

Bibliometric Analysis of Firm Adaptation Strategies in a Hypercompetitive Environment

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ABSTRACT

This study utilizes bibliometric analysis to map the scholarly landscape of research in hypercompetitive environments and strategic management. Through VOSviewer visualizations, we identified thematic clusters, examined trends over time, analyzed under-researched opportunities, and explored patterns of author collaboration. Our findings reveal a significant shift from foundational theoretical research towards more practical, industry-specific strategies that address dynamic competitive challenges. We identified key thematic areas such as industry dynamics, leadership in hypercompetition, globalization impacts, and sector-specific adaptation strategies. Furthermore, less-explored areas such as opportunity recognition and competitive dynamics offer fruitful avenues for future research. The author collaboration network analysis highlighted both active clusters and potential areas for increased interdisciplinary collaboration, suggesting a maturing yet still siloed research community. This comprehensive overview not only synthesizes existing research but also highlights strategic gaps and opportunities for future scholarly work in the domain of strategic management within hypercompetitive contexts.

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1. INTRODUCTION

In an era characterized by rapid technological advancements and evolving consumer preferences, the business environment has increasingly become hypercompetitive [1], [2]. Companies are compelled to continually innovate and adapt to maintain their competitive edge [3]. This hypercompetitive landscape is defined by dynamics such as aggressive rivalries, frequent disruptions, and the constant threat of new entrants, which challenge traditional

business strategies and models [4]. Understanding how firms navigate these turbulent conditions is crucial for both academic research and practical business applications [5].

The concept of adaptability in hypercompetitive environments has garnered significant attention in recent literature, highlighting its role as a critical determinant of organizational survival and success [6]. Adaptation strategies can range from rapid product development, flexible organizational structures, to the strategic leveraging of

information technology [7], [8]. Each strategy offers distinct advantages and challenges, necessitating a deeper analysis to ascertain their effectiveness across different sectors and market conditions [9]. This has led to a proliferation of studies, yet a comprehensive understanding is often elusive due to the fragmented nature of research findings [10].

A bibliometric analysis offers a systematic method to consolidate existing knowledge and uncover patterns, trends, and gaps in the research on corporate adaptation strategies in hypercompetitive environments [11]–[13]. By employing this approach, researchers can quantitatively and qualitatively evaluate the breadth and depth of the literature, providing a clearer picture of the academic landscape [14]. Such an analysis is not only beneficial in summarizing past efforts but also in setting the direction for future research endeavors [15].

Despite the extensive discourse on adaptation strategies in hypercompetitive environments, there remains a lack of cohesion in how these strategies are conceptualized and evaluated. Many studies offer disparate findings, and few provide a holistic view of the strategic dimensions that effectively address the challenges of hypercompetition. This fragmentation hampers the ability of business leaders and policymakers to formulate well-informed strategies that are theoretically grounded and empirically validated. A bibliometric analysis can bridge this gap by mapping the existing research landscape, identifying prevalent theories, and highlighting under-explored areas.

The objective of this research is to conduct a comprehensive bibliometric analysis of the strategies employed by firms to adapt in hypercompetitive environments. This study aims to identify the most frequently discussed adaptation strategies, the relationships between different research themes, and the evolution of scholarly discussions over time. Through this analysis, the research will provide a structured overview of the academic field, thereby facilitating a better understanding of effective adaptation practices.

The significance of this research lies in its potential to influence both academic theory and business practice. Academically, it contributes to the literature by synthesizing fragmented studies and offering a consolidated framework that can guide future research. For practitioners, the findings can serve as a strategic tool to assess prevailing trends and gaps in the domain of business strategy under hypercompetition. Ultimately, this research will enable stakeholders to better navigate the complexities of the modern business environment, fostering more robust and adaptive organizational strategies.

2. LITERATURE REVIEW

2.1 *Overview of Hypercompetitive Environments*

Hypercompetition, as initially described by [16], refers to an environment characterized by intense and dynamic competitive moves and countermoves. The concept fundamentally shifts the focus from sustainable competitive advantage to temporary strategic advantages that are rapidly created and eroded. D'Aveni emphasizes the role of speed, aggressive maneuvering, and innovation as key factors for success in such environments. Recent studies have built on this foundation, exploring how technological advances and globalization have accelerated the pace of hypercompetition, making it a prevalent condition in many industries today.

2.2 *Adaptation Strategies in Hypercompetitive Environments*

Research on adaptation strategies in hypercompetitive environments frequently focuses on agility and flexibility. Agility refers to the capacity of an organization to rapidly respond to market changes through quick decision-making processes, often facilitated by advanced information systems. Flexibility encompasses structural and operational adjustments that allow organizations to pivot easily in response to external pressures. Studies by [17] have highlighted that successful firms often exhibit a combination of both traits, enabling them to maneuver

through complex and unpredictable market landscapes effectively.

The role of innovation as a response to hypercompetition has been extensively documented. [18] argue that continuous innovation is crucial for survival in hypercompetitive markets. This includes both incremental and radical innovations in products, processes, and business models. Furthermore, the literature indicates that strategic alliances and network collaborations can enhance a firm's adaptive capacity by providing access to new resources, knowledge, and markets, thus allowing them to maintain competitiveness in a rapidly changing environment.

2.3 Bibliometric Studies on Corporate Strategies

Bibliometric analysis has become an invaluable tool in the exploration of extensive and diverse academic fields. It employs quantitative methods to analyze patterns, trends, and gaps in research literature. For instance, a recent bibliometric study on business strategies in hypercompetitive environments might analyze the frequency and co-occurrence of keywords, citation patterns, and the geographical distribution of research to provide insights into the most influential studies and emerging trends. Such analyses help in understanding the evolution of themes over time and in identifying the most impactful contributions to the field.

2.4 Integration and Gaps in Current Research

While the body of literature on adaptation strategies in hypercompetitive environments is extensive, it often lacks integration. There is a need for studies that consolidate these diverse strands of research to provide a more coherent understanding of how firms can effectively adapt. Additionally, there are gaps in the application of these

strategies across different industry sectors and geographic regions. More empirical research is needed to validate the theoretical models proposed in the literature, especially in emerging markets where hypercompetitive conditions are increasingly prevalent.

3. METHODS

This research employs a bibliometric analysis to systematically review and synthesize literature on adaptation strategies in hypercompetitive environments. The initial step involves the collection of relevant academic articles and papers from Google Scholar, using specific keywords like "hypercompetition," "adaptation strategies," "business agility," and "innovation." The search is refined by setting publication date filters from 1975 to the present to capture the evolution of the discourse since D'Aveni's foundational work. Selected articles are then subjected to content analysis, focusing on the frequency of keyword occurrences, citation networks, and co-authorship patterns. Advanced software tool, like VOSviewer, is utilized to generate visual representations of the data, facilitating the identification of major themes, influential authors, and seminal works in the field. This approach allows for a comprehensive overview of the research landscape, highlighting prevalent trends, relationships between key topics, and gaps in the literature that warrant further exploration. The final aim of this bibliometric study is to provide a structured and quantitative assessment of the strategies firms adopt to thrive in hypercompetitive environments, offering insights that bridge theoretical gaps and guide future empirical research.

4. RESULTS AND DISCUSSION

4.1 Metrics Data of Literature

Table 1. Citation Metrics

Publication years:	1975-2024
Citation years:	49 (1975-2024)
Papers:	980
Citations:	125343
Cities/year:	2558.02
Cities/paper	127.90
Cities/author:	79864.83

Papers/author:	625.15
Authors/paper	2.03
h-index:	152
g-index:	347
hI,Norm	117
hI,annual	2.39
hA-index	42
Papers with ACC >= 1,2,3,10,20:	544,447,319,203,110

Source: Publish or Perish Output, 2024

Table 1 provides a comprehensive set of bibliometric indicators for a corpus of literature spanning from 1975 to 2024, analyzing a total of 980 papers which have collectively garnered 125,343 citations. This indicates an average citation rate of approximately 2558 citations per year, with each paper receiving an average of about 128 citations. The citations per author total an impressive 79,865, suggesting a significant impact of the works on their respective fields, while the average number of papers per author stands at 625, indicating prolific contributions. The average number of authors per paper is approximately 2, reflecting a moderate level of collaboration among researchers. The h-index of the dataset is 152, signifying those 152 papers have been cited at least 152 times, which underscores the influential nature of these works. The g-index

is considerably higher at 347, indicating that the most cited papers have a substantial cumulative impact. The normalized h-index (hI,Norm) is 117, and the annualized h-index (hI,annual) is 2.39, both of which provide insights into the consistency and longevity of the citation impact. The hA-index stands at 42, highlighting the depth of highly cited articles. Additionally, the distribution of highly cited papers reveals that 544 have at least one citation, and progressively fewer papers meet higher citation thresholds, with 110 papers receiving 20 citations or more, showcasing a typical distribution where a small subset of papers accounts for a large fraction of the citations. These metrics collectively reflect a robust and influential body of academic work that has maintained relevance and continued to accrue citations over nearly five decades.

4.2 Citation Analysis

Table 2. Top Ten of Literature

Citation	Author	Title
6815	[16]	Hypercompetition
6139	[19]	Concepts in strategic management and business policy
5353	[20]	The boundaryless career: A new employment principle for a new organizational era
3831	[21]	Accelerating adaptive processes: Product innovation in the global computer industry
3802	[22]	Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era
2858	[23]	Clockspeed: Winning industry control in the age of temporary advantage
2592	[24]	Strategic decision processes in high velocity environments: Four cases in the microcomputer industry
2088	[25]	Human resource management and labor productivity: does industry matter?
1948	[26]	Toward the flexible form: How to remain vital in hypercompetitive environments
1813	[27]	Generic knowledge strategies in the US pharmaceutical industry

Source: Publish or Perish Output, 2024

Table 2 lists the top ten most cited works in the field of business strategy and management, showcasing the influential literature that has shaped academic and practical understanding of competitive dynamics and strategic management. The highest cited paper, by RA D'Aveni, titled "Hypercompetition," leads with 6,815 citations, reflecting its pivotal role in introducing and shaping the discussion around rapid and dynamic market changes. This is followed by TL Wheelen's work on strategic management concepts, which has amassed 6,139 citations, indicating its widespread use as a foundational text in strategic management education and practice. Other notable works include "The Boundaryless Career" by Arthur and Rousseau, and Eisenhardt and Tabrizi's study

on product innovation, which highlight evolving career paradigms and the importance of innovation in staying competitive, respectively. The list also includes seminal works on complexity leadership, strategic decision processes in high velocity environments, and industry-specific studies on human resource management and pharmaceutical strategies. These texts collectively illustrate a broad array of strategies employed by organizations to navigate complex, rapidly changing business environments, emphasizing the need for adaptability and innovation across different sectors.

4.3.1 Network Visualization

4.3 Keyword Co-Occurrence Analysis

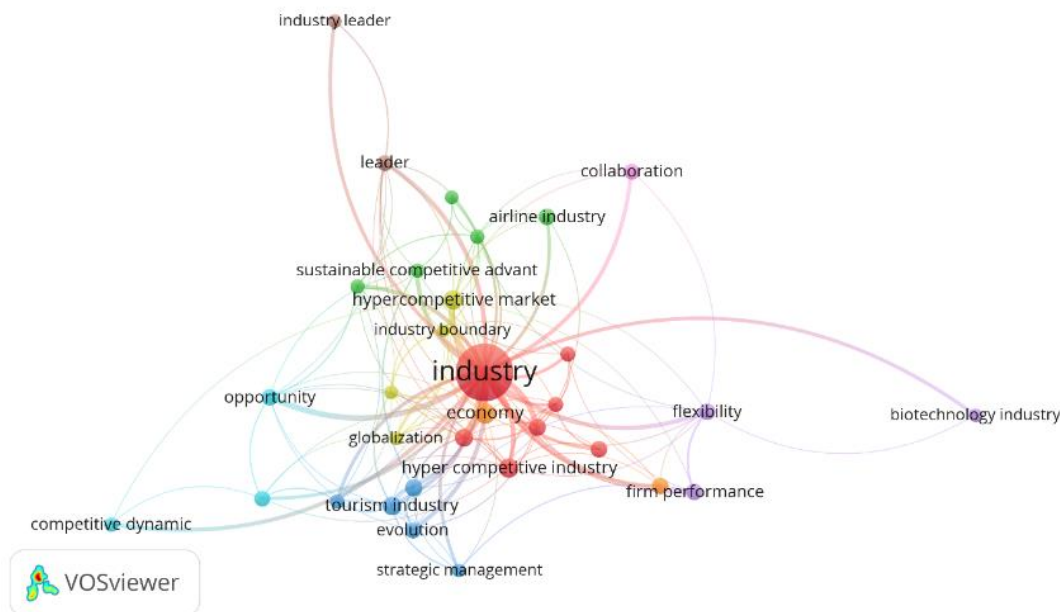


Figure 1. Network Visualization
Source: Data Analysis, 2024

The VOSviewer network visualization presented represents a bibliometric analysis of key themes related to hypercompetitive industries. The nodes (terms) are color-coded to indicate thematic clusters, and the lines represent the strength and frequency of relationships between these terms, providing insights into the dominant

conversations and their interconnections within the academic literature on hypercompetition and industry dynamics.

1. Red Cluster - Core Industry Dynamics

The central and largest cluster, depicted in red, focuses on fundamental aspects of industry dynamics, notably

highlighted by terms like "industry," "hypercompetitive industry," and "firm performance." This cluster suggests a strong focus on the structural and competitive characteristics of industries that operate under hypercompetitive conditions, such as rapid technological changes and aggressive competitive tactics. It emphasizes the analysis of industry boundaries and the overarching economic conditions that influence competitive strategies.

2. Green Cluster - Leadership and Collaboration

The green cluster revolves around "industry leader," "leader," and "collaboration," indicating a thematic focus on leadership strategies and collaborative efforts within hypercompetitive markets. This suggests that leadership styles and collaborative ventures are critical in navigating the complexities of such environments. Research in this cluster likely explores how effective leadership and strategic partnerships or alliances can serve as mechanisms to sustain competitive advantages, adapt to market changes, and leverage collective strengths in fast-paced settings.

3. Blue Cluster - Globalization and Market Evolution

4.3.2 Overlay Visualization

This cluster includes "globalization," "competitive dynamic," and "tourism industry," pointing to discussions around how global forces and sector-specific dynamics like those in tourism affect business strategies. The presence of "evolution" indicates a longitudinal perspective on how industries transform over time in response to globalization. This theme suggests an interest in understanding how businesses adjust their strategies to not only survive but thrive amidst global competitive pressures and evolving market conditions.

4. Yellow Cluster - Strategic Management in Specific Industries

Terms like "airline industry" and "biotechnology industry" in the yellow cluster suggest a focus on specific sectors within the broader theme of hypercompetition. This indicates that the strategic management practices and adaptation strategies can vary significantly between different industries, acknowledging the unique challenges and opportunities present in sectors like aviation and biotechnology. This cluster highlights the importance of industry-specific research in understanding the nuances of competitive strategy and management in diverse contexts.

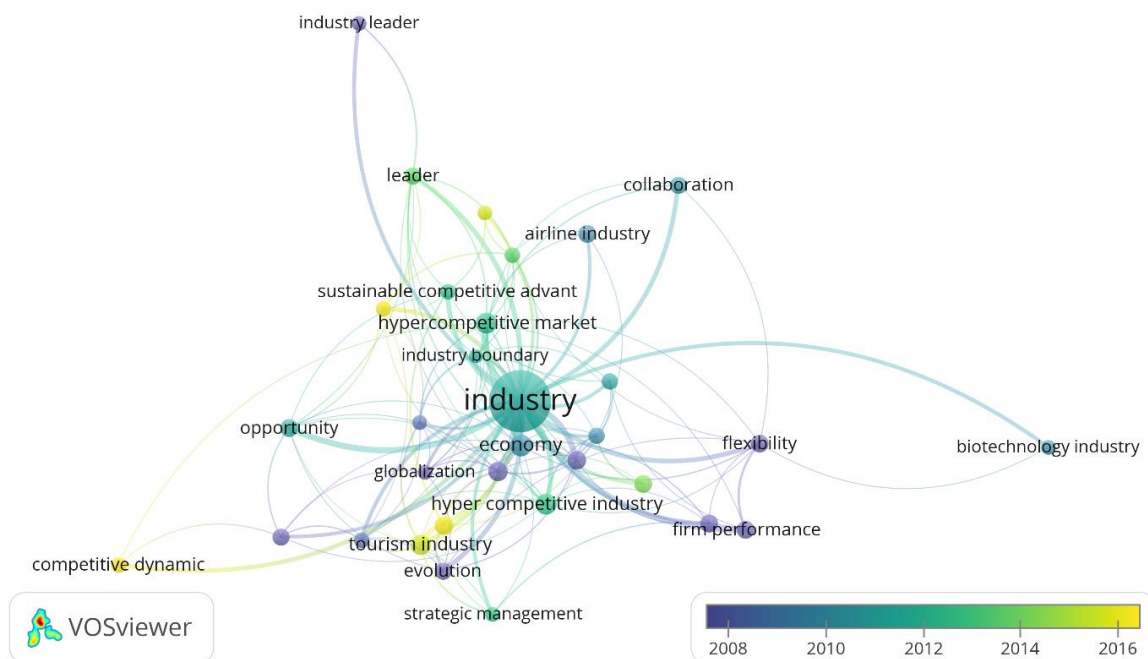


Figure 2. Overlay Visualization

Source: Data Analysis, 2024

The VOSviewer network visualization above includes a temporal component represented by a color gradient from blue to yellow, denoting the evolution of research themes from 2008 to 2016. This visual tool enables the identification of shifting focuses and emerging trends within the study of hypercompetitive environments and strategic management across various industries.

Blue nodes around 2008 emphasize foundational topics in hypercompetitive strategy. During this period, the focus was predominantly on the fundamental dynamics of hypercompetition, as indicated by terms like "industry," "hypercompetitive industry," and "competitive dynamic." This suggests that initial research was concerned with establishing a theoretical understanding of hypercompetition and its impact on industries broadly. The presence of "globalization" and "tourism industry" indicates an interest in how global forces impact specific sectors. This period likely involved laying the groundwork for understanding how businesses began adjusting to faster-paced and more aggressive competitive strategies influenced by globalization.

As we move into the green nodes representing the period around 2011 to 2013,

there's a noticeable shift towards more specific themes such as "airline industry" and "biotechnology industry." This shift suggests a branching out of research into how specific sectors adapt to hypercompetitive pressures. The focus on industry-specific studies could indicate a response to earlier findings that called for more detailed and practical applications of strategic theories. The emphasis during this period seems to be on applying the broader concepts of hypercompetition to specific contexts, possibly exploring unique challenges and strategies relevant to these industries.

In the yellow nodes around 2014 to 2016, the research appears to become more nuanced and specialized. Terms like "flexibility" and "firm performance" gain prominence, indicating a focus on the outcomes of adaptation strategies and the tangible benefits of organizational agility and flexibility in hypercompetitive settings. This phase shows a maturation of the field as it moves towards evaluating the effectiveness of strategies previously theorized and explored. The inclusion of "collaboration" during this time also suggests a growing recognition of the role of cooperative strategies and alliances in sustaining competitive advantages in hypercompetitive markets.

4.3.3 Density Visualization

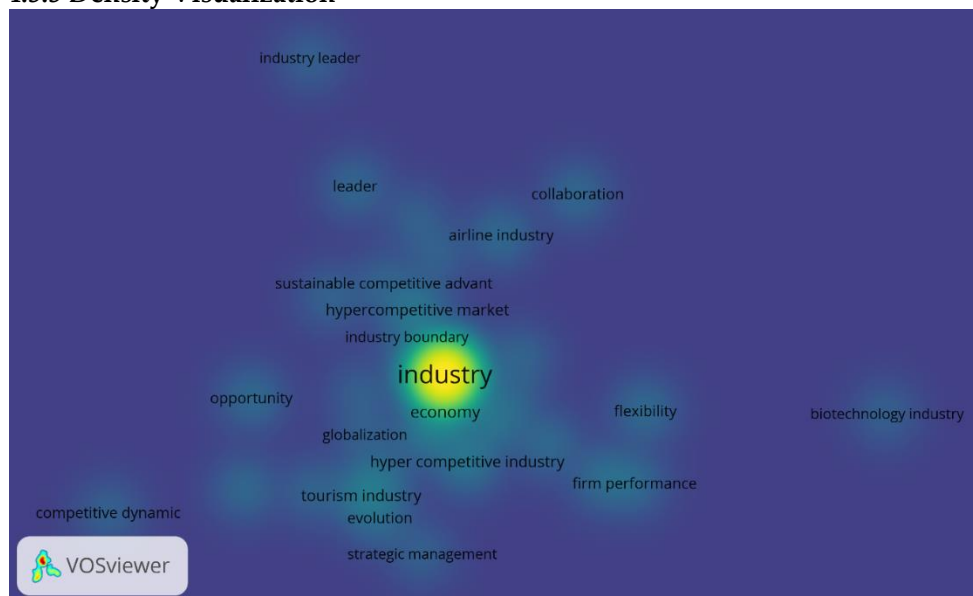


Figure 3. Density Visualization

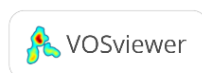
Source: Data Analysis, 2024

The VOSviewer visualization displayed utilizes a density view to highlight the intensity of research activity across various themes related to hypercompetitive environments and industry strategies. The brightness and saturation of colors in this map correspond to the density of research coverage, with more brightly colored areas indicating higher concentrations of research and darker areas suggesting less explored topics.

The brighter areas around central terms like "industry," "hypercompetitive industry," and "strategic management" suggest that these topics have been heavily researched. These areas represent well-established themes that have garnered significant academic interest, likely due to their broad applicability and foundational nature in understanding hypercompetition. The focus on these areas highlights a robust discourse on how industries adapt to rapid changes and the strategies they employ to manage and mitigate the risks associated with hypercompetitive markets.

The less bright or darker areas in the visualization, particularly around terms like "opportunity," "competitive dynamic," and "tourism industry," indicate topics that have received relatively less attention in the literature. This presents potential research opportunities for further exploration. For instance:

1. "Opportunity": Exploring how firms identify, interpret, and capitalize on



opportunities in a hypercompetitive environment could provide new insights into proactive versus reactive strategies in business operations. This could include studies on opportunity recognition processes, entrepreneurial approaches in established firms, and the role of innovation in seizing market opportunities.

2. "Competitive Dynamic": While the term is central to understanding hypercompetition, its less intense color suggests a gap in detailed exploration of dynamic competitive actions and reactions, particularly in less traditional industries or emerging markets. Research could focus on the micro-mechanisms of competitive dynamics, including how companies anticipate competitors' moves and the role of technology in reshaping competitive landscapes.
3. "Tourism Industry": Given the less bright area, this indicates a need for more focused research on hypercompetition within the tourism sector. This could involve examining how tourism businesses adapt to the fast-changing preferences of consumers, the impact of digital transformation on competitive strategies, or sustainability practices in an increasingly competitive market.

Figure 4. Author Collaboration

Source: Data Analysis, 2024

The VOSviewer visualization depicts a bibliometric network of author collaborations within a specific research area, indicating two distinct clusters of authors. The red cluster includes authors Lindskov, Sund, and Dreyer, who have collaborated with each other, as suggested by the connecting lines between them. This cluster likely represents a group of researchers working closely on related topics, possibly within the same institution or on joint projects. On the other hand, the green cluster, consisting of authors Harvey and Kiessling, shows a collaboration between these two individuals, separate from the first group. The absence of lines connecting the two clusters indicates no direct collaborative relationships between the members of the two groups, suggesting they may be working in similar fields but have not co-authored papers or shared projects.

5. CONCLUSION

The series of analyses conducted using VOSviewer visualizations offer a comprehensive overview of the research landscape in hypercompetitive environments and strategic management. The thematic

cluster analysis identified key areas of focus such as core industry dynamics, leadership strategies, globalization effects, and specific industry challenges, revealing the breadth of topics covered within this field. Following this, the examination of research trends highlighted a chronological shift in the literature from foundational theories towards more applied and sector-specific strategies, suggesting an evolution in scholarly focus towards practical implications and outcomes. The analysis of research opportunities pointed out less-explored areas such as opportunity recognition in competitive dynamics and specific industries like tourism, which could yield valuable insights if further investigated. Lastly, the author collaboration network revealed existing partnerships and isolated clusters, suggesting potential for broader interdisciplinary and cross-cluster collaborations to enhance the depth and scope of future research. Together, these insights not only delineate the current state of research but also pave the way for future scholarly endeavors by highlighting gaps and opportunities for advancing the understanding of hypercompetitive strategies and their practical applications.

REFERENCES

- [1] T. Arici and M. S. Gok, "Examining Environmental Turbulence Intensity: A Strategic Agility and Innovativeness Approach on Firm Performance in Environmental Turbulence Situations," *Sustainability*, vol. 15, no. 6, p. 5364, 2023.
- [2] S. Marchese, L. Gastaldi, and M. Corso, "Thriving in turbulent environments through adaptive forms of organizing," *Manag. Decis.*, 2023.
- [3] B. Milewska, "The impact of instability in the business environment on the competitiveness of enterprises using the example of the apparel industry," *Sustainability*, vol. 14, no. 22, p. 14673, 2022.
- [4] U. Gagiev, D. Ramonova, and N. Rakuta, "PATTERNS OF FUNCTIONING AND DEVELOPMENT OF A COMPETITIVE ECONOMIC ENVIRONMENT," *Ekon. I Upr. Probl. RESHENIYA*, vol. 6/4, pp. 4-12, Jan. 2022, doi: 10.36871/ek.up.p.r.2022.06.04.001.
- [5] J. Chen, G. L. Frankwick, and Z. Zhang, "Adopting artificial intelligence to manage a turbulent environment: An abstract," in *Academy of Marketing Science Annual Conference*, Springer, 2020, pp. 223-224.
- [6] Y. Yin, "Strategic management of companies' adaptive behavior," *Manag. Decis. Econ.*, vol. 44, no. 2, pp. 1029-1039, 2023.
- [7] Y. Vitkovskiy, "Adaptability of the economy to external and internal shocks in globalization," *Ukr. J. Appl. Econ. Technol.*, vol. 7, pp. 148-154, Nov. 2022, doi: 10.36887/2415-8453-2022-3-20.
- [8] T. Kondo, J. Ota, R. Chiba, Q. An, and K. Kutsuzawa, "Special Issue on Systems Science of Hyper-Adaptability," *J. Robot. Mechatronics*, vol. 34, no. 4, p. 699, 2022.
- [9] P. Sugito, T. G. Sumarsono, and K. Kamaluddin, "Organizational Adaptability Exploration as an Intervening Variabel on the Lingkage of Trandisciplinarity and Computational Skills toward Competitiveness," *Bismar Bus. Manag. Res.*, vol. 1, no. 1, pp. 1-11, 2022.
- [10] T. H. Fauzi, B. Harits, D. M. D. R. Deni Muhammad Danial, and K. K. Kokom Komariah, "Adaptive strategies of external environmental effects in digital entrepreneurship in the strategic management perspective," *Acad. J. Interdiscip. Stud. wwww.richtmann.org*, vol. 9, no. 3, pp. 38-45, 2022.

- [11] M. Syafitri, "Analisis Bibliometrik Terhadap kemampuan Pemahaman Konsep Matematis," *J. Pengabd. Masy. dan Ris. Pendidik.*, vol. 2, no. 1, pp. 36–41, 2023.
- [12] M. Castillo-Vergara, V. Muñoz-Cisterna, C. Geldes, A. Álvarez-Marín, and M. Soto-Marquez, "Bibliometric Analysis of Computational and Mathematical Models of Innovation and Technology in Business," *Axioms*, vol. 12, no. 7, p. 631, 2023.
- [13] D. R. S. Saputro, H. Prasetyo, A. Wibowo, F. Khairina, K. Sidiq, and G. N. A. Wibowo, "BIBLIOMETRIC ANALYSIS OF NEURAL BASIS EXPANSION ANALYSIS FOR INTERPRETABLE TIME SERIES (N-BEATS) FOR RESEARCH TREND MAPPING," *BAREKENG J. Ilmu Mat. Dan Terap.*, vol. 17, no. 2, pp. 1103–1112, 2023.
- [14] K. H. Abdullah, M. F. Roslan, N. S. Ishak, M. Ilias, and R. Dani, "Unearthing hidden research opportunities through bibliometric analysis: a review," *Asian J. Res. Educ. Soc. Sci.*, vol. 5, no. 1, pp. 251–262, 2023.
- [15] V. Leonavičiūtė, "Bibliometric data analysis of scientific publications in the field of change management," in *13th International Scientific Conference „Business and Management 2023 “*, 2023.
- [16] R. A. D'aveni, *Hypercompetition*. Simon and Schuster, 2010.
- [17] S. L. Brown and K. M. Eisenhardt, "The art of continuous change," *Adm. Sci. Q.*, vol. 42, no. 1, pp. 1–34, 1997.
- [18] M. Tushman and C. A. O'Reilly, *Winning through innovation: A practical guide to leading organizational change and renewal*. Harvard Business Press, 2002.
- [19] T. L. Wheelen, *Concepts in strategic management and business policy*. Pearson Education India, 2011.
- [20] M. B. Arthur and D. M. Rousseau, *The boundaryless career: A new employment principle for a new organizational era*. Oxford University Press, USA, 2001.
- [21] K. M. Eisenhardt and B. N. Tabrizi, "Accelerating adaptive processes: Product innovation in the global computer industry," *Adm. Sci. Q.*, pp. 84–110, 1995.
- [22] M. Uhl-Bien, R. Marion, and B. McKelvey, "Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era," *Leadersh. Q.*, vol. 18, no. 4, pp. 298–318, 2007.
- [23] C. H. Fine, *Clockspeed: Winning industry control in the age of temporary advantage*. ReadHowYouWant. com, 2010.
- [24] L. J. Bourgeois III and K. M. Eisenhardt, "Strategic decision processes in high velocity environments: Four cases in the microcomputer industry," *Manage. Sci.*, vol. 34, no. 7, pp. 816–835, 1988.
- [25] D. K. Datta, J. P. Guthrie, and P. M. Wright, "Human resource management and labor productivity: does industry matter?," *Acad. Manag. J.*, vol. 48, no. 1, pp. 135–145, 2005.
- [26] H. W. Volberda, "Toward the flexible form: How to remain vital in hypercompetitive environments," *Organ. Sci.*, vol. 7, no. 4, pp. 359–374, 1996.
- [27] P. Bierly and A. Chakrabarti, "Generic knowledge strategies in the US pharmaceutical industry," in *Knowledge and Strategy*, Routledge, 2009, pp. 231–250.