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ARTICLE

Three Decades of Scholarly Research on Resource Allocation: A Bibliometric Approach

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Abstract

This study conducts a comprehensive bibliometric analysis to illuminate the landscape of resource allocation research over 33 years (19902023). Utilizing a sample of 243 articles from the Scopus database, the research aims to discern developmental trends and underlying patterns in this field. Despite its strategic importance, resource allocation remains relatively understudied, as evidenced by a critical examination of existing literature. This study serves as a pioneering effort to address this gap, shedding light on pertinent patterns that not only contribute to the existing body of knowledge but also guide future research endeavours. Addressing a set of nine research questions, the study investigates publication trends, country-wise contributions, active journals, prominent authors, influential articles, prevalent themes, academic collaborations, international links, and thematic coherence in resource allocation research. By unravelling these dimensions, the research aims to act as a torchbearer, directing future investigations and providing a comprehensive view of the intricate structures governing resource allocation research. In sum, this paper stands as a novel contribution, employing bibliometric analysis to unravel the nuanced aspects of resource allocation in this crucial domain. Findings reveal a predominant focus on resource allocation in research and development and advertising, with other areas receiving comparatively less attention. Identifying research gaps and acknowledging study limitations, the paper provides directions for future research, emphasizing the underexplored nature of resource allocation within strategic management research.

Keywords: Bibliometric Analysis, Resource allocation, Scopus, VOS-Viewer.

1 Introduction

Resource allocation, a vital aspect of strategic management, stems from the Resource-Based View (RBV) theory. RBV emphasizes the significance of unique resources for superior performance. It posits that a firm's competitive advantage and economic rents are derived from valuable, rare, inimitable, and non-substitutable (VRIN) resources. Extending this, VRIN-O includes effective organization of resources (Barney, 1991; Barney, 1995). For a while, the RBV focused on possessing VRIN-O resources as crucial for sustained performance. However, a new question emerged: Why do companies with similar resources perform differently? Penrose (1959) provides insight into this by asserting that the output of resources depends on how they're utilised; the same resources, when employed for varied purposes or in different ways and in conjunction with diverse types or quantities of other resources, result in different outputs or sets of outputs. The above statement implies

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that mere possession of unique resources does not lead to superior performance. Resource allocation, crucial for strategic decision-making, involves organizing and distributing resources effectively. Despite its strategic importance, resource allocation is often overlooked in management research. This study aims to fill this gap by conducting a comprehensive bibliometric analysis, identifying trends, influential publications, key authors, and more, to advance understanding in the field. An attempt is made to answer the following research questions:(RQs): RQ1: What is the publication trend in the field of resource allocation? RQ2: Which countries have contributed the most towards resource allocation research? RQ3: Which are the most active journals involving resource allocation research? RQ4: Who are the prominent authors in the field of resource allocation? RQ5: Which are the eminent articles in the field of resource allocation? RQ6: What is the state of thematic coherence and cognitive analogy in the resource allocation literature?

2 Literature Review

Resource allocation shapes firms' capabilities and performance over time. Success depends not just on having resources, but on using them effectively, assigning them appropriately, and allocating them wisely (Lovallo et al., 2020). There is evidence of distinctive competencies created through resource deployments to research and development (R&D) and advertising leading to superior firm performance (Kor & Mahoney, 2005; Chen & Hsu, 2010; Sridhar et al., 2014) and enhancing survival prospects (Esteve-Perez & Manez-Castillejo, 2008). Building on a dynamic capabilities perspective, Kor & Mahoney (2005) show how the dynamics of resource deployments to R&D and marketing influence firm-level economic performance. Building innovation, marketing, human capital, and operational capabilities through periodical deployments of resources towards R&D, advertisement, personnel, and inventories has strategic implications (Hsu & Wang, 2012). "No single theoretical perspective can capture the complexities of resource allocation." (Maritan & Lee, 2017). Several theories, namely RBV, Dynamic Capabilities View, Knowledge-Based View, and Organizational Adaptive Learning Theory provide theoretical support for the dynamic relationships between resource allocation and firm performance. RBV emphasises firm-specific resources as a source of economic rent creation (Penrose, 1959; Wernerfelt, 1984; Barney, 1986). The Dynamic Capabilities View attempts to bridge the gap between the firm's resources and the dynamic business environment left out by the RBV (Teece et al., 1997). RBV, being static, focuses on the stock of resources, while the dynamic capabilities perspective emphasises the flow and development of capabilities by investing resources over time (Machado, 2001; Winter, 2003). Emerging from RBV (Conner, 1991), the knowledge-based view recognises knowledge as a specific resource having important strategic implications (Grant, 1996a; Grant, 1996b). The knowledge of 'how much to spend' and the performance implications of the spending decisions is an important strategic resource. The organisational adaptive learning theory states that present actions and decisions are based on learning from the past (Hult, 1998), and these decisions are intended to improve the actions being taken and are strategically relevant (Conner, 1991).

3 Methodology

Bibliometric analysis is gaining prominence in business research (Donthu et al., 2021, Kumar and Yadav, 2023) due to its ability to assess research quality and productivity. It involves various methods to analyze publications and identify research gaps. Data were extracted from the Scopus database on December 28, 2020, without setting specific time constraints. Scopus is a compendious abstract and citation database, including more than 36000 journals (Rech & Almeida, 2020). it is providing coverage of extensive research realms. The choice of the Scopus database is entrenched for the following reasons: (a) the author names and sequences are more congruous in Scopus as compared to other prominent databases like Web of Science (WOS) and Google Scholar (Adriaanse & Rensleigh, 2013);(b) The number of journals indexed in Scopus is larger than its counterpart WOS (Singh et al., 2021) (c) Keyword search limit in Scopus is 30 as compared to 15 in WOS and (d) Citation analysis in Scopus entails larger number of articles than WOS (Falagas et al., 2008).

Search criteria: No specific range of time was set. The following search query was used to extract the relevant documents: TITLE-ABS-KEY ("Resource allocation" OR "resource deployment" OR "allocation of resources") AND ("resource-based view") A similar search equation was run by using "RBV" and "RBT" in place of "resource-based view." The keywords used in the search equation were identified after conducting a considerable review of studies on resource allocation.

Screening and Selection criteria: The results of all possible keyword searches were combined, resulting in a total of 1467 documents out of some selected articles chosen for final analysis after a systematic filtering process. Following Page et al. (2021), the detailed screening criteria used for final selection are shown in Fig. 1.

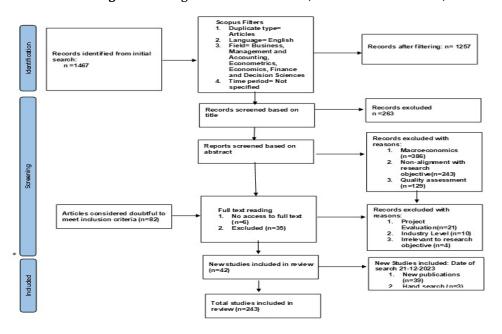


Fig. 1. Screening and selection criteria (source: Own elaboration).

The original searches were made without setting any time criteria, but the oldest paper's year of publication was 1990. Ultimately, the time range was limited to 1990–2023. The analysis was done using VosViewer 1.6.15 and MS Excel 2019.

4 Results and Analysis

In this section, the various results yielded by applying different bibliometric techniques are discussed. This section is further categorised into different subsections, each depicting specific results.

4.1 Growth trend

The number of publications per year indicates a growing trend in resource allocation research, particularly since 2004. The surge in resource allocation research, driven by factors like dynamic capabilities and crises, underscores its critical importance. Peaks coinciding with events like the global financial crisis and COVID-19 highlight its relevance in turbulent times. Special initiatives and calls for issues demonstrate sustained interest, motivating emerging researchers to contribute.



Fig. 2. Year-wise publication of documents (Source: Own elaboration)

4.2 Country-wise distribution of publications

To answer RQ2 (Which countries have contributed the most towards resource allocation research?), a country-wise analysis of the number of publications is done. The United States leads in resource allocation research with 88 publications, reflecting its robust research ecosystem. The United Kingdom follows with 21 publications, leveraging its academic tradition. Taiwan, Canada, Spain, Australia, South Korea, Japan, and Hong Kong stand out for their research contributions. France, Germany, and China offer diverse perspectives. Other countries like Greece, India, Italy, the Netherlands, Singapore, and Switzerland also contribute meaningfully. Denmark and Thailand play modest yet noteworthy roles. Recognizing top and bottom contributors aids collaboration and project planning, addressing research gaps effectively.

4.3 Source-wise analysis

The journals which actively publish on the topic of resource allocation are identified to answer the RQ3 i.e. Which are the most active journals involving resource allocation research? While extracting the results only journals with a minimum of 3 articles were chosen for analysis. The Strategic Management Journal (SMJ) emerges as the foremost contributor to resource allocation research, showcasing the highest number of publications. The Strategic Management Journal (SMJ) and Management Science are the top contributors to resource allocation research due to their focused scopes. Other leading journals like the Journal of Marketing, Journal of Academy of Marketing Science, and Research Policy also prioritize R&D and marketing-related research. These findings help researchers select appropriate journals for publication. Additionally, the quality indicators for the top 15 cited journals are provided in Table 1.

| Source | No. of Documents | Country | F | RF | TC | HI | SJR | AR | Q | JIF | Inclusion in FT-50 list |
|---|---------------------|-------------|----|------|------|-----|------|----|----|--------|----------------------------|
| Strategic Management Journal | 15 | US | 15 | 14.7 | 4964 | 269 | 8.43 | Α | Q1 | 8.641 | Y |
| Management Science | 14 | US | 14 | 13.7 | 921 | 237 | 5.44 | Α | Q1 | 4.883 | Y |
| Journal of Marketing | 8 | US | 8 | 7.8 | 943 | 233 | 8.63 | Α | Q1 | 9.462 | Y |
| Journal of the Academy of Marketing Science | 7 | US | 7 | 6.9 | 384 | 159 | 5 | A | Q1 | 9.148 | Y |
| Management Decision | 6 | UK | 6 | 5.9 | 155 | 91 | 0.86 | В | Q1 | 4.957 | N |
| Research Policy | 5 | Netherlands | 6 | 5.9 | 475 | 224 | 3.25 | Α | Q1 | 8.110 | Y |
| International Journal of Operations and Production Management | 5 | UK | 5 | 4.9 | 161 | 129 | 2.19 | Α | Q1 | 6.629 | Ν |
| Journal of Business Research | 3 | Netherlands | 5 | 4.9 | 222 | 179 | 1.87 | Α | Q1 | 7.550 | N |
| Journal of Asia Business Studies | 3 | UK | 3 | 2.9 | 23 | 13 | 0.29 | С | Q2 | 3.180 | N |
| Journal of Management | 3 | US | 3 | 2.9 | 675 | 208 | 6.98 | Α | Q1 | 11.790 | Y |
| Journal of Management Studies | 3 | UK | 3 | 2.9 | 298 | 172 | 4.61 | Α | Q1 | 7.338 | Y |
| Journal of Marketing Research | 3 | US | 3 | 2.9 | 461 | 159 | 7.33 | Α | Q1 | 5.000 | Y |
| Journal of Operations Management | 3 | Netherlands | 3 | 2.9 | 286 | 181 | 3.96 | Α | Q1 | 6.970 | Y |
| Journal of Product Innovation Management | 3 | UK | 3 | 2.9 | 226 | 135 | 3.13 | Α | Q1 | 6.987 | Ν |
| Technology Analysis and Strategic Management | 3 | UK | 3 | 2.9 | 59 | 64 | 0.63 | В | Q2 | 2.874 | Ν |

Table 1: 15 top-cited journals (Source: Own elaboration)

(Note: F-Frequency, RF-Relative Frequency; TC- Total citations; HI- Hirsch-Index; SJR- SCImago Journal Rank; AR- ABDC Rank; QT-Quartile; JIF- Journal Impact Factor; FT- Financial Times; Y- Yes; N-No)

It is not advisable to gauge the quality of a journal through a single indicator (Halim & Khan, 2019). Therefore, a plethora of indicators are employed to evaluate the journals which publish actively on resource allocation. In this study, the top 15 cited journals are evaluated based on total citations, average citations, H-index, ABDC ranking, SCImago Journal Rank, quartile classification and JIF. As suggested by Fassin (2021), the inclusion or exclusion of journals in the FT-50 journals list is also checked. The research on resource allocation is published in good-quality journals as most of the journals fall either in Q1 or Q2.

4.4 Key and most productive authors

The RQ4 focuses on the identification of the most productive authors in terms of the number of documents published. The analysis spans a total of 442 authors identified across 243 publications. These authors represent a diverse global academic community, with affiliations spanning the UK, US, Canada, Israel, and Singapore. Their varied university affiliations highlight the rich academic environments contributing to their robust research output. Professors Kor, Y.Y., and Mahoney, J.T., stand out as prolific authors known for their research on strategy and resource allocation. Their nuanced approach contributes to their prominence. Knowledge of prolific authors enhances collaboration and research quality. Early-career

researchers can benefit from mentorship and preferred journal guides. Citation tracking informs about emerging trends and grant opportunities. This aids in expanding networks and refining research questions for greater impact.

4.5 Top cited articles

The identification of the most cited articles gives corroboration to the most influential work in the field. RQ5 aims to shed light on the articles that managed to impart influence in the field by getting high citation counts. Within the 243 articles subjected to analysis, a cumulative total of 14,246 citations were recorded over 33 years, resulting in an average of 58.62 citations per article. It becomes apparent that the temporal span of the top-cited articles extends from 1999 to 2010. Articles from 2022 or 2023 may have low citations but still hold an impact. Seven top-cited papers are from the Strategic Management Journal, vital for researchers. They inform literature reviews and research directions. Recognizing influential journals aids visibility. Staying updated and collaborating are crucial. Highly cited articles strengthen grants, often focusing on R&D and marketing, emphasizing SMJ's importance.

| Rank | Author(s) and Year | Title | TC | AC | Country | SS | KBR | HR | TM | RD | QU | TR | МКТ | IT | OP |
|------|--------------------------------|--|------|------|------------------------|----------------------------------|-----|----|----|----|----|----|-----|----|----|
| 1 | Machado, 2001 | Toward a synthesis of the resource-based and dynamic-capability views of rent creation | 1179 | 62.1 | USA | - | | | | | | | | | |
| 2 | Galunic & Rodan, 1998 | Resource recombinations in the firm: knowledge structures and the potential for Schumpeterian innovation | 763 | 34.7 | France | - | ~ | | | | | | | | |
| 3 | Hatch & Dyer, 2004 | Human capital and learning as a source of sustainable competitive advantage | 691 | 43.2 | US, Asia and Europe | 25 firms' managers | | ~ | | | | | | | |
| 4 | Castanias & Helfat, 1991 | Managerial Resources and Rents | 564 | 19.4 | US | - | | | ~ | | | | | | |
| 5 | Cho & Pucik, 2005 | Relationship between innovativeness, quality, growth, profitability, and market value | 446 | 29.7 | USA | Fortune 1000 cos | | | | ~ | ~ | | | | |
| 6 | Silverman, 1999 | Technological Resources and the Direction of Corporate Diversification: Toward an Integration of the Resource-Based View and Transaction Cost Economics | 370 | 17.6 | USA | 443 firms | | | | | | ~ | | | |
| 7 | Srinivasan & Hanssens, 2009 | Marketing and Firm Value: Metrics, Methods, Findings, and Future Directions | 331 | 30.1 | | - | | | | | | | ~ | | |
| 8 | Rubera & Kirca, 2012 | Firm Innovativeness and Its Performance Outcomes: A Meta-Analytic Review and Theoretical Integration | 308 | 38.5 | | - | | | | ~ | | | | | |
| 9 | Yam et al., 2004 | An audit of technological innovation capabilities in Chinese firms: some empirical findings in Beijing, China | 272 | 17 | China | 213 firms | | | | ~ | | | | | |
| 10 | Dutta et al., 2005 | Conceptualizing and measuring capabilities: methodology and empirical application | 270 | 18 | USA | 64 firms | | | | ~ | | | | | |
| 11 | Mithas et al., 2012 | Information Technology and Firm Profitability: Mechanisms and Empirical Evidence | 262 | 30.4 | USA | 452 firms | | | | ~ | | | ~ | ~ | |
| 12 | Kor & Mahoney, 2005 | How dynamics, management, and governance of resource deployments influence firm-level performance | 243 | 16.2 | USA | 60 firms | | | | ~ | | | ~ | | |
| 13 | Anand & Delios, 2002 | Absolute and relative resources as determinants of international acquisitions | 241 | 13.4 | USA | - | | | | ~ | | | ~ | | |
| 14 | Nath et al., 2010 | The impact of marketing capability, operations capability and diversification strategy on performance: A resource-based view | 226 | 22.6 | UK | 102 firms | | | | | | | ~ | | ~ |
| 15 | Joshi & Hanssens, 2010 | The Direct and Indirect Effects of Advertising Spending on Firm Value | 211 | 21.1 | USA | 9(5 -PC, 4 sporting goods) | | | | | | | ~ | | |

Table 2: Top 15 cited articles

Indicates that it is a review paper & - indicates that sample size could not be traced. Source: Compiled from various studies

Note: TC- Total Citations; AC- Average citations; SS- Sample size; KBR- Knowledge-based resources; HR- Human resources; TM- Top Management; RD- Research & Development; QU-Quality; TR- Technological resources; MKT- Marketing; IT- Information Technology; OP-Operations.

4.6 PageRank Analysis

PageRank, developed by Google for website ranking, is now used to assess academic prominence in scientific publications (Vanhala et al., 2020). Unlike raw citation counts, PageRank considers citation quality and ranks articles based on influential citations (Yates & Dixon, 2015). PageRank, created by Google's founders, ranks web pages by analyzing link structures. It assigns weights to links based on quality, with higher scores indicating greater importance. Table 3 displays the top 15 articles based on PageRank, revealing discrepancies with traditional citation analysis and emphasizing the limitations of relying solely on citation counts. For instance, the top-ranked article by PageRank, "Marketing and Firm Value: Metrics, Methods, Findings, and Future Directions" by Srinivasan & Hanssens (2009), ranks 7th by citation count, highlighting the nuanced nature of academic influence. Researchers should recognize that prominence is not solely determined by raw citation counts, urging a more comprehensive evaluation. PageRank considers the quality and influence of citing articles, as demonstrated by examples like Joshi & Hanssens (2010) ranking 2nd despite a lower citation count. Notably, 7 out of 15 articles address advertisement spending, indicating a critical approach to assessing impact by considering both quantity and quality of citations. The majority of articles explore resource allocation for innovation and marketing capabilities. Castanias & Helfat (1991) examine the rent creation capability of managerial resources, while Lieberman & Dhawan (2005) study manufacturing capabilities, highlighting the multidimensional nature of research. In Table 3, local citations show network influence, while global citations indicate a broader impact. Qualitative aspects alongside raw counts are crucial for assessing impact. Diverse research themes underscore the multifaceted nature of studies. PageRank analysis adds nuance to academic influence.

| Rank | Author(s) & Year | Page Rank | Local citations | Global citations |
|------|-------------------------------------|-------------|-----------------|-------------------------|
| 1 | Srinivasan & Hanssens (2009) | 0.016021 | 17 | 331 |
| 2 | Joshi & Hanssens (2010) | 0.015138 | 22 | 211 |
| 3 | Luo & Jong (2012) | 0.008348 | 10 | 48 |
| 4 | Morgan et al. (2009) | 0.005316 | 2 | 184 |
| 5 | Srinivasan et al. (2009) | 0.006586 | 14 | 206 |
| 6 | Eng & Keh (2007) | 0.004639 | 7 | 36 |
| 7 | Sridhar et al. (2014) | 0.005171 | 6 | 36 |
| 8 | Castanias & Helfat (1991) | 0.003911 | 6 | 564 |
| 9 | Machado (2001) | 0.001705851 | 9 | 1179 |
| 10 | Kim & Mcalister (2011) | 0.004408 | 5 | 48 |
| 11 | Lieberman & <u>Dhawan</u> (2005) | 0.001431 | 0 | 73 |
| 12 | Kor & Mahoney (2005) | 0.002309 | 0 | 186 |
| 13 | Rumyantsev & Netessine (2007) | 0.001128 | 5 | 98 |
| 14 | Al-Horani et al. (2003) | 0.000975 | 3 | 57 |
| 15 | Ali Shah & Akbar (2008) | 0.000863 | 6 | 40 |

4.7 Co-citation analysis

Co-citation analysis unveils the coherence of literature by examining how often articles or authors are cited together, revealing commonalities and specialities. It's a recognized method to discern the intellectual structure in a field. The analysis, with a minimum citation threshold of 3, included 191 articles. Two major clusters emerged: one (red) focuses on prominent theories, including seminal works by Wernerfelt (1984), Mahoney & Pandian (1992), Teece et al. (1997), and Amit & Schoemaker (1993). The green cluster explores the empirical relationship between spending and performance, with a sub-theme on accounting valuation and amortization of R&D and advertisement expenditures.

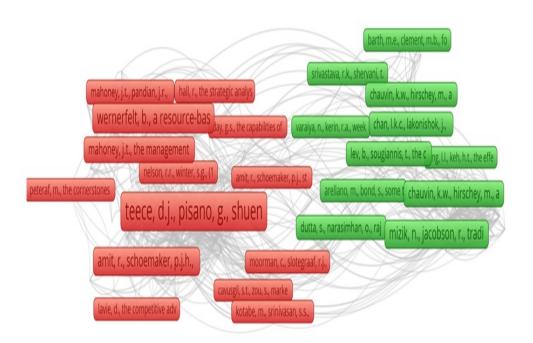
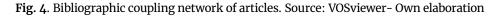
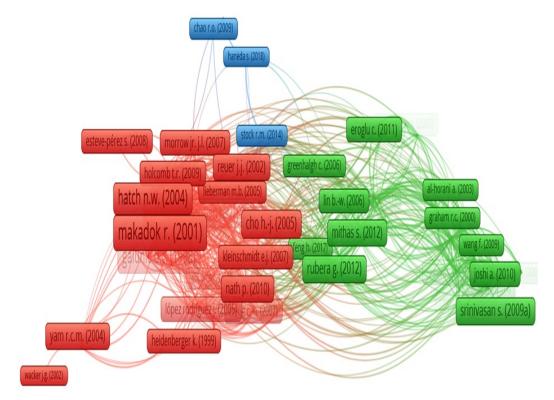


Fig. 3. Articles' co-citation map. Source: VOSviewer- Own elaboration

4.8 Bibliographic coupling

Bibliographic coupling, akin to co-citation analysis, reveals thematic coherence by identifying documents that share common references. It's considered more accurate than citation-based networks. Used alongside co-citation analysis, it addresses RQ9 by examining thematic coherence and cognitive analogy in the literature. With a minimum citation threshold of 20, 96 articles were analyzed.





As Fig. 4 suggests, the bibliographic coupling map resulted in three major clusters. The 1st cluster (red) has 56 items that focus primarily on conceptual and theoretical aspects of resource allocation, while the 2nd major cluster, which is green in colour, has 36 items in its gamut that deal with empirical research on resource allocation. The third cluster is not very prominent, having only 4 articles that deal with resource allocation to innovation and human capital.

5 Directions for future research

The extent of progress on the topic of resource allocation can be well understood from the analysis. It is picking up and demands further work. A plethora of drawbacks involving resource allocation research are identified, with subsequent sub-sections addressing both the gaps and the directions for future research.

5.1 Expanding the horizon of resource allocation research beyond innovation and marketing emphasis

: Existing literature mainly focuses on resource allocation to R&D and marketing (Erickson & Jacobson, 1992; Kor & Mahoney, 2005; Belderbos et al., 2021; Sharma & Romero, 2022; Semenov & Randrianasolo, 2022; Lyroudi & Chatzigagios, 2022; Mahajan et al., 2022; Son & Zo, 2023; Akorede, 2023; Hu et al., 2023). Future research on resource allocation should expand beyond the emphasis on innovation and marketing. Exploring diverse resources beyond R&D and advertising is crucial for competitiveness. Comprehensive analyses, interdisciplinary insights, and strategic frameworks are needed. Balancing strategies and offering practical implications are essential. Future research should explore resource allocation beyond innovation and marketing to enrich organizational strategy.

5.2 Need to shift the focus on non-financial resource allocation

There is a sheer dearth of empirical research on the allocation of non-financial resources as the literature has focused primarily on financial resources (Chen & Hsu, 2010; Mahajan et al., 2020; Paula and Silva Rocha, 2021; Prakash et al., 2021; Rauf et al., 2023; Fontanari, 2023). Future research should address the gap in empirical studies by shifting focus from financial to comprehensive nonfinancial resource allocation, enhancing understanding of organizational resource management. Researchers should explore integrating financial and nonfinancial resource allocation, examining synergies and trade-offs, and investigating nonfinancial resource allocation's impact on performance. Comparative studies and interdisciplinary approaches will provide nuanced insights into nonfinancial resource dynamics.

5.3 Lack of research on antecedents of resource allocation decision

The question of how managers arrive at the complex decision of resource allocation has remained unaddressed. The performance consequences of resource allocation are extensively studied, while the antecedents of resource allocation have been overlooked (Neves and Branco, 2020; Nguyen & Feng, 2021; Semenov & Randrianasolo, 2023). Future research should prioritize unravelling the often-overlooked antecedents of resource allocation decisions (Boiko, 2022). Future research should empirically analyze organizational culture, leadership styles, and contextual elements influencing resource allocation. Researchers should develop theoretical models addressing these antecedents to understand decision-making dynamics. Bridging the gap between theory and practice is vital, offering actionable insights for decision-makers to optimize resource allocation strategies.

5.4 Lack of specific focus on resource allocation

: Resource allocation is not the primary focus but is explored in a broad context by various authors (Mariadoss et al., 2014; Yuan & Nishant, 2021; Liu et al., 2022; Matricano & Castadi, 2023; Zane et al., 2023; Mahadin et al., 2023). Future research should prioritize making resource allocation a central theme in strategic management studies, conducting in-depth studies and integrating discussions into the core discourse. Bridging the gap between theory and practice is crucial for providing actionable guidance.

5.5 Balanced Emphasis on Performance Metrics

: Within the realm of resource allocation research, which delves into the effects of resource distribution on firm performance, a predominant focus has been on evaluating its impact on financial performance metrics. (Chen & Hsu, 2010; Rubera & Kirca, 2012; Arjun et al., 2021; Verma et al., 2022; Wang & Chen, 2022). Research on the impact of resource allocation decisions on stock market reactions is relatively limited. There is a need for more balanced attention to both financial and stock market dynamics. Additionally, studying the impact on non-financial outcomes would enhance our understanding of resource allocation strategies' implications on overall organizational performance. 5.6 Studies on the non-high-tech sector: The majority of empirical investigations have centred on resource allocation within the high-tech (Sridhar et al., 2014; Zhu et al., 2018), pharmaceutical (Mahajan et al., 2020; Chen et al., 2021; Schramm et al., 2022), and semiconductor (Lou et al., 2009; Shin et al., 2017) sectors. In contrast, there has been a comparatively limited focus on traditional sectors. While a few studies

have explored resource allocation in traditional industries like textiles (Christoffersen, 2002; Eusebio et al., 2007), there exists a necessity to extend this examination to these sectors. Also, the existing research has mainly examined the issue in a single-industry context or comparisons between two industries. Valuable insights can be gained through a comparative analysis, considering industry adjustments (Ciftci et al., 2011). Additionally, exploring the dynamics of resource allocation in the service sector, often overlooked in research, can provide enriching insights, given the predominant focus on the manufacturing sector in existing studies (Kim, 2018; Opoku–Mensah et al., 2021).

5.6 International Perspectives on Resource Allocation

: The significance ascribed to resource allocation to strategic functions like R&D varies globally, influenced by factors such as government initiatives, tax incentives, and differing accounting regulations. Notably, countries like the UK adhere to SSAP-13, a system distinct from both US-GAAP and IAS-38. To deepen the scope of research, there is a call for studies to engage in cross-country comparisons, acknowledging disparities in elements like intellectual property rights, and legal and financial systems, as exemplified by Pindado et al. (2015). Comparative analyses between economies and innovation leaders offer insights into resource allocation and R&D outcomes. Exploring R&D practices in different countries can deepen understanding. 5.8 Pre and post-pandemic comparison: The existing body of literature has delved into the impact of economic crises, with notable studies such as those conducted by Srinivasan et al. (2011) and Park et al. (2019). These studies specifically investigate how economic downturns and recessions moderate the relationship between resource allocation strategies and firm performance. An unexplored area for future research could be the examination of managers' responses towards resource allocation in the aftermath of the pandemic and the subsequent effects on overall firm performance.

5.7 Elevating Small and Medium Enterprises (SMEs) Research Focus

: Research on resource allocation in SMEs is lacking despite their crucial role in the economy (Zhang et al., 2022). Understanding the implications of strategic resource allocation for these firms is essential for managers and policymakers alike. Such research can provide insights into the benefits of effective resource allocation and guide policymakers in designing tailored incentives for SMEs. While there are existing studies in the literature from 2000 onwards that have examined small firms (Booltink and Saka-Helmhout, 2018; Sinha et al., 2021; Zahoor et al., 2023), there exists a distinct need for a more extensive exploration of this sector. Conducting a comparative analysis between large and small firms within the context of resource allocation research holds the promise of generating valuable insights that can inform optimal resource management strategies across diverse business scales.

6 Conclusions

In conclusion, this study offers a comprehensive bibliometric analysis spanning thirty-three years (1990–2023), revealing the evolution of research on resource allocation. It identifies distinct stages of growth and highlights the US as the leading contributor, with SMJ and Management Science being the most prolific journals. Professor Kor, YY., and Professor Mahoney, J.T., emerge as notable contributors. Page rank analysis reveals inconsistencies with citation analysis, underscoring instances where low-cited articles hold high prestige. Co-citation and bibliographic coupling analyses unveil two clusters-one theoretical and the other empirical-related to resource allocation. Keyword analysis highlights recurring themes, including resource-based views, advertising, and innovation. Collaboration across countries is prominent, with the United States serving as a central hub. The co-authorship network suggests an endogamic pattern in academic alliances, suggesting the need for broader collaborative efforts within the research community. A key limitation of the study stems from relying solely on the Scopus database, which may miss important publications and journals, limiting the scope of analysis. Additionally, citation-based techniques may not fully capture the context of citations, and a high citation count doesn't always indicate quality. Generalizing results should be cautious due to threshold dependence. Future research could enhance analysis by including data from additional databases like Web of Science and Google Scholar for comparison.

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