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Mapping Competitive Dynamics Research: A Bibliometric Analysis (2000–2024)

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Abstract

Background: Competitive dynamics has been a central theme in business, management, and finance research, addressing how firms interact strategically to gain and sustain competitive advantage. Over the past 25 years, this field has evolved significantly, incorporating theoretical and empirical advancements to analyse competitive actions and responses. **Objectives:** This paper aims to provide a comprehensive review of the literature on competitive dynamics published between 2000 and 2024, focusing on key contributions, trends, and gaps in the fields of business, management, and finance. **Methods/Approach:** A systematic literature review was conducted using peer-reviewed articles from leading academic databases, applying predefined inclusion criteria to identify relevant studies. The review is structured to highlight thematic developments and methodological approaches. **Results:** The findings reveal significant growth in the study of competitive actions and responses, with an increasing emphasis on technology-driven competition and dynamic capabilities. Key trends include the integration of big data analytics, sustainability strategies, and cross-industry rivalry. **Conclusions:** This review synthesises critical insights into competitive dynamics, providing a roadmap for future research and practical implications for strategic management in dynamic markets.

Keywords: Competitive dynamics; strategic interaction; business management; competitive advantage; literature review

JEL classification: L10, L20, M10, M21, G30
Paper type: Research article

Received: Oct 10, 2024
Accepted: Jan 14, 2025

Citation: Barišić, R. (2025). Mapping Competitive Dynamics Research: A Bibliometric Analysis (2000–2024). Business Systems Research, 16(1), 1-22.
DOI: doi.org/10.2478/bsrj-2025-0001

Introduction

Competitive dynamics has been a central focus in strategic management and organisational studies, particularly in understanding how firms interact to maintain or improve their market positions. Over the past two decades, this area of research has evolved to address the complexities of modern business environments characterised by globalisation, technological advances, and rapidly shifting competitive landscapes. Studies published between 2000 and 2024 have increasingly emphasised the multidimensional nature of competition, integrating insights from interfirm rivalry, market strategy, and organisational behaviour.

This paper aims to synthesise findings from key contributions in the fields of business, management, and finance, offering a comprehensive perspective on how competitive dynamics influence firm performance and strategic decision-making. Research by D'Oria et al. (2021), Wand and Hu (2024), and Chen and Miller (2015) underscore the significance of strategic actions and responses, particularly in dynamic and technology-driven markets. Similarly, contributions from Chen et al. (2021) and Anwar and Hansu (2017) highlight the role of competitive consistency and adaptation in sustaining organisational success.

The primary objective of this paper is to provide a comprehensive review of research on competitive dynamics published between 2000 and 2024. By synthesising insights from 792 articles, the study aims to: (i) RG1. Analyse the evolution of competitive dynamics research over the past 25 years; and (ii) RG2. Identify key themes, trends, and theoretical advancements in the fields of business, management, and finance. To achieve these objectives, a systematic literature review was conducted. Articles were retrieved from leading academic databases using the search query TITLE-ABS-KEY (Competitive dynamics OR Interfirm competition OR Competitive actions and responses), focusing on peer-reviewed journals within the disciplines of business, management, and finance. The inclusion criteria were limited to articles published between 2000 and 2024. After an initial screening for relevance and quality, 769 articles were selected for detailed analysis.

The review process involved categorising the articles based on key topics, such as strategic actions, interfirm rivalry, and the role of technology and innovation in competitive dynamics. This structured approach ensured a comprehensive understanding of the field while uncovering patterns and emerging areas of interest.

The following sections provide an in-depth analysis of the theoretical foundations, methodological approaches, and key findings from the literature, with a focus on identifying trends and gaps that offer opportunities for future research in competitive dynamics.

Literature review

Historical Overview of Competitive Dynamics Theories

Over the past 25 years, competitive dynamics research has advanced significantly, leveraging both theoretical models and empirical studies to explore the strategic interplay between firms. The development of competitive dynamics theories has been shaped by a range of perspectives in economics and strategic management, with significant contributions evolving over the past two decades. Grounded in earlier work, contemporary research builds on these foundations to address the complexity and dynamism of competitive interactions in modern markets.

Competitive dynamics research has increasingly emphasised the role of inter-firm rivalry and strategic interaction in shaping market outcomes. Chen et al. (2021) underscored the importance of action-response dynamics between competitors,

arguing that firms must actively monitor and predict rivals' moves to maintain their competitive position. This focus on interaction patterns has been critical in understanding how competitive behaviours influence performance outcomes across industries.

Additionally, research has extended beyond single-market competition to explore multi-market dynamics. Teece (2022) highlighted how firms operating across multiple markets engage in mutual forbearance, where competitive actions in one market are influenced by potential retaliation in others. This work underscores the importance of strategic flexibility and coordination in managing complex interdependencies in global markets.

The dynamic capabilities perspective has provided valuable insights into how firms adapt to rapidly changing environments. Helfat and Peteraf (2003) proposed a framework for understanding dynamic capabilities to sustain competitive advantage in volatile markets. Their research emphasised that firms must not only develop unique resources but also continually reconfigure them to address evolving competitive pressures. Such adaptability has become a cornerstone of strategic thinking, particularly in technology-intensive industries.

Incorporating this view, Teece (2007) introduced a conceptual model linking dynamic capabilities to enterprise performance, emphasising sensing, seizing, and transforming capabilities. This model has become central to understanding how firms can innovate and pivot in response to competitive threats and opportunities, offering a robust explanation for sustained success in turbulent environments.

Upper-echelon theory has also experienced a resurgence in its application to competitive dynamics research, particularly concerning managerial cognition and decision-making. Nadkarni and Barr (2008) explored how top management teams' mental models influence their interpretation of competitive threats and opportunities, shaping the strategic actions firms undertake. Their findings suggest that managerial perceptions of environmental uncertainty and competitive intensity are critical drivers of strategic behaviour.

Moreover, Kaplan (2008) examined how decision-making frameworks and attention allocation impact the speed and quality of competitive responses. This research has been instrumental in highlighting the cognitive and behavioural dimensions of competition, providing a richer understanding of how firms navigate complex strategic landscapes.

The integration of these theoretical advances highlights the multifaceted nature of competitive dynamics. By combining insights from competitive interaction, dynamic capabilities, and managerial cognition, contemporary research offers a comprehensive view of how firms compete and thrive in dynamic environments. These perspectives continue to evolve, providing fertile ground for future exploration in the field of strategic management.

Factors Shaping Competitive Moves

Competitive moves are shaped by a complex interplay of factors that influence a firm's strategic choices and execution. These factors span from internal organisational capabilities to external environmental pressures, creating a dynamic environment where firms continuously assess and respond to competitive forces. Recent studies have enriched our understanding of the diverse drivers behind competitive behaviour, offering nuanced insights into the mechanisms underlying strategic decision-making.

The resource-based view (RBV) provides a foundational lens for understanding how firm-specific resources and capabilities shape competitive moves. Zahra (2021) emphasised that valuable, rare, inimitable, and non-substitutable (VRIN) resources

serve as the bedrock for competitive advantage. Firms with superior resources can undertake more aggressive and innovative competitive actions, leveraging their strengths to outperform rivals.

Building on this perspective, Teece (2007) argued that dynamic capabilities, which enable firms to sense, seize, and reconfigure resources, play a critical role in crafting strategic moves in rapidly changing environments. Firms with strong dynamic capabilities are better equipped to anticipate competitive threats and capitalise on emerging opportunities, providing them with a strategic edge.

External market conditions significantly influence the timing, frequency, and nature of competitive moves. Porter's (2008) work on industry structure highlighted the importance of competitive forces, such as the bargaining power of buyers and suppliers, the threat of substitutes, and the intensity of rivalry. In industries characterised by high rivalry, firms are compelled to engage in frequent and aggressive competitive actions to maintain market share and profitability.

Teece (2022) further demonstrated how multi-market competition shapes strategic behaviour. Firms operating in multiple markets often engage in mutual forbearance, avoiding confrontation to preserve stability across markets. This strategic restraint highlights how competitive moves are not only shaped by market conditions but also by the interplay between firms across overlapping competitive arenas.

The influence of managerial cognition and organisational processes on competitive moves has gained increasing attention in recent years. Nadkarni and Barr (2008) explored how top management teams' mental models and perceptions of environmental uncertainty influence the formulation of strategic moves. Firms led by managers with a high tolerance for ambiguity and a strong strategic vision are more likely to engage in proactive and innovative competitive actions.

Additionally, internal organisational processes, such as decision-making speed and resource allocation mechanisms, shape the firm's ability to respond to competitive challenges. Firms with more agile processes can adapt faster, enabling them to outmanoeuvre rivals in dynamic markets. This agility is particularly critical in industries with rapid technological advancements or shifting consumer preferences (Cyfert et al., 2021; Eisenhardt & Martin, 2000).

Competitive dynamics research underscores the reciprocal nature of competitive moves, where a firm's actions are shaped by rivals' anticipated responses. Anwar and Hansu (2017) highlighted the importance of action-response dynamics, arguing that firms must consider not only the immediate impact of their moves but also the likelihood of retaliation by competitors. This interdependence creates a feedback loop, where firms continuously adjust their strategies based on competitor behaviour.

In this context, understanding competitors' resource positions, market strategies, and historical behaviour becomes crucial for predicting their likely responses. Kaplan (2008) noted that firms with greater access to competitive intelligence can craft more effective moves, minimising the risk of costly retaliation while maximising the likelihood of strategic success.

Technological advancements and shifts in the broader business environment add another layer of complexity to competitive moves. The rise of digital transformation and Industry 4.0 has disrupted traditional competitive paradigms, compelling firms to innovate and rethink their strategies. Firms that can harness new technologies, such as artificial intelligence and data analytics, gain a significant advantage in crafting effective and sustainable competitive moves (Teece, 2007).

Similarly, environmental factors such as globalisation, regulatory changes, and societal expectations around sustainability have reshaped competitive dynamics. Firms that can adapt to these macro-level trends are better positioned to anticipate

and respond to emerging competitive challenges, ensuring their relevance in an increasingly complex global marketplace.

Integration of Theoretical Frameworks and Practical Implications

The integration of theoretical frameworks with practical implications bridges the gap between academic inquiry and real-world application, ensuring that theoretical insights can guide effective decision-making. The intersection of these two dimensions enriches the field of strategic management, offering actionable insights grounded in rigorous research. Recent studies emphasise the criticality of such integration, particularly in the dynamic context of competitive strategy.

Strategic management research often draws from diverse theoretical traditions, such as the resource-based view (RBV), dynamic capabilities, and institutional theory. The integration of these frameworks enables a comprehensive understanding of complex phenomena. For instance, Zahra (2021) highlighted how the RBV provides a foundation for understanding competitive advantage, while Teece (2007) underscored the role of dynamic capabilities in sustaining that advantage amidst environmental changes.

This synthesis is particularly valuable when examining competitive dynamics. By combining insights from multiple frameworks, researchers can account for both internal organisational strengths and external environmental pressures. For example, integrating RBV with industry-based perspectives, as Porter (2008) suggested, allows firms to align internal resources with external opportunities and threats, crafting more effective strategic responses.

The practical implications of strategic management theories often hinge on their adaptability to specific industry contexts. While dynamic capabilities are crucial for competitive advantage, their application varies significantly across industries. Firms operating in high-velocity environments, such as technology sectors, must develop rapid decision-making processes, whereas those in more stable industries might focus on incremental innovation (Eisenhardt & Martin, 2000; Cyfert, 2021).

Recent research has also explored how firms can operationalise theoretical insights to enhance performance. Kaplan (2008) demonstrated the importance of framing contests in strategy formulation, where managers use cognitive tools to navigate uncertainty and align organisational actions with strategic goals. This practical application of cognitive theory underscores the value of integrating abstract constructs into actionable strategies.

Integrating theoretical frameworks with practice has significant implications for organisational decision-making and policy formulation. Nadkarni and Barr (2008) argued that managerial cognition plays a pivotal role in translating theoretical insights into practice. Managers must not only understand theoretical constructs but also adapt them to their organisations' unique contexts. This adaptive capability ensures that strategic frameworks remain relevant and actionable.

Moreover, organisations can leverage theoretical insights to inform policies on resource allocation, innovation, and competitive positioning. For instance, Teece (2022) highlighted the importance of multi-market competition in shaping strategic behaviour. Firms operating across multiple markets must develop policies that balance competitive aggression with mutual forbearance, ensuring stability while pursuing growth.

Recent research is focused to the deployment of quantitative approaches to competitive dynamics, as well as applications in specific industries. Vrankić, Herceg, and Pejić Bach (2021) provided insights into the stability of evolutionary optimal strategies in duopolies, shedding light on competitive interactions through the lens of

game theory. Similarly, Talajić, Vrankić, and Pejić Bach (2024) introduced an innovative application of evolutionary game theory in managing workforce diversity, laying the groundwork for AI-driven systems to enhance strategic decision-making. Beyond theoretical contributions, research has also emphasized practical implications, such as the integration of corporate social responsibility into competitive strategy, exemplified by Butković, Tomšić, and Kaselj (2021) in the construction industry. This focus on sustainability and resilience is further reflected in Ahmić's (2022) analysis of strategic sustainability orientation and its moderating effect on organizational resilience. Moreover, the incorporation of social responsibility into corporate strategies, as discussed by Barić (2022), underscores the growing importance of aligning competitive strategies with ethical considerations. Lastly, Rubik (2021) demonstrated how management innovation principles could be applied in advertising agencies, emphasizing the dynamic nature of competitive strategies in creative industries.

While significant progress has been made in integrating theoretical frameworks with practical implications, there remains substantial scope for further exploration. Emerging trends, such as digital transformation and sustainability, present new challenges and opportunities for strategic management. Researchers must adapt existing theories to address these trends, ensuring their relevance in a rapidly evolving landscape.

For practitioners, the challenge lies in navigating the complexity of theoretical integration while maintaining operational focus. Teece (2007) noted that firms with strong dynamic capabilities are better positioned to adapt and thrive in changing environments. As such, organisations must invest in building these capabilities and fostering a culture of continuous learning and innovation.

Methodology

The methodology for this study is rooted in bibliometric analysis. It employs the Scopus database to retrieve research outputs related to competitive dynamics. This section outlines the data collection strategy, search process, and analytical techniques used to generate insights. The search strategy employed keywords related to competitive dynamics, including "competitive dynamics," "interfirm competition," and "competitive actions and responses." The specific search terms and filtering process are summarised in Table 1.

Table 1
Literature review search strategy

Search term	Results	Rationale
(TITLE-ABS-KEY ("Competitive dynamics") OR TITLE-ABS-KEY ("Interfirm competition") OR TITLE-ABS-KEY ("Competitive actions and responses"))	1,658	All research papers
PUBYEAR > 1999 AND PUBYEAR < 2024	1,561	Papers from 2000 till 2025
(LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ECON"))	792	Limited to areas of Business, Management and Accounting and Economics, Econometrics and Finance
(EXCLUDE (DOCTYPE , "er") OR EXCLUDE (DOCTYPE , "cr") OR EXCLUDE (DOCTYPE , "ed") OR EXCLUDE (DOCTYPE , "bk"))	769	Journal articles, conference papers and book chapters included

Source: Author's work

The initial search using broad keywords yielded 1,658 results. This step included all articles indexed in Scopus, irrespective of publication date or subject area. The next step involved filtering the results to include studies published between 2000 and 2025, resulting in 1,561 documents. This criterion ensured the relevance of the data to the study's focus on modern competitive dynamics theories. The results were further refined to include only studies within the fields of Business, Management and Accounting, Economics, Econometrics and Finance. This refinement reduced the dataset to 792 documents. Non-research-focused document types, such as errata, editorials, and book reviews, were excluded to ensure the dataset consisted of high-quality, substantive contributions. This final step resulted in a dataset of 769 documents comprising journal articles, conference papers, and book chapters.

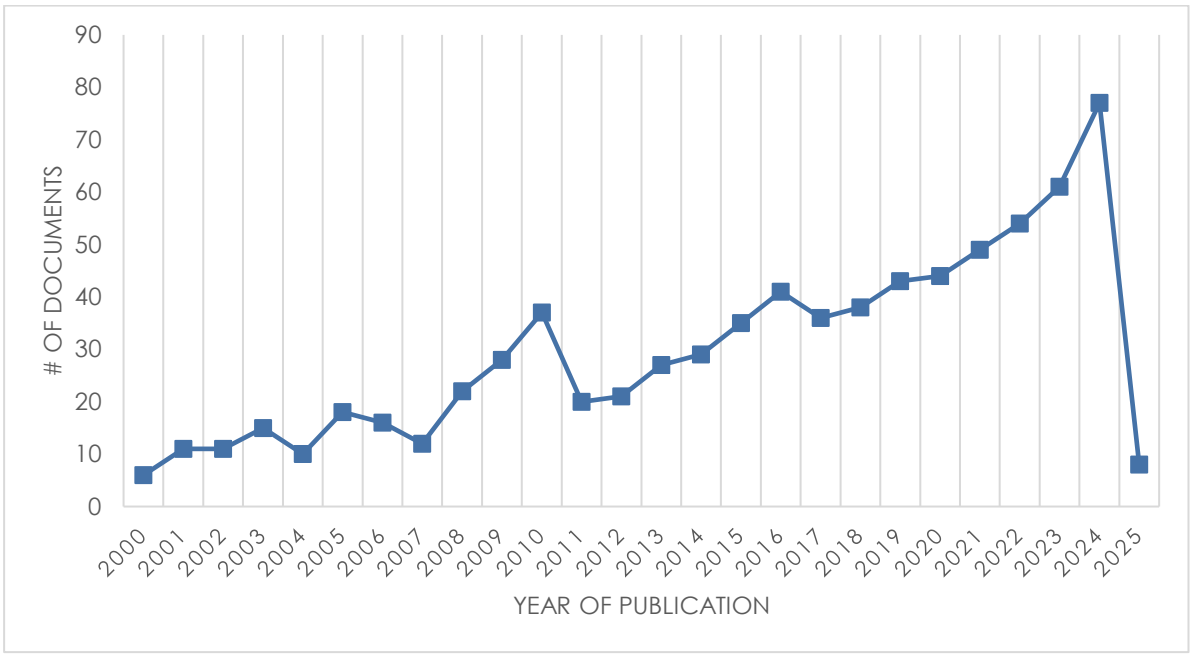
The final dataset was exported in CSV format and analysed using bibliometric tools, particularly VOSviewer. This software was used to create and visualise bibliometric networks, including co-citation and co-occurrence analyses. Full counting was employed for this study, where all occurrences of a keyword or citation were counted equally. VOSviewer's text mining capabilities enabled the identification of key themes and trends within the literature, visualised as networks of related terms and concepts.

Results

Bibliometric analysis

Figure 1 illustrates the publication trends on competitive dynamics from 2000 to 2025. The early 2000s show a gradual increase in interest, with a steady growth in the number of publications. Between 2010 and 2018, the number of documents stabilises, reflecting consistent academic engagement. A significant surge is observed after 2019, peaking in 2024, likely driven by the increasing relevance of competitive dynamics in the context of globalisation and digital transformation.

Figure 1
Publication trend



Source: Author's work

The analysis revealed that most documents were journal articles, which accounted for 82.8% of the total (637 documents), as shown in Table 2. As highlighted in Table 3, English was the primary language of publication, comprising 97.7% of all documents. Other languages, such as Chinese (0.8%), Spanish (0.7%), Portuguese (0.7%), and German (0.3%), were significantly less represented.

Table 2
Document Type

Document Type	Number	Percent
Article	637	82.8%
Book chapter	54	7.0%
Conference paper	46	6.0%
Review	32	4.2%
Total	769	100.0%

Source: Author's work

Table 3
Language of the document

Document Type	Number	Percent
English	751	97.7%
Chinese	6	0.8%
Spanish	5	0.7%
Portuguese	5	0.7%
German	2	0.3%
Total	769	100.0%

Source: Author's work

Table 4 identifies the most prolific authors contributing to competitive dynamics research. M.J. Chen led the list with 16 publications (2.1%), followed by W.J. Ferrier with 14 (1.8%) and G. Andrevski with 9 (1.2%). These authors have played a pivotal role in shaping the field, contributing critical theories and empirical insights. Similarly, Table 5 highlights leading affiliations, with the University of Virginia (2.6%) and the University of Kentucky (2.1%) among the top contributors.

Table 4
The most frequent authors (5+ documents)

Author	Documents	Percentage
Chen, M.J.	16	2.1%
Ferrier, W.J.	14	1.8%
Andrevski, G.	9	1.2%
Grimm, C.M.	7	0.9%
Ketchen, D.J.	7	0.9%
Meyer, K.E.	7	0.9%
Miller, D.	7	0.9%
Smith, K.G.	7	0.9%
Chen, T.	6	0.8%
Giachetti, C.	6	0.8%
Pehrsson, A.	6	0.8%
Chen, J.	5	0.7%

Source: Author's work

Table 5
The most frequent affiliations

Affiliation	Documents	Percentage
University of Virginia	20	2.6%
University of Kentucky	16	2.1%
University of Maryland, College Park	15	2.0%
Darden School of Business	12	1.6%
Pennsylvania State University	11	1.4%
INSEAD, Europe	10	1.3%
National University of Singapore	10	1.3%
Texas A&M University	10	1.3%

Source: Author's work

The interdisciplinary nature of competitive dynamics is evident in the subject areas represented (Table 6). Business, management, and accounting dominated 90.8% of publications, followed by Economics, Econometrics, and Finance (31.6%) and Social Sciences (21.6%).

Table 6
Subject areas

Subject area	Documents	Percentage
Business, Management and Accounting	698	90.8%
Economics, Econometrics and Finance	243	31.6%
Social Sciences	166	21.6%
Decision Sciences	144	18.7%
Computer Science	59	7.7%
Engineering	52	6.8%
Arts and Humanities	22	2.9%
Psychology	20	2.9%

Source: Author's work

Table 7 further illustrates that leading journals in this domain include the Strategic Management Journal (5.7%), the Academy of Management Annual Meeting Proceedings (2.3%), and the Journal of Business Research (2.0%).

Table 7
The most frequently published journals

Source	Documents	Percentage
Strategic Management Journal	44	5.7%
Academy Of Management Annual Meeting Proceedings	18	2.3%
Journal Of Business Research	15	2.0%
Journal Of Management	15	2.0%
Information Systems Research	14	1.8%
Management Decision	14	1.8%
Academy Of Management Journal	13	1.7%
Academy Of Management Review	11	1.4%
Asia Pacific Journal Of Management	11	1.4%
Long Range Planning	10	1.3%
Management Science	10	1.3%

Source: Author's work

Geographic analysis (Table 8) revealed that the United States leads the field with 43.6% of publications, followed by the United Kingdom (10.7%) and China (8.3%).

Table 9 lists the primary funding sources, with the National Natural Science Foundation of China (3.8%) leading, followed by various other national and international agencies.

Table 8
Geographical analysis

Country/Territory	Documents	Percentage
United States	335	43.6%
United Kingdom	82	10.7%
China	64	8.3%
Canada	50	6.5%
Italy	36	4.7%
Taiwan	36	4.7%
Germany	30	3.9%
France	28	3.9%
India	28	3.6%
South Korea	28	3.6%
Australia	26	3.6%
Netherlands	24	3.4%
Spain	20	3.1%

Source: Author's work

Table 9
Funding sponsors

Funding sponsor	Documents	Percentage
National Natural Science Foundation of China	29	3.8%
Ministry of Science and Technology of the People's Republic of China	12	1.6%
European Commission	6	0.8%
Ministry of Education	6	0.8%
Ministry of Science and Technology, Taiwan	6	0.8%
Social Sciences and Humanities Research Council of Canada	6	0.8%
China Scholarship Council	5	0.7%
National Research Foundation of Korea	5	0.7%
Strategic Management Society	5	0.7%

Source: Author's work

The bibliometric analysis provides a comprehensive overview of the publication trends, document types, subject areas, and key contributors in the field of competitive dynamics. However, to delve deeper into the intellectual structure of the field, it is essential to examine the relationships between frequently occurring keywords and authors in the next section.

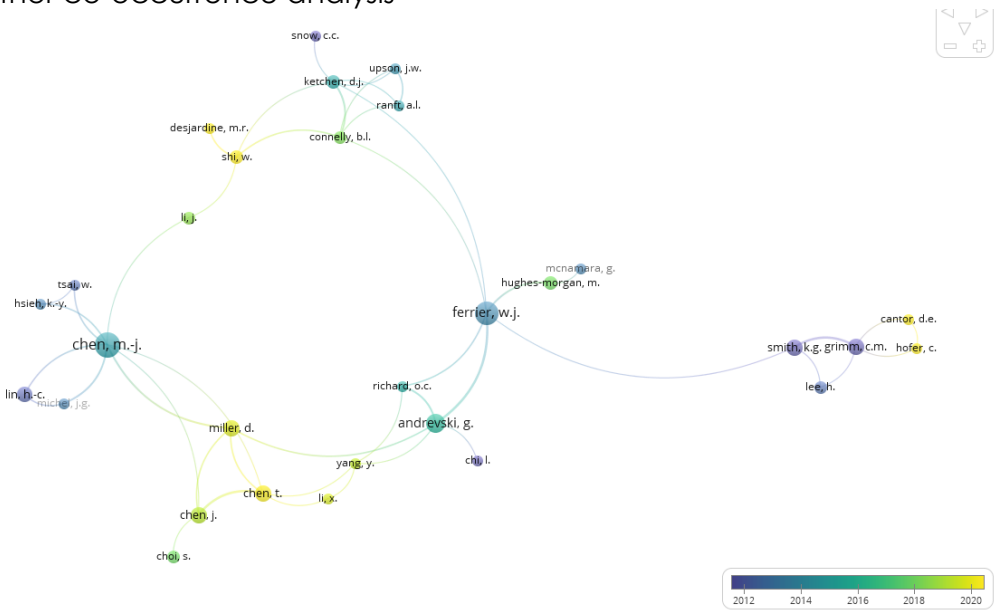
Co-occurrence analysis

The co-occurrence analysis of authors, as illustrated in Figure 2, reveals the collaborative networks and intellectual connections within the competitive dynamics research community. Key clusters represent distinct groups of authors frequently cited or collaborating, with prominent contributors such as Chen M.-J. and Ferrier W.J. emerging as central figures.

The keyword density map shown in Figure 3 provides a detailed visualization of the thematic structure in the competitive dynamics literature. The map illustrates how frequently specific terms appear in the analysed documents, with brighter areas indicating higher densities of recurring keywords. Central topics such as "Competitive

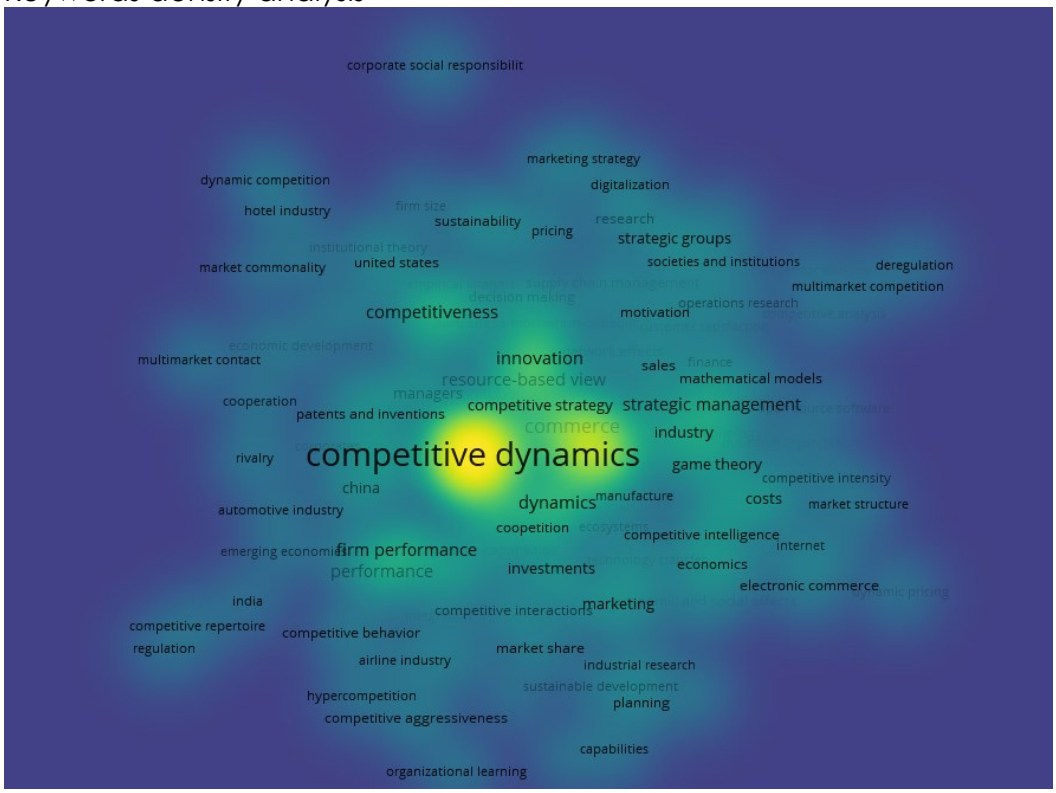
Dynamics," "Innovation," "patents and invetions," and "Competitive Strategy" dominate the research landscape, reflecting the primary focus areas of this scholarly field. Peripheral keywords like "Sustainability," "Digitalization," and "Hypercompetition" hint at emerging trends and niche research topics.

Figure 2
Author co-occurrence analysis



Source: Author's work

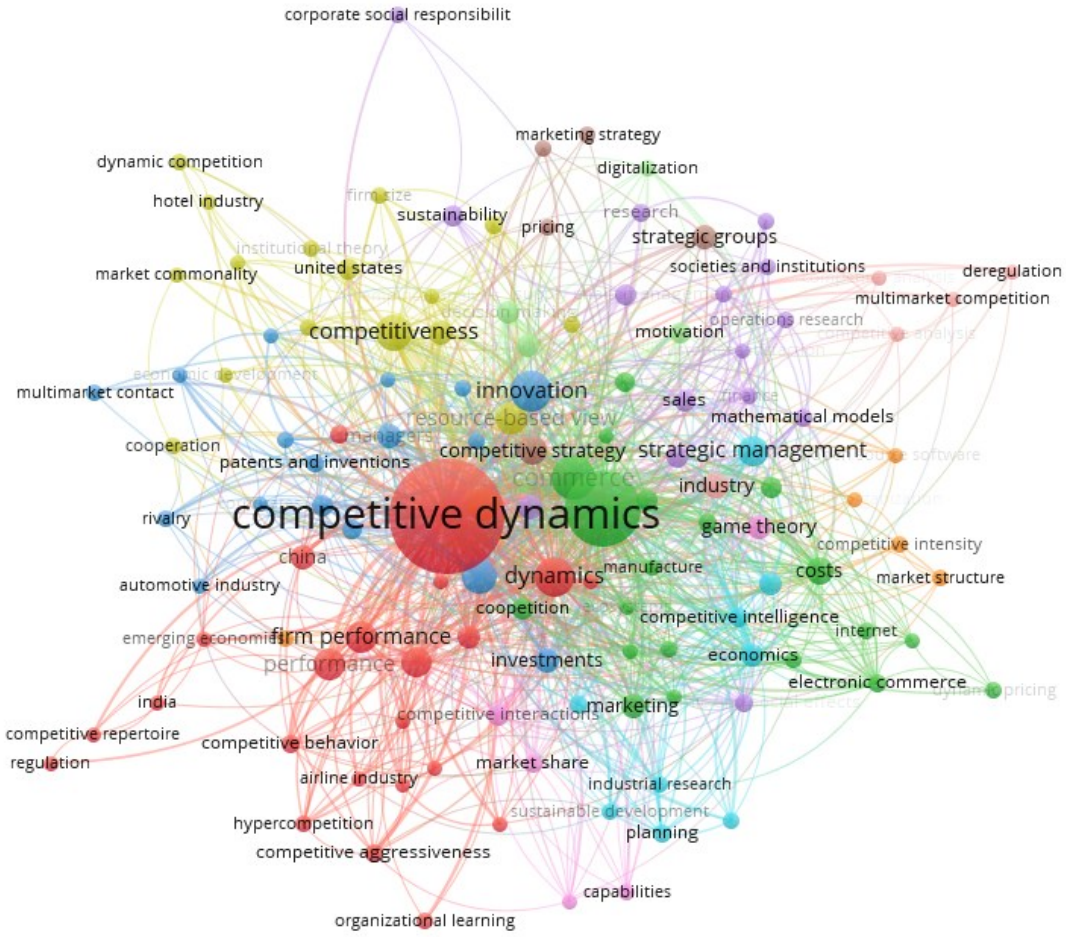
Figure 3
Keywords density analysis



Source: Author's work

The keyword co-occurrence map in Figure 4 identifies 11 distinct clusters, each representing a thematic grouping of closely related terms within the competitive dynamics' literature.

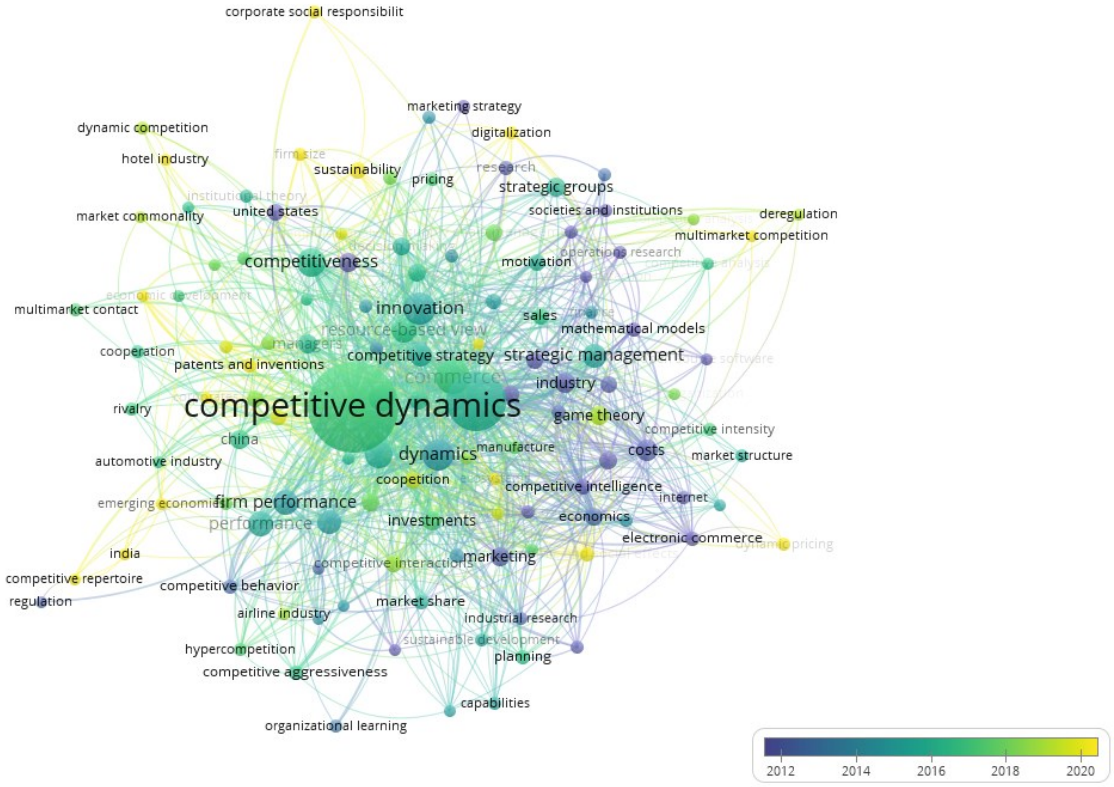
Figure 4
Keywords co-occurrence analysis



Source: Author's work

Figure 5 showcases a timeline analysis of keywords, revealing the progression of research topics within the domain of competitive dynamics. The visual representation highlights the temporal evolution of thematic areas by mapping the years when certain keywords gained prominence. The colour gradient, ranging from purple (earlier years) to yellow (recent years), demonstrates how the focus of research has shifted over time. During the early years, foundational themes such as "competitive dynamics," "firm performance," and "strategy" dominated the field, as researchers established the groundwork for understanding interfirm competition. As the timeline progresses, emerging concepts like "innovation" and "resource-based view" signify the growing interest in strategic resource allocation and innovation as critical drivers of competitive advantage. In the most recent period, keywords such as "digitalization," "sustainability," and "corporate social responsibility" are highlighted in yellow, reflecting their increasing relevance in contemporary research.

Figure 5
Keywords timeline analysis



Source: Author's work

The table 10 provides a detailed breakdown of the keyword clusters in the field of competitive dynamics, highlighting their average occurrences, average links, and average publication years. These clusters reveal distinct thematic focuses within the research domain:

- Cluster 1 centres around foundational concepts like "competitive dynamics," "firm performance," and "dynamic capabilities," along with contextual topics such as "China," "India," and "emerging economies." With an average publication year of 2016.2, this cluster reflects a relatively recent focus on integrating organizational learning and competitive behaviour in dynamic environments.
- Cluster 2 emphasizes themes related to "competition," "commerce," and "electronic commerce," underpinned by technological and economic factors such as "technology transfer," "internet," and "dynamic pricing." Its average publication year of 2015.2 suggests growing attention to digitalization and network effects in competitive contexts.
- Cluster 3 focuses on "innovation," "competitive advantage," and "technological innovation," complemented by "international trade" and "open innovation." The average publication year of 2017.4 highlights its alignment with recent advancements in global trade and intellectual property.
- Cluster 4 addresses "competitiveness," "resource-based view," and "industry evolution," alongside institutional factors like "market commonality" and "economic development." This cluster has an older average publication year of 2013.4, indicating its role in shaping earlier theoretical frameworks.

- Cluster 5 explores operational and societal aspects, such as "profitability," "sustainability," and "supply chain management." With an average publication year of 2013.4, it reflects early efforts to incorporate corporate social responsibility and system dynamics into competitive analysis.
- Cluster 6 highlights strategic themes like "strategic management," "sustainable development," and "information management." Its average publication year of 2013.4 places it alongside Cluster 5 as a foundational area for strategic studies.
- Cluster 7 focuses on entrepreneurship and structural aspects, including "competitive intensity" and "market structure." Its more recent average publication year of 2015.7 indicates an evolving interest in these topics within industrial organization.
- Cluster 8 delves into marketing strategies, such as "competitive strategy," "market entry," and "pricing," with an average publication year of 2014.9, reflecting mid-phase exploration of these themes.
- Cluster 9 addresses "game theory," "market share," and "business strategy," with an average publication year of 2016.6, highlighting the theoretical analysis of competitive interactions.
- Cluster 10 centres on "industry" and competitive analyses, including "deregulation" and "multimarket competition." Its average publication year of 2017.4 underscores its alignment with recent market dynamics.
- Cluster 11 integrates psychological and technological themes, including "awareness-motivation-capability," "decision making," and "digitalization." With an average publication year of 2017.3, this cluster reflects the intersection of behavioural and technological factors in competition.

Table 10
Cluster keywords

Cluster	Keywords	Avg. occurrences	Avg. links	Avg. pub. year
1	competitive dynamics; dynamics; firm performance; performance; competitive action; China; dynamic capabilities; competitive aggressiveness; competitive behaviour; mergers and acquisitions; hyper competition; organizational learning; airline industry; competitive repertoire; emerging economies; environmental management; human resource management; India; integration; knowledge management; regulation; resource allocation; social networking (online)	21.7	24.7	2016.2
2	Competition; commerce; costs; marketing; coopetition; industrial management; technology; network effects; electronic commerce; information technology; public policy; technology transfer; dynamic pricing; internet; manufacture; coopetition; e-commerce; ecosystems; life cycle; platforms	15.5	29.9	2015.2

3	Innovation; competitive advantage; investments; managers; research and development; technological innovation; patents and inventions; rivalry; technological development; international trade; multimarket contact; open innovation; absorptive capacity; automotive industry; corporates; laws and legislation; patent litigation	10.4	24.8	2017.4
4	Competitiveness; resource-based view; industrial competition; United States; strategic approach; cooperation; corporate strategy; dynamic competition; firm size; industry evolution; institutional theory; economic development; empirical analysis; hotel industry; market commonality; market conditions	8.1	20.9	2013.4
5	Profitability; product development; sales; supply chain management; sustainability; economic and social effects; mathematical models; research; finance; industrial economics; corporate social responsibility; operations research; societies and institutions; system dynamics; customer satisfaction	8.1	20.9	2013.4
6	strategic management; economics; strategic planning; competitive intelligence; management; planning; industrial research; information management; sustainable development	9.9	28.0	2013.4
7	Entrepreneurship; competitive intensity; market structure; industrial organization; open-source software	8.8	12.8	2015.7
8	competitive strategy; strategic groups; marketing strategy; pricing; market entry	10.2	18.4	2014.9
9	game theory; competitive interactions; market share; capabilities; business strategy	8.4	21.4	2016.6
10	Industry; competitive analysis; competitor analysis; deregulation; multimarket competition	7.0	14.8	2017.4
11	awareness-motivation-capability; decision making; motivation; digitalization	10.3	22.3	2017.3

The identified clusters in the analysis of competitive dynamics research highlight both the thematic diversity and the temporal progression of scholarly attention within the field. The varying frequencies of keyword occurrences and average publication years across clusters suggest a balance between foundational theories and emerging topics, reflecting the evolution of competitive dynamics as an academic domain.

Clusters with higher keyword frequencies, such as those focusing on "competitive dynamics," "firm performance," and "innovation," indicate the centrality of these concepts in the literature. These themes underscore the enduring importance of understanding how firms navigate dynamic environments and achieve performance

outcomes through innovative practices and strategic capabilities. The frequent occurrence of keywords related to "competitive aggressiveness," "dynamic capabilities," and "organizational learning" further highlights a sustained interest in the behavioral and organizational underpinnings of competitive actions.

The temporal patterns of publication years reveal a shift in scholarly focus over time. Clusters with older average publication years, such as those centered on "competitiveness," "resource-based view," and "economic development," reflect earlier efforts to establish foundational theoretical frameworks. These studies provided a basis for examining the structural and institutional drivers of competition, particularly in traditional industries and established markets.

In contrast, clusters with more recent average publication years, such as those emphasizing "technological innovation," "open innovation," and "digitalization," signal a growing interest in contemporary issues. These include the impact of technological advancements, global trade, and digital ecosystems on competitive interactions. The emergence of themes like "coopetition," "network effects," and "platforms" reflects the increasing relevance of collaboration and technology-driven strategies in shaping competitive landscapes.

Interestingly, some clusters bridge the gap between earlier theories and contemporary applications. For example, clusters that address "strategic management," "competitive intelligence," and "sustainability" integrate classical strategic approaches with modern concerns for sustainable development and digital transformation. This interplay demonstrates how established concepts are being recontextualized in response to changing economic, technological, and societal dynamics.

Conclusion

This literature review analysis of competitive dynamics research has offered a comprehensive understanding of the field's evolution, thematic areas, and emerging trends. By analysing 769 publications from the Scopus database, we uncovered a rich and diverse body of work that reflects both the historical foundations and the dynamic shifts in competitive strategy research. Central themes such as firm performance, innovation, and strategic management remain pivotal, while recent trends highlight the growing importance of digitalization, technological innovation, and globalized market structures.

The co-occurrence and cluster analyses revealed the multidimensional nature of competitive dynamics research, integrating diverse topics such as competitive aggressiveness, coopetition, sustainability, and digital ecosystems. Over time, the field has transitioned from resource-based views and industrial competition frameworks to addressing the complexities introduced by digital platforms, open innovation, and network effects.

Despite its contributions, this study is not without limitations. First, the analysis was based solely on the Scopus database, which, while comprehensive, may exclude relevant articles indexed in other databases such as Web of Science or Google Scholar. Second, the bibliometric methods employed focus on quantitative measures, which may not fully capture the depth of qualitative insights within individual studies. Third, the emphasis on publications in English might have led to underrepresentation of research in other languages, particularly those addressing regional or country-specific competitive dynamics.

Future research should address these limitations by incorporating data from multiple bibliographic sources to provide a more comprehensive picture of the field. Additionally, qualitative analyses of influential works could complement the

quantitative findings and offer richer insights into theoretical developments and practical applications. There is also a need to expand the geographical scope of competitive dynamics research by including studies from emerging economies, as current literature is heavily dominated by research from developed countries.

Emerging themes such as artificial intelligence, platform ecosystems, sustainability, and corporate social responsibility provide exciting directions for future studies. Researchers could explore how firms integrate these concepts into their competitive strategies and how these elements reshape traditional frameworks. Moreover, interdisciplinary approaches that combine insights from economics, technology, and sociology could offer innovative perspectives on competitive behaviour.

In conclusion, the field of competitive dynamics remains vibrant, evolving, and highly relevant. By building on historical foundations and addressing contemporary challenges, this body of research not only enhances our theoretical understanding but also provides actionable insights for practitioners navigating the complexities of modern markets. Future studies that embrace broader, interdisciplinary, and global perspectives will further enrich this dynamic and impactful area of inquiry.

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Appendix 1

Table A1.
Keyword co-occurrence statistics

Keyword	Occurrences	cluster	Links	Total link strength	Avg. pub. year
competitive dynamics	285	1	122	718	2016.96
dynamics	34	1	72	155	2014.50
firm performance	23	1	44	80	2014.70
performance	22	1	32	53	2015.55
competitive action	20	1	30	52	2014.90
China	14	1	19	23	2016.43
dynamic capabilities	11	1	33	49	2017.73
competitive aggressiveness	8	1	14	23	2016.50
competitive behaviour	8	1	18	27	2012.88
mergers and acquisitions	8	1	21	28	2018.25
hyper competition	6	1	16	26	2017.17
organizational learning	6	1	5	9	2013.33
airline industry	5	1	9	12	2018.60
competitive repertoire	5	1	6	9	2022.20
emerging economies	5	1	10	13	2022.60
environmental management	5	1	19	24	2018.40
human resource management	5	1	20	30	2014.20
India	5	1	7	8	2021.00
integration	5	1	17	23	2012.60
knowledge management	5	1	17	22	2010.80
regulation	5	1	3	5	2012.60
resource allocation	5	1	14	18	2014.40
social networking (online)	5	1	19	23	2016.00
competition	123	2	111	429	2015.79
commerce	43	2	80	200	2016.88
costs	17	2	42	84	2012.24
marketing	14	2	33	56	2012.29
coopetition	10	2	19	27	2019.30
industrial management	10	2	38	60	2011.10
technology	10	2	25	35	2012.20
network effects	9	2	25	34	2014.89
electronic commerce	8	2	23	39	2009.88
information technology	8	2	27	38	2012.50
public policy	7	2	24	31	2014.43
technology transfer	7	2	26	28	2011.43
dynamic pricing	6	2	5	6	2020.83
internet	6	2	16	17	2008.50
manufacture	6	2	22	30	2017.67
coopetition	5	2	20	28	2019.20
e-commerce	5	2	13	13	2015.20
ecosystems	5	2	13	14	2019.80
life cycle	5	2	17	22	2017.40
platforms	5	2	19	24	2021.80
innovation	38	3	65	115	2015.05
competitive advantage	27	3	48	98	2015.67
investments	14	3	31	58	2017.14
managers	13	3	41	72	2015.92

research and development	10	3	26	37	2018.20
technological innovation	9	3	31	39	2019.56
patents and inventions	8	3	29	40	2020.13
rivalry	7	3	20	26	2016.86
technological development	7	3	24	32	2013.86
international trade	6	3	15	17	2014.33
multimarket contact	6	3	8	12	2017.17
open innovation	6	3	20	27	2019.50
absorptive capacity	5	3	9	9	2016.40
automotive industry	5	3	9	11	2016.60
corporates	5	3	10	14	2022.40
laws and legislation	5	3	15	23	2020.00
patent litigation	5	3	20	27	2017.80
competitiveness	30	4	48	97	2016.20
resource-based view	22	4	37	66	2016.59
industrial competition	14	4	29	43	2011.21
united states	10	4	24	34	2011.50
strategic approach	8	4	25	36	2018.00
cooperation	6	4	9	12	2016.50
corporate strategy	6	4	14	18	2017.33
dynamic competition	6	4	5	6	2018.83
firm size	6	4	16	22	2020.33
industry evolution	6	4	14	19	2014.17
institutional theory	6	4	11	13	2015.83
economic development	5	4	7	9	2017.00
empirical analysis	5	4	16	18	2019.40
hotel industry	5	4	7	10	2021.00
market commonality	5	4	8	11	2018.80
market conditions	5	4	15	19	2016.20
profitability	14	5	30	54	2016.29
product development	10	5	31	43	2009.70
sales	10	5	27	38	2016.70
supply chain management	10	5	23	31	2017.80
sustainability	10	5	21	26	2021.80
economic and social effects	8	5	22	35	2019.75
mathematical models	8	5	26	39	2005.50
research	8	5	19	27	2012.25
finance	7	5	26	33	2014.43
industrial economics	7	5	17	28	2006.14
corporate social responsibility	6	5	3	5	2023.50
operations research	6	5	20	28	2012.00
societies and institutions	6	5	18	24	2006.50
system dynamics	6	5	13	20	2013.00
customer satisfaction	5	5	18	22	2005.60
strategic management	21	6	40	72	2015.43
economics	12	6	39	65	2012.83
strategic planning	12	6	39	66	2010.50
competitive intelligence	9	6	31	49	2011.44
management	8	6	21	35	2014.13
planning	8	6	19	31	2016.50
industrial research	7	6	22	30	2012.71
information management	6	6	17	28	2012.17
sustainable development	6	6	24	34	2015.33

strategy	24	7	27	42	2016.50
entrepreneurship	7	7	5	6	2017.86
competitive intensity	6	7	7	8	2017.00
market structure	6	7	10	11	2015.67
industrial organization	5	7	13	13	2018.00
open source software	5	7	15	20	2009.20
competitive strategy	18	8	37	60	2015.50
strategic groups	13	8	22	38	2015.69
marketing strategy	7	8	6	6	2011.86
pricing	7	8	15	21	2017.14
market entry	6	8	12	15	2014.33
game theory	13	9	33	56	2018.77
competitive interactions	10	9	31	53	2018.50
market share	8	9	20	34	2015.63
capabilities	6	9	10	13	2015.17
business strategy	5	9	13	15	2015.00
industry	15	10	40	73	2012.07
competitive analysis	5	10	10	10	2016.60
competitor analysis	5	10	7	10	2018.40
deregulation	5	10	6	9	2018.80
multimarket competition	5	10	11	14	2021.20
awareness-motivation-capability	12	11	25	50	2016.17
decision making	12	11	27	49	2015.58
motivation	10	11	26	48	2015.70
digitalization	7	11	11	14	2021.57