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Comparison of Multidimensional and Unidimensional Approach to Entrepreneurial Orientation: A Systematic Literature Review for SDG 8

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ABSTRACT

Objective: To examine and compare the multidimensional and unidimensional approaches to Entrepreneurial Orientation (EO) and their contribution to organizational performance within the perspective of sustainable economic development aligned with Sustainable Development Goal (SDG) 8. EO represents a strategic capability that encourages innovation, competitiveness, and entrepreneurial activities in organizations. **Method:** A Systematic Literature Review (SLR) approach by analyzing peer-reviewed articles indexed in Scopus from 2014 to 2024. From 500 initially identified articles, 100 articles were selected through screening, full-text evaluation, and quality assessment processes. The analysis focused on EO dimensions, research trends, theoretical contributions, and comparative advantages of both approaches. **Results:** The findings indicate that the multidimensional approach provides deeper insights into the specific roles of innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness in influencing organizational outcomes. Meanwhile, the unidimensional approach offers a simpler and more practical measurement framework for assessing overall entrepreneurial orientation. Both approaches demonstrate significant contributions to understanding business performance and entrepreneurial success. **Novelty:** The study contributes by integrating multidimensional and unidimensional perspectives of EO into a comprehensive framework that supports sustainable entrepreneurship development. The findings provide theoretical and practical implications for organizations seeking innovation-driven growth and sustainable economic competitiveness aligned with SDG 8.

INTRODUCTION

Entrepreneurial Orientation (EO) has been a focal point in entrepreneurship research for several decades, with significant contributions to understanding how entrepreneurial and innovative actions emerge within organizations. EO refers to the processes, practices, and decision-making activities that facilitate entrepreneurial initiatives (Ciampi et al., 2021; Lumpkin & Dess, 1996; Méndez et al., 2021). Research on EO typically follows two main approaches: multidimensional EO and unidimensional EO.

The multidimensional EO approach encompasses five critical dimensions: innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness (Lumpkin & Dess, 1996). Each dimension is posited to contribute uniquely to entrepreneurial performance. For instance, innovation drives new product development and technological advancements (Covin & Wales, 2019), while proactiveness relates to anticipating and acting on future needs and changes (Wiklund & Shepherd, 2014). Risk-taking involves committing resources to opportunities with uncertain outcomes (Rauch et al., 2009), autonomy allows organizational members the freedom to explore new ideas independently (Kreiser et al., 2013), and competitive aggressiveness refers to the firm's propensity to challenge competitors directly (Gódány et al., 2021).

In contrast, the unidimensional EO approach consolidates these dimensions into a single construct representing the overall entrepreneurial orientation (Covin & Wales, 2019). This simplification is beneficial for research settings requiring a holistic measure of EO, but it may obscure the distinct effects of each dimension (George & Marino, 2016). The debate on the efficacy of these approaches remains unresolved. Some studies advocate for the multidimensional approach due to its ability to provide granular insights into how each EO dimension impacts performance (Kreiser et al., 2013; Wales et al., 2015). Others highlight the practicality and ease of operationalizing the unidimensional approach in diverse research contexts (Miller & Breton-Miller, 2017).

This systematic literature review aims to evaluate and compare the development and impact of research on multidimensional and unidimensional EO from 2014 to 2024, assessing trends, empirical findings, and theoretical contributions to offer a comprehensive understanding of EO in contemporary entrepreneurial contexts (Anderson et al., 2020; Zahra & Garvis, 2000).

Multidimensional approach to Entrepreneurial Orientation (EO)

The multidimensional EO approach, established by Lumpkin and Dess (1996), identifies five dimensions: innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness. These dimensions are considered vital for understanding the intricate ways in which EO influences organizational performance. Research between 2014 and 2024 has reinforced the value of this approach. For example, Wales et al. (2015) demonstrated that innovation and proactiveness are strongly associated with growth in the technology sector, while risk-taking and competitive aggressiveness are crucial in highly competitive markets (Covin & Wales, 2019). Lechner et al. (2014) found that autonomy and competitive aggressiveness significantly enhance market growth and competitiveness in SMEs.

Empirical studies suggest that interactions among EO dimensions can produce diverse outcomes. Hughes et al. (2018) highlighted that innovation and proactiveness are particularly effective in dynamic environments, whereas risk-taking and competitive aggressiveness are more pertinent in stable environments. Additionally, integrating all EO dimensions allows firms to be more adaptive and responsive to market changes, contributing to overall organizational success (Velázquez & Rivas, 2020). Research on the specific impacts of each EO dimension has been extensive, showing the varied influence of these dimensions across different industries and contexts (Nogueiro et al., 2022; Rahmawati et al., 2022; Santos & García, 2011).

Unidimensional approach to Entrepreneurial Orientation (EO)

The unidimensional approach, as proposed by Covin and Wales (2019), merges the various EO dimensions into a single construct. This approach has been widely supported for its practicality in measuring overall EO. Wiklund and Shepherd (2014) argued that the unidimensional approach simplifies the assessment process, making it easier to apply in large-scale studies. Research by Miller and Le Breton-Miller (2017) validated the unidimensional EO's effectiveness in predicting firm performance across various industries, including manufacturing. Studies such as those by George and Marino (2016) and Anderson et al. (2020) have provided substantial evidence supporting the unidimensional EO's practical application and consistent correlation with business success indicators.

Despite its practicality, the unidimensional approach faces criticism for potentially obscuring the specific contributions of individual EO dimensions. George and Marino

(2016) emphasized that this consolidation might overlook critical nuances, thus affecting the accuracy of research findings. Nonetheless, studies by Wales et al. (2015) and others have demonstrated that unidimensional EO consistently correlates with key business success indicators, such as sales growth and profitability (Rauch et al., 2009).

Comparison of multidimensional and unidimensional approaches

Comparative analyses of the multidimensional and unidimensional approaches reveal distinct advantages and limitations for each. The multidimensional approach offers detailed insights into how each EO dimension affects organizational performance, though it is more complex and data-intensive. Conversely, the unidimensional approach provides a practical and straightforward measure of EO, albeit at the risk of losing specific dimensional influences. Anderson et al. (2020) suggest that the choice between these approaches should depend on the research objectives and industry context.

Overall, both approaches significantly contribute to the understanding of EO. Integrating the strengths of both could yield a more comprehensive theoretical framework, enhancing the development of effective entrepreneurial strategies (Anderson et al., 2020; Covin & Wales, 2019; Wiklund & Shepherd, 2014; Zahra & Garvis, 2000).

RESEARCH METHOD

Research design

This study employs a qualitative research methodology using a Systematic Literature Review (SLR) to evaluate and compare studies on multidimensional and unidimensional Entrepreneurial Orientation (EO) from 2014 to 2024. The SLR method systematically collects and critically analyzes multiple research studies or papers. This approach helps synthesize existing knowledge, identify research gaps, and provide a comprehensive overview of the topic can be seen in Table 1.

Table 1. Phases of the Systematic Literature Review (SLR) methodology

Phase	Description
Research Design	Systematic Literature Review (SLR) to evaluate and compare studies on multidimensional and unidimensional Entrepreneurial Orientation (EO) from 2014-2024.
Inclusion Criteria	➤ Peer-reviewed articles indexed in Scopus ➤ Articles discussing multidimensional or unidimensional EO ➤ Articles in English published between 2014-2024
Exclusion Criteria	➤ Articles not fully available or only available as abstracts ➤ Articles not directly related to EO
Search Strategy	➤ A literature search conducted through the Scopus database ➤ Keywords: "entrepreneurial orientation"
Selection Process	1. Initial Search: Use keywords to find relevant articles (500 articles found) 2. Title and Abstract Screening: Screen articles based on the relevance of title and abstract (250 articles selected) 3. Full-Text Evaluation: Read and evaluate articles that passed the initial screening (150 articles selected) 4. Quality Assessment: Use quality assessment tools to ensure only methodologically sound articles are included in the analysis (100 articles selected)
Data Analysis	➤ Data Extraction: Gather key information from each article (research methods, sample, findings, and conclusions)

Results Reporting	➤ Thematic Grouping: Categorize findings based on main themes (EO dimensions, EO impact on performance, and interactions between EO dimensions) ➤ Approach Comparison: Compare findings from studies using multidimensional and unidimensional approaches ➤ Results are reported in a structured narrative, covering main themes, research trends, and conclusions from the comparison of multidimensional and unidimensional EO approaches ➤ Diagrams and tables are used to present data visually, facilitating understanding and interpretation of findings
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RESULTS AND DISCUSSION

Results

From the 500 articles found in the initial search through the Scopus database, 250 articles were selected based on the relevance of the title and abstract. After a full-text evaluation, 150 articles met the inclusion criteria. Further quality assessment ensured that 100 methodologically sound articles were used for in-depth analysis related to Entrepreneurial Orientation (EO).

Trends in EO research (2014-2024)

Research on Entrepreneurial Orientation (EO) has shown significant developments over the past decade. Analysis indicates that EO research is divided into two main approaches: multidimensional and unidimensional. EO dimensions such as innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness are often studied separately to understand their impact on organizational performance. Understanding each EO dimension provides a more comprehensive picture of how EO affects organizational performance. Research from 2014 to 2024 confirms that each EO dimension uniquely contributes to entrepreneurial performance (Hughes et al., 2018; Lechner et al., 2014; Wales et al., 2015).

In contrast, the unidimensional approach combines various EO dimensions into a single construct, which is considered more practical and easier to measure (Covin & Wales, 2019). Wiklund and Shepherd (2014) demonstrated that this approach could effectively predict firm performance in various industrial contexts. Studies during this period have supported its practicality and effectiveness in different settings (Ključnikov et al., 2019; Miller & Breton-Miller, 2017; Rauch et al., 2009).

Research using the multidimensional approach provides more detailed insights into how each aspect of EO affects organizational performance. For example, Wales et al. (2015) showed that innovation and proactiveness have strong relationships with company growth in the technology industry. Meanwhile, the combination of risk-taking and competitive aggressiveness is more relevant in highly competitive markets (Covin & Wales, 2019). On the other hand, the unidimensional approach simplifies the measurement of EO and facilitates analysis in various research contexts. Miller and Le Breton-Miller (2017) found that the unidimensional EO approach could effectively predict firm performance in the manufacturing industry. However, some researchers argue that this approach might obscure the specific influence of each EO dimension, potentially affecting the validity of research findings (Anderson et al., 2020; George & Marino, 2016).

Summarizing the key aspects of both approaches, highlighting their main focuses, advantages, disadvantages, and representative studies can be seen in Table 2.

Table 2. Summary of research trends in EO (2014-2024)

Aspect	Multidimensional Approach	Unidimensional Approach
Key Dimensions	Innovation, Proactiveness, Risk-taking, Autonomy, Competitive Aggressiveness	Combined EO dimensions into a single construct
Main Focus	Detailed study of individual dimensions' impact on performance	Overall EO measurement and its effect on performance
Advantages	Provides in-depth insights into specific EO dimensions	Practical and easier to measure
Disadvantages	More complex and data-intensive	May obscure specific influences of individual dimensions
Representative Studies	Hughes et al. (2018), Lechner and Gudmundsson (2014), Lumpkin and Dess (1996), Rauch et al. (2009), and Wales et al. (2015)	Anderson et al. (2020), Covin and Slevin (1989), Miller (2017), van Tilburg and Igou (2017), Wales et al. (2015), and Wiklund and Shepherd (2005)

The bibliometric analysis visualized using VOSviewer illustrates the co-occurrence network of keywords in Entrepreneurial Orientation (EO) research from 2014 to 2024. The network map, titled "Co-occurrence Network of Keywords in EO Research (2014-2024)," displays several key terms and their interconnections, highlighting major themes and research trends in the field. Figure 1 is the figure titled "Co-occurrence Network of Keywords in EO Research (2014-2024)".

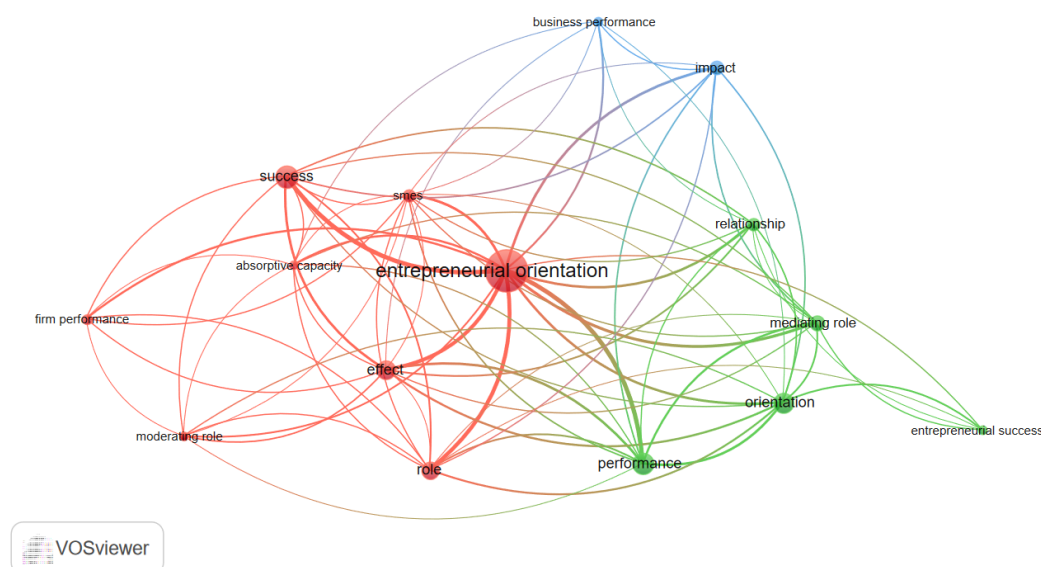


Figure 1. Co-occurrence network of keywords in EO research (2014-2024)

The central node "entrepreneurial orientation" is the most significant and well-connected term in the network, indicating its prominence as the primary focus of the research. This term is directly connected to several other critical keywords, showcasing its integral role in the research landscape. Keywords like "performance," "business performance," and "firm performance" are prominently linked to EO, highlighting the emphasis on understanding how EO impacts organizational outcomes. "Success" is another key term connected to EO, indicating research interest in the factors contributing to entrepreneurial success. The terms "impact" and "relationship" form important nodes, suggesting that many studies explore the relationship between EO and various performance metrics and the impact of EO on business outcomes. These connections

suggest a significant body of research focused on the causal relationships and outcomes associated with EO.

Terms like "mediating role" and "moderating role" are also connected to EO, indicating studies that examine how EO interacts with other variables to influence performance. This suggests a nuanced understanding of EO, where its effects are not direct but mediated or moderated by other factors. "SMEs" (small and medium-sized enterprises) is a key term linked to EO, reflecting the focus on how EO impacts smaller firms. "Absorptive capacity" is another term connected to EO, suggesting interest in how the ability to absorb and utilize new knowledge affects entrepreneurial orientation and success. The terms "effect" and "role" are frequently connected to EO, indicating that many studies aim to understand the specific effects of EO and the role it plays in business performance.

The high connectivity of EO indicates its foundational role in the research. Almost all major themes and terms are linked to EO, underscoring its importance. The presence of various clusters and terms such as "performance," "success," "impact," "relationship," "mediating role," and "SMEs" reflects the diverse research themes explored within EO studies. These include the direct and indirect effects of EO, its application in different organizational contexts, and its impact on performance and success. The network map also helps identify potential research gaps. For example, while there is significant research on the performance impact of EO, there might be less focus on other dimensions such as cultural and geographic variations in EO. Future research could explore these less-studied areas to provide a more holistic understanding of EO.

Discussion

Entrepreneurial Orientation (EO) has become an important strategic capability in supporting sustainable economic growth through innovation, competitiveness, and organizational adaptation (Dubey et al., 2019). The findings of this systematic literature review demonstrate that the multidimensional approach provides a comprehensive understanding of entrepreneurial behavior by examining innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness as independent dimensions (Eva et al., 2018). This perspective is highly relevant to SDG 8 because sustainable economic growth requires organizations to continuously develop innovative capabilities and create competitive advantages. According to Wales et al. (2015), EO dimensions contribute differently to organizational performance depending on environmental conditions and industry characteristics. Furthermore, Rauch et al. (2009) demonstrated that EO has a significant relationship with business performance, indicating that entrepreneurial capabilities play an important role in strengthening organizational competitiveness. Therefore, understanding individual EO dimensions enables organizations to design more targeted entrepreneurial strategies.

The comparison between multidimensional and unidimensional approaches highlights the importance of balancing analytical depth and practical measurement. The unidimensional approach provides efficiency by combining EO dimensions into a single construct, making it suitable for large-scale studies and organizational assessment. However, this simplification may reduce understanding of specific entrepreneurial mechanisms influencing performance outcomes. Anderson et al. (2020) emphasized that EO measurement approaches should be selected based on research objectives and contextual factors. Similarly, George and Marino (2016) argued that differences in EO conceptualization and operationalization influence how entrepreneurial behavior is interpreted across research contexts. In relation to SDG 8, an appropriate EO

measurement framework can support organizations, particularly SMEs, in strengthening productivity, competitiveness, and sustainable business development. Ključnikov et al. (2019) highlighted that entrepreneurial orientation among SMEs contributes to understanding how entrepreneurial strategies support organizational development within different economic environments.

Furthermore, integrating both EO approaches offers an opportunity to develop a more holistic framework for sustainable entrepreneurship. The findings indicate that innovation capability, proactive market orientation, and strategic risk management are essential factors in achieving long-term organizational success (Mikalef et al., 2021). This integration supports the broader SDG agenda by encouraging entrepreneurial ecosystems that promote economic resilience and inclusive growth (Kohler et al., 2019). Wales et al. (2019) stated that EO research has increasingly expanded into international and cross-cultural contexts, demonstrating the importance of contextual factors in understanding entrepreneurial behavior. Moreover, Covin and Wales (2019) emphasized that future EO research should consider theoretical refinement and contextual adaptation to improve its contribution to entrepreneurship studies. Therefore, future EO research should incorporate contextual variables such as organizational culture, industry dynamics, and sustainability orientation to strengthen its contribution toward sustainable development.

CONCLUSION

Fundamental Finding: This study confirms that both multidimensional and unidimensional approaches provide valuable contributions to understanding Entrepreneurial Orientation (EO). The multidimensional approach offers detailed insights into how innovation, proactiveness, risk-taking, autonomy, and competitive aggressiveness influence organizational performance, while the unidimensional approach provides a practical and efficient measurement framework. Integrating both approaches creates a stronger theoretical foundation for understanding entrepreneurial behavior and supporting sustainable organizational growth aligned with SDG 8.

Implication: The findings imply that organizations and policymakers should consider EO as a strategic capability for improving innovation, competitiveness, and sustainable economic development. The integration of EO dimensions can support managers in designing entrepreneurial strategies that enhance business performance and contribute to sustainable employment and economic growth. **Limitation:** This study is limited by its reliance on secondary data from Scopus-indexed publications between 2014 and 2024. Differences in geographical contexts, industries, and methodological approaches among reviewed studies may influence the interpretation of EO development. **Future Research:** Future research should explore EO using longitudinal and mixed-method approaches by incorporating sustainability-oriented variables, cultural factors, digital transformation, and industry-specific characteristics. Such studies can provide deeper insights into how entrepreneurial orientation contributes to sustainable development objectives.

AUTHOR CONTRIBUTIONS

Rusnandari Retno Cahyani: Conceptualisation, methodology, investigation, literature search, data curation, formal analysis, visualization, Writing-original draft, project administration. **Asri Laksmi Riani:** Conceptualisation, supervision, methodology, validation, Writing-review and editing. **Mugi Harsono:** Supervision, formal analysis, validation, Writing-review and editing. **Sinto Sunaryo:** Supervision, validation, theoretical review, Writing-review and editing.

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no financial or non-financial competing interests that could have influenced the research reported in this article.

ETHICAL COMPLIANCE STATEMENT

This study does not involve human participants, animal subjects, or primary data collection requiring ethical approval. The research was conducted through systematic analysis of previously published academic literature following principles of academic integrity, transparency, and responsible research practices.

STATEMENT ON THE USE OF AI OR DIGITAL TOOLS IN WRITING

The authors acknowledge the use of Grammarly as a language editing tool to improve grammar, spelling, clarity, and overall language quality during the manuscript preparation process. However, all research concepts, methodological decisions, data interpretation, and conclusions remain entirely the responsibility of the authors. Grammarly was used solely for language refinement and did not contribute to data generation, analysis, or scientific decision-making.

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