



## Entrepreneurial Orientation and Performance of Small and Medium Enterprises: A Systematic Review

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### Abstract

Entrepreneurial Orientation (EO) constitutes a vital strategic element for the success of Small and Medium Enterprises (SMEs). This study seeks to 1) synthesize the dimensions of Entrepreneurial Orientation (EO) that impact SME performance, 2) develop an integrative model illustrating the mediating mechanisms between EO and performance, and 3) consolidate findings into a comprehensive framework. A Systematic Literature Review was conducted, analyzing 31 empirical articles identified through major international and Thai databases based on predefined criteria. Thematic Synthesis was employed for data analysis. The findings indicate that the EO dimensions most affecting performance are Innovativeness, Proactiveness, and Risk-taking. However, the direct impact of EO on performance remains inconsistent across studies. The integrative model reveals that this relationship is mediated by key mechanisms, with "Innovation" being the most influential mediator, followed by "Learning Orientation" and "Competitive Advantage." The framework derived from the synthesis suggests that EO acts as a "trigger" that activates organizational capabilities, leading to enhanced performance. These insights elucidate the relationship between EO and SME performance, providing direction for entrepreneurs: to convert concepts into sustainable business success, developing innovation and learning capabilities alongside an entrepreneurial culture is essential.

**Keywords:** 1) entrepreneurial orientation (EO) 2) SMEs performance 3) systematic literature review 4) organizational capabilities 5) innovation

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## Introduction

Entrepreneurial Orientation (EO) refers to a firm's strategic posture that facilitates the achievement of a sustainable competitive advantage, particularly within the dynamic SME sector (Meekaewkunchorn, et al., 2021; Poolsawat and Rinthaisong, 2025; Sarwoko, et al., 2023). This orientation is characterized by a firm's engagement in innovativeness, proactiveness, and risk-taking. Alongside autonomy and competitive aggressiveness, these dimensions enable firms to adeptly navigate volatile markets, capitalize on emerging opportunities, and formulate unique value propositions. Consequently, the prevailing perspective in the extant literature suggests a robust and positive correlation between a high degree of EO and superior firm performance, frequently assessed in terms of financial health, market share growth, and innovation output (Sarwoko, et al., 2023; Nugroho, 2023; Khan, et al., 2024).

The precise nature of the relationship between entrepreneurial orientation (EO) and performance remains a subject of debate, as the literature presents conflicting findings. Some studies have encountered challenges in establishing a direct correlation, while others suggest that the impact is contingent upon specific EO dimensions. This evidentiary conundrum suggests the presence of a "black box"—intermediary variables that mediate the effect of EO on firm outcomes. The need to elucidate these underlying mechanisms has implications for both academic theory and practical applications. Theoretically, this ambiguity hinders the development of a cohesive, universally applicable model, there-

by obstructing the synthesis of results and the advancement of research. Practically, for small and medium-sized enterprise (SME) owners and managers, this lack of clarity results in a shortage of actionable strategies, complicating the identification of entrepreneurial aspects that could enhance performance.

Building upon this understanding, this study employs the Resource-Based View (RBV) as its principal theoretical framework (Barney, 1991). According to RBV, a firm's sustained competitive advantage is derived from its valuable, rare, inimitable, and non-substitutable (VRIN) resources and capabilities. Within this framework, Entrepreneurial Orientation (EO) is conceptualized as a critical intangible resource. However, its intrinsic value is not inherent; it is realized only when integrated with other organizational capabilities. This theoretical perspective assists in addressing the "black box" problem, suggesting that the inconsistent EO-performance relationship is not a deficiency of the concept itself but rather a reflection of the unexamined mediating role of these capabilities. Consequently, this study aims to investigate these capabilities as essential links between an SME's entrepreneurial posture and its performance.

In order to address this significant research gap, this study undertakes a Systematic Literature Review (SLR) of 31 empirical articles to ascertain the most influential dimensions of Entrepreneurial Orientation (EO) on the performance of Small and Medium-sized Enterprises (SMEs) and to formulate an integrative model of the mediating mechanisms that govern this relationship. The resulting synthesis extends

beyond a mere listing of factors, offering an integrative model that elucidates the intricate interplay between EO and performance. Ultimately, this study makes two primary contributions: it provides a robust foundation for future theoretical development and offers actionable strategic guidance for SME owner-managers seeking to leverage EO for sustainable competitive advantage.

In addressing the persistent challenges faced by SMEs and the varied findings regarding the EO-performance relationship, this study aims to elucidate this complex association through three primary objectives. Firstly, it synthesizes existing literature to identify the most influential dimensions of Entrepreneurial Orientation (EO) on SME performance. Secondly, it develops an integrative model to elucidate the mediating role of organizational capabilities in the EO-SME performance relationship. Finally, it consolidates all findings into a comprehensive paradigm, offering clear theoretical implications and practical strategic guidance for SME managers.

In conclusion, this study addresses the empirical gap in understanding the relationship between entrepreneurial orientation (EO) and performance by employing the Resource-Based View to elucidate the mediating role of organizational capabilities. This approach ultimately contributes a holistic roadmap that translates theoretical insights into practical strategic advantages for small and medium-sized enterprises (SMEs).

## Literature Review

### Entrepreneurial Orientation

Entrepreneurial Orientation (EO) is frequently regarded as a pivotal determinant of a firm's performance within the academic literature. Initially conceptualized by Miller (1983), EO comprises three core dimensions: innovativeness, which pertains to a firm's propensity for new ideas and creative processes; proactiveness, defined as the ability to anticipate market changes; and risk-taking, which involves the willingness to commit resources to uncertain ventures. This foundational model was subsequently expanded by Lumpkin and Dess (1996) to include two additional dimensions: autonomy, referring to the independent action of an individual or team, and competitive aggressiveness, which denotes the intensity of a firm's effort to outperform its rivals. This five-dimensional framework has gained widespread acceptance in strategic management research.

Despite the five-dimensional model, there remains an ongoing debate regarding the interrelationships among these dimensions. Gercans (2022) identifies three primary perspectives: the Unidimensional View, which posits that the three core dimensions covary and manifest concurrently in highly entrepreneurial firms; the Multidimensional View, which contends that each of the five dimensions can vary independently based on context; and the Two-dimensional View, which reclassifies the dimensions into "entrepreneurial behaviors" and "managerial attitude towards risk." A review of the literature reveals a notable disparity in empirical focus, with the original three dimensions (innovativeness, proactiveness, and risk-taking) being the most extensively studied,



while autonomy and competitive aggressiveness remain significantly under-researched due to their conceptual complexity and contextual dependency. This gap presents a crucial opportunity for future research to investigate the nuanced roles of these less-explored dimensions beyond their assumed direct effects.

In conclusion, although Entrepreneurial Orientation (EO) models have evolved, empirical research continues to be anchored in Miller's (1983) three fundamental dimensions. The insufficient exploration of autonomy and competitive aggressiveness highlights a substantial gap, suggesting the need for future research to develop more nuanced, context-specific frameworks.

#### **SMEs Performance**

To empirically assess the impact of strategic orientations, such as Entrepreneurial Orientation, it is imperative to first establish a clear and robust operationalization of the dependent variable: firm performance. The outcome variable, Small and Medium-sized Enterprise (SME) performance, is a multifaceted construct measured through various indicators, which can be broadly categorized into financial and non-financial measures (Arshad et al., 2023). Commonly employed financial metrics include return on investment (ROI), profitability, market share, and sales growth. Conversely, non-financial metrics encompass areas such as customer satisfaction, employee satisfaction, and innovation (Arshad, et al., 2023). However, a persistent challenge in SME research is the difficulty in obtaining objective financial data. Consequently, many studies rely on subjective measures, where performance is assessed

relative to key competitors. This approach has been empirically validated as a reliable and viable proxy in academic research (Alam, et al., 2022).

Given the challenges of obtaining objective financial data for SMEs, this study relies on subjective performance measures as reliable proxies; however, it is crucial to recognize the nuances involved. Although empirical evidence has demonstrated a strong positive correlation between subjective and objective measures, some studies have rejected the assumption that they are perfect substitutes (e.g., Dess and Robinson, 1984). This presents certain methodological limitations, including the potential for perceptual bias, social desirability bias, and challenges in making absolute comparisons across industries. Acknowledging this subtlety demonstrates a critical understanding of the methodological challenges in SME research and underscores the need for future studies to employ objective data where possible or to utilize mixed-methods approaches for validation.

In summary, the evaluation of SME performance is complex and frequently hindered by the absence of objective financial data. As a result, the literature recognizes the employment of subjective measures as a credible and widely accepted alternative in strategic management research, provided that researchers remain cognizant of potential perceptual biases.

#### **Entrepreneurial Orientation and Firm Performance**

A substantial body of research has investigated the relationship between entrepre-

neurial orientation (EO) and firm performance, with the majority of studies affirming a positive correlation; firms exhibiting elevated levels of EO generally outperform those with lower levels (Sarwoko, et al., 2023; Udomthanasansakul, 2024). However, the scholarly consensus is not unequivocal, as the literature is characterized by inconsistent findings (Kee & Rahman, 2020). Certain studies have not substantiated a direct, significant relationship (Ngo, 2023), prompting researchers to propose that the EO-performance nexus is not solely direct. Instead, it is likely a more intricate relationship influenced by mediating and moderating variables (Kee and Rahman, 2020).

While the literature predominantly suggests a positive relationship between EO and performance, it is replete with contradictory and context-dependent findings that complicate this perspective. For instance, some studies have identified a negative relationship between the risk-taking dimension of EO and financial performance, particularly within the context of family-owned firms (Naldi, et al., 2007). Such specific findings underscore that the relationship is not universally positive and highlight the necessity for a comprehensive synthesis that elucidates these contextual and conditional complexities, thereby reinforcing the rationale for this systematic literature review.

The synthesized literature indicates that the relationship between entrepreneurial orientation (EO) and performance is not universally linear; rather, it is marked by significant inconsistencies and contextual dependencies. These divergent findings underscore the pres-

ence of a 'black box'—intermediary mechanisms that translate an entrepreneurial posture into concrete business outcomes.

### **The Role of Mediating Variables**

To elucidate the complex "black box" mechanism linking Entrepreneurial Orientation (EO) and performance, recent research has focused on the role of key mediators. Among these, innovation is frequently identified as a critical intervening variable. The prevailing logic posits that EO stimulates innovative activities, which in turn drive firm performance (Sriphong, et al., 2023; Kee and Rahman, 2020). Another significant mediator is learning orientation, which refers to a firm's ability to create and utilize knowledge. EO is believed to foster a strong learning culture, which, consistent with the Resource-Based View (RBV) theory, enhances a firm's capabilities and, ultimately, its performance (Meekaewkunchorn, et al., 2021). The RBV also supports the role of competitive advantage as a mediator, suggesting that EO, as a valuable intangible resource, leads to a sustainable competitive advantage that subsequently improves performance (Kiyabo and Isaga, 2020). Nevertheless, the precise role of competitive advantage as a mediator remains an area requiring further investigation, representing a notable research gap (Mahmood and Hanafi, 2013).

The existing literature, while broadly supportive of a positive EO-performance relationship, lacks a clear understanding of the 'black box' mechanisms at play. To synthesize the vast body of evidence and build a more nuanced model, this study employs a rigorous Systematic Literature Review (SLR) methodol-



ogy. Such a study will help to build a more comprehensive and nuanced understanding of the direct effects, the indirect pathways through various mediators, and the conditions influencing this critical relationship, which constitutes the primary objective of this research.

In conclusion, contemporary research highlights innovation, learning orientation, and competitive advantage as the principal channels through which Entrepreneurial Orientation (EO) impacts performance. These mechanisms are consistent with the Resource-Based View (RBV), which conceptualizes EO as an intangible resource necessitating specific organizational capabilities for effective 'activation' to achieve sustainable success.

### Research Methodology

This study employs a rigorous Systematic Literature Review (SLR) to synthesize empirical findings regarding the relationship between Entrepreneurial Orientation (EO) and SME performance. An SLR was chosen over a Meta-analysis due to the considerable heterogeneity in the operationalization of EO and the diverse performance metrics utilized across studies. While a Meta-analysis focuses on statistical aggregation, an SLR allows for a more nuanced qualitative synthesis of the complex mediating mechanisms and contextual factors that may be overlooked in purely quantitative pooling. To ensure reliability, transparency, and replicability, the methodology adheres to the PRISMA 2020 guidelines (Page, et al., 2021). The entire process involved a formal research protocol and the participation of two independent reviewers to minimize potential bias and

ensure methodological rigor.

### Search Strategy and Data Sources

A comprehensive literature review was undertaken utilizing four primary academic databases: Scopus, Web of Science, EBSCOhost (Business Source Complete), and Thai Journal Online (ThaiJO). These databases are renowned for their extensive indexing of peer-reviewed journals within the domains of business and management. Furthermore, a focused search was conducted in the Google Scholar and ResearchGate databases. The review encompasses a 12-year period, from April 2013 to April 2025. Search strings were carefully constructed using a combination of keywords and Boolean operators to ensure the highest relevance of the results. An illustrative search string included: ("Entrepreneurial Orientation" OR "EO") AND ("SME performance" OR "firm performance" OR "business performance") AND ("mediating" OR "mediator" OR "pathway") AND ("SME" OR "small and medium enterprise").

### Study Screening and Selection

The processes of screening and selection were executed by two independent reviewers and are depicted in a PRISMA flow diagram (Figure 1). Initially, the identified records underwent screening based on their titles and abstracts to eliminate duplicates and irrelevant articles from the review. Subsequently, the full-text articles of the remaining records were retrieved and independently evaluated for eligibility against the predefined inclusion criteria. These criteria stipulated that articles must be: (1) empirical studies, (2) published in English, (3) featuring Entrepreneurial Orientation as an independent variable and firm performance as

a dependent variable, and (4) focused on SME samples. Discrepancies were resolved through discussion to achieve consensus or by consulting a third reviewer, if necessary. Furthermore, systematic quality assessment was conducted for each of the 31 included articles using a pre-defined checklist to evaluate methodological rigor and potential bias, which informed the final synthesis and discussion of the limitations.

### Data Extraction and Synthesis

A structured data extraction form was devised to systematically gather essential information from the selected articles, including the dimensions of entrepreneurial orientation (EO) examined, the performance metrics employed, and the mediating variables identified.

The extracted data were subjected to a thematic synthesis approach to discern recurring patterns, concepts, and relationships across the studies. This process entailed famil-

iarizing the researchers with the data, coding the initial findings, and iteratively developing overarching themes. The final synthesis transcends a mere enumeration of findings to construct an integrative model that elucidates the complex interplay between EO and small and medium-sized enterprise (SME) performance.

To ensure the rigor and reliability of this synthesis, the coding and theme development processes were conducted independently by two researchers. Any discrepancies in coding were resolved through discussion and consensus, with a third researcher being consulted as necessary. This triangulation approach minimizes potential bias and enhances the validity of the resulting integrative model, ensuring that it provides a robust and reliable framework for understanding the mechanisms linking entrepreneurial orientation to tangible firm outcomes.

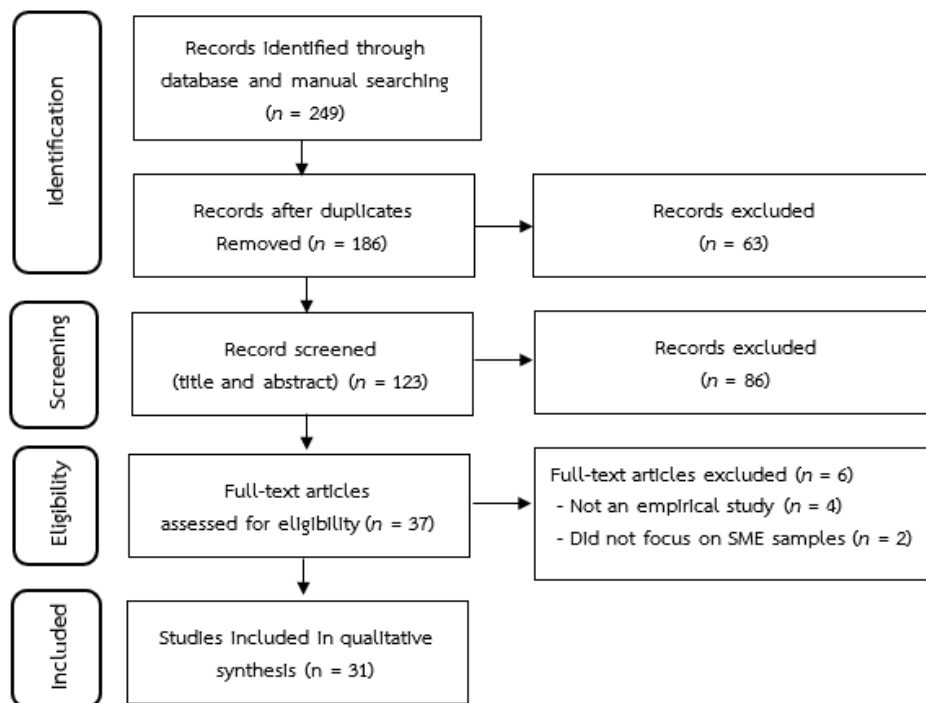


Figure 1 PRISMA flow diagram for the systematic review process



## Results

### Part 1: Overview of the Synthesized Research

Through a systematic literature review examining the relationship between Entrepreneurial Orientation (EO) and the performance

of Small and Medium Enterprises (SMEs), this study identified pertinent empirical studies based on established criteria. A total of 31 articles were selected for synthetic analysis. Table 1 presents a comprehensive list of all selected research articles.

**Table 1** Empirical studies employed in the synthesis, categorized by author and year (n=31)

No.	Author(s) (Year)	Title
1	Mahmood, R., & Hanafi, N. (2013)	Entrepreneurial orientation and business performance of women-owned small and medium enterprises in Malaysia: competitive advantage as a mediator
2	Hossain, M. U., & Al Asheq, A. (2019)	The role of entrepreneurial orientation to SME performance in Bangladesh
3	Arshad, M. Z., Meirun, T., et al. (2020)	The importance of learning orientation and entrepreneurial orientation on SMEs performance
4	Fitriati, T. K., Purwana, D., et al. (2020)	Entrepreneurial orientation and SME performance: dynamic capabilities as mediation study on SMEs in Indonesia
5	Kee, D. M. H., & Rahman, N. A. (2020)	Entrepreneurial orientation, innovation and SME performance: A study of SMEs in Malaysia using PLS-SEM
6	Kiyabo, K., & Isaga, N. (2020)	Entrepreneurial orientation, competitive advantage, and SMEs' performance: application of firm growth and personal wealth measures
7	Polsimma, S., & Sukphet, K. (2020)	The relationship of entrepreneurial characteristics to the performance of tourism service businesses in Thailand
8	Akpoviro, K. S., & Akanmu, P. M. (2021)	The efficacy of entrepreneurial orientation on SMEs' performance
9	Meekaewkunchorn, N., Szczepańska-Woźniczyna, K., et al. (2021)	Entrepreneurial orientation and SME performance: The mediating role of learning orientation
10	Okoli, I. E. N., Nwosu, K. C., & Okechukwu, M. E. (2021)	Entrepreneurial orientation and performance of selected SMEs in Southeast, Nigeria
11	Susanto, P., Hoque, M. E., et al. (2021)	Entrepreneurial orientation and performance of SMEs: The roles of marketing capabilities and social media usage
12	Alam, S. S., Md Salleh, M. F., et al. (2022)	Relationship between entrepreneurial orientation and business performance among Malay-owned SMEs in Malaysia: A PLS Analysis

No.	Author(s) (Year)	Title
13	Arabeche, Z., Soudani, A., et al. (2022)	Entrepreneurial orientation, organizational culture and business performance in SMEs: Evidence from emerging economy
14	Khрутthamat, A., Chummee, P., & Srithong, C. (2022)	Entrepreneurial orientation, market orientation, and innovation capability influencing the performance of digital startups in Thailand
15	Arshad, M. H., Sulaiman, Y., & Yusr, M. M. (2023)	Influence of innovation on the relationship between market orientation, entrepreneurial orientation, and SME performance in Pakistan
16	Chelliah, M. K., Aravindan, K. L., & Muthaiyah, S. (2023)	Entrepreneurial orientation and open innovation promote the performance of services SMEs: The mediating role of cost leadership
17	Lhassan, I. A., Hachimi, I. E., & Ezekari, M. (2023)	The impact of entrepreneurial orientation on SMEs' performance: The case of the Northern Region of Morocco
18	Ngo, Q. H. (2023)	The impact of entrepreneurial orientation on SMEs' performance in a transitional economy: The mediating role of differentiation advantages and innovation capability
19	Nugroho, A. T. (2023)	The Influence of entrepreneurial orientation, network, market orientation on small business performance in West Java Province
20	Sarwoko, E., Hariani, L. S., & Sedyastuti, K. (2023)	Entrepreneurial orientation, market orientation, and SMEs performance: The moderating role of entrepreneurial strategy
21	Sorama, K., & Joensuu-Salo, S. (2023)	Entrepreneurial orientation, firm growth and performance in SMEs: Testing the scale of EO in SME context
23	Tasaen, W., & Taiwan, A. (2023)	Causal factors affecting the business performance of Thai fruit wholesale businesses
24	Udomthanasansakul, P. (2023)	The influence of entrepreneurial orientation and transformational leadership on learning orientation and the performance of small and medium enterprises
25	Astuti, R. D., Balqiah, T. E., & Yuliati, E. (2024)	Role of individual entrepreneurial orientation and innovation in SME performance: Gender perspectives
26	Ojonugwa, J., Ahmed, A., & Abang, S. (2024)	Entrepreneurial orientation and growth of SMEs in Kogi State, Nigeria
27	Jareephas, J., Akkaratanatechaisit, N., et al. (2024)	Factors influencing the success of small and medium enterprise entrepreneurs in Bangkok



No.	Author(s) (Year)	Title
28	Khan, S. U., Afridi, F., & Amin, K. (2024)	Impact of entrepreneurial orientation on small and medium enterprises performance
29	Phiphopaekasit, P. (2024)	Causal factors influencing entrepreneurs' performance in the Eastern Economic Corridor (EEC)
30	Setiani, S., Sudarmiatin, & Bidin, R. (2024)	The impact of entrepreneurial orientation on performance through competence in Rattan Handicraft SMEs
31	Allammari, Y., Taqi, A., & El Morabit, N. (2025)	Entrepreneurial orientation and SME performance: A sequential mediation analysis of market and learning orientation using structural equation modeling

**Table 2** Summary of the empirical studies included in the synthesis, organized according to the distribution of publication years (n=31)

Publication Year*	Frequency (articles)	Percentage (%)
2025	1	3.23
2024	6	19.35
2023	10	32.25
2022	3	9.68
2021	4	12.90
2020	5	16.13
2019	1	3.23
2013	1	3.23
Total	31	100.00

\*Note: Arranged by year and author.

Analysis of Table 2 reveals the distribution of publication years for 31 empirical studies, indicating a predominance of recent research. Specifically, 51.61% (16 articles) were published in 2023 and 2024, while 93.55% (29 articles) were published between 2020 and 2025. This trend underscores a significant scholarly interest in the relationship between entrepreneurial orientation and SME performance. Notably, only one study from 2013 (3.23%) highlights the progression of knowledge in this domain. Table 3 presents the geographical

and industrial contexts of these studies, with a primary focus on Asia, particularly the ASEAN region. Indonesia (22.58%), Thailand (19.35%), and Malaysia (16.13%) collectively account for 58.06% of the studies, emphasizing the focus on emerging economies. In terms of industry, research predominantly concentrated on General/Mixed SMEs (38.71%) and the Manufacturing sector (35.48%), while the service/tourism and other niche industries received comparatively less attention.

**Table 3** Overview of empirical studies included in the synthesis, organized by geographical distribution and industry (n=31)

Item	Sub-category	Frequency (articles)	Percentage (%)
Country of Study	Indonesia	7	22.58
	Thailand	6	19.35
	Malaysia	5	16.13
	Nigeria	3	9.68
	Pakistan	2	6.45
	Others (7 countries)	8	25.81
Industry Type	General / Mixed SMEs	12	38.71
	Manufacturing	11	35.48
	Service / Tourism	4	12.9
	Niche Industries	4	12.9

**Part 2: Analysis of EO Dimension and Relationship Model**

This section critically examines the theoretical and methodological components present in the 31 studies to identify trends in variable measurement and the design of relationship models. The analysis will investigate

the dimensions of Entrepreneurial Orientation (EO) that are most frequently explored and will scrutinize the relationship models commonly employed by researchers to test hypotheses. This study aims to depict prevailing trends and highlight areas that have attracted the most research attention.

**Table 4** Summary of empirical studies incorporated in the synthesis, categorized by the dimensions of Entrepreneurial Orientation (EO) examined (n=31)

EO Dimension	Frequency (articles)*	Percentage (%)
Innovativeness	29	93.55
Proactiveness	29	93.55
Risk-taking	28	90.32
Autonomy	11	35.48
Competitive Aggressiveness	9	29.03

\*Note: A single study may be counted in multiple categories.

An examination of the theoretical and methodological components reveals distinct trends in Entrepreneurial Orientation (EO) research. As illustrated in Table 4, the research landscape predominantly concentrates on the three core dimensions proposed by Miller

(1983). Innovativeness (93.55%), proactiveness (93.55%), and risk-taking (90.32%) are investigated in the vast majority of studies. In contrast, the dimensions of autonomy (35.48%) and competitive aggressiveness (29.03%), which were later introduced by Lumpkin and



Dess (1996), are explored far less frequently.

A notable observation from Table 4 is the significant disparity in the empirical focus on EO dimensions between the two journals. While innovativeness, proactiveness, and risk-taking are examined in over 90% of the studies, autonomy (35.48%) and competitive aggressiveness (29.03%) are substantially under-researched. This gap suggests that these dimensions may be more challenging to

operationalize and measure or that their direct impact on performance is less consistently evident. It is plausible that autonomy and competitive aggressiveness serve as enablers or moderators of other entrepreneurial behaviors rather than direct drivers of firm performance, highlighting a crucial avenue for future research to investigate their nuanced and context-dependent roles.

**Table 5** Overview of the empirical studies included in the synthesis, categorized according to the relationship models examined (n=31)

Relationship Model	Frequency (articles)*	Percentage (%)
Direct Effect	25	80.65
Indirect Effect (Mediation)	17	54.84
Moderation	3	9.68

\*Note: A single study may be counted in multiple categories.

Table 5 illustrates that the Direct Effect model remains the predominant approach, employed in 80.65% of the studies. However, there is a notable trend towards exploring more complex relationships. Specifically, 54.84% of the studies now incorporate Indirect Effects (Mediation), indicating a scholarly shift towards elucidating the underlying mechanisms that connect Entrepreneurial Orientation (EO) to performance. In contrast, the examination of Moderation is still in its early stages, appearing in only 9.68% of the articles. The increasing focus on complex relationship models, particularly those involving mediating variables, underscores a growing interest among researchers in understanding the mechanisms that link EO to performance, rather than merely concentrating on direct causal relationships.

### Part 3: Synthesis of direct effects

An analysis of the 25 studies examining this relationship, as presented in Table 6, indicates that a majority (68.00%) affirm that EO positively impacts performance. Nevertheless, the observation that nearly one-third of the studies do not corroborate this direct relationship, or only partially do so, suggests that perceiving this relationship as merely linear may offer an incomplete understanding. Notably, the Autonomy dimension frequently lacks statistical significance in relation to performance in several studies. This inconsistency implies the existence of more complex mechanisms, which are examined in the subsequent section.

While the majority of studies affirm a positive direct correlation between Entrepreneurial Orientation (EO) and performance, a substantial proportion (approximately one-third) report either no support or only partial

support for this relationship (Table 6). This inconsistency is particularly pronounced in the autonomy dimension, which frequently lacks statistical significance concerning performance. This observation suggests that autonomy may not serve as a direct catalyst for performance but rather as a precursor to other capabilities, such as innovation and learning, which subsequently drive performance. This nuanced un-

derstanding is further corroborated by specific findings indicating that the risk-taking dimension can adversely affect financial performance in certain contexts, such as family-owned firms (Naldi, et al., 2007). These findings underscore that the impact of individual EO dimensions is not universally positive and is highly contingent on context, thereby reinforcing the argument for investigating mediating mechanisms.

**Table 6** Summary of empirical studies included in the synthesis, organized according to the outcomes of the direct effect test (EO → Performance).

Result	Description	Frequency (articles)	Percentage (of 25 tested)
Supported	A significant positive relationship was found for all studied dimensions.	11	44
Partially Supported	A significant positive relationship was found for only some EO dimensions.	6	24
Not Supported	No significant positive relationship was found.	4	16
Not Directly Tested	The model primarily focused on indirect effects.	4	16

#### Part 4: Synthesis of indirect and complex mechanisms

The synthesis of direct effects in the preceding section reveals that the relationship between entrepreneurial orientation (EO) and performance is not invariably straightforward. These inconsistent findings suggest that a simplistic linear model is inadequate. This conundrum indicates the presence of a "black box" comprising intermediate processes that elucidate how a firm's entrepreneurial posture is transformed into tangible outcomes. An entrepreneurial orientation constitutes a strategic mindset; however, to generate value, it must first activate specific organizational capabili-

ties and actions. Consequently, this section progresses beyond the inquiry of whether EO affects performance to examine the mechanisms through which it operates. This study synthesizes research that investigates these mediating pathways to construct a more comprehensive and realistic model of the process.

**Table 7** Overview of principal mediators in the EO → performance relationship (n=17)

Mediator	Mediation Type	Frequency (articles)	Percentage (of 17 studies)	Supporting Research (Reference No.)
Innovation & Innovation Capability	Partial & Full	7	41.18%	5, 15, 18, 22, 23, 24, 28
Competitive Advantage	Partial & Full	4	23.53%	1, 6, 16, 18
Learning Orientation	Partial	3	17.65%	9, 30, 31
Other Organizational Capabilities (e.g., Dynamic Capabilities, Marketing, Culture)	Partial	5	29.41%	4, 11, 13, 29

Table 7 provides an analysis of studies incorporating indirect effects, demonstrating that the relationship between Entrepreneurial Orientation (EO) and performance is rarely direct. Instead, it is mediated by critical organizational capabilities. The most prominent and consistently supported finding is the mediating role of "Innovation and Innovation Capability," which was examined in 41.18% of the complex models. Several studies have identified this as full mediation, indicating that without a focus on innovation, the benefits of entrepreneurial orientation may not translate into tangible performance improvements.

Following the concept of innovation, Competitive Advantage (23.53%) and Learning Orientation (17.65%) have been identified as significant mediators. These findings, which align with the Resource-Based View (RBV), indicate that Entrepreneurial Orientation (EO) operates as a strategic posture of high importance. It necessitates the development of specific, tangible capabilities—such as the capacity to innovate, learn, and compete effectively—prior to ultimately enhancing firm performance.

The synthesis of the indirect effects presented in Table 7 identifies Innovation, Competitive Advantage, and Learning Orientation as pivotal mediating variables, with innovation emerging as the most significant. These findings are robustly supported by the extant literature and are consistent with the Resource-Based View, indicating that Entrepreneurial Orientation (EO) enhances performance by initially cultivating specific organizational capabilities. Furthermore, cross-referencing with recent meta-analyses, such as Yaqub et al. (2024), reveals a critical distinction that can augment our integrated framework: strategic capabilities frequently demonstrate a more substantial mediating effect than dynamic capabilities. This distinction enhances theoretical precision, suggesting that EO stimulates diverse types of capabilities to achieve both short-term agility and long-term sustainable competitive advantage.

### Discussion

Upon synthesizing empirical findings, this study reveals that the influence of Entrepreneurial Orientation (EO) on SME perfor-

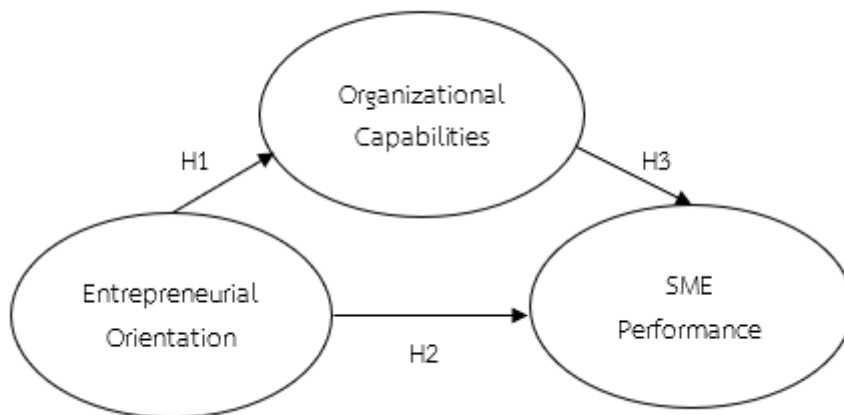
mance is far more complex than a simple direct correlation. Moving beyond the traditional direct-effect paradigm, our findings shift the focus from seeing EO as a standalone success factor to viewing it as a strategic "catalyst." This synthesis elucidates the "black box" by offering a more nuanced perspective through the identification of three primary mediating pathways: Innovation, Learning, and Competitive Advantage.

Theoretically, this research extends the application of the Resource-Based View (RBV) by demonstrating that EO represents a crucial intangible resource that achieves optimal value only when integrated with internal organizational capabilities. Unlike previous studies that often treat EO as a direct driver, this review delineates how these capabilities function as the essential "activation" mechanisms. Practically, this study challenges the conventional emphasis on merely fostering an entrepreneurial "spirit." Instead, we advocate for a strategic shift toward developing a supportive ecosystem—such as granting employee autonomy and providing resources

for experimentation—to effectively transform entrepreneurial ideas into business success.

### Conclusion

In consideration of our synthesis, we propose an integrative conceptual model (Figure 2) that elucidates the indirect relationship between Entrepreneurial Orientation (EO) and the performance of small and medium-sized enterprises (SMEs). This model advances the field by establishing a clear causal logic wherein EO functions as an initial catalyst that activates organizational capabilities to enhance performance. We propose the following propositions based on this model: Proposition 1: EO, encompassing Innovativeness, Proactiveness, Risk-taking, Autonomy, and Competitive Aggressiveness, influences Organizational Capabilities, specifically innovation capability, learning orientation, and competitive advantage. Proposition 2: Organizational Capabilities have a direct impact on SME performance. Proposition 3: Organizational Capabilities mediate the relationship between EO and SME performance.



**Figure 2** An Integrative Conceptual Framework of Entrepreneurial Orientation, Organizational Capabilities, and SME Performance



Ultimately, this research reconceptualizes EO not as a direct determinant of success, but as a strategic vision that must be leveraged to enhance internal capabilities. Practically, this suggests that SME managers should prioritize developing an ecosystem for innovation and learning rather than relying solely on entrepreneurial spirit. By addressing empirical gaps and proposing these pathways, this study establishes a robust foundation for future research to employ Structural Equation Modeling (SEM) or qualitative case studies, thereby contributing to a more comprehensive theory of entrepreneurship within SMEs.

#### Limitations and Future Research

While this systematic review offers valuable insights, it is not without limitations, which suggest promising directions for future

research. A significant limitation is the geographical bias, as over 58% of the studies reviewed were conducted in Asia, potentially affecting the generalizability of the findings. Additionally, the reliance on subjective performance assessments indicates a need for more objective data in subsequent studies.

Future research should aim to encompass a broader range of geographical contexts and incorporate objective indicators. Furthermore, variables such as industry dynamism, firm age, and size, as well as specific dimensions like autonomy, have not been sufficiently explored. Further investigation into these areas, particularly within the service and tourism sectors, is crucial to comprehensively understand the complex relationship between entrepreneurial orientation and performance.

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