEs prefer to form formalized partnerships and collaborations to address resource adequacy, competition, and market access issues. Literature has established partnerships in different forms, ranging from general partnership arrangements to coopetition with competitors collaborating strategically (Sucena et al., 2025; Della Corte and Aria, 2016; da Silva and Marques Cardoso, 2024). Collaborations and cooperation provide SMEs with a strategic option to cut costs, reduce emissions, and enhance service levels (de la Garza and Cuevas Contreras, 2016; Pérez-Bernabeu et al., 2015). Ghezzi et al. (2022) and Cozzolino et al. (2023) outline horizontal networks and collaborations as a strategic option for accessing logistics, new markets, innovative competencies, and joint problem-solving. Other studies emphasize partnership strategy components, Collaboration Competency, Collaboration Initiatives, and Functional Breadth of Collaborations (Izotova and Bolívar-Ramos, 2024; Vanags et al., 2018; Rahnama et al., 2022). This suggests that SMEs do not enter the alliance structure haphazardly; instead, they invest in building well-defined plans that clarify partner expectations and ensure alignment of aims.   Strategic relationships also increase successful internationalization for SMEs that desire access to new markets. Collaborative processes, such as strategy coordination, technological compatibility, and coordination of partners, enable SMEs to overcome principal internationalization barriers, thereby guaranteeing their success (Andres et al., 2022; Thelisson and Jacquemot, 2025).

2) Innovation Drivers and External Knowledge

Innovation imperatives continuously challenge small and medium-sized enterprises (SMEs) to enter alliances that provide access to new ideas, technologies, and markets. SMEs often face significant barriers to internal research and development; thus, alliances have become a preferred choice for accessing external knowledge and capabilities (Kwakye et al., 2025). Entrepreneurship and innovation capabilities are the most significant drivers of collaboration. Innovation strategy is a precursor, and companies develop intentional strategies to co-create with external partners. Developing an innovation-driven culture strengthens relationship-building activities, as innovation success depends on internal cultural readiness coupled with leadership commitment and external collaboration, aided by measurable strategic alignment and dedicated innovation budgets (Zhao, 2014; Israel, 2024).

3) Entrepreneurial Orientation and Dynamic Capabilities

Entrepreneurial orientation promotes learning, develops internal capabilities, and fosters internalized growth by encouraging firms to seek external partnerships as strategic sources of growth. Entrepreneurial drives compel firms to overcome internal constraints by efficiently utilizing external resources to achieve their goals. Entrepreneurial effectuation, with its emphasis on leveraging existing resources and managing uncertainty, allows SMEs to modify their partnership approaches in uncertain business conditions (Alam et al., 2024). Dynamic capabilities enable MSMEs to navigate digital integration, despite resource constraints. These capabilities, such as sensing, seizing, and transforming, are vital for SMEs, as they cooperate to reconfigure resources and respond effectively to environmental changes, which are essential to overcome resource constraints and manage transformation (Febriani et al., 2025).

4) Institutional and Environmental Enablers

External institutional conditions and environmental pressures significantly impact alliance formation. Government financial and non-financial assistance are antecedents, as they provide legitimacy, lower costs, and reduced risk (Takyi et al., 2022). Institutional complexity in the form of fragmented rules and diverse market standards causes small and medium-sized enterprises (SMEs) to cooperate to address such challenges collectively (Oyedele and Firat, 2020). Environmental dynamism in the form of accelerating technological change and market turbulence forces companies to seek partners who can provide flexibility, adaptive ability, and joint risk-bearing (Khouroh et al., 2019).

5) Governance Mechanisms and Formalization

Effective governance mechanisms have been identified as important antecedents of alliances' performance. SMEs emphasize formalization through network contracts to define positions, avoid opportunism, and facilitate mutual accountability. Network contracts facilitate relationship building by strengthening business relations and capacity development through mutual learning, innovation, and process development. Formalization has also promoted trust and enabled firms to achieve shared goals that would otherwise be difficult to achieve individually (Milanesi et al., 2020; Ramjaun et al., 2024). Reputation, Trust, and perceived contractual fairness are deliberate relational investments that reduce uncertainty and attract reliable partners, which also help in building fair and sustainable partnerships (Le et al., 2021; Jones et al., 2014; Yao et al., 2024).

6) Network Capability

SMEs rely on network capabilities to discover, build, and maintain alliances that foster their strategic goals (Kumalasari, 2025). Network Embeddedness enhances trust, reduces monitoring costs, and facilitates knowledge sharing among partners, enabling SMEs to overcome resource constraints by availing social networks, recombining existing resources innovatively, and organizing dynamic environments (Li and Shafait, 2025).

7) Technological and Digital Enablers

Technological preparedness is an emerging critical enabler of SME cooperation. ICT Adoption Enablers, Digital Technology Adoption, and ICT Intensity allow timely communication, reduce coordination costs, and facilitate cross-border collaboration (Rahnama et al., 2022; Soriano et al., 2019). Integrated Industry 4.0 solutions allow SMEs to participate in advanced manufacturing networks and digitally coordinated supply chains (Benitez et al. 2022). Technology adoption is, on average, an indicator of a strategic intention to create digital capabilities that can support advanced digital infrastructure. Therefore, extending ICT access can allow SMEs to coordinate alliances at different geographical locations and scales (Singh et al., 2019).

8) Trading Relationships and Supply Chain

Supply Chain Partnerships guarantee safe input and reduce cost volatility, allowing SMEs to manage input costs, quality, and logistics complexity. This relationship allows firms to share transportation and warehouse assets to increase efficiency (Sen et al. 2018; Siagian et al., 2024). Partnerships are especially useful in fragmented industries, where joint logistics networks and collective bargaining can counter competitive disadvantages (Cozzolino et al., 2023). These partnerships render operational integration tactical and strategic, enabling SMEs to achieve scale efficiency and consolidate their market positions.

3.2. Decisions (D)

Various processes and practices affect strategic decisions in alliances. The thematic analysis of the decision variables extracted from the literature revealed six overarching thematic categories. They described how small and medium-scale enterprises employ alliances to manage internal capabilities, react to external pressures, and deal with relational dynamics.

1) Strategic Flexibility and Adaptability

These are required by SMEs for alliance building, where they can adjust their resources for collaborative prospects amidst changing market conditions (Sen et al., 2018). Such ability should be embedded within an integrated business model that connects internal operations and external partnership strategies and serves as a basis for building alliances (Chebo and Wubetie, 2021). By focusing on flexible, resource-

based leveraging strategies, SMEs can establish critical strategic alliances for development, product diversification, and internationalization (Alam, 2024).

2) Innovation and Business Model Change

Innovation-related decision-making shows how SMEs use alliances to transform their business models and develop new-value propositions. Ghezzi et al. (2022) studied Business Model Innovation as a strategic alliance choice that redefines value creation and delivery through external alliances. Li and Shafait (2025) advance Resource Bricolage, where SMEs strategically combine internal and external resources through alliances to develop innovative solutions under limited resources. This strategy enables SMEs to transform in response to changing environments through proactive planning and collaborative practice, which is a forward-looking strategy for the use of alliances for resource access and redefinition of business logic, new market entry, and maintaining competitiveness through innovation-driven growth.

3) Knowledge and Learning Processes

Most SME' choices target the acquisition, management, and integration of knowledge to create a competitive advantage. These strategic decisions on External Knowledge Acquisition to formalize learning from partners, especially where there is poor local capacity, become necessary (Israel, 2025). Information Acquisition Capability enables SMEs to scan, analyze, and integrate knowledge from partners in a systematic manner that impacts the structure and governance of alliances, and hence enables tacit knowledge transfer (Carraresi et al., 2016; Qiu et al., 2025).

4) Governance and Coordination

Successful coordination and governance are important in alliance management. Cozzolino et al. (2023) refer to Process Reorganization and Network Contract as conscious decisions of making processes formal and defining partner commitments, lowering opportunism, and facilitating coordination. Findikoglu et al. (2020) highlight Partner Considerations consisting of partner selection, goal alignment, and role negotiation. Da Silva and Marques Cardoso (2024) refer to Resource Integration and Service Exchange decisions to explain how the partners combine capability and assets to produce shared value and facilitate effective and sustainable collaborations.

5) Capability utilization and Partnership Management

Alam et al. (2024) identify alliance capabilities as intentional strategic decisions, organizational routines, and competence that enable the proper initiation, management, and renewal of partnerships. Such capabilities are the foundation of strategic flexibility, which enables SMEs to deploy their resources efficiently for diversification and globalization. Complementarily, for internal development, Yao et al. (2024) emphasize relationship value choices, where SMEs reflectively assess and build partnership value by trust-building, reciprocity, and long-term alignment of critical factors to drive innovation through inter-firm collaboration.

6) Intellectual Capital

Small- and medium-scale enterprises leverage and develop their intellectual capital within alliance partnerships, recognizing its dual function as a leading driver of innovation and a critical source of increasing the overall value of these partnerships. It involves intentional choices directed at fostering knowledge sharing, co-creation of new capabilities, and integration of complementary expertise among alliance partners. Intellectual capital helps SMEs build emergent and adaptable strategies through these collaborations, which ultimately allow them to build sustainable competitive advantages and achieve superior financial performance in dynamic market environments by responding more effectively to emerging opportunities and challenges (Ferreira and Franco, 2017; Rapaccini et al., 2024).

3.3. Consequences (O in ADO framework)

Strategic alliances have different and equally beneficial effects on SMEs through increased competitiveness and sustainability. Based on our study findings, we grouped them into six broad categories, each of which was empirically supported in more than one study, as shown in Table 5.

1) Competitive Advantage and Firm Performance

Strategic alliances usually drive SMEs' overall performance and help them attain a competitive advantage. Empirical evidence shows a positive effect on financial, operational, and marketing fronts (Adamik et al., 2018; Sen et al., 2018; Prabhu and Srivastava, 2024; Della Corte and Aria, 2016; Jones et al., 2014; Carraresi et al., 2016; Emami et al., 2022; Kumalasari, 2025). Other studies also report improved operational and organizational performance (Emami et al., 2022; Kumar et al., 2016; Sucena et al., 2025; Ferreira and Franco, 2017). Benitez et al. (2022) provide evidence that strategic alliances improve market responsiveness and competitive positioning, while Oyedele and Firat (2020) relate strategic alliances to SME success under emergent market conditions due to improved strategic flexibility. Strategic alliances are also in the middle of SMEs' efforts to attain good performance in evolving markets (Tyll et al., 2020), improve SME competitiveness (Peng, 2025; Siagian et al., 2024; Idris et al., 2020; Gârdan et al., 2020; Siriphattrasophon, 2018; de la Garza and Cuevas Contreras, 2016; Gutiérrez et al., 2020; Vanags et al., 2018; Rodrigues et al., 2021), and achieve sustainable productivity and long-term competitiveness (Gutierrez et al., 2020; Khouroh et al., 2019; Hariastuti et al., 2021).

2) Innovation

Alliances are fundamental to building SME innovation capacity, which enhances innovation performance, radical and incremental innovation performance, and innovation propensity (Li and Shafait 2025; McAdam et al. 2014; Izotova and Bolivar Ramos 2024; Soriano et al. 2019). Firms also achieve business model transformation and embrace open business models that include embedded external collaboration (Albats et al., 2021; Ghezzi et al., 2022). Other areas include omni-channel transformation, reflecting SMEs' efforts to keep pace with technological change and evolving customer expectations and to enable technological advancement (Febriani et al., 2025; Rahnama et al., 2022). Rahnama et al. (2022) also reflect sustainable production results concerning innovation, reflecting the fact that technological and environmental goals can be built simultaneously through alliances that provide firms with innovation capability and efficiency (Kwakye et al., 2025; Li et al., 2025).

3) Market expansion and Internationalization

Strategic alliances facilitate market internationalization and expansion. The impacts include diversification of markets and products, market share gain, and expansion of companies' overseas markets (Alam et al., 2024). Internationalization success is also achieved in terms of export intensity, geographical scope, and international expansion (Thelisson and Jacquemot, 2025; Andres et al., 2022; Takyi et al., 2022). Venture growth is also a benefit of alliances that facilitate SMEs' entry into new markets (Chebo and Wubetie, 2021). Specifically, both explorative and exploitative alliances play a crucial role in fostering dynamic internationalization capabilities, which subsequently lead to differentiation, cost, and institutional advantages (Peng, 2025).

4) Efficiency in Operations and Supply Chain

Horizontal collaboration and strategic partnerships increase supply chain integration and improve operational performance. It enables companies to reengineer interface procedures and work together to optimize working capital through shared logistics, warehousing, and

procurement strategies. SMEs can cooperate and co-design strategic and operational models to improve the management of collective inventory, cash flow, and logistics, which will increase their financial flexibility, customer satisfaction, and operational resilience (Le et al., 2021; Cozollino et al., 2023).

An advantage it confers on SMEs is that it lowers the routing cost and ensures costs are effective and sustainable for collaborative procurement (Pérez-Bernabeu et al., 2015; Ramjaun et al., 2024).

5) Growth and Sustainability

Various studies have shown that strategic partnerships help SMEs attain sustainable growth patterns. Sustainable growth has been attained through strategic partnerships (Singh et al., 2019; Rodrigues et al., 2021), including sustainable production practices (Rahnama et al., 2022). In addition, qualitative SME development and improved survival opportunities in competitive environments have been highlighted by Milanesi et al. (2020) and Kafigi (2015).

6) Value Creation

Partnerships facilitate collaborative benefits through jointly shared digital infrastructures and institutional alignment, and companies develop value co-creation and operational efficiency across intricate business environments (da Silva and Marques Cardoso, 2024). SMEs can develop a sustainable competitive advantage in the long term through partnerships that enhance the effects of their value creation strategies and develop their market position. Sustainable value creation can greatly increase SME competitiveness, and its effects are further enhanced through strategic partnerships that facilitate the sharing of resources and knowledge across partners (Hariastuti et al., 2021; Rahnama et al., 2022).

Table 5: Study Themes

Antecedent		Clusters	Studies
Theme 1	Strategic Partnership	Collaboration competency, Collaboration initiatives, Collaboration success factors, Collaboration practices, Collaboration with startups, Cooperation and Collaboration, Coopetition, Functional breadth of collaboration, Horizontal network collaboration, Network partnerships, Partnership strategy component, Strategic partnership, Strategic Supplier Partnerships, Driven Coopetition Networks	Cozzolino et al., 2023, Ghezzi et al., 2022, Izotova and Bolívar-Ramos, 2024, Rahnama et al., 2022, Sucena et al., 2025, Della Corte and Aria, 2016, da Silva and Marques Cardoso, 2024, Pérez-Bernabeu et al, 2015, de la Garza and Cuevas Contreras, 2016, Vanags et al., 2018, Rahnama et al., 2022, Thelisson and Jacquemot, 2025, Andres et al., 2022
Theme 2	Innovation Drivers and External Knowledge	Entrepreneurship and Innovation, Innovation Culture, Innovation Strategy, Innovation Capabilities	Zhao, 2014; Isreal, 2024; Kwakye et al., 2025
Theme 3	Entrepreneurial Orientation and Dynamic Capabilities	Entrepreneurship Effectuation, Dynamic Capabilities, Entrepreneurship Motivation, Entrepreneurship Orientation	Nur Alam, 2024, Febriani et al., 2025
Theme 4	Institutional and Environmental Enablers	Environmental Dynamism, Government Financial Support, Government Financial Non-Financial Support, Institutional complexity	Takyi et al., 2022, Oyedele and Firat, 2020, Khouroh et al., 2019, Singh et al., 2019
Theme 5	Governance Mechanisms and Formalization	Formalization via Network Contracts, Governance Structure, Perceived Contractual Fairness, Reputation, Trust, Trust Strategy	Milanesi et al., 2020, Le et al., 2021, Jones et al., 2014, Yao et al., 2024, Ramjaun et al., 2024
Theme 6	Network Capability	Network Capability, Network Embeddedness, Network Relationships	Kumalasari, 2025; Li and Shafait, 2025
Theme 7	Technological and Digital Enablers	Digital Technology Adoption, Enablers of ICT Adoption, ICT Intensity, Integrated Industry 4.0 Solutions, Technology Adoption	Ramayah et al., 2022, Soriano et al., 2019, Benitez et al., 2022, Singh et al., 2019
Theme 8	Supply Chain and Trading Relationships	Strategic Logistics Partnerships, Supply Chain Partnership, Trading Partnerships	Sen et al., 2018, Cozzolino et al., 2023, Siagian et al., 2024
Decisions		Cluster	Studies
Theme 1	Strategic Adaptation and Flexibility	Strategic Flexibility, Alliances with local and foreign partners, Collaborative Relationships	Chebo and Wubetie, 2021, Sen et al., 2018, Takyi et al., 2022, Israel, 2025
Theme 2	Innovation and Business Model Change	Business Model Innovation, Resource Bricolage	Ghezzi et al., 2022, Li and Shafait, 2025
Theme 3	Knowledge and Learning	External Knowledge Acquisition, Information Acquisition Capability, Knowledge Transfer	Carraresi et al. 2016, Israel, 2025, Qiu et al., 2025
Theme 4	Governance and Coordination	Process Reorganization and Network Contract, Partner consideration, Resource Integration and Service Exchange	Cozzolino et al. 2023, Findikoglu et al., 2020, da Silva and Marques Cardoso, 2024
Theme 5	Capability utilization and Partnership Management	Alliance Capabilities, Relationship Value	Nur Alam, 2024, Yao et al. 2024,
Theme 6	Intellectual Capital	Intellectual Capital	Rapaccini et al., 2024; Ferreira and Franco, 2017
Outcomes		Cluster	Studies
Theme 1	Firm Performance and Competitive Advantage	Firm performance, MSME performance, SME performance, competitive advantage, sustainable growth, business performance of SMEs, balanced score card performance, organization performance, strategic behavior and performance, sustainable competitive advantage, marketing performance, SME success, sustainable productivity and competitiveness.	Sen et al, 2018, Prabhu and Srivastava, 2024, della corte and Arial, 2016, jones et al, 2014, Carraresi et al, 2016, kumar et al., 2016, sucena et al., 2025, Ferreira and Franco, 2017, Benitez et al., 2022, Khouroh et al., 2019, Hariastuti et al., 2021, Oyedele and Firat 2020, Tyll et al., 2020, Siagian et al., 2024, Idris et al., 2020, Gardan et al., 2020, Siriphattrasophon, 2018, de la Garza and Cuevas Contreras, 2016, Gutierez et al., 2020, Vanags et al., 2018, Rodrigues et al., 2021, Adamik et al., 2018

Theme 2	Innovation	Innovation outputs, radical innovation performance, innovation propensity, SME innovation capacity, business model transformation, open business model implementation, omni-channel transformation.	Li and Shafait, 2025, McAdam et al., 2014, Soriano et al., 2019, Albats et al., 2021, Ghezzi et al., 2022, Febriani et al., 2025, Izotova and Bolívar-Ramos, 2024, Rahnama et al., 2022, Kwakye et al., 2025
Theme 3	Market expansion and Internationalization	Market diversification, firm growth in foreign markets, global expansion, degree of internationalization, internationalization of SME operations, venture growth, and product diversification.	Nur Alam, 2024, Thelisson and Jacquemot, 2025, Takyi et al., 2022, Andres et al., 2022, Chebo and Wubetie, 2021
Theme 4	Supply Chain and Operational Efficiency	Supply chain finance optimization, supply chain optimization, horizontal cooperation, routing cost, viability, and cost effectiveness of collaborative procurement	Cozzolino et al., 2023, Le et al., 2021, Pérez-Bernabeu et al., 2015, Ramjaun et al., 2024
Theme 5	Sustainability and Growth	Sustainable growth, sustainable growth of SMES, sustainable production, qualitative growth of SMEs	Rahnama et al., 2022, Singh et al., 2019, Milanesi et al., 2020, Kafigi, 2015
Theme 6	Value Creation	Value co-creation, value co-creation through partnerships, willingness to sustain cooperation, partnership formation strategies	da Silva and Marques Cardoso, 2024, Yao et al., 2024, Findikoglu et al., 2020, Israel, 2025

4. Implications of The Study

4.1. Theoretical implications

The study shows that strategic alliances are not just partnerships for sharing resources but essential systems that help SMEs learn, adapt, and compete successfully. By combining the antecedents-decisions-outcomes framework with the theory-context-method approach, this study clarifies the ways in which Strategic Alliances begin, how they are managed, and how they generate long-lasting strategic results. This combined approach blends the different outcomes of previous studies and offers a clear sequence of alliance development. This approach focuses on the idea that alliances are dynamic, recurring arrangements that can aid SMEs in overcoming resource constraints, building new capabilities, and strengthening their position in fast-changing market conditions. Therefore, this study adds to the existing theory by linking collaboration directly to capability development and showing how alliances function as learning and transformation systems that support the long-term competitiveness of small firms. The first theoretical contribution is the process of alliance development. Previous research has often examined either why SMEs form alliances or what outcomes they achieve, without explaining how managerial decisions connect the two. The ADO framework corrects this gap by depicting alliances as continuous routines in which companies detect opportunities, form alliances, and restructure their assets. Alliances signify a pathway along which SMEs utilize and reinforce their dynamic capabilities and their capacity to transform and adapt to evolving conditions. The second contribution is the extension of the Resource-Based View (RBV). The study demonstrates that competitive advantage does not only come from obtaining partner resources but also from combining and transforming them through trust, shared learning, and joint innovation. This perspective links RBV with ideas from Network and Open Innovation theories, providing a more complete picture of how collaboration builds internal strength. Finally, this study refines alliance capability theory by showing that the skill to design, manage, and renew alliances is a strategic capability that drives SME growth and resilience.

4.2. Managerial implications

From a managerial standpoint, this review highlights the strategic significance of alliances as intentional and future-oriented choices rather than a reactive response to unforeseen challenges. SMEs enter alliances to survive and pursue wider goals, such as market development, technological innovation, organizational learning, and international expansion. The findings from these studies emphasize that alliances generate the most value when they are driven by a clear strategic intent, supported by both formal and trust-based governance, and aligned with the firm's internal capabilities and external opportunities. The most important managerial implication is that alliances based on learning, digitalization, and the co-creation of value produce the most innovative and sustainable outcomes. Open innovation and coopetition approaches, for instance, enable SMEs to access external knowledge and technologies without sacrificing control or autonomy. The success of such collaborative efforts relies on managerial skills, visionary leadership, and strategic agility, which facilitate the flexible adaptation of structures and business models with evolving partnerships. Organizations with superior dynamic capabilities, the capacity to perceive new opportunities, exploit them judiciously, and reconfigure assets, are better placed to capture the full potential of alliances. Notably, the success of an alliance is determined less by the partner or structure per se but by a firm's internal preparedness and leadership inclination. Partner selection decision practices, governance formalization levels, and depth of network embeddedness all impact alliance performance. Managers should build alliance capabilities, such as trust management, learning systems, coordination procedures, and knowledge-sharing routines, to ensure recurrent value creation from alliances. Strengthening such skills will enable SMEs to transform alliances into long-term innovation, competitiveness, and strategic growth pillars.

4.3. Policy and institutional implications

This review emphasizes the key role of institutional and policy support in enhancing SME alliance strategies. Scholarly reports show that public sector interventions through access to finance, training programs, supportive legal frameworks, and cluster-based initiatives play a vital role in helping SMEs initiate and sustain partnerships. Governments that ensure the provision of both financial aid and institutional legitimacy and a stable regulatory environment can substantially amplify the collaborative potential of their SMEs. Second, intermediary organizations, such as innovation centers, chambers of commerce, and universities, act as significant enablers of inter-firm learning. They decrease the cost of doing business, broker trust among partners, and connect SMEs with broader innovation ecosystems. Policymakers should see strategic alliances as more than an instrument of internationalization or economies of scale, but as comprehensive strategies for inclusive growth and sustainability. Policy design should facilitate long-term cooperation that fosters innovation, value creation, and competitiveness. Moreover, the enabling environment should be contextual to the structural and cultural conditions of SMEs, where informality, resource constraints, and relationship governance define the operating environment. Thus, supporting mechanisms should be adaptable, context-defined, and readily available to smaller companies. By coordinating institutional policies with the day-to-day SME

conditions of operation, governments and intermediaries can generate smarter, innovative, and sustainable alliance networks that cumulatively lead to national competitiveness and inclusive economic growth.

5. Directions for further research (RQ4)

This review identifies key gaps and opportunities for future research on strategic alliances and SME competitiveness. One significant limitation of the existing literature is the prevalence of single-theory applications, most notably the Resource-Based View (RBV). Although RBV effectively describes how SMEs deploy alliances to gain access to valuable yet scarce resources, a single application of RBV ignores the relational, institutional, and dynamic features that govern alliance behavior. Future research should therefore undertake multi-theoretical studies that combine RBV with Network Theory, Dynamic Capabilities, Open Innovation, Co-creation, Institutional Interaction, and Social Exchange theories. Such theoretical integration would facilitate a deeper understanding of how trust, learning, and governance develop within collaborative spaces and how alliances facilitate capability renewal. Second, the existing research has narrow geographic and contextual coverage. The evidence base remains over-represented in a limited number of nations, such as Indonesia, India, the United States, Italy, and Portugal, with the remainder of the world, such as regions of sub-Saharan Africa, Latin America, Eastern Europe, and the Middle East, remaining poorly represented. This disproportion hinders the generalizability of the findings and theoretical development. Future research should undertake cross-national comparative studies that compare and contrast how different policy systems, cultural norms, and institutional maturity differentially affect alliance formation, governance, and outcomes. Such studies would broaden alliance theory by incorporating different institutional logics from different economic and cultural environments. Third, there is a methodological gap in existing literature. Most studies utilize a cross-sectional quantitative study design, such as SEM or PLS-SEM, with very few longitudinal or qualitative studies. Future research should give preference to longitudinal research and the use of mixed methods to capture how alliances develop over time, unexpected contingencies, and how learning accumulates. In addition, there has been limited attention to digital transformation in alliance research. As digitalization reshapes the modes in which firms collaborate, future research must investigate how SMEs use digital platforms, artificial intelligence, and blockchain to form, govern, and sustain alliances. This sheds light on how technological affordances influence partner choice, governance mechanisms, and innovation outcomes. Finally, two emerging research needs concern sustainability and alliance failure. As SMEs are increasingly encouraged to align with the Sustainable Development Goals (SDGs), the literature tells us very little about how alliances aid green innovation, sustainable value chains, or social value creation. Similarly, literature hardly covers alliance failure or dissolution, resulting in a bias toward positive outcomes. Future research should investigate the causes, patterns, and long-term implications of failed partnerships to enhance the risk and resilience monitoring of inter-firm collaborations.

6. Conclusion

This review explores the role of strategic alliances in the competitiveness of small and medium-sized enterprises (SMEs) by integrating the antecedents-decisions-outcomes (ADO) framework with the theory-context-method (TCM) framework. SMEs thrive best when alliances are driven by adequate coordination, backed up with formalization and trust-based governance embedded in a culture of learning. The study demonstrates that alliance drives SMEs' performance and helps attain a competitive advantage. It helps to build SMEs' innovative performance and enhances the diversification of markets and products. Also, sustainable growth is attained through strategic alliances, advancing it as a transformational strategy for SME success. Theoretically, this study contributes to the existing body of knowledge by integrating resource-based, relational, and dynamic capability lenses into a unifying model of alliance development. The study also emphasizes the importance of contextual sensitivity, given that institutional and cultural conditions decisively impact the formation of alliances and their performance. Practically, the review highlights that SMEs with higher dynamic capabilities are better positioned to cope with uncertainty, spur innovation, and achieve sustainability-oriented outcomes. Finally, this research indicates significant avenues for future research, such as the integration of multiple theories, cross-national studies, and further examination of digital and sustainability-driven alliances.

Acknowledgement

Author Contributions

Akinlemi Omololu Akinson: Conceptualization, data gathering and extraction, methodology, and manuscript writing.
Sundara Rajan CR: Supervision, Editing, and formatting.

Ethical Considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

Funding

Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon request.

References

[1] Adamik, A., Nowicki, M., & Szymańska, K. (2018). Openness to co-creation as a method of reducing the complexity of the environment and dynamizing companies' competitive advantages. *Management & Marketing*, *13*(2), 880–896. https://doi.org/10.2478/mmcks-2018-0011.

[2] Alam, M. N., Masroor, I., Nabi, M. N. U., & Dornberger, U. (2024). Unveiling the synergy: Entrepreneurial effectuation and alliance-driven SME diversification. Review of International Business and Strategy, 34(4), 516–536. https://doi.org/10.1108/RIBS-12-2021-0173.

[3] Albats, E., Fiegenbaum, I., & Cunningham, J. A. (2021). A micro-level perspective on open innovation in small- and medium-sized enterprises: Evidence from the biotech sector. *Journal of Small Business Management, 59*(4), 678–704.

[4] Andres, B., Poler, R., & Guzman, E. (2022). The influence of collaboration on enterprises internationalization processes. Sustainability, 14(5), 2843. https://doi.org/10.3390/su14052843.

[5] Arora, M. (2015). Mergers and Acquisitions in Entrepreneurship for Gaining Strategic and Competitive Advancement. Pacific Business Review International, 8(6).

[6] Benitez, G. B., Ferreira-Lima, M., Ayala, N. F., & Frank, A. G. (2022). Industry 4.0 technology provision: The moderating role of supply chain partners in supporting technology providers. *Supply Chain Management an International Journal*, *27*(1), 89–112. https://doi.org/10.1108/SCM-07-2020-0304

[7] Carraresi, L., Mamaqi, X., Albisu, L. M., & Banterle, A. (2015). Can strategic capabilities affect performance? Application of RBV to small food businesses. Agribusiness, 32(3), 416–436. https://doi.org/10.1002/agr.21451

[8] Chebo, A. K., & Wubetie, Y. (F. (2021). The integrative business model as a linkage to venture growth: An insight from the outside the box of strategic decisions. Business Strategy & Development, 4(3), 358–370. https://doi.org/10.1002/bsd2.163.

[9] Cozzolino, A., Calabrese, M., Bosco, G., Signori, P., & Massaroni, E. (2023). Horizontal network collaboration by entrepreneurial ventures: A supply chain finance perspective. *Journal of Small Business and Enterprise Development*, *30*(3), 523–545. https://doi.org/10.1108/JSBED-08-2022-0341.

[10] Da Silva, A., & Cardoso, A. J. M. (2024). Value Creation in Technology-Driven Ecosystems: Role of coopetition in industrial networks. Journal of Theoretical and Applied Electronic Commerce Research, 19(3), 2343–2359. https://doi.org/10.3390/jtaer19030113.

[11] Della Corte, V., & Aria, M. (2016). Coopetition and sustainable competitive advantage. The case of tourist destinations. Tourism Management, 54, 524–540. https://doi.org/10.1016/j.tourman.2015.12.009.

[12] De La Garza, J. A. U. (2016). Business Networks in Tourism and Service Sectors for Competitiveness Improvement in Ciudad Juarez, Chihuahua, Mexico. A Case Study: Central Park Hermanos Escobar and Surrounding Sme's. Cuadernos De Turismo, (37), 543-545.

[13] Dyer, J. H., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of management review*, *23*(4), 660-679. https://doi.org/10.5465/amr.1998.1255632.

[14] Eisenhardt, K. M., & Martin, J. A. (2017). Dynamic capabilities: what are they?. *The SMS Blackwell handbook of organizational capabilities*, 341-363. https://doi.org/10.1002/9781405164054.ch21.

[15] Emami, A., Welsh, D. H., Davari, A., & Rezazadeh, A. (2022). Examining the relationship between strategic alliances and the performance of small entrepreneurial firms in telecommunications. *International Entrepreneurship and Management Journal*, *18*(2), 637-662. https://doi.org/10.1007/s11365-021-00781-3.

[16] European Commission. (2020). SMEs in the time of COVID-19: Challenges and responses. https://ec.europa.eu.

[17] Febriani, A., Sopha, B. M., & Wibisono, M. A. (2025). Dynamic capabilities for omnichannel transformation in MSMEs: A comparative case study of fashion and furniture sectors. Journal of Open Innovation Technology Market and Complexity, 100498. https://doi.org/10.1016/j.joitmc.2025.100498.

[18] Ferreira, A., & Franco, M. (2017). The mediating effect of intellectual capital in the relationship between strategic alliances and organizational performance in Portuguese Technology-Based SMEs. European Management Review, 14(3), 303–318. https://doi.org/10.1111/emre.12107

[19] Findikoglu, N. M., Ranganathan, C., & Watson-Manheim, M. B. (2020). Partnering for prosperity: small IT vendor partnership formation and the establishment of partner pools. European Journal of Information Systems, 30(2), 193–218. https://doi.org/10.1080/0960085X.2020.1750309.

[20] Franco, M., Haase, H., & Rodrigues, M. (2024). The role of inter-organisational communication in the performance of strategic alliances: a relational perspective. *EuroMed Journal of Business*. https://doi.org/10.1108/EMJB-01-2024-0024.

[21] Gârdan, D. A., Dumitru, I., Gârdan, I. P., & Paștiu, C. A. (2020). Touristic SME's Competitiveness in the Light of Present Challenges—A Qualitative approach. Sustainability, 12(21), 9191. https://doi.org/10.3390/su12219191

[22] Ghezzi, A., Cavallo, A., Sanasi, S., & Rangone, A. (2022). Opening up to startup collaborations: open business models and value co-creation in SMEs. Competitiveness Review an International Business Journal Incorporating Journal of Global Competitiveness, 32(7), 40–61. https://doi.org/10.1108/CR-04-2020-0057.

[23] Ghorbani, M., Acciaro, M., Transchel, S., & Cariou, P. (2022). Strategic alliances in container shipping: A review of the literature and future research agenda. Maritime economics & logistics, 24(2), 439-465. https://doi.org/10.1057/s41278-021-00205-7.

[24] Gutiérrez, L. a. B., Escobar, C. R., Toledo, M. R., Pérez, A. M., Alayo, M. I., & Martínez, P. J. (2020). Análisis de los factores de competitividad para la productividad sostenible de las PYMES en Trujillo (Perú) || Analysis of competitiveness factors for the sustainable productivity of SMEs in Trujillo (Peru). Revista De Métodos Cuantitativos Para La Economía Y La Empresa, 29(1), 208–236. https://doaj.org/article/e9ff1efe5a29486f88d56efe8f5fdc1e. https://doi.org/10.46661/revmetodoscuanteconempresa.3513.

[25] Hariastuti, N. L. P., Pratikto, P., Santoso, P. B., & Tama, I. P. (2021). Analyzing the drivers of sustainable value creation, partnership strategies, and their impact on business competitive advantages of small & medium enterprises: a PLS-Model. SSRN Electronic Journal. https://doi.org/10.15587/1729-4061.2021.228864

[26] He, Q., Meadows, M., Angwin, D., Gomes, E., & Child, J. (2020). Strategic Alliance Research in the Era of Digital Transformation: Perspectives on Future research. British Journal of Management, 31(3), 589–617. https://doi.org/10.1111/1467-8551.12406

[27] Hung, S. C., Hung, S. W., & Lin, M. J. J. (2015). Are alliances a panacea for SMEs? The achievement of competitive priorities and firm performance. *Total Quality Management & Business Excellence*, *26*(1-2), 190-202. https://doi.org/10.1080/14783363.2014.927133.

[28] Idris, F., Susita, D., & Buchdadi, A. D. (2020). Enhancing the small medium enterprises competitive advantage through SMEs strategic alliances. Management Science Letters, 2113–2118. https://doi.org/10.5267/j.msl.2020.1.018

[29] ILO. (2022). World Employment and Social Outlook – Trends 2022. International Labour Organization. https://doi.org/10.1002/wow3.179

[30] Israel, B. (2024). Collaborative relationships: a stimulus for innovation culture and participation of SMEs in public procurement. Management Decision. https://doi.org/10.1108/MD-08-2023-1338.

[31] Izotova, A., & Bolívar-Ramos, M. T. (2024). The effects of the functional and geographical breadth of collaborations on radical innovation performance: the moderating role of firm size. Journal of Business and Industrial Marketing, 39(13), 216–232. https://doi.org/10.1108/JBIM-01-2024-0011

[32] Jones, S. L., Fawcett, S. E., Wallin, C., Fawcett, A. M., & Brewer, B. L. (2014). Can small firms gain relational advantage? Exploring strategic choice and trustworthiness signals in supply chain relationships. International Journal of Production Research, 52(18), 5451–5466. https://doi.org/10.1080/00207543.2014.915068.

[33] Kafigi, J. E. (2015). Strategic alliances and competitive advantage in Tanzanian SMEs: A resource-based perspective. African Journal of Business Management, 9(12), 512–523.

[34] Khouroh, U., Abdullah, F., & Handayani, K. (2019). The role of strategic alliance in mediating the relationship between environmental dynamism and sustainable competitive advantage. International Journal of Scientific and Technology Research, 8(9), 469–475. https://www.ijstr.org/paper-references.php?ref=IJSTR-0919-21985.

[35] Kolade, O., Obembe, D., & Salia, S. (2019). Technological constraints to firm performance: The moderating effects of firm linkages and cooperation. *Journal of Small Business and Enterprise Development*, *26*(1), 85-104. https://doi.org/10.1108/JSBED-01-2018-0029.

[36] Kumalasari, R. D., Sudiro, A., Rofiaty, R., & Djumahir, D. (2025). The development of business environment dynamics to improve the relationship between network capability and MSME performance. Eastern-European Journal of Enterprise Technologies, 1(13 (133)), 69–77. https://doi.org/10.15587/1729-4061.2025.318050.

[37] Kumar, R., Singh, R. K., & Shankar, R. (2016). Study on collaboration and information sharing practices for SCM in Indian SMEs. International Journal of Business Information Systems, 22(4), 455. https://doi.org/10.1504/IJBIS.2016.077838.

[38] Le, S. T., Pham, T. Y., Dao, V. T., & Phung, M. T. (2021). Factors influencing horizontal cooperation among logistics enterprises: An empirical study from Vietnam. The Journal of Asian Finance, Economics and Business, 8(12), 313-322.

[39] Li, C., & Shafait, M. (2025). Assessing the impact of network embeddedness on SMEs innovation performance through resource bricolage: a mediated-moderated model. Operations Management Research. https://doi.org/10.1007/s12063-024-00538-5.

[40] Li, J., Peng, D., & Yu, Y. (2025). Does embeddedness in strategic alliances matter for innovation efficiency? The moderating roles of government R&D subsidies and standardization. *Business Process Management Journal*, *31*(3), 996-1025. https://doi.org/10.1108/BPMJ-04-2024-0304.

[41] Mamédio, D., Rocha, C., Szczepanik, D., & Kato, H. (2019). Strategic alliances and dynamic capabilities: A systematic review. Journal of strategy and management, 12(1), 83-102. https://doi.org/10.1108/JSMA-08-2018-0089

[42] McAdam, M., McAdam, R., Dunn, A., & McCall, C. (2014). Development of small and medium-sized enterprise horizontal innovation networks: UK agri-food sector study. International Small Business Journal Researching Entrepreneurship, 32(7), 830–853. https://doi.org/10.1177/0266242613476079.

[43] Milanesi, M., Guercini, S., & Runfola, A. (2020). Network competence and strategic alliances in SMEs: A relational perspective. Journal of Business & Industrial Marketing, 35(7), 1165–1176. https://doi.org/10.1108/JBIM-11-2019-0475

[44] Mmieh Kwakye, R., Qu, L., & Wang, Y. (2025). Sustainability practices and complementor innovation capability: a PLS-SEM serial mediation model of market pressure and strategic alliances. *Business Process Management Journal*, 1-23. https://doi.org/10.1108/BPMJ-03-2025-0315.

[45] OECD. (2023). Financing SMEs and Entrepreneurs 2023: An OECD Scoreboard. https://www.oecd.org.

[46] Oyedele, A., & Firat, F. (2020). Institutions, small local firms' strategies, and global alliances in sub-Saharan Africa's emerging markets. International Marketing Review, 37(1), 156-182. https://doi.org/10.1108/IMR-01-2019-0022.

[47] Paul, J., and A. R. Criado. (2020). "The Art of Writing Literature Review: What Do We Know and What Do We Need to Know?" International Business Review 29, no. 4: 101717. https://doi.org/10.1016/j.ibusrev.2020.101717

[48] Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). International Journal of Consumer Studies, 45(4). https://doi.org/10.1111/ijcs.12695.

[49] Peng, M. Y. P. (2025). The role of international strategic alliance and dynamic internationalization capability in building competitive advantage for SMEs: evidence from Taiwan. *Humanities and Social Sciences Communications*, *12*(1), 1-14. https://doi.org/10.1057/s41599-025-05076-4.

[50] Pérez-Bernabeu, E., Juan, A. A., Faulin, J., & Barrios, B. B. (2014). Horizontal cooperation in road transportation: a case illustrating savings in distances and greenhouse gas emissions. International Transactions in Operational Research, 22(3), 585–606. https://doi.org/10.1111/itor.12130.

[51] Prabhu, M. H., & Srivastava, A. K. (2023). Modeling transformational leadership, supply chain collaboration and firm performance – a case of India. International Journal of Emerging Markets, 19(10), 2642–2660. https://doi.org/10.1108/IJOEM-04-2022-0651.

[52] Pu, G., Qamruzzaman, M., Mehta, A. M., Naqvi, F. N., & Karim, S. (2021). Innovative Finance, Technological Adaptation and SMEs Sustainability: The Mediating Role of Government Support during COVID-19 Pandemic. Sustainability, 13(16), 9218. https://doi.org/10.3390/su13169218

[53] Qiu, X., Haugland, S. A., & Cassia, F. (2025). Tacit knowledge transfer in strategic alliances: the roles of theory of mind and interpersonal trust. *Journal of Business & Industrial Marketing*. https://doi.org/10.1108/JBIM-09-2023-0555.

[54] Rahman, A. a. A., Chong, P. L., Ong, T. S., Teh, B. H., & Ong, T. C. (2023). Business network and balanced scorecard: An analysis of small and medium enterprises in Malaysia. Arab Gulf Journal of Scientific Research, 42(3), 621–635. https://doi.org/10.1108/AGJSR-10-2022-0218

[55] Rahnama, R., Mousavian, S. J., & Ebrahimi, M. (2022). The role of digital transformation in strategic alliances for SME competitiveness. Journal of Strategy and Management, 15(4), 567–584. https://doi.org/10.1108/JSMA-03-2021-0067.

[56] Ramjaun, T. I., Pullman, M., Kumar, M., & Rodrigues, V. S. (2023). Strength in numbers: collaborative procurement and competitiveness of craft breweries. International Journal of Operations & Production Management, 44(3), 643–665. https://doi.org/10.1108/IJOPM-08-2022-0503

[57] Rapaccini, M., Cinquini, L., Mauro, S. G., & Tenucci, A. (2024). Servitisation of SMEs through strategic alliances: The role of intellectual capital. *European Management Review*, *21*(2), 425-442. https://doi.org/10.1111/emre.12588.

[58] Rodrigues, M., Franco, M., Silva, R., & Oliveira, C. (2021). Success Factors of SMES: Empirical study guided by Dynamic Capabilities and Resources-Based View. Sustainability, 13(21), 12301. https://doi.org/10.3390/su132112301.

[59] Sari, R. E., Arief, M., Hamsal, M., & Rahim, R. K. (2024). Determinants of sustainability performance in information technology companies: Cooperation through strategic alliances and business strategies. *Problems and Perspectives in Management*, *22*(4), 310. https://doi.org/10.21511/ppm.22(4).2024.24.

[60] Sen, S., Savitskie, K., Mahto, R. V., Kumar, S., & Khanin, D. (2022). Strategic flexibility in small firms. Journal of Strategic Marketing, 31(5), 1053–1070. https://doi.org/10.1080/0965254X.2022.2036223

[61] Siagian, H., Basana, S. R., Tarigan, Z. J. H., Novitasari, M., & Jie, F. (2024). Role of supply chain management in improving competitive advantage of Indonesian small and medium enterprises. Problems and Perspectives in Management, 22(2), 696–707. https://doi.org/10.21511/ppm.22(2).2024.54

[62] Singh, R. K., Luthra, S., Mangla, S. K., & Uniyal, S. (2019). Applications of information and communication technology for sustainable growth of SMEs in India food industry. Resources Conservation and Recycling, 147, 10–18. https://doi.org/10.1016/j.resconrec.2019.04.014

[63] Siriphattrasophon, S. (2018). The ASEAN Economic Community: How SMEs could exploit local value to compete ABAC Journal, 38(1). http://www.assumptionjournal.au.edu/index.php/abacjournal/article/download/3353/2072.

[64] Soriano F. A., Villano R. A., Fleming, E. M., & Battese, G. E. (2019). What's driving innovation in small businesses in Australia? The case of the food industry. Australian Journal of Agricultural and Resource Economics, 63(1), 39-71. https://doi.org/10.1111/1467-8489.12284.

[65] Sucena, A., Matos, F., & Nunes, A. (2025). The effect of intellectual capital and strategic partnerships in construction companies. Managerial Finance. https://doi.org/10.1108/MF-11-2024-0872.

[66] Takyi, L., Naidoo, V., & Amankwah-Amoah, J. (2022). Strategic alliances and internationalization of SMEs: The role of government support in emerging economies. International Business Review, 31(5), 101912.

[67] Thelisson, A., & Jacquemot, F. (2025). International expansion of French SMEs as a growth lever – insights from a case study. Strategy and Leadership. https://doi.org/10.1108/SL-09-2024-0092.

[68] Tyll, L., Srivastava, M., & Hromádka, M. (2020). Strategic alliances between Czech SMEs and its effects on firm's competitiveness. Journal of East European Management Studies, 25(2), 246–263. https://doi.org/10.5771/0949-6181-2020-2-246.

[69] Vanags, A., Ābeltiņa, A., & Zvirgzdiņa, R. (2018). Partnership strategy model for small and medium enterprises. Problems and Perspectives in Management, 16(1), 336–347. https://doi.org/10.21511/ppm.16(1).2018.33.

[70] Wang, Y., & Rajagopalan, N. (2015). Alliance capabilities: A review and research agenda. Journal of management, 41(1), 236-260. https://doi.org/10.1177/0149206314557157

[71] Wahyudi, S., Yogia, M. A., & Amrillah, M. F. (2023). Unlocking User-Driven innovation and sustainable Competitive advantage through Partnership: an Open Innovation perspective. Scientific Papers of the University of Pardubice. Series D, Faculty of Economics and Administration, 31(1). https://doi.org/10.46585/sp31011650.

[72] World Bank. (2024). Small and medium enterprises (SMEs) finance: Improving access to finance for SMEs. World Bank Group. https://www.worldbank.org/en/topic/smefinance.

[73] Yao, Y., Li, M., & Lian, H. (2024). How Eco-Participating Firms can Increase their willingness to Cooperate Sustainability: A perceived contractual equity perspective. Sustainability, 16(23), 10541. https://doi.org/10.3390/su162310541

[74] Yang, H., Zheng, Y., & Zhao, X. (2013). Exploration or exploitation small firms' alliance strategies with large firms. Strategic Management Journal, 35(1), 146–157. https://doi.org/10.1002/smj.2082.

[75] Yoon, C., Lee, K., Yoon, B., & Toulan, O. (2017). Typology and success factors of collaboration for sustainable growth in the IT service industry. Sustainability, 9(11), 2017. https://doi.org/10.3390/su9112017.

[76] Zhao, L. (2014). Strategic alliances in SMEs: A review and research agenda. International Journal of Entrepreneurship and Small Business, 21(3), 345–362.