

Bibliometric Analysis of Business Performance Research: Global Trends and Emerging Topics

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Abstract. This study presents a bibliometric analysis of business performance (BP) research, exploring global trends, key contributors, and emerging topics within the field. Using Scopus data from 1940 to 2024, the analysis identifies major trends, influential authors, prominent institutions, and collaborative networks shaping BP research. Findings reveal that core topics such as competition, innovation, and knowledge management have remained central, while themes like digital transformation, sustainability, and Industry 4.0 are gaining prominence. The analysis also highlights significant international collaboration, especially among institutions in Southeast Asia, China, and the USA, indicating a globally distributed research landscape. This study provides a comprehensive overview of BP research evolution, offering insights into areas that warrant further investigation to enhance organizational performance in a rapidly changing environment. Future research should emphasize the integration of emerging topics with established frameworks to address contemporary challenges in business performance.

Keywords: Business Performance, Bibliometric Analysis, Innovation, Knowledge Management, Digital Transformation, Sustainability, Industry 4.0, Global Collaboration, Scopus, Organizational Performance

1 Introduction

Business performance (BP) has consistently been a central theme in both academic research and practical business management, owing to its crucial role in determining the overall success and sustainability of a company. BP serves as a critical benchmark for assessing how effectively an organization utilizes its internal resources and adapts to external competitive pressures to achieve long-term goals. Given its multifaceted nature, BP is often regarded as a crucial factor in achieving management satisfaction, meeting stakeholder expectations, and navigating an increasingly competitive global market [1,2,3,4]. The importance of BP has driven substantial research interest, as it represents a core measure of corporate health and provides insights into how companies can maintain competitive advantages in rapidly changing environments [5,6,7].

BP encompasses various dimensions that reflect different aspects of a company's operational effectiveness. These dimensions include financial performance, which involves metrics such as revenue, profit margins, and return on investment; customer performance, which gauges the company's ability to meet customer needs and foster loyalty; internal process performance, which focuses on the efficiency of operations and the quality of products or services offered; and learning and growth performance, which indicates how well the company is able to innovate, develop human capital, and build organizational capabilities [5,8,9,10].

These dimensions are not only fundamental in measuring a company's past performance but also serve as predictors of future success, helping organizations to strategize and improve their competitive standing [11, 12,13]. In a competitive landscape where the ability to innovate, respond to market changes, and improve efficiency is critical, understanding BP has become a key factor for both academic researchers and business practitioners.

With the growing interest in BP research, there is now a vast body of literature that examines its various facets across different industries, regions, and contexts. However, the sheer volume of research poses a challenge for scholars and practitioners seeking to navigate this complex and evolving field. A comprehensive bibliometric analysis can address this challenge by providing a systematic review of existing BP research, identifying key trends, influential contributors, and emerging topics in the field. Bibliometric analysis, which applies quantitative methods to evaluate the structure and impact of scholarly literature, allows researchers to uncover patterns of publication, collaboration, and citation [14,15]. This method enables a more in-depth understanding of how BP research has evolved over time, which topics have gained prominence, and where gaps in the literature may exist.

Given the relevance and extensive scope of BP research, this study aims to conduct a detailed bibliometric analysis to map the development of global BP research, identify key contributors and institutions, and explore the emerging themes that are shaping the future of this field. This study seeks to answer the following research questions (RQs):

- 1) RQ1: What are the major trends in business performance research over the past decades? This question explores the historical trajectory of BP research, examining the rise and fall of interest in specific BP topics and identifying the driving forces behind these changes, such as economic shifts, technological advancements, or changes in management practices.
- 2) RQ2: What are the most frequently studied topics within the field of business performance? This question focuses on identifying the core areas that dominate BP research, such as financial metrics, customer satisfaction, innovation, and operational efficiency. By highlighting these topics, this question aims to provide a clearer understanding of the key concerns and priorities within the BP literature.
- 3) RQ3: Which authors, institutions, and countries have contributed the most to business performance research? This question seeks to map out the leading contributors to the field, including the most productive authors, top-ranking institutions, and countries that are at the forefront of BP research. Understanding these contributions can help identify centers of excellence in BP studies and foster future collaborations.
- 4) RQ4: How has the collaboration between researchers and countries evolved in the study of business performance? Collaboration is a key factor in the advancement of research. This question investigates patterns of co-authorship and partnerships between countries, exploring how networks of collaboration have developed over time and how they have contributed to the evolution of BP research.
- 5) RQ5: What are the most influential journals and conferences publishing research on business performance? By identifying the top publication outlets for BP research, this question aims to provide insights into the journals and conferences that have had the greatest impact on shaping the field. Understanding where the most influential BP research is published can help guide future research dissemination efforts.
- 6) RQ6: What emerging themes and subtopics can be identified in recent business performance literature? This question seeks to identify new and emerging areas of research within the BP literature, focusing on topics that have gained attention in recent years, such as digital transformation, sustainability, and innovation. Identifying these themes can help researchers and practitioners anticipate future directions in BP research and practice.

Through these research questions, this study aims to offer a comprehensive overview of BP research, highlighting key trends, influential scholars, and emerging topics that define the current state of the field. By leveraging bibliometric analysis, this study will provide valuable insights into the structure of BP research, revealing areas of strength and identifying gaps that warrant further exploration. Additionally, the findings from this study will contribute to both academic and practical knowledge by highlighting critical areas of BP research that can inform future business strategies and policy decisions.

2 Methods

In this research, a bibliometric analysis was employed to systematically evaluate the body of literature related to business performance (BP). Bibliometric analysis is a quantitative method that uses statistical and mathematical tools to analyze and map research trends, key contributors, influential publications, and emerging themes within a specific research domain. This method allows researchers to gain insights into the structure and dynamics of scholarly knowledge over time, providing a comprehensive overview of how research in a particular field has evolved [16].

3.1. Data Collection

The data for this bibliometric analysis were collected from Scopus, one of the largest and most reliable databases for peer-reviewed scientific articles. The decision to use Scopus is based on its comprehensive coverage of high-quality research across various disciplines, including management, business, and strategy [17]. The following keywords were used in the search query: “business performance” to capture a broad set of relevant articles. The search was limited to articles published between 1940 and 2024 to ensure the inclusion of both foundational and contemporary research.

Specific inclusion criteria were applied to ensure the relevance and quality of the data:

- 1) Only peer-reviewed journal articles were included, excluding conference proceedings, book chapters, and reports.
- 2) The articles had to focus on business performance in the context of strategy, management, or competitive advantage.
- 3) The articles had to be written in English.

After applying these criteria, a total of 2221 articles were retrieved, which formed the basis for further analysis. The dataset included key information such as authorship, publication year, journal, citation count, keywords, and institutional affiliations.

3.2. Data Analysis

The bibliometric analysis was conducted using specialized software tools such as VOSviewer and RStudio (bibliometrix package), which are commonly used for visualizing and mapping relationships between different elements of a dataset, such as co-authorship networks, keyword co-occurrence, and citation patterns [6]. The analysis followed these steps:

- 1) **Descriptive Analysis:** A descriptive analysis was performed to examine the overall growth in publications on business performance, identify the most productive authors, institutions, and countries, and assess citation impact. Metrics such as the number of publications per year, total citations per article, and H-index were calculated to measure scholarly output and influence [7].
- 2) **Co-authorship and Collaboration Networks:** The analysis explored the collaborative networks between authors and institutions. By visualizing co-authorship networks, key scholars and institutions that have made significant contributions to the field of BP research

were identified. This network analysis also helped reveal patterns of collaboration, showing how different authors and institutions work together and form research clusters [16].

- 3) **Co-citation and Citation Analysis:** Citation analysis was used to identify the most frequently cited articles, which are often considered seminal works in the field. Co-citation analysis was conducted to detect relationships between frequently cited authors and to identify major theoretical frameworks, including Resource-Based View (RBV) and its impact on BP research [17]. This analysis uncovered influential research streams within the broader BP literature.
- 4) **Keyword Analysis and Thematic Mapping:** Keyword co-occurrence analysis was employed to map the most frequently discussed topics within BP research. By examining the occurrence of specific keywords, this analysis revealed the main themes and emerging trends in the literature. The thematic mapping provided insights into how different research topics have evolved over time and identified emerging areas of interest, such as digital transformation, sustainability, and innovation in BP studies [18].
- 5) **Trends and Emerging Themes:** A trend analysis was performed to observe shifts in research focus over time. This step identified the emerging subfields and new directions in BP research, helping to outline future research avenues. The focus was on detecting growing areas of interest such as digital innovation, sustainability, and organizational agility, which are increasingly tied to business performance [17].

3.3. Validity and Reliability

To ensure the validity and reliability of this bibliometric analysis, several measures were implemented to uphold data accuracy and analytical consistency. First, the initial search was cross-verified with the Web of Science database to achieve comprehensive coverage. Although Scopus was used as the primary data source for consistency in analysis, this cross-verification ensured that key publications and significant contributions to the field were captured [17].

Next, a thorough data cleaning process was conducted to remove duplicate entries and irrelevant records. Articles that did not meet the predetermined inclusion criteria were excluded to maintain dataset integrity. This approach minimized data redundancy and increased the precision of the analysis, ensuring that only relevant studies contributed to the findings. Additionally, various citation metrics, such as total citations, the H-index, and normalized citation scores, were applied to address variations in citation practices across fields and timeframes. These metrics allowed for a more standardized evaluation of the articles, providing a balanced view of the scholarly impact [17, 19].

3 Results and Discussion

4.1. Major Trends in Business Performance Research Over the Past Decades

This section addresses RQ1, exploring the historical trends in business performance (BP) research. In order to analyze the development of business performance (BP) research over time, it is essential to observe the trends in scientific production within the field. By examining the annual number of publications, we can gain insights into how interest in BP has evolved and identify key periods of growth in the literature. Figure 1 illustrates the annual scientific production of BP-related research from 1940 to 2024, showing the overall increase in academic output.

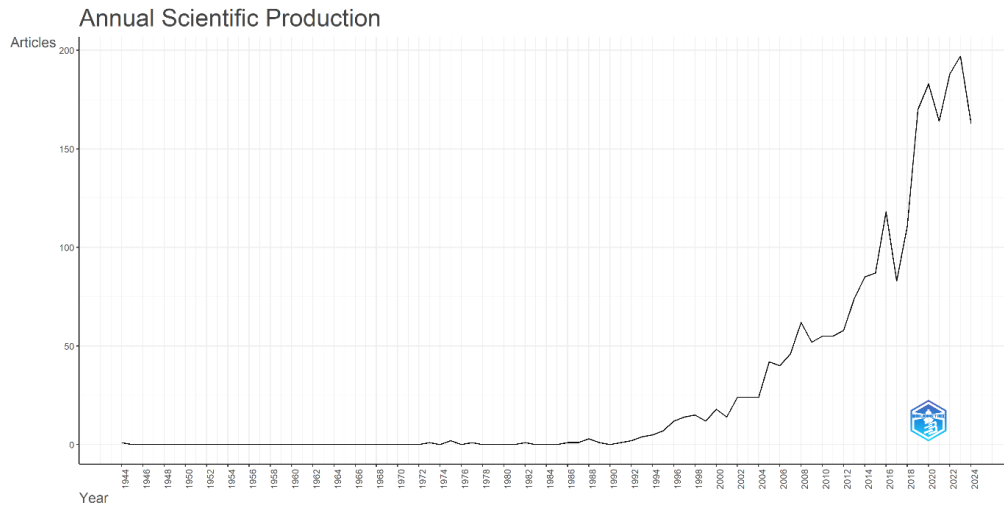


Figure 1. Annual Scientific Production of Business Performance Research
Source: Processed by Author (2024)

The graph illustrating the “Annual Scientific Production” of research related to business performance (BP) presents a clear picture of the growth and development of scholarly output in this field over time. From 1940 to 2024, the volume of BP-related publications has experienced significant fluctuations, with key periods of growth and expansion that reflect broader trends in management science and the evolving nature of global business environments.

In the early years, between 1940 and 1990, research activity in BP was relatively minimal, as indicated by the flat line on the graph. This period, characterized by limited academic attention to BP, likely reflects the early stages of strategic management as a discipline. The concept of business performance, especially its connection to firm-level competitive advantage, was not yet a major focus of research. During these decades, management theories like the Resource-Based View (RBV) were still emerging, and the academic community had not yet fully explored the role of internal resources in driving performance [20,21].

However, starting in the early 1990s, the graph shows a gradual increase in the number of publications. This upward trend corresponds with the growing interest in strategic management frameworks, particularly those that focus on internal resources and capabilities as drivers of competitive advantage and business performance. The increased attention to firm-specific factors such as innovation, organizational culture, and knowledge management began to shape the field, leading to more research output. Additionally, as global markets became more competitive, scholars and practitioners alike started to investigate new strategies for improving performance, further fueling research in this area.

The period between 2006 and 2016 marks a significant growth phase, with the graph showing a steeper increase in scientific production. This era was defined by the rise of digital transformation, globalization, and the need for organizations to innovate rapidly to maintain their competitive edge. The complexity of global business operations, coupled with advancements in technology, likely spurred greater interest in understanding how firms could optimize their performance. Empirical studies testing theoretical models like RBV, dynamic capabilities, and innovation-driven strategies became more prominent, driving further expansion of the literature on business performance.

The most striking period of growth is observed from 2017 to 2024, where the graph shows a sharp spike in publications. This period reflects the heightened importance of business performance in the context of rapid technological advancements, the digital economy, and global challenges such as sustainability and resilience. The dramatic increase in research output can also be attributed to the impact of the COVID-19 pandemic, which pushed scholars to explore how companies managed disruptions and optimized performance in times of crisis [22,23]. As firms worldwide faced unprecedented challenges, research on agility, resilience, and adaptability in relation to performance became highly relevant, leading to a surge in publications.

Overall, the graph reveals a clear trend: the volume of BP-related research has grown significantly over the past few decades, with particular spikes in response to global business challenges and technological shifts. This steady upward trajectory suggests that business performance will continue to be a vital area of inquiry, especially as organizations seek new ways to thrive in increasingly complex and competitive markets. The growing focus on digital transformation, sustainability, and innovation highlights emerging areas of interest that will likely shape the future of business performance research.

4.2. Core Topics Dominating Business Performance Research

Addressing RQ2, this subsection identifies and analyzes the primary topics within BP research. To gain a comprehensive understanding of the key areas of topics in BP research, it is important to analyze the most frequently studied topics and how these have evolved over time. The following table (Table 1) provides a detailed summary of trending topics within BP research, highlighting both established and emerging themes.

Table 1. Trending Topics in BP research

Term	Frequenc y	Year (Q1)	Year (Median)	Year (Q3)
cost-effectiveness	5	1998	1998	2014
research and development management	8	2001	2002	2005
Monitoring	5	2003	2003	2006
operations research	5	2002	2003	2005
industrial economics	12	2002	2004	2006
production control	6	1999	2004	2007
Reliability	5	2004	2005	2008
strategic planning	40	2001	2006	2014
information technology	38	2005	2006	2010
industrial management	25	2004	2006	2012
competitive intelligence	16	2006	2007	2007
Motivation	5	2007	2007	2020
business performance management	20	2006	2008	2012
Management	17	2005	2008	2014
product development	17	2006	2008	2017
quality control	13	2005	2009	2013
performance management	11	2006	2009	2016
electronic commerce	41	2005	2010	2016
customer satisfaction	28	2006	2010	2018

information systems	39	2008	2011	2014
enterprise resource planning	16	2008	2011	2013
Profitability	31	2010	2012	2017
Benchmarking	24	2009	2012	2019
Forecasting	12	2011	2012	2015
industrial research	23	2009	2013	2020
Competition	72	2008	2014	2019
Marketing	52	2007	2014	2020
knowledge management	51	2009	2014	2020
Investments	33	2010	2015	2021
construction industry	14	2009	2015	2023
Sales	34	2010	2016	2021
regression analysis	31	2010	2016	2019
Innovation	64	2013	2017	2022
Manufacture	23	2010	2017	2020
human resource management	18	2012	2017	2022
Commerce	269	2014	2018	2021
decision making	46	2013	2019	2022
performance assessment	72	2015	2020	2022
business development	68	2019	2020	2022
small and medium-sized enterprise	49	2017	2021	2023
big data	14	2018	2021	2023
sustainable business	13	2019	2021	2023
Sustainability	38	2019	2022	2023
corporate social responsibility	21	2020	2022	2023
research and development	12	2021	2023	2023
technology adoption	11	2021	2023	2024
industry 4.0	7	2022	2024	2024

Source: Processed by Author (2024)

The analysis of trending topics in business performance (BP) research reveals several key areas that have garnered significant attention in the literature over the years. Based on the frequency of occurrences, commerce emerges as the most frequently discussed topic, with 269 mentions. This indicates a strong focus on the role of commercial strategies, including e-commerce and digital platforms, in enhancing business performance. The topic has shown consistent relevance, particularly from 2014 onward, highlighting its increasing importance in the digital era.

Competition is another prominent area of study, appearing 72 times in the literature. This reflects the critical role that competitive dynamics play in driving business performance, as companies continuously seek to maintain or improve their standing in the marketplace. Research on competition has maintained its importance over the years, peaking around 2014 and continuing to be relevant in subsequent years.

Similarly, performance assessment also features prominently, with 72 occurrences. This topic reflects the growing interest in how businesses evaluate and measure their performance, particularly in terms of financial and operational outcomes. Research in this area has been on the rise in recent years, peaking around 2020-2022, as companies increasingly seek effective ways to assess their success and improve their strategic positioning.

Business development (68 occurrences) has emerged as a key focus, especially in the last few years. With the rise of new markets and opportunities, businesses are increasingly looking for ways to grow and expand. This has led to a surge in research on how companies can develop and execute strategies that support sustainable growth, with a particular focus starting in 2019 and continuing through 2022.

Another critical area of study is innovation, with 64 occurrences. Innovation has long been recognized as a key driver of business performance, allowing companies to differentiate themselves and create competitive advantages. The frequency of publications on this topic has increased steadily, starting in 2013, with a growing emphasis on how innovation can improve overall performance, particularly in dynamic and rapidly changing markets.

Knowledge management (51 occurrences) and marketing (52 occurrences) are two additional topics that have consistently been important in the BP literature. Knowledge management focuses on how organizations manage and leverage their internal knowledge to improve performance, while marketing examines the strategies businesses use to engage customers and create value. Both topics have remained relevant over the years, with a notable increase in focus on knowledge management around 2020, reflecting the importance of intellectual capital in business success.

In addition to these well-established topics, several emerging areas of research have gained traction in recent years. Sustainability (38 occurrences) and corporate social responsibility (CSR) (21 occurrences) have seen increasing attention, particularly from 2019 onward. As businesses face growing pressure to operate sustainably and ethically, research on these topics has expanded, exploring how sustainability practices and CSR initiatives can positively impact business performance.

Big data (14 occurrences) and Industry 4.0 (7 occurrences) are also emerging as critical areas of study, reflecting the growing role of technology in modern business operations. Big data, which gained prominence around 2018, focuses on how businesses can harness large datasets to make informed decisions and improve performance. Meanwhile, Industry 4.0, which began to gain attention in 2022, highlights the transformative impact of digital technologies such as automation, artificial intelligence, and the Internet of Things (IoT) on business performance.

In conclusion, the most frequently studied topics in BP research include commerce, competition, performance assessment, business development, and innovation, reflecting the core areas of interest that have shaped the field. Additionally, emerging themes such as sustainability, CSR, big data, and Industry 4.0 indicate a shift in research focus toward more modern challenges and opportunities, driven by technological advancements and the growing importance of sustainability and ethical practices in business operations. These trends provide valuable insights into how the field of business performance is evolving and where future research may be headed.

4.3. Leading Authors, Institutions, and Countries in Business Performance Research

This subsection, corresponding to RQ3, presents an analysis of the most prolific authors, institutions, and countries contributing to BP research, highlighting centers of excellence and potential areas for collaboration. The following figure (Figure 2) highlights the most prolific authors in the field of business performance research, providing a clear picture of the leading scholars who have made substantial contributions.

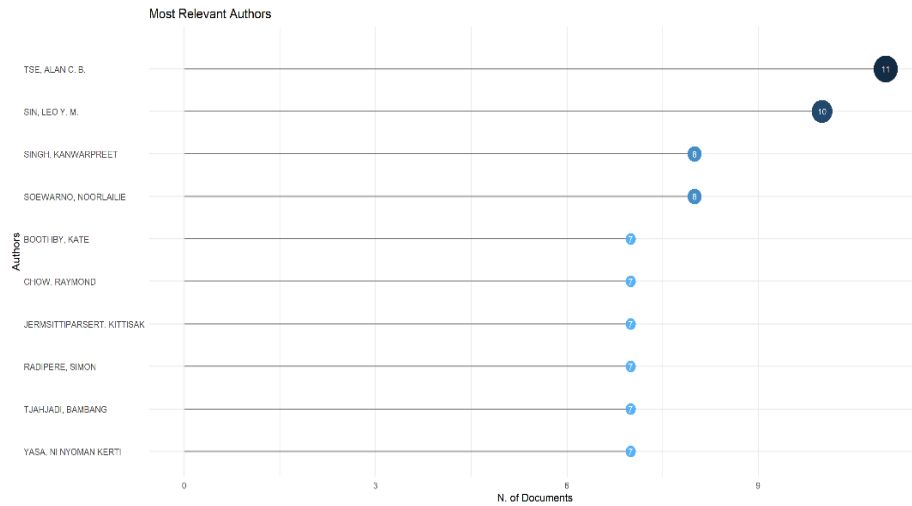


Figure 2. Most Relevant Authors
Source: Processed by Author (2024)

Tse, Alan C. B. stands out as the top contributor with 11 publications, indicating his strong involvement in advancing the field. Tse's research likely covers various aspects of business performance, contributing valuable insights to both theoretical frameworks and practical applications. His work's prominence suggests a considerable influence on the scholarly discourse surrounding performance metrics, management strategies, and competitive advantage. Following closely is Sin, Leo Y. M., with 10 publications. Sin's extensive research output indicates a strong focus on business performance, potentially exploring areas like customer satisfaction, strategic management, and performance assessment in dynamic business environments. Both Tse and Sin have provided foundational knowledge and research that have been widely cited and built upon in the BP literature.

The list of relevant authors shows a diverse group of researchers contributing to a broad range of topics within business performance, from traditional measures like profitability and efficiency to more contemporary themes such as innovation, customer satisfaction, and digital transformation. These scholars not only lead in terms of publication volume but are also likely to have a substantial influence through citations and collaborations, shaping the academic discourse on BP.

Turning to the following figure (Figure 3), the analysis of institutional contributions offers insights into the leading academic and research centers involved in business performance studies.

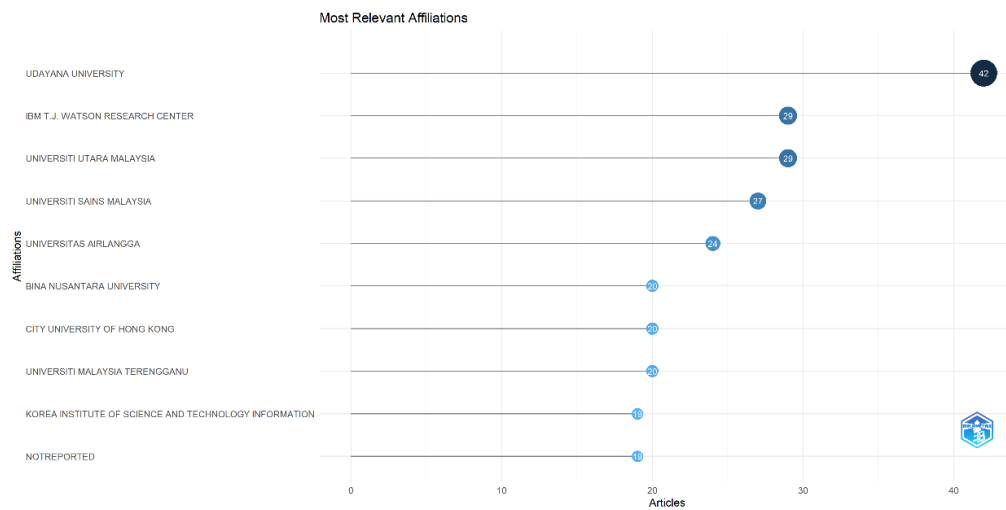


Figure 3. Most Relevant Affiliations
Source: Processed by Author (2024)

Udayana University tops the list with 42 articles, demonstrating its significant role in fostering research on business performance, particularly in Southeast Asia. Udayana University's contributions may include diverse research topics such as regional business development, SME performance, and sustainability in business practices, all of which are highly relevant in the context of emerging economies. Both the IBM T.J. Watson Research Center and Universiti Utara Malaysia follow closely, each contributing 29 articles. The presence of IBM's research center suggests a strong focus on technological innovations and their impact on business performance, particularly in areas such as data analytics, artificial intelligence, and process optimization. This institution's involvement underscores the increasing importance of technology-driven research in understanding and enhancing organizational performance.

Furthermore, Figure 4 illustrates that Indonesia, China, and the United States are the leading contributors to business performance research, based on the number of articles published by corresponding authors. These countries, along with other significant contributors like Malaysia, India, and the United Kingdom, play a crucial role in advancing the study of business performance. The diverse geographic distribution of research indicates a broad global interest in improving business performance across various industries and economic contexts. This also suggests potential for international collaboration and further exploration of region-specific challenges and solutions in business performance management.

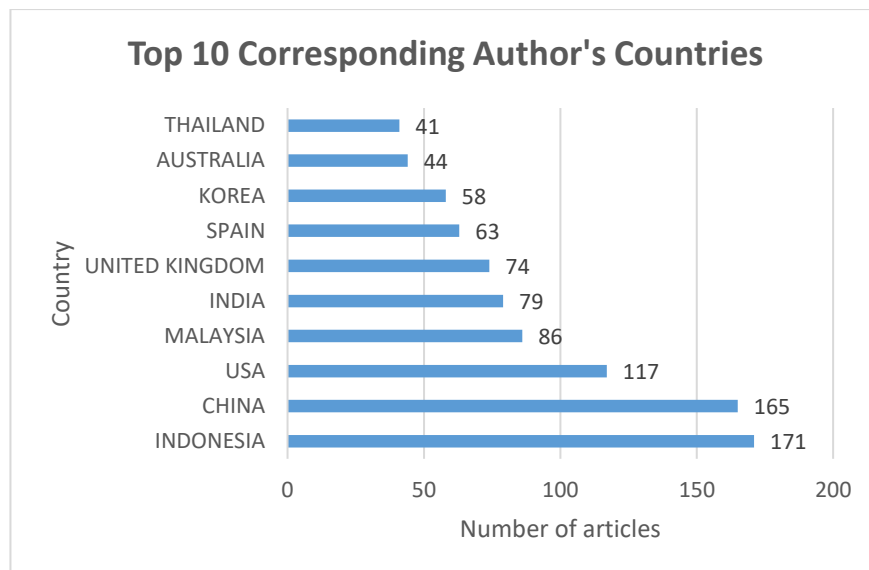


Figure 4. Most Relevant Countries
Source: Processed by Author (2024)

4.4. Collaboration Networks in Business Performance Research

Responding to RQ4, this section examines co-authorship and country partnerships, mapping the development and structure of collaborative networks within BP research over time. Collaboration in research is essential for advancing knowledge, and understanding the patterns of co-authorship can provide insights into how different researchers and countries contribute to the field of business performance. The following figures depict collaboration networks at both the author (Figure 5) and country levels (Figure 6), highlighting key partnerships that shape the evolution of business performance research.

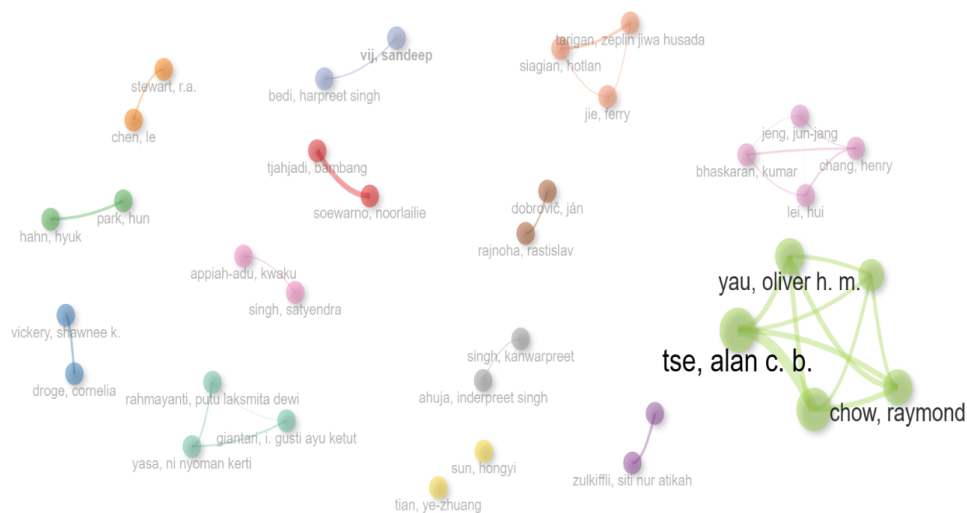


Figure 5. Co-authorship Network between Researchers
Source: Processed by Author (2024)

Figure 5 reveals the structure of collaborative relationships between individual researchers in business performance research. Each node represents a researcher, and the connections between nodes indicate co-authored publications. Larger nodes correspond to authors with a greater number of collaborations, while the density of connections illustrates how tightly these authors work within their respective groups.

- 1) The largest and most prominent cluster, represented by green nodes on the right side, showcases a highly interconnected group of authors who frequently collaborate. Notable authors in this cluster include Tse, Alan C. B. and Sin, Leo Y. M., both of whom are well-established researchers with multiple co-authored papers in the field. This group likely focuses on a specific area of business performance, such as customer satisfaction, performance metrics, or strategic management, given the strong internal ties within the cluster. These authors' repeated collaboration indicates long-term partnerships that contribute significantly to their subfield.
- 2) Several smaller clusters appear scattered across the network, representing focused groups of researchers working on more niche areas of business performance. For instance, authors like Singh, Kanwarpreet and Soewarno, Noorlailie are part of these smaller networks, suggesting they collaborate within specialized themes, possibly around regional business strategies, innovation, or sector-specific studies like manufacturing or services.
- 3) Isolated pairs of authors, such as Jernsittiparsert, Kittisak and Radipere, Simon, are also present, indicating that some collaborations are limited to specific projects or papers. These pairs might engage in one-off collaborations on particular topics, contributing to diversity in the field but without extensive long-term partnerships.

The overall structure of the network suggests that while business performance research involves several active and productive clusters of authors, the collaboration landscape is relatively fragmented. Most researchers collaborate within their specific groups rather than across multiple clusters, suggesting that the field is composed of smaller, thematically focused teams working on distinct topics within business performance.

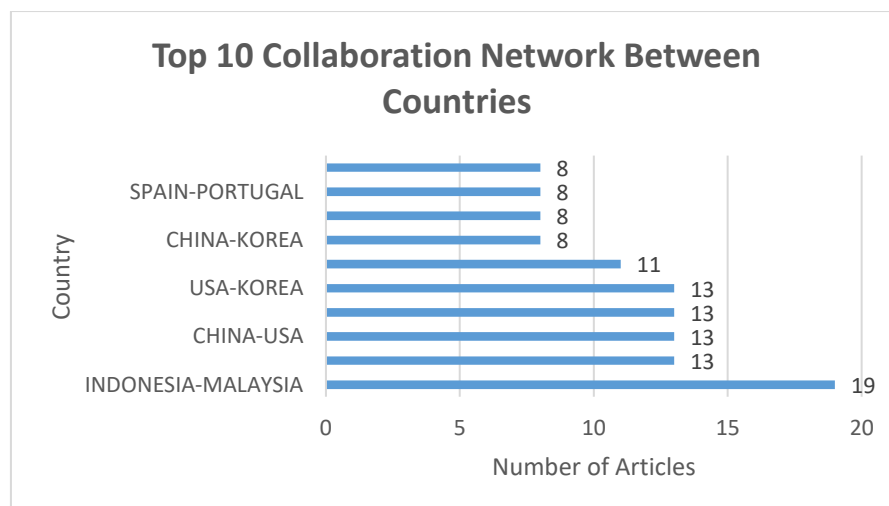


Figure 6. Collaboration Network Between Countries
Source: Processed by Author (2024)

Figure 6 shows the top 10 international collaboration networks between countries, based on the number of co-authored articles. The chart highlights the most frequent partnerships between researchers from different nations, offering insights into which countries are actively collaborating in business performance research. The strongest collaboration is between Indonesia and Malaysia, with 19 co-authored articles. This indicates a robust regional research partnership, likely focusing on issues that are particularly relevant to Southeast Asia, such as small and medium-sized enterprises (SMEs), economic development, and regional business strategies. The frequent collaboration between these two countries suggests that they share common research interests and face similar challenges in enhancing business performance in emerging markets. The presence of this strong regional partnership highlights the importance of geographically proximate collaborations in addressing region-specific business concerns.

China and the USA represent another significant partnership, with 13 co-authored articles. Given the prominence of both countries in the global economy, their collaboration likely centers around high-impact themes such as technological innovation, manufacturing performance, and international competitiveness. This partnership underscores the global nature of business performance research, where researchers from two of the world's largest economies collaborate to advance knowledge in strategic management, innovation, and market dynamics.

The country-level collaboration network also reveals a highly internationalized research landscape, with frequent co-authorships between nations. The dominance of collaborations involving countries like Indonesia, Malaysia, China, and the USA suggests that business performance research is driven by global challenges that transcend national boundaries. These partnerships indicate a strong emphasis on addressing performance issues that are common across both developed and emerging economies, such as innovation, competition, and sustainability. Furthermore, the prominence of China in several collaborative networks highlights its increasing influence in global business performance research. China's ability to engage in partnerships with multiple countries reflects its growing interest in leveraging international expertise to address complex business challenges, particularly in relation to innovation, manufacturing, and market dynamics.

4.5. Influential Journals and Conferences in Business Performance Research

This subsection covers RQ5, identifying the top journals and conferences that publish BP research, focusing on those that have significantly impacted the field's development and visibility.

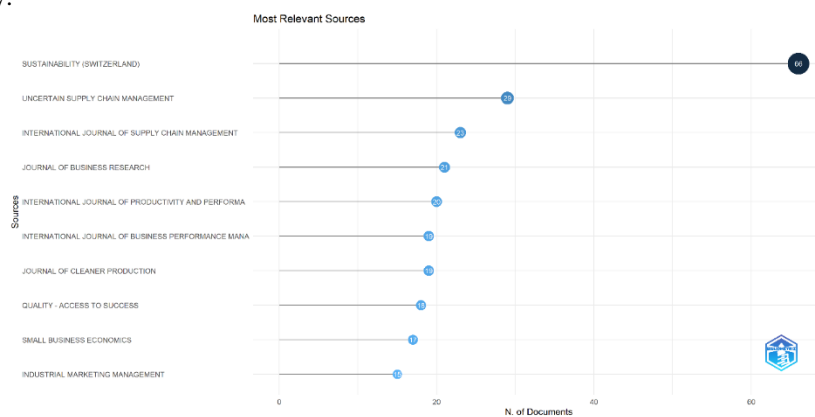


Figure 7. Most Relevant Sources
Source: Processed by Author (2024)

Figure 7 illustrates the most relevant academic sources based on the number of documents published on a specific research topic. On the horizontal axis, the number of documents is displayed, while the vertical axis lists the journals contributing these publications. From the data, it is evident that *Sustainability (Switzerland)* stands out with the highest number of publications, totaling 66 documents, indicating its prominent role in disseminating research within this area. Following this, *Uncertain Supply Chain Management* contributes 29 documents, reflecting a notable focus on managing supply chain uncertainties in the literature.

Other significant sources include the *International Journal of Supply Chain Management* with 23 documents, the *Journal of Business Research* with 21 documents, and the *International Journal of Productivity and Performance Management*, which has 20 publications on the topic. Additionally, both the *International Journal of Business Performance Management* and the *Journal of Cleaner Production* contribute 19 documents each, underscoring their roles in the research field.

Moreover, journals like *Quality Access to Success* with 18 documents, *Small Business Economics* with 17, and *Industrial Marketing Management* with 17 documents also make notable contributions. This chart highlights the leading academic journals that have significantly advanced the research in this area, with *Sustainability (Switzerland)* holding a dominant position, reflecting its centrality in the scholarly discourse on the topic.

4.6. Emerging Themes and Subtopics in Business Performance Literature

In response to RQ6, this subsection identifies recent and emerging topics in BP research, such as digital transformation, sustainability, and innovation, and discusses their implications for future studies and practical applications.

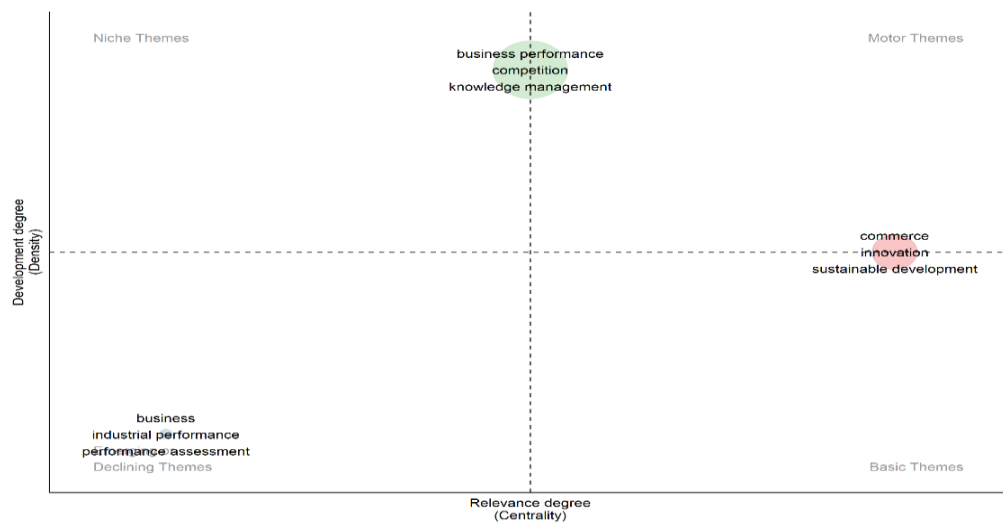


Figure 8. Thematic Map
Source: Processed by Author (2024)

Figure 8 presents a thematic map commonly used in bibliometric analysis to categorize research themes based on two dimensions: relevance degree (centrality) and development degree (density). The horizontal axis indicates the level of relevance or importance of a theme within the research field, with themes positioned further to the right being considered more

central or fundamental. Meanwhile, the vertical axis reflects the degree of development of each theme, where themes placed higher up indicate that they are more advanced and extensively studied.

The map is divided into four quadrants, each representing different types of themes. In the top-right quadrant, known as Motor Themes, themes are generally both highly relevant and well-developed. However, in this map, no themes are situated in this quadrant, indicating an absence of topics that are simultaneously crucial and deeply established within the field.

The bottom-right quadrant, labeled Basic Themes, contains themes that are highly relevant but not yet fully developed. Themes such as “commerce,” “innovation,” and “sustainable development” are located here, suggesting that while these topics are central to the field, they remain in the early stages of development or require further exploration.

In the top-left quadrant, known as Niche Themes, themes are well-developed but less central. Themes like “business performance,” “competition,” and “knowledge management” fall into this category, indicating that these topics are highly specialized with substantial depth but have limited broader relevance within the research field.

The bottom-left quadrant, termed Declining or Emerging Themes, comprises themes that are both less relevant and less developed. Themes such as “business,” “industrial performance,” and “performance assessment” are located here, suggesting that they may be either declining in significance or are emerging but not yet established in the research domain.

Overall, this thematic map provides an overview of the thematic structure within the analyzed research field, indicating that themes such as “commerce,” “innovation,” and “sustainable development” are highly relevant but require further development, while “knowledge management” and “competition” are niche topics with significant depth yet limited central relevance.

4 Result

The exploration of historical trends and key themes in business performance (BP) research over the decades reveals significant insights and implications for both academic inquiry and practical applications in the field. The increasing volume of publications, especially from 2017 to 2024, underscores the growing importance of BP in response to global technological, economic, and social challenges. This trend implies a heightened need for businesses to adapt quickly, innovate, and focus on resilience to remain competitive. For researchers, this trajectory highlights areas of evolving interest and encourages further investigation into emerging aspects such as agility and adaptability, which became especially relevant during crises like the COVID-19 pandemic.

In examining the core topics within BP research, it is evident that themes such as competition, innovation, knowledge management, and sustainability have remained prominent over the years. This consistency suggests that companies and researchers alike view these elements as critical to achieving long-term performance. The implication here is a call for deeper, more integrated studies that explore how these themes interact and contribute to sustainable competitive advantage. Furthermore, the emergence of topics like big data, Industry 4.0, and corporate social responsibility (CSR) reflects an ongoing shift toward digitally driven and socially responsible business practices, emphasizing the need for organizations to adapt to modern technological advancements and societal expectations. Practitioners are encouraged to adopt these innovative strategies to improve performance, while scholars should focus on understanding the mechanisms through which these strategies impact firm success.

The analysis of leading authors, institutions, and countries indicates that BP research is a globally distributed field, with contributions from both developed and emerging economies. This international collaboration not only enriches the research landscape but also implies potential for cross-cultural and cross-regional studies that examine BP strategies within diverse economic contexts. For instance, the strong collaboration between Indonesia and Malaysia suggests that Southeast Asia is a fertile ground for research focused on small and medium-sized enterprises (SMEs) and regional business development, offering practical insights for businesses operating in similar markets. Academic and corporate stakeholders should therefore seek to foster such international partnerships to exchange knowledge and create region-specific frameworks that address unique challenges in BP.

The identification of influential journals and conferences, such as *Sustainability* (Switzerland) and *Uncertain Supply Chain Management*, signals the importance of publishing BP research in reputable and field-specific outlets to ensure wide dissemination and impact. This pattern implies that researchers should prioritize high-impact journals to reach broader audiences, while practitioners could leverage findings from these publications to inform decision-making processes. The prevalence of sustainability-related publications indicates an expanding interest in balancing performance with environmental and social responsibility, a trend that aligns with global movements toward sustainable business practices.

Lastly, the thematic map analysis suggests that BP research is dynamic, with themes like “commerce,” “innovation,” and “sustainable development” positioned as highly relevant but still developing. This positioning implies opportunities for future research to delve deeper into these topics, examining how businesses can harness them for performance optimization. The identification of “business performance,” “competition,” and “knowledge management” as niche themes with considerable depth but limited broader relevance suggests that while these areas are well-studied, there may be value in exploring their broader applications or integrating them with emerging themes to create more comprehensive frameworks. Researchers should focus on addressing these gaps, while businesses can benefit from these insights by implementing strategies informed by the latest research on these fundamental themes.

In summary, the analysis of BP research trends, core topics, influential contributors, and emerging themes has several implications for future studies and practical applications. For academia, there is a clear mandate to expand research on digital transformation, sustainability, and CSR, as well as to foster global collaborations that bring diverse perspectives. For practitioners, these findings highlight the importance of agility, innovation, and a balanced approach to performance that includes social and environmental responsibility, positioning businesses to thrive in an increasingly complex and interconnected global market.

Limitations

While bibliometric analysis offers valuable insights, it has inherent limitations that must be acknowledged. First, the reliance on Scopus as the main database, while extensive, may have excluded some relevant studies available in alternative sources like Google Scholar or regional databases, which could potentially limit the generalizability of findings. Another limitation lies in citation bias; older publications naturally accumulate more citations over time, which may create a skewed emphasis on historically influential works, potentially overshadowing newer but impactful studies [16, 23]. Additionally, the analysis encountered thematic overlap, where articles covered multiple topics, making it challenging to categorize them under distinct research themes. Despite these limitations, the bibliometric approach remains a robust method for understanding the research landscape of business performance. It

provides a structured and quantitative means of exploring the field's evolution, identifying prominent contributors, and highlighting emerging trends [16, 24,25,26].

5 Conclusion

This analysis of business performance (BP) research reveals a clear evolution in focus and scope, reflecting changing global challenges and advancements in management science. Key themes such as competition, innovation, and sustainability have become foundational, while emerging topics like digital transformation, big data, and corporate social responsibility indicate a shift toward technology-driven and ethically conscious business models. The study underscores the significance of international collaborations and reputable journals in advancing BP knowledge.

The thematic map suggests that core topics in BP remain relevant but offer room for further exploration and integration with emerging themes to provide a more comprehensive understanding. As BP research grows, it continues to play a crucial role in helping organizations enhance performance, resilience, and adaptability.

In summary, BP research is essential for guiding businesses toward sustainable, competitive growth. Future studies should focus on digital transformation and sustainability, while practitioners can apply these insights to succeed in today's complex, ethically-aware business landscape.

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