Territorial competitiveness and enterprise development: Research directions based on bibliometric techniques

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ABSTRACT

The relationship between territorial competitiveness and enterprise development has garnered significant attention from researchers. This study conducts bibliographic coupling and a systematic review of this topic for the period 2001 - 2024. Data were collected from the Web of Science (WoS), comprising 213 articles from reputable journals in economics, business, and management. Using bibliometric techniques, the study identifies 173 interconnected articles and categorizes 138 articles into seven key thematic clusters. These themes include the impact of the business environment, public policy, innovation, international investment, institutions, and corporate responsibility on territorial competitiveness and business development. This study makes a crucial theoretical contribution by systematizing and classifying key research directions, guiding future studies. In practice, it provides policymakers with a scientific basis for fostering a favorable business environment while helping enterprises enhance their competitive advantage in the context of globalization.

1. Introduction

In the context of globalization, territories worldwide are increasingly focused on enhancing their competitiveness to expand their share in global trade and drive economic growth (Bahrami et al., 2023). The competitiveness of a territory is not a random outcome but rather an evolutionary process of complex economic ecosystems with international linkages, reflecting developments in the global economy (Hidalgo & Hausmann, 2009). Territorial regions can approach competitiveness at multiple levels: interregional between countries, within a single country, or at the local level. This competitiveness significantly impacts socio-economic development, influencing business performance, investment attraction, sustainable growth, and quality of life. The importance of territorial competitiveness has drawn the attention of many researchers and policymakers. However, the multidimensional and complex nature of this issue makes it challenging to construct a comprehensive picture (Bahrami et al., 2023).

In recent years, several review studies have aimed to provide a systematic perspective on territorial competitiveness, helping researchers identify research gaps and supporting policy formulation. Notable examples include reviews on economic complexity and the dynamics of regional competitiveness (Bahrami et al., 2023), reviews on business and regional competitiveness in tourism (Correa & Ferreira, 2022), and analyses of concepts and measurement methods of regional competitiveness over time in Northern Ireland (Birnie et al., 2019). However, an important but insufficiently reviewed topic is the relationship between

territorial competitiveness and business development. A systematic assessment of how studies have approached this topic, the key trends, and the research gaps that need further exploration remains absent.

Therefore, the objective of this paper is to provide a comprehensive overview of the research literature related to the relationship between territorial competitiveness and business development. The central research question this study aims to address is: What key research trends have emerged regarding the relationship between territorial competitiveness and business development?

This paper makes two significant contributions. First, it represents the first systematic effort to collect and evaluate all published scientific studies on the relationship between businesses and territorial competitiveness. Second, through a comprehensive literature analysis, this paper identifies key research trends, highlights research gaps, and provides directions for future studies.

Following the introduction, the paper is structured into four subsequent sections. Section 2 provides a theoretical overview of territorial competitiveness. Next, Section 3 presents the research methodology, including the literature search process, analytical methods, and tools used. Section 4 then reports descriptive statistics and findings on research trends. Finally, Section 5 discusses the conclusions, research limitations, and suggestions for future research directions.

2. Theoretical overview of territorial competitiveness

Territorial competitiveness refers to the ability of a region (nation, region, province/city) to create and sustain an attractive economic environment that fosters sustainable growth, enhances productivity, and improves the quality of life for residents and businesses. According to Porter (1990), the competitiveness of a territory is not based solely on natural advantages but also on factors such as infrastructure, institutions, innovation, and human resources. While many studies have measured territorial competitiveness using quantitative indicators, some question whether these metrics fully capture qualitative and dynamic factors such as institutional quality, informal business activity, and innovation ecosystems. Interpreting these indicators requires a solid theoretical foundation to assess their relevance and limitations in the context of enterprise development.

A review of the literature indicates that territorial competitiveness is commonly assessed using three main indices: the Global Competitiveness Index (GCI), the Regional Competitiveness Index (RCI), and the Provincial Competitiveness Index (PCI). The GCI, published by the World Economic Forum (WEF) since 1979, ranks countries based on their competitiveness levels (World Economic Forum [WEF], 2013). This index has a broad structure that analyzes macroeconomic conditions and national competitiveness. GCI is calculated as a weighted average of 12 criteria, incorporating two main data sources: international statistical data (from the IMF, UNESCO, WHO, etc.) and executive opinion surveys conducted by more than 150 partner organizations worldwide (Çemberci et al., 2015). However, the GCI primarily reflects structural and formal factors and remains limited in capturing dynamic characteristics such as innovation capabilities or the adaptability of small and medium-sized enterprises.

Regional competitiveness reflects how a territory manages its resources and capabilities to promote prosperity for residents and businesses. It is evaluated based on five factors: economy, business environment, government, infrastructure, and human resources (Charles & Sei, 2019). Most RCI models are built on three main pillars: 1) *Basic conditions* (transportation, energy, telecommunications infrastructure; institutional quality, business environment;

healthcare and primary education); 2) *Economic efficiency* (labor quality, higher education; market size and development; regional economic integration capacity); 3) *Innovation and creativity* (investment in research & development; technology application and digital transformation; patents and innovative enterprises). One of the most well-known RCIs is the European RCI, developed by the European Commission to assess the competitiveness of EU regions at the NUTS 2 level. First introduced in 2010, the European RCI adopts WEF's methodology, and by 2013, its second edition was published with 73 updated indicators (Dijkstra et al., 2023). However, like the GCI, the RCI may overlook informal factors - such as inter-firm linkages, innovation networks, and adaptability to global disruptions - that are increasingly critical to business development.

The PCI assesses the competitiveness of provinces and cities within a country, measuring the quality of economic governance, business environment, and ease of doing business at the local level. In Vietnam, PCI has been developed by the Vietnam Chamber of Commerce and Industry (VCCI) since 2005, based on business surveys. In 2006, PCI was refined to include 11 sub-indices, but since 2017, it has been updated to 10 main criteria (Vietnam Chamber of Commerce and Industry [VCCI], 2025). PCI reflects the business community's perspective on the economic environment in Vietnamese provinces and cities. Beyond Vietnam, several other countries have developed similar indices, such as China's PCI and the India State Competitiveness Index, which evaluates the competitiveness of Indian states. The PCI is considered a highly interactive index with the business community, effectively reflecting the practical operational obstacles enterprises face, though it may overlook long-term factors such as innovation and inter-regional connectivity.

Understanding the link between territorial competitiveness and business development requires insights from modern business theories. Firm growth theory (Penrose, 2009) highlights the importance of internal resources and external conditions. Isenberg's (2010) entrepreneurial ecosystem approach emphasizes the interaction of policy, finance, culture, education, and support networks. SME dynamics theory adds adaptability and innovation, while industrial upgrading focuses on firms' capacity to climb global value chains. Together, these frameworks underline the critical role of regional structures - governance, infrastructure, innovation, and institutional support - in shaping business outcomes. Integrating these perspectives with indices such as GCI, RCI, and PCI offers a more comprehensive, context-specific approach to analyzing business development in today's global, digital economy.

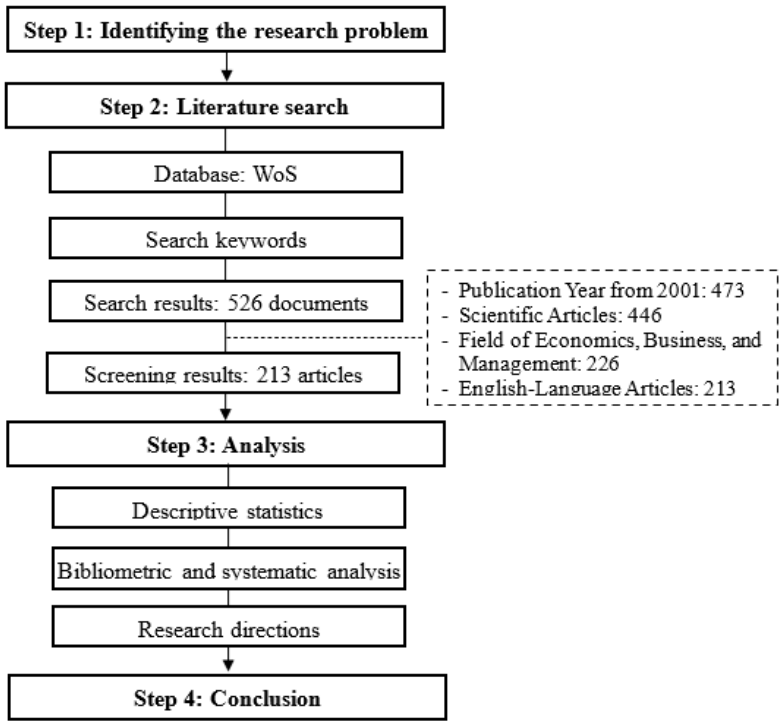
Territorial competitiveness plays a crucial role in the socio-economic development of a region. It not only affects business performance but also influences investment attraction, sustainable growth, and the overall quality of life for residents. Enhancing competitiveness benefits not only individual regions but also contributes to the broader development of national and regional economies. Therefore, studying territorial competitiveness should go hand in hand with analyzing enterprise development. An integrated approach linking regional capabilities with business dynamics provides deeper insights into causal relationships and supports more effective policymaking for sustainable local economic growth.

3. Methodology

This study follows a process designed to explore research trends in topics with a large body of existing studies (Figure 1). First, relevant literature is searched after identifying the research problem. Next, the collected data is analyzed to determine key research trends. Finally, the analysis results are synthesized to conclude the research topic.

Figure 1

Research Process



Note. Author's own compilation (2025)

3.1. Literature search

The literature search was conducted using the WoS database, which is one of the most reputable and comprehensive academic sources available today, providing peer-reviewed articles across various fields of the social sciences and economics. The selection of search terms is crucial to ensuring the comprehensiveness of the results. While article titles are the first elements to capture readers' attention (Jamali & Nikzad, 2011), expanding the search scope to include abstracts and keywords is essential, as they represent the core themes of a study (A. T. Nguyen et al., 2024). In this study, the scope of the search focused on topics related to enterprises and territorial competitiveness. Therefore, the selected search terms included *"enterprise*"* combined with *"regional competitiveness"*, *"national competitiveness"*, *"global competitiveness"*, *"state competitiveness"*, or *"provincial competitiveness"*. This selection ensured that the retrieved documents contained the search terms in their title, keywords, or abstract.

The initial search yielded 526 publications. To ensure relevance, a three-step screening process was conducted. First, only scientific articles published from 2001 onwards were selected, reducing the list to 446 articles. Next, articles on economics, business, and management were retained, as these fields are closely related to the research topic and account for a significant portion of the dataset. After this step, 226 articles remained. Finally, only English-language publications were included in the analysis, narrowing the final dataset to 213 articles.

3.2. Methods and analytical tools

First, the data were analyzed descriptively by publication year, citation count, research field, geographical scope, and authorship to identify the dataset's characteristics and research trends over time. WoS data supported this process. Next, a bibliometric analysis was conducted to identify groups of related documents, which is particularly useful for research topics with a

large volume of studies. Various software tools support bibliometric analysis, and this study utilized VOSviewer due to its effectiveness in analyzing bibliographic data from WoS or Scopus (Donthu et al., 2021). There are two main techniques applied in bibliometric analysis: Co-Citation Analysis and Bibliographic Coupling.

Co-Citation Analysis identifies relationships between documents based on their co-citation in another document. This technique helps uncover research schools of thought and long-term trends. However, this method requires a sufficiently high citation count for accurate results, leading to a long time lag and making it challenging to analyze newer or less-cited studies. Meanwhile, Bibliographic Coupling determines relationships between documents based on their shared references (Mulet-Forteza et al., 2018). This method enables the detection of current research clusters and emerging trends, even when documents have not yet been widely cited. However, it does not directly reflect the impact of individual documents. Since more than half of the articles had not been cited or had fewer than six citations, this study selected Bibliographic Coupling to identify groups of related documents. Subsequently, a systematic analysis was performed to synthesize conclusions on major research trends.

4. Result

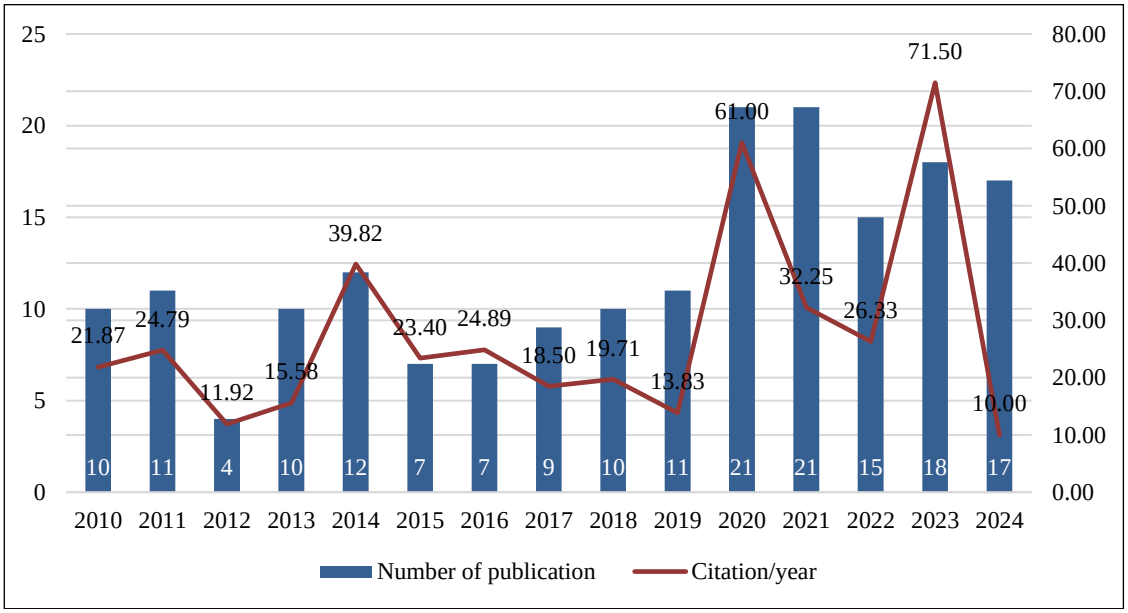
4.1. Descriptive statistics

4.1.1. Research and citation trends

Among the 213 analyzed articles, 183 were published over 15 years from 2010 to 2024. On average, approximately 10.2 articles were published per year, with a rising trend observed over the last five years (2020 - 2024), reaching an average of 18.4 articles per year. Additionally, the average annual citation count of the articles also shows a corresponding increasing trend. Articles published in 2024 have relatively low citation counts, which may be attributed to the time lag in the citation process. The variation in the number of published articles and the average annual citation count over the 2010 - 2024 period is illustrated in Figure 2 below.

Figure 2

Annual Publication and Average Citation Trends (2010 - 2024)



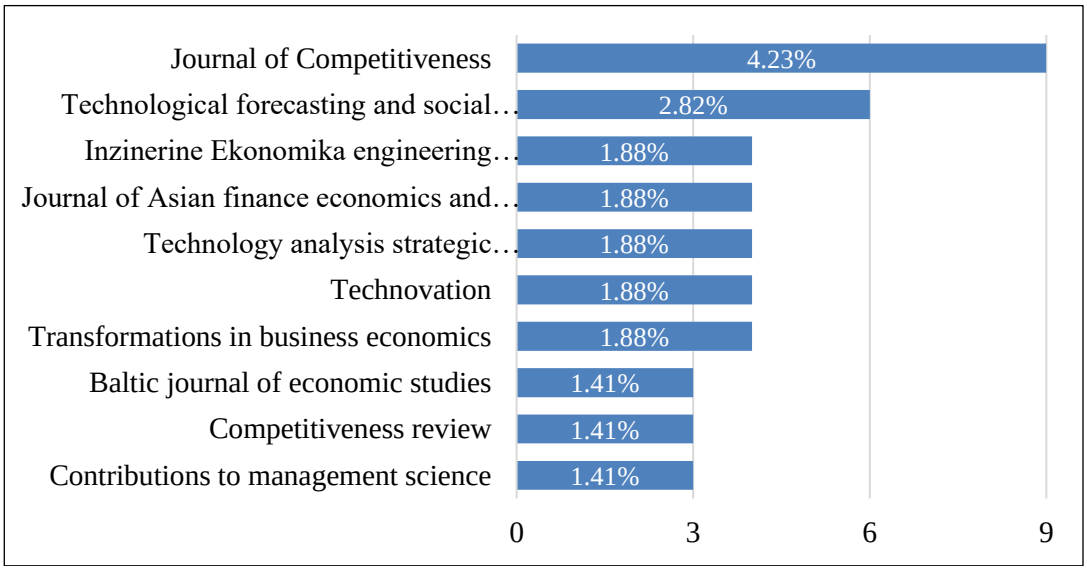
Note. Analysis from the reviewed articles

4.1.2. Prominent journals, publishers, and countries

The articles in this study were published in various journals, affiliated with multiple publishers, and authored by researchers from different countries. Figure 3 presents the ten journals with the highest number of articles on this topic. In contrast, Figure 4 summarizes the ten publishers with the most publications, and Figure 5 lists the ten countries with the most research contributions. Among the journals, the *Journal of Competitiveness* ranks first with nine articles, accounting for 4.23% of the total. This journal specializes in competitiveness research and is indexed in SSCI and Scopus, with a Q1 ranking. Regarding publishers, Elsevier leads with 35 articles (16.43%), followed by Taylor & Francis with 32 articles (15.02%). In terms of article count, the United States ranks first with 32 articles (16.43%), followed by Vietnam with 21 (9.86%) and the United Kingdom with 20 (9.39%).

Figure 3

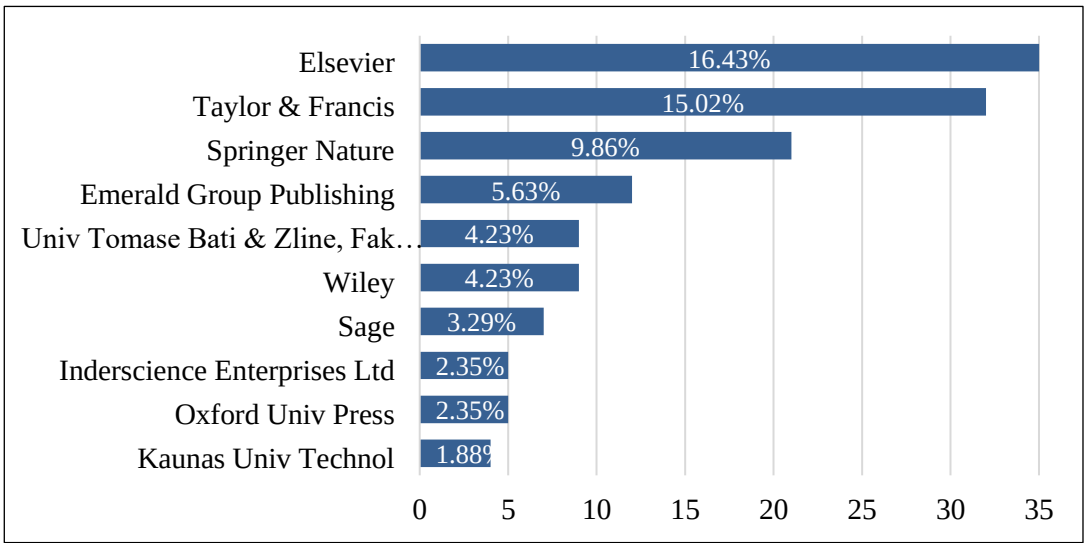
Top Ten Journals with the Highest Number of Published Articles



Note. Analysis from the reviewed articles

Figure 4

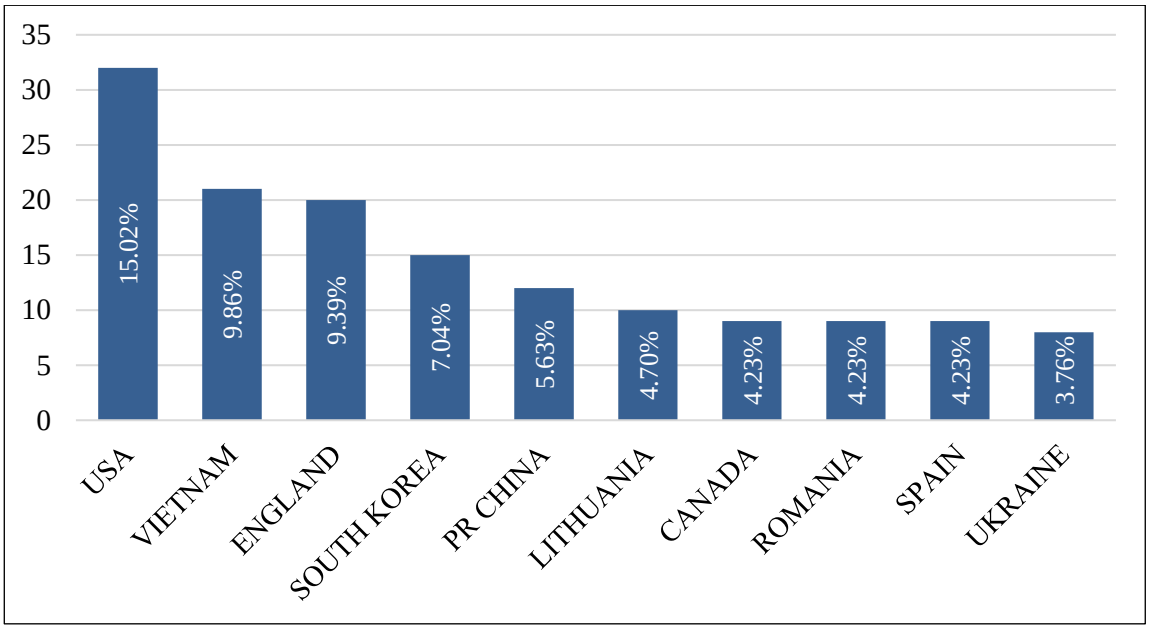
The Ten Publishers with the Highest Number of Published Articles



Note. Analysis from the reviewed articles

Figure 5

The Ten Countries with the Highest Number of Published Articles



Note. Analysis from the reviewed articles

4.1.3. Most cited studies

The total number of citations for the 213 articles is 4,457. Table 1 lists the ten most cited articles, which collectively account for 1,680 citations, representing 37.69% of the total citations, with an average of 10.72 citations per year. The most cited articles were published in two periods: four from 2001 to 2005 and six from 2010 to 2015, indicating an increasing trend in citations over time. However, 38 articles have not been cited, 13 articles have only one citation, and 16 articles have two citations. Most of these articles were published from 2021 onward, reflecting the reality that newer publications require time to accumulate citations, especially those that are not open access.

Table 1

Top Ten Cited Articles

No	Author(s)	Article title	Citations	Average per year
1	Lall (2001)	Competitiveness indices and developing countries: An economic evaluation of the global competitiveness report	287	11.96
2	Stiles (2001)	The impact of the board on strategy: An empirical examination	194	8.08
3	Cooke et al. (2005)	Social capital, firm embeddedness, and regional development	192	9.60
4	Boulouta and Pitelis (2014)	Who needs CSR? The impact of corporate social responsibility on national competitiveness	187	17.00
5	Balkyte and Tvaronavičiene (2010)	Perception of competitiveness in the context of sustainable development: Facets of "sustainable competitiveness"	172	11.47

No	Author(s)	Article title	Citations	Average per year
6	Guthrie et al. (2002)	Correlates and consequences of high involvement work practices: The role of competitive strategy	143	6.22
7	Nahm and Steinfeld (2014)	Scale-up nation: China's specialization in innovative manufacturing	136	12.36
8	Huggins and Williams 2011)	Entrepreneurship and regional competitiveness: The role and progression of policy	128	9.14
9	Narula and Verbeke (2015)	Making internalization theory good for practice: The essence of Alan Rugman's contributions to international business	121	12.10
10	Rugman et al. (2012)	The regional and global competitiveness of multinational firms	120	9.23

Note. Analysis from the reviewed articles

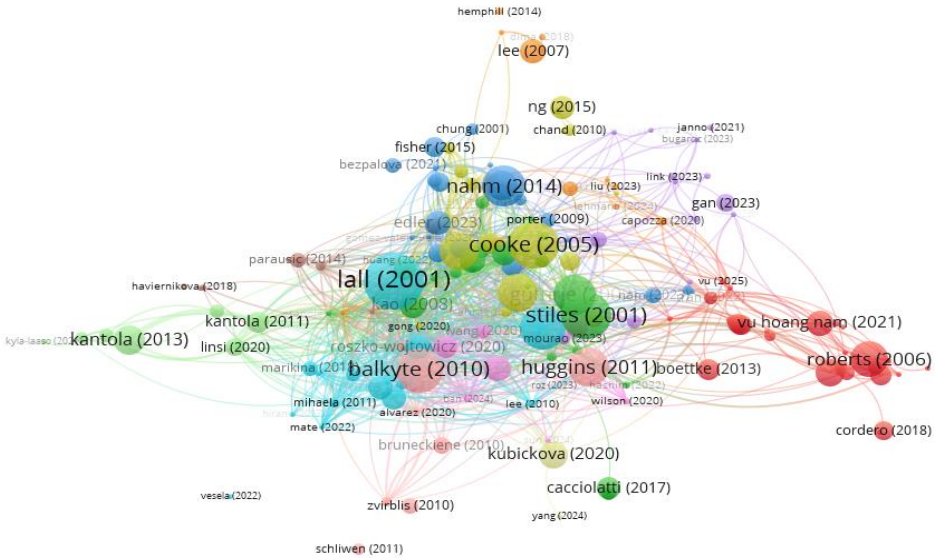
4.2. Research trends

4.2.1. Cluster exploration

Bibliographic coupling analysis was conducted using VOSviewer software on 213 articles. The results indicate that 173 articles are interconnected and categorized into 13 clusters using the visualization of the similarities clustering algorithm. This clustering method is based on the technique of bibliographic coupling, in which articles are grouped according to the degree of overlap in their reference lists: articles that share more common references are considered more strongly connected and tend to be placed in the same cluster. Each cluster represents a group of studies with similar research orientations and relatively close thematic content. These analytical results are visualized in Figures 2 and 3. Specifically, Figure 2 illustrates the collaboration network among authors, and Figure 3 depicts the temporal development of the research topic, with more recent articles highlighted in lighter colors.

Figure 6

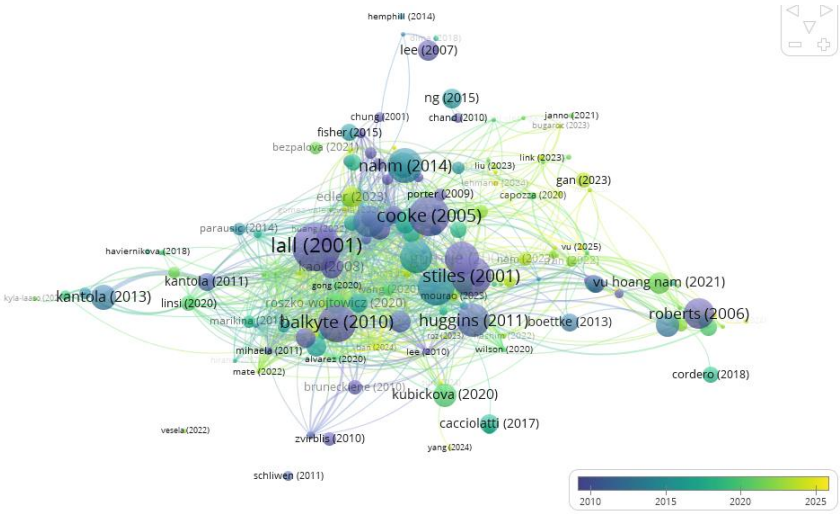
Network Visualization Diagram



Note. Visualization analysis using VOSviewer software

Figure 7

Overlay Visualization Diagram



Note. Visualization analysis using VOSviewer software

Among the 13 clusters formed, the 07 largest clusters contain a total of 138 articles, with each cluster consisting of 14 to 28 articles. The remaining 35 articles are scattered across 06 smaller clusters, with the number of articles ranging from 02 to 09 per cluster. Therefore, this study focuses on an in-depth analysis of the 07 main clusters to clarify research trends on the relationship between regional competitiveness and enterprises.

4.2.2. Analysis of main research clusters

To identify research trends across the major clusters, a content analysis was conducted to classify textual data and derive systematic, meaningful conclusions (Hsieh & Shannon, 2005). The analysis process consists of three steps. First, research trends within each cluster were identified by reviewing articles with similar core content. Next, the research themes of each cluster were synthesized based on specific research directions. Finally, the key contributions of each cluster were discussed and summarized. Table 2 below presents the themes, specific research directions, and notable authors of the main research clusters.

Table 2

Research Groups and Directions

Cluster	Research direction and key authors	Main contributions
1. Business environment and local institutions in enhancing firm competitiveness.	1) Business environment and enterprise competitiveness (Haschka et al., 2022; Pham & Vu, 2020). 2) Local governance and enterprise development (C. Q. Le et al., 2021; M. T. Nguyen et al., 2024). 3) Foreign Direct Investment (FDI) and enterprise performance (Dang, 2013; Nguyen et al., 2021). 4) Innovation in the local business environment (Tran et al., 2022; Vu & Hoang, 2021). 5) Political institutions, regional governance, and enterprises (Boettke et al., 2013; Hartley & Aldag, 2022; Thompson, 2004).	Highlights the strong relationship between regional competitiveness and factors such as business environment quality, public policies, FDI, and business innovation. Additionally, the role of institutions and local governance significantly influences business performance.

Cluster	Research direction and key authors	Main contributions
2. Regional competitiveness from the perspective of local resources and development conditions.	1) Infrastructure and firm competitiveness (Basile, 2012; Csíki et al., 2019). 2) Regional innovation (Bennett & Vaidya, 2005; Cahyadi et al., 2024; Chang & Chang, 2013). 3) Education, human resources, and regional competitiveness (Ramoniene & Lanskoronskis, 2011; Tijanic & Obadic, 2015). 4) Regional public policy and business environment (De Bosscher et al., 2010; Pol, 2020). 5) FDI, economic integration, and regional competitiveness (Carney et al., 2017; Milovic & Jocovic, 2017; Stanojević & Veličković, 2021). 6) Culture, science and technology, and regional competitiveness (Kim & Lee, 2009; Sokolov et al., 2019). 7) Measuring regional and enterprise competitiveness (Ju & Sohn, 2014; Kao et al., 2008; Skare et al., 2021).	Clarifies the link between regional competitiveness and business development through infrastructure, technological innovation, human resources, public policies, and foreign investment. These factors drive innovation, enhance business efficiency, and foster regional economic growth.
3. The impact of national policy and strategic investment on regional competitiveness.	1) Public policy and regional competitiveness (Edler et al., 2023; Gómez-Valenzuela, 2020; Olha et al., 2021). 2) Technological innovation and competitive advantage (Choi et al., 2012; del Campo et al., 2023; Roessner et al., 2002). 3) FDI and regional competitiveness (Gasparėnienė et al., 2022; Nam & Ryu, 2023; Pham & Pham, 2022). 4) Infrastructure and regional competitiveness (Wang, 2014; Wang et al., 2007). 5) National innovation systems and regional competitiveness (Chung, 2001; Nahm & Steinfeld, 2014).	Analyzes the impact of public policies, technological innovation, foreign investment, and regional innovation systems on business competitiveness. These elements play a crucial role in creating a favorable business environment and promoting sustainable economic development.
4. Globalization, integration, and territorial competitive strategies.	1) Regional competitiveness and business performance (Haake, 2002; Narula & Verbeke, 2015). 2) Institutions, economic policies, and competitiveness (Coşkun et al., 2023; Qian et al., 2018). 3) Globalization, economic integration, and competitiveness (Ng & Metz, 2015; Pearce & Zhang, 2010; Rugman et al., 2012). 4) Innovation and technological transformation (Pudelko & Mendenhall, 2009; Sureeyatanapas et al., 2024). 5) Culture, society, and human capital in global competition (Kuah et al., 2021; Kuznetsov & Kuznetsova, 2008).	Explores the relationship between regional competitiveness and business development through economic policies, international integration, innovation, and social factors. These aspects contribute to sustainable development strategies and enhance global competitiveness.

Cluster	Research direction and key authors	Main contributions
5. Innovation, trade, and global competitiveness.	1) Logistics and global trade (Bugarčić et al., 2023; N. T. V. Le et al., 2021; Solakivi et al., 2022). 2) Intellectual capital and national competitiveness (Khyareh & Rostami, 2022; Vo & Tran, 2023). 3) Digital government and public policies supporting enterprises (Gan et al., 2023). 4) Economic factors regional investment (Link & Sardar, 2023; Marčeta & Bojnec, 2023; Mourão & Popescu, 2023). 5) Digital transformation and global value chains (Vu et al., 2023; Zhu et al., 2025).	Emphasizes the importance of logistics, innovation, public policies, investment, and digital transformation in strengthening regional competitiveness. These factors not only impact business development but also shape economies in the context of global integration.
6. Institutions, public policy, and social responsibility in enhancing regional competitiveness.	1) Public policy on regional competitiveness (Chikán et al., 2024; Marikina, 2018; Veselá et al., 2022). 2) Corporate social responsibility and territorial competitiveness (Boulouta & Pitelis, 2014; Mate et al., 2022). 3) Institutions and macroeconomic factors (Lee, 2010; Roszko-Wójtowicz & Grzelak, 2020). 4) Culture, society, and regional competitiveness (Mihaela et al., 2011; Pérez-Moreno et al., 2016). 5) Assessing regional competitiveness (Djogo & Stanisic, 2016; Hirano, 2017; Viturka, 2007).	Demonstrates that economic factors, public policies, institutions, corporate social responsibility, and cultural factors influence regional competitiveness. The study provides a comprehensive approach to enhancing regional competitiveness through modern management tools and scientific measurement methods.
7. Innovation ecosystems and industrial clusters in enhancing the competitiveness of local enterprises.	1) Regional innovation ecosystems and enterprises (Hemphill, 2014; Dima et al., 2018; Lopes & Farinha, 2018). 2) Entrepreneurial and competitiveness (Capozza et al., 2020; Liu et al., 2023; Lehmann et al., 2024). 3) Industrial clusters and territorial competitiveness (Katrandjiev et al., 2021; Yun et al., 2010; Yun et al., 2015). 4) Local driver's innovation (Huang, 2022; Lee & Song, 2007).	Reveals the connection between regional competitiveness and innovation ecosystems, industrial clusters, R&D support policies, and territorial factors. Businesses operating in environments with well-developed entrepreneurial ecosystems and effective support policies tend to have higher competitive advantages.

Note. Content analysis results

5. Conclusion

This study provides a comprehensive review of research on the relationship between territorial competitiveness and business development from 2000 to 2024. By searching the WoS for relevant literature using predefined keywords, the study selected 213 articles from reputable journals in economics, business, and management. Among them, 173 articles were linked through bibliographic coupling techniques, and 138 articles were grouped into seven key research clusters.

The content analysis identified seven distinct research themes corresponding to these clusters: 1) The impact of the business environment and territorial policies on enterprises; 2) The effects of territorial competitiveness on businesses: The role of innovation, public policy, and local resources; 3) The role of public policy, technological innovation, and international investment in territorial competitiveness and businesses; 4) Territorial competitiveness and business development strategies in the context of globalization; 5) Factors driving territorial competitiveness and their impact on businesses in a globalized environment; 6) Factors influencing territorial competitiveness: The role of policy, institutions, and corporate responsibility; 7) The impact of the innovation ecosystem and regional policies on business competitiveness.

The findings of this study hold both theoretical and practical significance. Theoretically, the research systematizes knowledge on the relationship between territorial competitiveness and business development, offering a comprehensive overview of major research directions from 2001 to 2024. Additionally, it identifies and classifies seven key research themes, guiding future studies in this field. Practically, the study provides a valuable scientific foundation for policymakers. The findings help local governments and policymakers better understand the impact of the business environment, public policies, institutions, and innovation on territorial competitiveness and business growth. Furthermore, the study offers insights for businesses in formulating development strategies, particularly in leveraging regional policies, technological innovation, and international investment to enhance competitiveness in a globalized economy. Additionally, the research guides scholars by identifying research gaps and potential directions for further exploration.

Despite offering a comprehensive review of the relationship between territorial competitiveness and business development, this study has limitations in its data sources and analytical methods. The dataset was collected solely from WoS, potentially omitting relevant studies from other sources, such as Scopus. Moreover, while bibliometric and content analysis methods effectively summarize key research directions, they do not provide a detailed assessment of the impact of each factor on territorial competitiveness and businesses. Additionally, these methods do not precisely pinpoint research gaps within each thematic approach. Future research can address these limitations by expanding data sources to provide a more comprehensive perspective and by applying advanced analytical methods to uncover deeper research gaps and emerging trends in this field.

SCIENTIFIC CONTRIBUTION

The manuscript clearly identifies a research gap; the manuscript presents statistically and practically significant findings; the manuscript opens new directions for further research.

AUTHOR CONTRIBUTIONS

CRediT: **Nguyen Hai Quang**: Conceptualization, Methodology, Software, Formal Analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization.

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NO CONFLICT OF INTEREST STATEMENT

All authors declare that they have no conflict of interest.

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