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The state of the art of strategic leadership

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ABSTRACT

Strategic leadership is a rich yet fragmented area of research. To address this gap, this article aims to consolidate and provide a state-of-the-art overview of strategic leadership research. To achieve its aim, this article conducts a bibliometric-temporal analysis of strategic leadership using bibliometric data of relevant literature available through Scopus, the largest scientific database for review endeavors. Using 6024 documents of strategic leadership research identified and retrieved from Scopus, this article reveals the performance (e.g., year, article, journal, author, country) and science (e.g., topics, themes) of strategic leadership research across four decades. Noteworthily, strategic leadership is inherently grounded in digital transformation, innovation, and the upper echelons, with a growing footprint that spans across basic management and organizational activities; competitive advantage capabilities and strategies; the multiple roles of managers; the leadership, innovative, and strategic functions of management and upper echelons, including those specific to top management teams; the strategic leader; strategic choices; strategic teams; as well as strategic succession. More importantly, the review herein this article, to the best knowledge of the authors, represents the largest consolidation effort and review of strategic leadership research using scientific methods adopted from information science in the form of a bibliometric-temporal analysis, and thus, providing a state of the art of strategic leadership.

1. Introduction

Strategic leadership, in its simplest form, is leadership that manifests at the highest level of an organization, which includes the board of directors (BOD) and the members of the top management team (TMT), such as the c-suite (e.g., chief executive officer [CEO], chief financial officer [CFO], chief information officer [CIO], chief marketing officer [CMO], chief operating officer [COO], and chief sustainability officer [CSO]) as well as general managers (GMs) and leaders of strategic business units (SBUs). Yet, many complex definitions of strategic leadership exist (Boal & Hooijberg, 2000; Cannella et al., 2009; Rowe, 2001; Thompson, 1967; Vera & Crossan, 2004). The recent article by Samimi et al. (2022, p.3) shed light on such definitions, recognized the need to consolidate the complex definition that refers strategic leadership, and proposed an encompassing definition that refers strategic leadership as "the functions performed by individuals at the top levels of an organization that are

intended to have strategic consequences for the organization," wherein such functions include "making strategic decisions, engaging with external stakeholders, performing human resource management activities, motivating and influencing, managing information, overseeing operations and administration, managing social and ethical issues, and managing conflicting demands." When this definition is taken together with the range of leadership styles and values that may characterize strategic leaders (Carter & Greer, 2013), strategic leadership can be comprehensively described as leadership that is focused on strategic consequences (e.g., economic, environmental, social) for organizations (e.g., multinationals, small and medium enterprises), which can be driven by tasks that include but transcend beyond strategic visioning, encapsulating a wide range of high-level administrative (governance), engagement, innovation (improvement), operational, and supervisory tasks for an organization without being confined to any leadership style (e.g., authentic, autocratic, bureaucratic, democratic, transactional, transformational, servant) or value

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(e.g., self-regarding, other-regarding).

A plethora of studies on strategic leadership exist. Yet, strategic leadership, as a management concept and an area of study, has arguably gained significant attention only after the introduction of the upper echelon theory into the management literature by Hambrick and Mason (1984), who championed the idea that organizational outcomes are a reflection of top executive's managerial characteristics. Indeed, many studies have shown that top executive's background, past experiences, personality, and values can influence strategic decision making and therefore organizational outcomes (Cannella et al., 2009; Daily et al., 2002; Samimi et al., 2022; Shao, 2019). The revisit of the upper echelon theory 20 years later by Carpenter et al. (2004) has also contributed to the growing prominence of strategic leadership in modern-day management literature, which can be seen through ensuing reviews of the concept (Popli et al., 2022). Specifically, existing reviews of strategic leadership have shed light on strategic leadership at the individual (Busenbark et al., 2016) and team (Bromiley & Rau, 2016) level, including at the interface of CEO and BOD as well as CEO and TMT (Georgakakis et al., 2019; Simsek et al., 2018). Such reviews have offered valuable inputs to future scholars as they have highlighted various issues such as the incoherence in research pertaining to the CEO and his or her effect on organizational outcomes (Bromiley & Rau, 2016), the integration of different motivational perspectives of top executives viz-a-viz financial- and self-interest (Wowak et al., 2017), and the need to explore top executive behavior across different levels of an organization (Liu et al., 2018). Other reviews have looked at strategic leadership broadly (e.g., assessing strategic leadership in organizations; Fernandes et al., 2022; upper echelons theory; White & Borgholthaus, 2022) or specifically (e.g., strategic leadership and innovation; Cortes & Herrmann, 2021; strategic leadership and technological innovation; Kurzhals et al., 2020).

Nevertheless, several limitations exist with respect to past reviews. First, the range of journals considered in existing reviews on strategic leadership is often limited to top-tier journals (e.g., Day, 2000; Samimi et al., 2022), and thus, such reviews could have excluded relevant studies from emerging high-quality journals, thereby limiting the reviews' representativeness of the field (Donthu, Kumar, Sureka et al., 2022; Varma, Kumar, Lim et al., 2022) (1st gap: limited source coverage). Second, the selection of articles in existing reviews is often limited to overly stringent criteria, wherein only a small corpus of articles is curated for review (e.g., 517 articles in Fernandes et al. (2022) and 811 articles in White and Borgholthaus (2022) as opposed to the 6024 articles identified and studied in the present review), implying that past reviews have not considered the field in its entirety (Vogel et al., 2020) (2nd gap: limited article coverage). Third, the perspective imposed in existing reviews can lead to genuine but nonetheless limited insights into strategic leadership (e.g., limited to innovation (Cortes & Herrmann, 2021) and technological innovation (Kurzhals et al., 2020) perspectives only), and thus, such reviews can shed light only on a segment rather than the entire state of the field (Zhao & Li, 2019) (3rd gap: limited content coverage). Fourth, the temporal outlook in mapping the progress of strategic leadership research is another shortcoming observed in existing reviews (e.g., Samimi et al., 2022; White & Borgholthaus, 2022), and thus, such reviews fail to explain the evolution and importance of topics and themes pertaining to strategic leadership across different time span (Fernandes et al., 2022) (4th gap: limited temporal coverage). Finally, though strategic leadership has been subjected to bibliometric reviews recently, the insights that were derived from such reviews were less rigorous (e.g., absence of triangulation) than the present review (e.g., presence of triangulation) (5th gap: absence of triangulation). They also remain limited to either a static representation of major themes (i.e., White & Borgholthaus, 2022) or an evolutionary representation of strategic leadership perspectives (i.e., from reorganized to innovative, dynamic, transformational, creative, and performance strategic leadership) (i.e., Fernandes et al., 2022), which limit the breadth, depth, and temporality of the insights presented (6th gap:

non-dynamic presentation of findings).

Taken collectively, the shortcomings of past reviews highlight the gaps in evidential support and the limited understanding of the true extent of the scope and progress of strategic leadership research, indicating a need for a fresh review that can offer an encompassing and rigorous stock take of literature in the field (Lim, Kumar, & Ali, 2022; Snyder, 2019). Such a review is inarguably important to address the issues of (i) fragmented leadership insights, (ii) the piecemeal understanding of leadership development, and (iii) the lack of a constructive dialogue around the trajectory of leadership research (Vogel et al., 2020). Such a review is also relevant for (i) early career leadership scholars to acquire rapid insights into the field of strategic leadership, (ii) established leadership scholars to gain a comprehensive yet convenient update on the development of strategic leadership research, and (iii) industry practitioners in the upper echelons to obtain a directory of key expertise and expert insights on strategic leadership (Lim, Kumar, & Ali, 2022). With the continued proliferation of strategic leadership research, a review in this direction is also urgent to ensure that new research in the field is forged on an informed understanding of the state of the literature in terms of its scope and progress (Lim, Kumar, & Ali, 2022). More importantly, the current review on strategic leadership covers a total of 6024 relevant articles, which is about seven times more than one of the most comprehensive reviews in the field (i.e., 811 articles reviewed in White and Borgholthaus's (2022) review on upper echelons in strategic leadership), which highlights its originality in providing the greatest coverage and most representative insights from the largest-ever review of strategic leadership research.

To this end, this article aims to consolidate and provide a state-of-theart overview of strategic leadership research using a bibliometrictemporal analysis, and in doing so, broadening the insights shed through existing reviews with new insights emerging from a holistic review of available literature obtained from one of the largest highquality scientific databases (i.e., Scopus). In particular, a bibliometric analysis empowers the handling of a large corpus of articles (e.g., thousands) using quantitative techniques, whereas a temporal analysis segments bibliometric insight into timeframes so that the evolutionary peculiarities of the review corpus can be ascertained (Donthu et al., 2021). The timeframe for review is 40 years, starting from 1980 and ending in 2020, which is in tandem to the period ascribed to the upper echelon theory (Hambrick & Mason, 1984) and the latest complete year at the time of review. The scientific database relied upon in this review is Scopus, which comprises one of the largest collections of academic sources that have met stringent quality thresholds for indexing. Thus, in line with the convention of bibliometric reviews that typically involve performance analysis (RQ1-RQ3) and science mapping (RQ4-RQ6) of a given field (Donthu et al., 2021; Kraus et al., 2022; Lim, Kumar, & Ali, 2022; Mukherjee et al., 2022) and thus contributing novel insights into that field's (i) bibliometric structure (e.g., the productivity trend of the field's publication (RQ1) and major constituents such as journals (RQ2) and contributors (RQ3)) and (ii) intellectual structure (e.g., major themes characterizing research groups (RQ4), major themes contributed by current research (RQ5), and promising pathways for future research (RQ6)) (Bamel et al., 2021; Bresciani et al., 2021; Carayannis et al., 2021; Donthu, Kumar, Pandey et al., 2022; Lim, Rasul et al., 2022; Varma, Kumar, Sureka et al., 2022; Ranjbari et al., 2022; Secinaro et al., 2022; Thomas & Gupta, 2022), this article will shed light on the following research questions:

RQ1. What is the publication trend of strategic leadership research? **RQ2.** Which are the most prolific journals for strategic leadership research?

RQ3. Which are the most prolific contributors (author, country) of strategic leadership research?

RQ4. Which are the major research groups (expertise) for strategic leadership research?

RQ5. What are the major themes of strategic leadership research and how have they evolved over time?

RQ6. What are the promising avenues for future strategic leadership research?

This article *contributes* to strategic leadership along the frontiers of theory and practice.

From the theoretical frontier, this article advances theory by objectively revealing (i) the knowledge clusters (major themes) (1st contribution), and thus, clarifying (ii) the nomological networks of major themes (2nd contribution), (iii) the social processes (co-authorships) for knowledge development (3rd contribution), (iv) the knowledge trajectory (4th contribution), and (v) the opportunities for future research (5th contribution) for strategic leadership (Kraus et al., 2022; Mukherjee et al., 2022).

From the *practical frontier*, this article *advances practice* by objectively assessing and reporting (i) the productivity of strategic leadership research (*6th contribution*), thereby enabling (ii) the assertion of coverage claims (*7th contribution*), (iii) the identification of social dominance or hidden biases (*8th contribution*), (iv) the signaling of anomalies (*9th contribution*), and (v) the evaluation of relative performance (e.g., time period performance) (*10th contribution*) of research in this field (Kraus et al., 2022; Mukherjee et al., 2022).

The rest of the article is organized to explain its theoretical foundation, followed by its methodology, findings, and conclusions for future research.

2. Theoretical foundation

Strategic leadership was introduced in an article on "strategic choice" by Child (1972), who suggested that powerful individuals make strategic decisions based on the strategic choices that are available to them at a particular point in time, and that such decisions can impact myriad aspects of the organization, such as its goals and structure. Yet, the article did not spur any significant development on strategic leadership, which can be attributed to the lack of clarity on the "powerful individuals" who Child (1972) purported to have "strategic choice," and it was not until 12 years later that the upper echelons theory was introduced by Hambrick and Mason (1984) to rectify the issue. Specifically, the upper echelons theory connotes that top executives of the organization make strategic decisions, which is not limited to considerations pertaining to the strategic choices available to them but also their inherent managerial characteristics such as their cognition, experiences, and values that shape who they are and the leadership they bring to the organization. Indeed, the upper echelons theory paved the way for a new stream of management research focusing on top management leadership, wherein the peculiarities and relationships between the experiences and personalities of top executives and organizational outcomes are theorized (Gupta & Govindarajan, 1984; Samimi et al., 2022).

Most top management leadership is headed by a CEO, who is responsible for making strategic decisions and managing the overall operations and resources of the entire organization rather than a single unit in that organization. Though early research on strategic leadership concentrated on the CEO (Quigley & Hambrick, 2015), recent studies have quickly expanded and transitioned from an individual to a team view of the upper echelons of top executives, thereby paving the way for strategic leadership investigations focusing on teams such as the BODs and the members of TMTs (Georgakakis et al., 2017; Luciano et al., 2020; Ma & Seidl, 2018). In most studies, strategic leadership is examined in terms of leadership behavior (Elenkov & Manev, 2005; Shao, 2019), perspective (Åberg & Shen, 2020; Chen, 2020), and style (Jansen et al., 2009; Lin & McDonough III, 2011) in conjunction with different economic, social, and technological aspects (Chin et al., 2021; Hoffmann & Meusburger, 2018; Kurzhals et al., 2020) and its equivalent impact on organizational outcomes (Henderson et al., 2006; Singh et al., 2021),

whereas, in other studies, the complexities and tensions that entail in the strategic leadership of top executives, such the CEO, who is a member of both the BODs and the TMT, are explored (Georgakakis et al., 2019; Simsek et al., 2018). Strategic leadership research is immensely rich, as indicated by past reviews (Day, 2000; Samimi et al., 2022), though limitations pertaining to the range of journals, selection of articles, perspective, and temporal outlook remain, as mentioned previously, and thus warrants a fresh review that overcomes the shortcomings to provide a more representative view of the field (Lim, Kumar, & Ali, 2022; Snyder, 2019).

3. Methodology

The bibliometric methodology, which involves the use of quantitative tools to analyze bibliometric data (Pritchard, 1969), was adopted to explore the nuances of strategic leadership research. The methodology, which originated from information science but is widely applied in business disciplines (e.g., management) today, is suitable for reviewing literature in fields with a large corpus of articles (e.g., thousands) (Donthu et al., 2021; Lim, Kumar, & Ali, 2022; Mukherjee et al., 2022). The four-step approach for bibliometric reviews—i.e., defining the aims and scope for study, choosing the techniques for analysis, collecting the data for analysis, and conducting the analysis and reporting the findings—recommended by Donthu et al. (2021) guides the procedures and the selection of analysis techniques for the present review (Fig. 1).

3.1. Defining the aims and scope for study

The present study aims to explore the nuances of strategic leadership, wherein the bibliometric and intellectual structure of its research is unpacked and scrutinized. The bibliometric structure encapsulates the publication trends according to years, articles, journals, authors, and countries, whereas the intellectual structure pertains to the major topics and themes characterizing strategic leadership research, including its temporal evolution over significant time periods (e.g., decades). The scope of study is relatively large, as strategic leadership is a form of leadership that manifest across all organizations and that has been researched for over four decades since the introduction of the upper echelons theory by Hambrick and Mason (1984).

3.2. Choosing the techniques for analysis

The present study employs a combination of bibliometric and temporal analysis techniques to map the bibliometric and intellectual structure of the literature (Donthu et al., 2021; Mukherjee et al., 2022) on strategic leadership. In particular, the study carries out a bibliometric analysis using a performance analysis that focuses on publications (e.g., first-, multi-, and single-authored publications, total publications) and a science mapping involving co-authorship analysis, historiographic mapping, cluster correspondence analysis, and thematic mapping in conjunction with a decade-wise temporal analysis (Donthu et al., 2021; Kraus et al., 2022; Krishen et al., 2021; Mukherjee et al., 2022).

3.3. Collecting the data for analysis

The present study collects its data for review using Scopus, which is a scientific database that comprises one of the largest collections of academic sources that have met a set of stringent criteria (e.g., ethics and malpractice statement, minimum of two-year publication history, ownership, peer review) for indexation (Donthu et al., 2021). Scopus is also chosen over its compatriots such as the Web of Science as the former hosts a larger collection of academic sources as compared to the latter (Paul et al., 2021). Specifically, the search strategy consists of a single keyword—i.e., "strategic leadership"—searched in the "article title, abstract, and keywords" in line with the recommendation of Lim et al. (2021) for review domains that are broad and generic enough to warrant



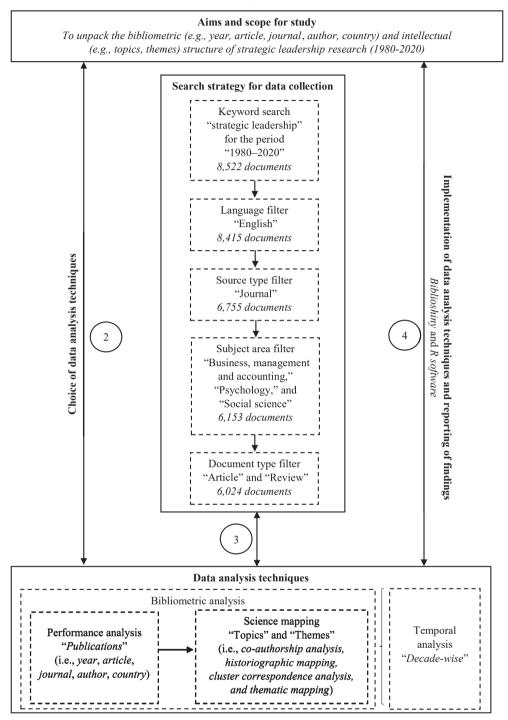


Fig. 1. The review procedure.

the use of a single keyword. The search period is confined to the period between 1980 and 2020, which represents the decade where strategic leadership began and the latest complete year available at the time of review, respectively. The initial search using this search keyword and period returned a result of 8522 documents, and following that, additional filters (i.e., document type = article and review, as they are peerreviewed unlike editorial and note; language = English, as the world's lingua franca of scientific knowledge; source = journal, due to its exploratory rather than explanatory focus as well as its higher-level of

rigor in peer review unlike book and conference proceeding; subject area = "business, management, and accounting," "psychology," and "social science," due to their relevance to the review domain of strategic leadership) were applied on a pragmatic basis in line with Kraus et al. (2022), resulting in a final result of 6024 documents (Table 1).

3.4. Conducting the analysis and reporting the findings

The present study uses the Biblioshiny package and the R software to

Table 1Publication breakdown by article type in strategic leadership research (1980–2020).

Document type	Total (n)	Contribution (%)
Article	5611	91.19
Review	413	6.71
Conference	59	0.96
Note	29	0.47
Editorial	25	0.41
Undefined	16	0.26
Total	6153 (6024)	100 (97.90)

Note(s): Total documents in Scopus after language (English), source type (journal), and subject area ("business, management and accounting," "psychology," and "social science") filtration. Breakdown of articles and reviews according to research method and review type is not available in Scopus and manual coding of such a large corpus is counterproductive to the efficiency of bibliometric reviews, which is acknowledged as a limitation toward the end of this article. Figures in *italics* represent the documents that were included for review—the other documents were excluded as they did not meet the criteria for inclusion (e.g., scholarly peer reviewed research published in journals).

perform and report its bibliometric and temporal analysis, wherein Biblioshiny is installed and run in R to enable data importing and conversion for analytics generation and plotting for the performance analysis, science mapping, and temporal analysis (Kraus et al., 2022). The findings are reported in the next sections.

4. Findings

Findings from the review are presented based on the analysis that were conducted. In particular, the performance analysis unpacks the bibliometric structure in terms of publication activity by year, article, journal, author, and country, whereas the science mapping using coauthorship analysis, historiographic mapping, cluster correspondence analysis, and thematic mapping reveals the topics and themes underpinning the intellectual structure while the temporal analysis maps the science decade-wise in line with the recommendations of Donthu et al. (2021).

4.1. Bibliometric structure

The bibliometric structure concentrates on the documents published on strategic leadership. In particular, the bibliometric data of the documents published were retrieved from Scopus and presented according to year, article, journal, author, and country in the next sections.

4.1.1. Publication activity by year (RQ1)

The number of publications on strategic leadership is presented in Fig. 2. In total, 6024 documents on strategic leadership were published over the period of 40 years between 1980 and 2020. The first decade (1980–1990) of strategic leadership research remained relatively stagnant (single digit), whereas the second decade (1991–2000) grew slowly (double digits) before picking up (double to triple digits) in the third decade (2001–2010) and growing exponentially (low to high triple digits) in the fourth and most recent decade (2011–2020). Interestingly, most publications on strategic leadership have appeared in 2020 (673), which is the year implicated by the coronavirus disease 2019 (COVID-19), indicating that the unprecedented pandemic that shocked the entire world with global lockdowns was no barrier to strategic leadership research, and that such externalities presented a novel ground for studying strategic leadership.

4.1.2. Publication activity by article (RQ1)

The number of publications on strategic leadership that are available in Scopus between 1980 and 2020 after language (English), source type (journal), and subject area ("business, management and accounting," "psychology," and "social science") filtration was 6153 documents. However, only articles and reviews were included as they were the documents that typically receive peer review in journals, which is in line with the recommendations of Donthu et al. (2021). Of the 97.90 % (or 6024) documents included for review, 91.19 % (or 5611) are articles (i. e., conceptual, empirical—e.g., quantitative, qualitative, mix methods) while 6.71 % or (413) are reviews (e.g., bibliometric, critical, systematic). The large number of articles and equivalent reviews indicates that strategic leadership is a mature research field.

4.1.3. Publication activity by journal (RQ2)

The top 10 journals in terms of the number of documents on strategic leadership published between 1980 and 2020 are presented in Table 2. In total, the top 10 journals by publication activity contribute to 18.73% (or 1128) documents in the review corpus on strategic leadership. The

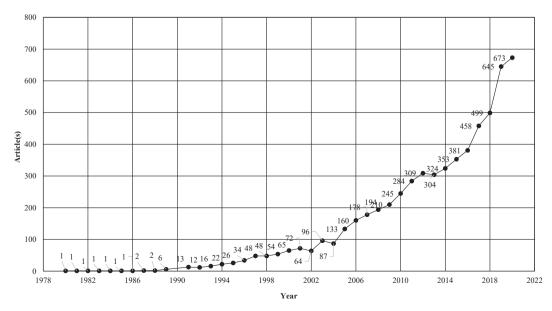


Fig. 2. Annual distribution of publications on strategic leadership (1980–2020).

Table 2Top 10 journals by publication activity on strategic leadership (1980–2020).

Journal	Articles (n)	Contribution (%)	Average IF	Top topics
Strategic Management Journal	194	3.22 %	6.69	BOD, CEO, Corporate governance, TMT, UE
The Leadership Quarterly	169	2.81 %	4.89	Firm performance, Innovation, Strategic leadership, Transformational leadership
Journal of Management	147	2.44 %	4.71	Agency theory, BOD, CEO, Leadership, Meta-analysis
Journal of Business Ethics	130	2.16 %	0.89	Business ethics, Corporate governance, CSR, Ethical leadership, Leadership
Academy of Management Journal	116	1.93 %	8.28	CEO, Firms, Management, Performance
Journal of Management Studies	89	1.48 %	3	Behavioural integration, Meta- analysis, TMT, Transformational leadership
Journal of Business Research	82	1.36 %	1.19	BOD, CEO tenure, Firm performance, Innovation, TMT
Management Decision	73	1.21 %	0.55	BOD, Decision making, Innovation, Leadership, Transformational leadership
Leadership and Organization Development Journal	71	1.18 %	0.41	Leadership development, Innovation, Senior management, Social capital, Transformational leadership
Sustainability	57	0.95 %	0.46	CSR, Firm performance, Leadership, Sustainability, TMT
Total	1128	18.73 %		

Note(s): Average IF = average annual impact factor for the period of 1999 to 2019 for the first nine journals and 2010 to 2019 for the 10th journal due to the commencement of impact factor assignment. BOD = board of director. CEO = chief executive officer. CSR = corporate social responsibility. $TMT = top\ management\ team.\ UE = upper\ echelon.$

top three journals that are most prolific in terms of strategic leadership publications are *Strategic Management Journal* (194), *The Leadership Quarterly* (169), and *Journal of Management* (147), and among the most prominent topics explored by the top journals in the field include BOD, CEO, corporate governance, firm performance, TMT, and transformational leadership, which correspond to the essence of strategic leadership (i.e., top level executives and organizational performance).

4.1.4. Publication activity by author (RQ3)

The most productive authors according to the number of publications against the number of active years of publication between 1980 and 2020 based on the "AuthorProdOverTime" function in the R software are presented in Table 3. The top three most productive authors on strategic leadership over the last 40 years identified through this function are James D. Westphal, Donald C. Hambrick, and David A. Waldman.

In contrast, the dominance of authors, which is a ratio that the R software calculates in its "dominance" function to indicate the fraction

of co-authored articles in which an author appears as the lead author, suggests that Ryan Krause and Yan Zhang are the most dominant authors in strategic leadership research as they appear most prominently as lead authors in the co-authored publications that they publish in the field. The rest of the top 10 authors based on this function are presented in Table 4

4.1.5. Publication activity by country (RQ3)

The most prolific countries based on author affiliation are presented in Fig. 3, wherein Panel A offers a regional perspective and Panel B provides a country-level perspective. In particular, the North America and Western Europe regions are most prolific in the West, whereas the Asia Pacific, Eastern Asia, Oceania, and Southern Asia regions appear to be most prolific in the East while Africa, Eastern Europe, Middle East, and South America regions are noticeably underexplored (Fig. 3 Panel A).

Above all, the United States emerged as the leading contributor of strategic leadership research, with 70 % (or 4239) documents in the corpus associated to authors affiliated with this country (Fig. 3 Panel B). The rest of the top 20 most prolific countries indicate a good mix of strategic leadership research originating from other parts of America (e. g., Canada), Asia (e.g., China, India, Malaysia, Indonesia, South Korea), Africa (e.g., South Africa), Europe (e.g., Germany, France, Italy, Spain), and Oceania (e.g., Australia).

4.2. Intellectual structure

The intellectual structure of a research domain is made up of topics and themes that manifest based on the structural relationships between the authors or documents in that domain, and in the case of the present study, strategic leadership research. In this study, the intellectual structure of strategic leadership is unpacked using co-authorship analysis, historiographic mapping, cluster correspondence analysis, and thematic mapping in conjunction with decade-wise temporal analysis, thereby resulting in a richer and more rigorous construction of that structure.

4.2.1. Co-authorships of research groups (RQ4)

The co-authorships, which reveal the co-citations among authors and thus the research groups that shape the intellectual structure, in strategic leadership are presented in Fig. 4.

The first decade (1980–1990) of strategic leadership is shaped by three research groups, namely the (blue) research group consisting of authors such as Andrews, Bourgeois, Gupta, Hall, Mintzberg, Pfeffer, and Wrapp who concentrated on managerial work and organizational structure, the (red) research group comprising authors such as Bartunek, Jaeger, Quinn, and Tichy who focused on strategic change, and the (green) research group containing authors such as Bower, Chandler, Hambrick, Hosmer, Kerr, Lorange, Miller, Robinson, and Szilagyi who paid attention to the upper echelons in an organization. Noteworthily, the major theme of this decade is managerial work and organizational structure, as indicated by the high intensity of citations garnered by the authors of the (blue) research group (e.g., Gupta, Mintzberg).

The second decade (1991–2000) of strategic leadership is shaped by two research groups, namely the (red) research group involving authors such as Child, Finkelstein, Gupta, Hambrick, Hitt, March, Miles, Miller, Mintzberg, Pfeffer, Porter, Smith, Thomas, Thompson, and Weick who concentrated on the *role of managers* and the control and power they wield in the organization, and the (blue) research group that includes authors such as Brown, Davis, Eisenhardt, Hill, and Johnson who focused on *agency and stewardship* in the organization. Here, the major theme of this decade is the *role of managers* in the organization, as indicated by the overwhelming citations received by authors of the (red) research group (e.g., Finkelstein, Hambrick, Pfeffer, Miller, Mintzberg, and Smith).

The third decade (2001-2010) of strategic leadership is shaped by

Table 3Top 20 authors based on publication productivity on strategic leadership (1980–2020).

Rank	1980–1990	1991–2000	2001–2010	2011-2020	1980-2020
1	Mintzberg H	Hitt MA	Westphal JD	Waldman DA	Westphal JD
2	Hambrick DC	Daily CN	Carmeli A	Hambrick DC	Hambrick DC
3	Huff AS	Dalton DR	Hambrick DC	Westphal JD	Waldman DA
4	Reger RK	Hoskisson RE	O'Regan N	Aguinis H	Hitt MA
5	Pearce II	Guthrie JP	Canella Jr AA	Krause R	Carmeli A
6	Robinson J	Hunt JG	Waldman DA	Liu Y	Zhang Y
7	Nachman SA	Johnson JL	Ghobadian A	Zhang Y	Wood G
8	Shrivastava P	McDaniel Jr RR	Kantabutra S	Boivie S	O'Regan N
9	Hosmer LT	Datta DK	Carpenter MA	Wood G	Chen G
10	Bensimon EM	Ellstrand AE	Datta DK	Calabr A	Hoskisson RE
11	Coate MB	Johnson RA	Hermann P	Chen G	Shen W
12	Slater SE	Smith KG	Ireland RD	Graffin SD	Aguinis H
13	Lyon J	Thomas AS	Nielson S	Gupta A	Datta DK
14	Martha B	Ashmos DP	Van Witteloostuijn A	Liu X	Ghobadian A
15	Tendam H	Boone C	Buchholtz AK	Moon J	Krause R
16	Norburn D	De Brabander B	Miller D	Patel PC	Liu Y
17	Shurz FD	Harrison EF	Certo ST	Carmeli A	Miller D
18	Pink AID	Huelmantel AB	Dalton DR	Chang YY	Svensson G
19	Sizer J	Lewin AY	Finkelstein S	Mezia LRG	Boivie S
20	Hemsley J	Nigh D	Hallinger P	Hill AD	Carpenter MA

Table 4Top 10 authors based on dominance on strategic leadership (1980–2020).

Rank	Author	Dominance	TA	SA	CA	LA
1	Krause R	0.62	14	1	13	8
2	Zhang Y	0.62	13	0	13	8
3	Hitt MA	0.56	17	1	16	9
4	Aguinis H	0.54	13	0	13	7
5	Gupta A	0.50	10	0	10	5
6	Hambrick DC	0.42	14	2	12	5
7	Westphal JD	0.33	14	2	12	4
8	Hoskisson RE	0.14	14	0	14	2
9	Gomez-Mejia L	0.10	10	0	10	1
10	Moon J	0.10	10	0	10	1

Note(s): TA = total articles. SA = sole-authored articles. CA = co-authored articles. LA = lead-authored articles.

three research groups, namely the (red) research group consisting of authors such as Carpenter, Cohen, Eisenhardt, Finkelstein, Hambrick, March, Miller, Mintzberg, Pfeffer, and Smith who concentrated on the function of management in the *upper echelons* of an organization, the (blue) research group containing authors such as Anderson, Barney, Bass, Brown, Hitt, and Porter who focused on *competitive advantage* and the resources to develop it, and the (green) research group comprising authors such as Daily, Jensen, Johnson, and Zahra who paid attention to *firm performance*. Noteworthily, the major theme of this decade is the *upper echelons*, as indicated by the high intensity of citations garnered by authors of the (red) research group (e.g., Finkelstein, Hambrick).

The fourth decade (2011–2020) of strategic leadership is shaped by two research groups, namely the (red) research group comprising authors such as Anderson, Baas, Brown, Chen, Cohen, Kim, Lee, Li, Podsakoff, Smith, Wang, and Zhang who concentrated on *competitive advantage*, and the (blue) research group consisting of authors such as Carpenter, Eisenhardt, Finkelstein, Hambrick, Jensen, Johnson, Miller, and Zahra who focused on *upper echelons*. Though Finkelstein and Hambrick remained as two of the most cited authors in this decade, the collective prominence of authors in the (blue) research group, including the emergence of new authors such as Chen, Li, and Wang who shed light on female board representation, innovation, and information technology capabilities, indicate that *competitive advantage* through digital transformation and women empowerment was the major theme of this decade.

4.2.2. Historiography of research pathways (RQ5)

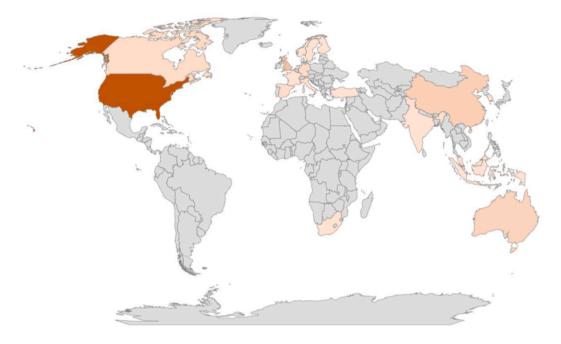
Building on the co-authorship analysis, a historiographic mapping of

documents is undertaken to shed light on the specific development of strategic leadership based on the chronology of primary (or important) documents that cite other primary documents (Garfield, 2004; Van Eck & Waltman, 2014). In particular, a historiography considers the relationships between primary documents citing other primary documents, wherein the existence of such relationships (links) indicates similarity between such primary documents, and thus, enabling the assertion of knowledge flow from a primary document of one year to another primary document of another year. In other words, the links formed between primary documents represent the evolution of important documents in the research domain over time. Here, each node in a historiography represents a primary document, whereas each link represents a direct citation between the citing primary document and the cited primary document. The nodes and links are plotted on a graph with the x-axis indicating the publication years and the evolution of documents over time.

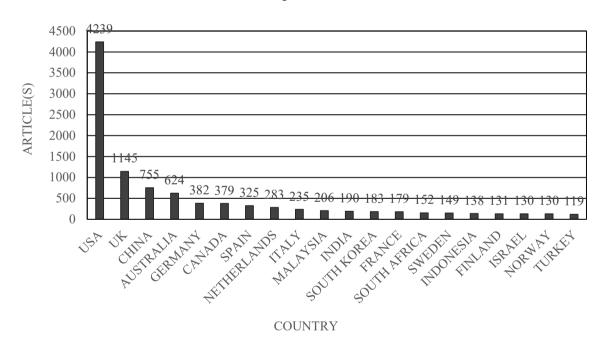
The historiography depicted in Fig. 5 illustrates the evolution of strategic leadership research. The major clusters of research in the historiography manifest in the fourth decade, which is unsurprising given that most (70 % or 4230) documents in the review corpus (n=6024) are published between 2011 and 2020. In particular, the evolution of strategic leadership research follows two pathways: the (blue) *innovation* pathway and the (red) *upper echelons and digital transformation* pathway.

The primary documents in the (blue) pathway indicate that strategic leadership pertaining to innovation began with research and development (R&D) spending for organizational innovation by Heyden et al. (2017), which diverged into two paths, one that dived into human capital innovation and corporate social responsibility (Reimer et al., 2018) and another that focused on CEO effects on product innovation (Back & Bausch, 2019).

The primary documents in the (red) pathway indicate that strategic leadership relating to upper echelons and digital transformation began with Johnson et al.'s (2013) article on board composition, demographics, and human and social capital, which informed Boivie et al.'s (2016) study on the barriers to effective board monitoring, resulting in a host of new research streams such as TMT international experience (Schmid et al., 2018), CEO advice seeking (Ma et al., 2020), and multi-team over agency or stewardship perspectives (Luciano et al., 2020) in strategic leadership. In contrast, the focus of Busenbark et al. (2016), which emerged at the same time as Boivie et al. (2016) but remained independent from Johnson et al. (2013), took a more individualistic approach to review existing studies on CEO aspects pertaining to demographic, personality, and role characteristics, which then created a stream of individual- rather than team-focused strategic



Panel A. Region-wise distribution



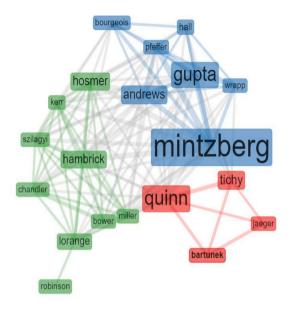
Panel B. Country-wise distribution

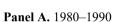
Fig. 3. Geographical distribution of publications on strategic leadership (1980–2020). Note(s): Panel A depicts a regional perspective, whereas Panel B illustrates a country-level perspective of strategic leadership research between 1980 and 2020. Panel A =the darker the region colored in orange, the higher the number of publications in that region. Panel B =top 20 countries ranked by the number of publications, wherein higher ranked countries are located toward the left. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

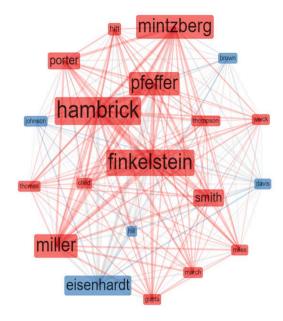
leadership research, such as top executive behavior (Wowak et al., 2017). Finally, a new research stream relating to the interfaces of strategic leaders emerged toward the end of the fourth decade (Simsek et al., 2018), which provoked two newer research streams, one pertaining to the role of top executives in digital transformation (Wrede et al., 2020) and the other relating to critiques of the upper echelon theory (Neely et al., 2020).

4.2.3. Cluster correspondence of decade-wise themes (RQ5)

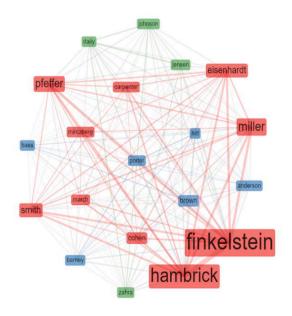
Building on the insights of prominent research groups and research pathways of strategic leadership research, this study conducts a cluster correspondence analysis using natural language processing (NLP) in conjunction with temporal analysis to uncover the decade-wise thematic clusters predicated on the co-occurrence of words in the titles and abstracts of 6024 documents in the review corpus, thereby shedding light on the themes of strategic leadership from an alternative perspective,



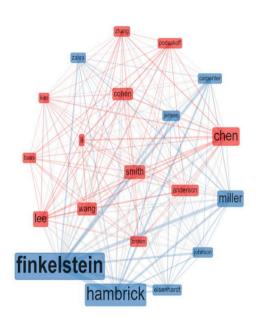




Panel B. 1991-2000



Panel C. 2001-2010



Panel D. 2011-2020

Fig. 4. Co-citations among authors of strategic leadership research (1980-2020).

and in this case, the review corpus perspective, and thus, extending the research group perspective derived from the co-authorship analysis and the primary documents perspective revealed from the historiographic mapping. The decade-wise thematic clusters emerging from this analysis are presented in Fig. 6.

The 17 publications in the first decade (1980–1990) of strategic leadership concentrate on three thematic clusters, namely the (blue) thematic cluster on *basic management activities* using traditional theories (e.g., Miles and Snow Business Strategy Typology, Information Systems Success Model) and methods (e.g., annual report methodology, survey research), the (green) thematic cluster on *strategic choices* (e.g., strategic decision models), and the (red) thematic cluster on *basic organizational*

activities (e.g., corporate design, global communication, management, information access, information technology, strategy). Noteworthily, the (blue and red) thematic clusters on basic management and organizational activities are most prominent, indicating that initial strategic leadership research focused on the foundational issues in management research before moving onto the emerging role of a strategic leader and the strategic decisions they make based on the strategic choices that are available.

The 338 publications in the second decade (1991–2000) of strategic leadership center on five thematic clusters, namely the (red) thematic cluster on the *role of managers* (e.g., corporate culture, corporate governance, decision making, downsizing, firm performance,

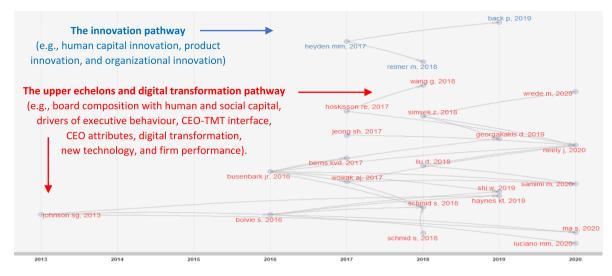


Fig. 5. Historiography of the most influential publications on strategic leadership.

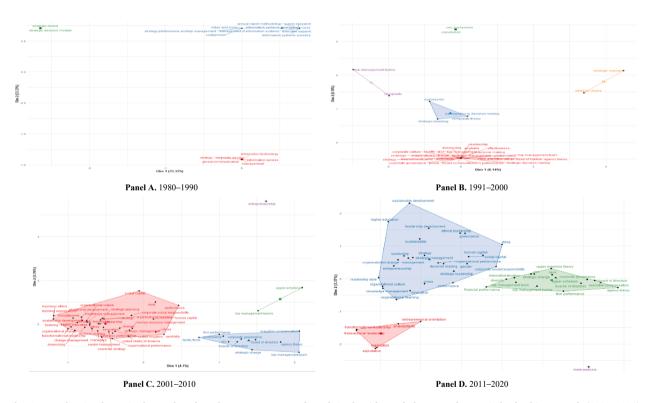


Fig. 6. Decade-wise thematic clusters based on the co-occurrences of words in the titles and abstracts of strategic leadership research (1980–2020).

internationalization, leadership, organizational change, power, strategic decision making, strategic management) in the upper echelons (e.g., board composition, top management team) across countries (e.g., Australia, USA), the (purple) thematic cluster on the *complexities* in the upper echelons (e.g., top management teams), the (orange) thematic cluster on *strategic choices* (e.g., strategic change), the (blue) thematic cluster on *strategic teams* (e.g., strategic planning, participation in decision making), and the (green) thematic cluster on *strategic succession* (e.g., CEO succession). Here, the (red) thematic cluster on the *role of managers* is most prominent, indicating a shift from basic management and organizational activities in the previous decade to the strategic leader in this decade alongside new perspectives of strategic leadership involving complexities, choices, teams, and succession.

The 1439 publications in the third decade (2001–2010) of strategic

leadership focus on four thematic clusters, namely the (red) thematic cluster on the *functions of management* (e.g., business ethics, business performance, change management, corporate social responsibility, corporate strategy, human capital, human resource management, knowledge management, learning organizations, organizational performance, strategic planning) across countries (e.g., Australia, China, United States of America), the (blue) thematic cluster on the *functions of upper echelons* (e.g., board of directors, CEO, corporate governance, family firms, governance, top management team), the (green) thematic cluster on the *upper echelons specific to top management teams*, and the (purple) thematic cluster on *entrepreneurship* among strategic leaders. Noteworthily, the (red, blue, and green) thematic clusters on the *functions of management and upper echelons* indicate a strong research focus on the main tenets of strategic leadership (i.e., top executives and

organization performance), thereby signaling that strategic leadership research has finally reached maturity in this decade.

The 4230 publications in the fourth decade (2011-2020) of strategic leadership give considerable attention to four thematic clusters, namely the (blue) thematic cluster on the functions of management (e.g., corporate social responsibility, entrepreneurship, human capital, knowledge management, organizational culture, organizational performance, strategic leadership, strategic management) across myriad perspectives (e. g., gender—e.g., women; emerging economies—e.g., China), the (green) thematic cluster on upper echelons (e.g., board of directors, top management teams), the (red) thematic cluster on competitive advantage (e. g., ambidexterity, entrepreneurial orientation, exploration, exploitation, transformational leadership), and the (purple) thematic cluster on metaanalysis. Though the (red and green) thematic clusters on the functions of management and upper echelons indicate that research focus on the main tenets of strategic leadership continues to remain strong in this decade, the noteworthy emergence of the (red) thematic cluster on competitive advantage is observed, which suggests that strategic leaders are on a mission to transform the organizations that they lead in order to withstand the changes and competition in the industry and marketplace within which their organizations operate. The emergence of *meta*-analvsis studies in this decade also signals a strong pursuit of generalizability and power in the intellectual structure among strategic leadership researchers.

4.2.4. Thematic mapping of thematic evolution in strategic leadership (RO5)

Building on the insights from the cluster correspondence of decadewise themes based on the co-occurrence of words in titles and abstracts,

this study performs a thematic mapping of the thematic evolution predicated on the co-occurrence of keywords in publications on strategic leadership, thereby enabling triangulation of insights herein this study. In particular, a thematic map visualizes the co-occurrence of keywords in clusters across four quadrants on the dimensions of centrality (i.e., thematic importance) and density (i.e., thematic development). Themes that appear in the upper right quadrant (I) with high centrality and density are known as "motor themes" that are important and well developed. In contrast, themes that appear in upper left quadrant (II) with high density but low centrality are known as "niche themes" that are well developed but remain isolated, whereas themes that appear in the lower left quadrant (III) with low centrality and density are known as "emerging themes" that are underdeveloped and have yet to command importance. Finally, themes that appear in the lower right quadrant (IV) with high centrality but low density are known as "promising themes" that are important but underdeveloped and thus hold the potential to transition into motor themes in the future. The thematic evolution based on thematic mapping is presented in Fig. 7.

The 17 publications in the first decade (1980–1990) of strategic leadership are spread across four themes, namely the (green) theme on the *strategic leader* (e.g., CEO, executive support), the (red) theme on *basic organizational activities* (e.g., corporate design, global communication, information access), the (blue) theme on *basic management activities* (e.g., coalignment in strategy performance and top management) using traditional theories (e.g., Miles and Snow Business Strategy Typology), and the (purple) theme on *strategic choices* (e.g., strategic decision models). Noteworthily, the (blue and red) themes on basic management and organizational activities are relatively dense and central, thereby reaffirming the initial findings of these startup themes

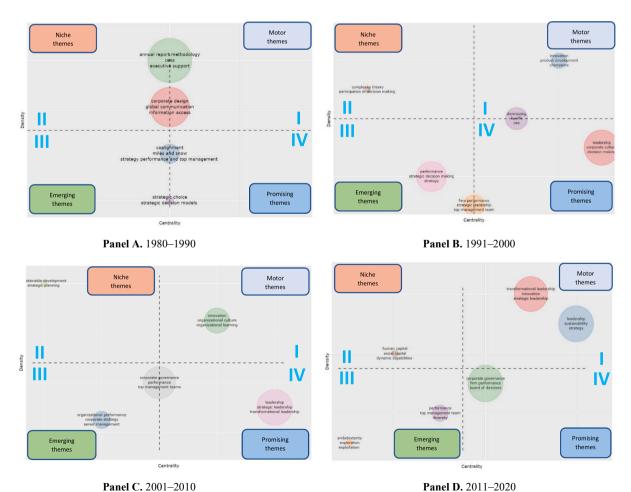


Fig. 7. Thematic evolution based on the co-occurrences of keywords in strategic leadership research (1980-2020).

from the cluster correspondence analysis.

The 338 publications in the second decade (1991-2000) of strategic leadership manifest across seven themes, namely the (blue) theme on the competitive role of managers (e.g., champions, product development), the (green) theme on the ethical role of managers (e.g., developmental and judgmental integrity capacity), the (brown) theme on complexities in managerial decision making (e.g., complexity theory, participation in decision making), the (purple) theme on the difficult role of managers (e. g., downsizing, layoffs), the (pink) theme on the strategic role of managers (e.g., performance, strategy, strategic decision making), the (orange) theme on the upper echelons in management (e.g., firm performance, strategic leadership, top management team), and the (red) theme on strategic succession (e.g., corporate culture, leadership). Here, it is clear that the major theme in this decade relates to the role of managers, though not all roles are equally developed. Specifically, the competitive and difficult roles that managers play are the motor themes, whereas the ethical capacities and complexities confronting managers are niche themes, the strategic role of managers and the upper echelons are emerging themes, and strategic succession in organizations is a promising theme in this decade. Thus, the detailed insights herein this thematic mapping enrich the findings pertaining to this decade from the cluster correspondence analysis.

The 1439 publications in the third decade (2001-2010) of strategic leadership are spread across five themes, namely the (dark green) theme on innovative functions of management (e.g., organizational culture, organizational learning, innovation), the (light green) theme on the strategic functions of management (e.g., strategic planning, sustainable development), the (blue) theme on upper echelons (e.g., corporate strategy, organizational performance, senior management), the (grey) theme on upper echelons specific to top management teams (e.g., corporate governance, performance, top management teams), and the (pink) theme on leadership functions of management (e.g., strategic leadership, transformational leadership). Noteworthily, it is clear that the major theme in this decade pertains to the functions of management, though not all functions are equally developed. Specifically, the innovative functions of management are a motor theme, whereas the strategic functions of management are a niche theme, the functions of upper echelons including that specific to top management themes are emerging themes, and the leadership functions of management is a promising theme in this decade. Indeed, the insights herein this thematic map adds greater detail into the decade-wise insights derived from the cluster correspondence analysis.

The 4230 publications in the fourth decade (2011–2020) of strategic leadership manifest across six themes, namely the (blue) theme on strategic functions of management (e.g., strategy, sustainability), the (red) theme on leadership functions of management (e.g., innovation, strategic, and transformational leadership), the (brown) theme on competitive advantage capabilities (e.g., dynamic capabilities, human capital, social capital), the (orange) theme on competitive advantage strategies (e.g., ambidexterity, exploration, exploitation), the (purple) theme on upper echelons specific to top management teams (e.g., diversity, performance, top management team), and the (green) theme on upper echelons (e.g., board of directors, corporate governance, firm performance). Here, the concentration of themes in this decade is obviously on competitive advantage, functions of management, and upper echelons. Yet, not all themes are well developed. Specifically, the leadership and strategic functions of management are the motor themes, whereas competitive advantage capabilities are a niche theme, competitive advantage strategies and upper echelons specific to top management are emerging themes, and upper echelons, which was previously an emerging theme in the previous decade, is now a promising theme in this decade. Importantly, the insights from this thematic map do complement and extend the insights from the cluster correspondence analysis relating to the immense strategic leadership research witnessed in this decade.

5. Conclusion

This article delivers on its promise to unpack the bibliometric and intellectual structure of strategic leadership research over the period of four decades (1980–2020). Through its study, this article reaffirms the contention of past reviews that strategic leadership is a rich yet fragmented area of research and remedies the issue by consolidating and reviewing its literature through a scientific methodology predicated on a bibliometric-temporal analysis. In doing so, the state-of-the-art overview of strategic leadership herein reveals the performance (e.g., year, article, journal, author, country) and science (e.g., topics, themes) of strategic leadership since its research begun up to the most recent complete year at the time of review.

5.1. Key takeaways (RQ1-RQ5)

The review of the bibliometric and intellectual structure of strategic leadership offers several key takeaways, which are consolidated as follows and in Table 5.

Temporal publication trend (RQ1). The field of strategic leadership has actively published research (6024 publications) over four decades (1980–2020), with 17 publications in the first decade (1980–1990), 338 publications in the second decade (1991–2000), 1439 publications in the third decade (2001–2010), and 4230 publications in the fourth decade (2011–2020). Noteworthily, strategic leadership was introduced by Child (1972), but only gained serious attention 12 years later after the development of the upper echelons theory by Hambrick and Mason (1984), and proliferated exponentially 20 years later following the revisit of that theory by Carpenter et al. (2004). Indeed, strategic leadership reached maturity in the third decade, with innovation and transformative endeavors extending its line of knowledge in the fourth decade of its research, which coincides with the maturity of globalization and the rise of the fourth industrial revolution (IR 4.0).

Article publication activity (RQ1). The richness of the strategic leadership research corpus is witnessed through the 413 reviews published on the 5611 conceptual and empirical articles in the field. Yet, most reviews suffer from limitations pertaining to the range of journals, selection of articles, perspective, and temporal outlook, all of which are addressed in the present review through an enabling and a pragmatic set of review criteria, and thus, the present review, to date, represents the largest retrospective of strategic leadership research.

Most prolific journals (RQ2). Strategic leadership research has appeared most prominently in management journals, such as Strategic Management Journal, The Leadership Quarterly, and Journal of Management. Importantly, the top three most prolific journals, and many more in the top 10 list (e.g., Academy of Management Journal, Journal of Management Studies), on strategic leadership are widely recognized as premier journals in the field of management, as indicated by their respective impact factors, and thus, reaffirming the legitimacy and importance of strategic leadership as a management concept and field of research

Most prolific authors (RQ3) and major research groups (RQ4). Strategic leadership scholars have also been relatively active and productive over the years, with James D. Westphal, Donald C. Hambrick, and David A. Waldman emerging as the top three most productive authors based on their publications viz-a-viz their active years of publishing in the field, and with Ryan Krause, Yan Zhang, and Michael A. Hitt leading the way as the top three authors who have led research collaborations on strategic leadership to successful publication.

Most prolific countries (RQ3). Strategic leadership research has also been most prolific in the North America and Western Europe regions in the West and in the Asia Pacific, Eastern Asia, Oceania, and Southern Asia regions in the East, with the top three most productive countries being the United States, China, and the United Kingdom. Nonetheless, additional research on strategic leadership from countries in underrepresented regions (e.g., Africa, Eastern Europe, Middle East, and South

Table 5Summary of findings on strategic leadership research (1980–2020).

Bibliometric structure	Intellectual structure			
Performance analysis • Publication activity according to year, article, journal, author, and country Year	Co-authorship analysis Co-citations among authors indicative of research groups that shape the intellectual structure 1980–1990	Historiographic mapping Relationships (or links) between primary (or important) publications citing other primary publications	Cluster correspondence analysis Co-occurrences of words in titles and abstracts segmented into thematic clusters 1980–1990	Thematic mapping • Co-occurrences of keywords mapped across four quadrants on the dimensions of centrality and density 1980–1990
 1980–1990: 17 publications 1991–2000: 338 publications 2001–2010: 1,439 publications 2011–2020: 4,230 publications 1980–2020: 6,024 publications 	Managerial work and organizational structure* Strategic change Upper echelons		 Basic management activities* Basic organizational activities* Strategic choices 	 Basic management activities* Basic organizational activities* Strategic choices Strategic leader
Article • Article: 5,611 publications • Review: 413 publications	1991–2000 • Role of managers* • Agency and stewardship		1991–2000 Role of managers* Complexities in upper echelons Strategic choices Strategic teams Strategic succession	1991–2000 Competitive role of managers* Ethical role of managers Difficult role of managers* Strategic role of managers Complexities in decision making Upper echelons in management Strategic succession
Journal 1. Strategic Management Journal 2. The Leadership Quarterly 3. Journal of Management	2001–2010 • Upper echelons* • Competitive advantage • Firm performance		2001–2010 • Functions of management* • Functions of upper echelons* • Upper echelons specific to top management • Entrepreneurship	2001–2010 Innovative functions of management* Leadership functions of management Strategic functions of management* Upper echelons Upper echelons specific to top management
Author <i>Productivity</i> 1. Westphal JD 2. Hambrick DC 3. Waldman DA Dominance 1. Krause R 2. Zhang Y 3. Hitt MA	2011–2020 • Competitive advantage* • Upper echelons	Pathway (2013–2020) The innovation pathway The upper echelons and digital transformation pathway	2011–2020 • Competitive advantage* • Functions of management* • Upper echelons* • Meta-analysis	2011–2020 Competitive advantage capabilities* Competitive advantage strategies Leadership functions of management* Strategic functions of management* Upper echelons Upper echelons Upper echelons specific to top management teams
Country Region West: North America, Western Europe East: Asia Pacific, Eastern Asia, Oceania, Southern Asia Countries United States United States United Kingdom				

Note(s): * = major (motor) theme. Insights from co-authorship analysis, historiographic mapping, cluster correspondence analysis, and thematic mapping enable triangulation.

America) are strongly encouraged to extend the generalizability of extant knowledge as well as to uncover culturally unique insights with respect to strategic leadership.

Temporal evolution of major themes and topics (RQ5). Strategic leadership, in its initial years (1980–1990), concentrated on themes such as managerial work and organization structure and associated topics pertaining to basic management and organizational activities (e.g., communication, decision making, information access) using borrowed theories (e.g., Miles and Snow Business Strategy Typology, Information Systems Success Model) and methods (e.g., annual report methodology, survey research). The evolution of its study, which was initially broad, continued in greater depth and specificity in its ensuing years. In

particular, strategic leadership research in the 1990s and up to the end of the 20th century (1991–2000) focused on the *role of managers* and associated topics relating to *complex and difficult managerial and organizational activities* (e.g., downsizing, succession) that strategic leaders encounter, whereas strategic leadership research in the beginning of the 21st century (2001–2010), where strategic leadership research proliferated and matured, sharpened its focus on the *upper echelons* following the revisit of the theory by Carpenter et al. (2004), leading to a plethora of studies on a range of topics pertaining to the *innovative and leadership functions of management and upper echelons* (e.g., corporate governance, corporate social responsibility, firm performance, organizational learning, resource management). Finally, strategic leadership research

in the most recent decade at the time of review (2011–2020) has sought to address the issue of *competitive advantage* in a global landscape disrupted by IR 4.0, resulting in investigations on topics pertaining to *digital transformation*, *empowerment*, *and innovation* (e.g., ambidexterity, exploration, exploitation, digitalization, dynamic capabilities, female board representation, human and social capital).

The evolutionary diagram of strategic leadership (RQ5). The trajectory of thematic and topical evolution in the field of strategic leadership is derived based on the triangulation of findings from the co-authorship analysis, historiographic mapping, cluster correspondence analysis, and thematic mapping used to unpack the intellectual structure of strategic leadership research through a temporal (decade-wise) lens (Fig. 8), thereby ensuring rigor and trustworthiness. More importantly, this diagram can serve as a foundational lens to understand the evolution and trajectory of strategic leadership research. It will also be subjected to extensions shaped by new research, which may be inspired by the suggestions in the next section.

5.2. Future research directions (RQ6)

The evolutionary diagram developed by combining the main themes and topics provides useful guidelines for future research. The present section builds on this diagram and offers promising pathways (Table 6) to advance understanding of strategic leadership based on the recent trajectories of disruptive events witnessed at the time of review (e.g., disruption caused by conflicts and COVID-19, proliferation of industrial revolutions, intergenerational transitions, worsening state of planetary health and progress of the SDGs) (Lim, 2021a, 2022b, 2022c; Lim, Chin et al., 2022).

Strategic leadership for innovation and digital transformation. The historiography and cluster correspondence analysis indicate that the innovation pathway is a recent and significant direction for future research. The thematic mapping of strategic leadership research in the recent decade also reaffirms the importance of innovation as part of the motor theme on strategic leadership. The convergence of insights signals the importance of innovation, and the recent exploration into digital technologies as a result of the proliferation of industrial revolutions (e.

g., IR4.0) is a direction that future research should continue to pursue given its importance and scarcity. Indeed, extant research on strategic leadership pertaining to innovation has mostly been on top executives' dispositions and its impact on organizational innovation (Elenkov & Maney, 2005). However, recent research has called for innovation studies on strategic leadership from the perspective of digitalization, which is transforming the way of doing business, drastically changing the ways in which value is created and captured (Torre & Sarti, 2020). Specifically, the digital transformation revolution facilitated by new-age technologies such as artificial intelligence, big data analytics, blockchain, cloud computing, internet of things, and virtual reality has given rise to new business models and forms of governance (Ciasullo & Lim, 2022; Denter et al., 2022; Lim, 2022c; Singh et al., 2020), highlighting the need for strategic leaders to identify and work on the core competencies and key success factors that would allow them to navigate their organizations toward timely and relevant innovation and transformation in order to maximize value creation and capturing in the contemporary marketplace. Moreover, in a cosmopolitan world where data is the new oil (Ciasullo et al., 2022a; Makrides et al., 2021), data driven technologies and related big data capabilities have been flagged as knowledge assets that strategic leaders must gain mastery and leverage for strategic and operative decision making (Bresciani et al., 2021; Ciasullo et al., 2022a). Indeed, recent scholars have highlighted the strategic importance of big data and strategic knowledge management for co-innovation among strategic leaders and followers in enabling organizations to gain and sustain competitive advantage (Bresciani et al., 2021; Ferreira et al., 2018). In this regard, future research could explore how strategic leaders would react to innovation and digital transformation, which should include any potential differences in reactions alongside equivalent causes (e.g., BOD and TMT configurations, capabilities, experiences). In addition, it is important that future research recognizes the shift from centralized and hierarchical decision making to collective and collaborative decision making due to disintermediation, and in this regard, it should be potentially fruitful to explore the core competencies and key success factors required for strategic leadership in the age of innovation and digital transformation under this contemporary landscape. Such research could

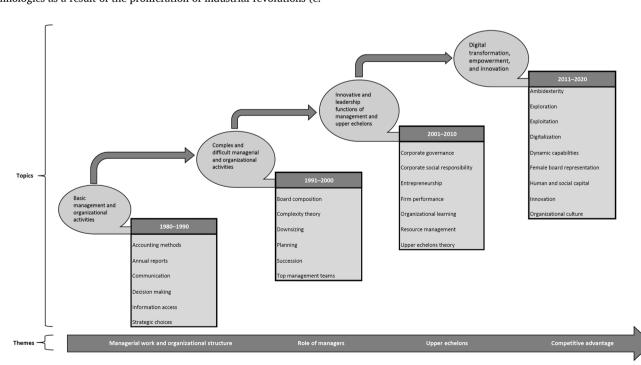


Fig. 8. Evolutionary diagram of the intellectual structure on strategic leadership (1980–2020). Note(s): The diagram is developed based on the triangulation of insights from co-authorship analysis, historiographic mapping, cluster correspondence analysis, and thematic mapping through a temporal (decade-wise) lens.

Ta

summary of future directions for strategic leadership research.		Area	Future direction	
Area Strategic leadership for innovation and digital transformation	Future direction • How do strategic leaders react to innovation and digital transformation, and how do their reactions differ based on their capabilities and experiences as well as BOD and TMT configurations? • What are the core competencies and key success factors required for strategic leadership in the age of innovation and digital transformation, especially when centralized and hierarchical decision making shifts to collective and collaborative decision making due to disintermediation? • Which strategic leadership qualities are influential for innovation and digital transformation, and which activities and processes mediate or moderate the impact of strategic leadership on innovation and digital transformation? • How can strategic leaders leverage on data driven technologies and big data capabilities for strategic and operative decision making? • How can strategic knowledge-intensive processes be innovatively designed and improvised in response to evolving technological and market conditions where change is constant, and how should strategic leaders leverage on strategic knowledge manage-	also be extended t influential for inno tivities and process leadership on inno research that ende provide pragmatic leverage data drive and operative decis space could also intensive processes response to evolvin	g., mediating and moderating factors) affecting strategic leadership and how they can be capitalized into sustainable competi- tive advantages. • A triangulation approach can be conducted by employing different data and analytical techniques (e.g., a combination of science mapping techniques such as bibliographic coupling and co-occurrence analysis) to establish the key underpinnings of strategic leadership and its impact on various organi- zational outcomes. o explore the strategic leadership qualities that are expected and digital transformation alongside the ac- ses that mediate or moderate the impact of strategic vation and digital transformation. Moreover, future exercises to be translational should also explore and guidelines on the ways in which strategic leaders can en technologies and big data capabilities for strategic scion making. Last but not least, future research in this explore the ways in which strategic knowledge- sc can be innovatively designed and improvised in the guidelines for strategic leaders on how they can	
Strategic leadership for	ment as a strategic asset and resource for strategic leadership? • What are the attributes of an ambidextrous		knowledge management as a strategic asset and	
ambidexterity and	leader, and what roles, behaviors, and		hip for ambidexterity and sustainability. Ambidexteri	

ambidexterity and sustainability

Strategic leadership for women empowerment

Strategic leadership and transitions

Methodological consideration for strategic leadership research

TMTs-why or why not? How does the presence of women on BOD

· Do organizations with women-majority TMTs innovate and perform differently than

organizations with men-majority

leadership styles contribute to fostering

organizational innovation ambidexterity?

· How can strategic leadership motivate and

exploitative activities?

not?

empower followers (e.g., employees, lower and middle management) in explorative and

· Are TMTs more innovative in organizations

with greater gender diversity—why or why

interact with TMT diversity? · Under what conditions do women leadership

positively relate to organizational outcomes? What are the strategical and tactical

mechanisms through which women leadership relates to sustainable business performance?

 How does women leadership influences organizational innovation practices?

 How can (have) macro factors (e.g., institutional, political, social) influence(d) and shape(d) women leadership practices across organizational settings?

· How can the upper echelon theory of strategic leadership be enriched through theoretical integration (e.g., agency theory, socioemotional wealth logic, social exchange theory, stewardship theory) to conceptualize and theorize the dynamic and complex nature of succession involving strategic leaders?

 How do strategic leadership constellations enable firms to access and manage knowledge resources during the succession and transfer of these resources to successors?

· An integrated inductive-deductive approach can be carried out by combining qualitative and quantitative research designs to detect the theoretical and practical mechanisms (e.

Strategic leadership for ambidexterity and sustainability. Ambidexterity refers to an organization's ability to manage current demands while being adaptable to changes in the environment (Duncan, 1972; Gibson & Birkinshaw, 2004; Tushman & O'Reilly, 1996). It is important for organizations to be ambidextrous in order to balance the upper echelons demands of profitability and sustainability, all of which are essential for the survival and success of the organization in disruptive, volatile, uncertain, complex, and ambiguous environments (Al-Agry, 2021; Du et al., 2013; Kumar et al., 2021; Simeoni et al., 2020). Ambidextrous organizations are well equipped to exploit capabilities and resources while simultaneously exploring for new opportunities, and this can be achieved with the help of ambidextrous leaders who can display both opening (e.g., allowing different ways of accomplishing a task) and closing (e.g., establish and monitor adherence to plans and rules) behavior in maintaining profitability and sustainability. It can also be achieved through organizational goals and outcomes that focus on organizational learning and knowledge sharing to cultivate and strengthen organizational innovation ambidexterity. Nonetheless, building and sustaining organizational innovation ambidexterity is challenging and thus demands explorative learning involving external information alongside exploitative learning involving knowledge acquisition from internal resources, wherein the simultaneous pursuit of both forms of learning can lead to organizational innovation ambidexterity. More importantly, there is a need to build on existing knowledge, which remains scarce, which can be done by exploring and examining the strategic leader's cognitive, emotional, managerial, and strategic abilities on organizational innovation ambidexterity, and by investigating the impact of organizational culture and learning (e.g., open innovation) on organizational innovation ambidexterity, which can be extended across various strategic leadership styles and behaviors and scrutinized in terms of its impact on organizational performance, which is not limited to profitability but also sustainability performance (e.g., CSR, ESG; Lim, Ciasullo et al., 2022; Prasad et al., 2022). In this regard, leadership scholars are encouraged to explore the attributes of an ambidextrous leader, and what roles, behaviors, and leadership styles contribute to fostering organizational innovation ambidexterity, especially in times of crisis (e.g., climate change and sustainability crisis, the

COVID-19 pandemic, and the Ukraine and Russia conflict; Lim, 2021a, 2022b; Lim, Chin et al., 2022), where the need for strategic leadership is noteworthily escalated. They are also encouraged to explore the ways in which strategic leadership motivate and empower followers (e.g., employees, lower and middle management) in explorative and exploitative activities, which, in turn, can result in nuanced insights that can be used to strengthen the ambidexterity of strategic leaders and their impact on followers, and by extension, the organizations they lead in achieving the goals of profitability and sustainability without one coming at the expense of the other.

Strategic leadership for women empowerment. With increasing interest in corporate board diversity (Yilmaz et al., 2021), there has been a gradual increase in the number of women in top leadership positions. However, their numbers remain low as compared to their male counterparts so much so that they are regarded as minorities in most organizations. Nonetheless, the increasing number of women leaders has coincided with the rising number of studies on women as strategic leaders. In particular, women leadership has been studied at the CEO level and its impact on organizational performance has also been assessed, while the question of how female board members influence board decision making has been explored. Women leadership has also been researched in conjunction with organizational outcomes such as diversification, mergers, and acquisitions. Nonetheless, several areas remain underexplored. Specifically, there is a need to explore the role and impact of women leadership on organization innovativeness given the importance of innovation in developing and sustaining competitive advantages (Ciasullo et al., 2022b). There is also a need to study how the dynamics of the TMT changes and how it influences the relationships among its members with female leaders on board, including its impact on decision making and organizational performance. Similarly, our understanding of the complexities and tensions relating to the interface in the upper echelons (e.g., BOD-TMT) can also benefit through a women leadership lens. Importantly, new research in this direction will contribute to SDG 5 relating to gender equality involving women empowerment. Therefore, leadership scholars are encouraged to examine whether TMTs are more innovative in organizations with greater gender diversity, whether organizations with women-majority TMTs innovate and perform differently than organizations with menmajority TMTs, and whether the presence of women on BOD interacts with TMT diversity. They can also explore the conditions where women leadership positively relate to organizational outcomes, including how macro factors (e.g., institutional, political, social) influence and shape women leadership practices across organizational settings and the influence of women leadership on organizational innovation practices, as well as the strategical and tactical mechanisms through which women leadership relates to sustainable business performance.

Strategic leadership and transitions. The aging population (Lim & Bowman, 2022) and the prevalence of family businesses around the world (Chaudhary et al., 2021) put leadership transitions into the spotlight. The uniqueness of the leadership in family firms from that in non-family firms stems from the socio-emotional aspects driving family firm leaders and their significant influence on the business, comparatively long tenures, and concerns of leadership transitions (Bernhard & O'Driscoll, 2011; Carney, 2005; Chaudhary et al., 2021; Gómez-Mejía et al., 2011). Leadership transitions represent a critical challenge to firm continuity and prosperity that matter for all actors involved, such as employees, shareholders, customers, suppliers, and the surrounding community (Cabrera-Suárez, 2005; Fries et al., 2021). Moreover, in the case of family firms, leadership transitions' challenge is made more complex by the weak leadership pipeline that often lacks clear and systematic plans to implement leadership succession (Fang et al., 2015; Le Breton-Miller et al., 2004). Consequently, "only 30 % are expected to survive the first generation, 15 % are expected to survive to the third generation, and less than 3 % are expected to survive to the fourth generation" (Vera and Dean, 2005, p. 323). Noteworthily, the success of leadership succession is strongly linked to strategic choices regarding

the successors, which may be shaped by experience in a subordinate role outside the business, gradual assumption of leadership responsibilities, learning and development of organizational culture, commitment to the business, and a good relationship with the predecessor (Cabrera-Suárez, 2005). In this regard, recent scholars have highlighted the critical role played by trust and reputation in developing cooperative relationships (Chaudhary et al., 2021). With this in mind, leadership scholars are encouraged to examine the ways in which strategic leadership constellations enable firms to access and manage knowledge resources during the succession and transfer of these resources to successors. There is also a need for more theoretical exposition in this space, which future research can address by investigating how the upper echelon theory of strategic leadership can be enriched through theoretical integration (e. g., agency theory, socioemotional wealth logic, social exchange theory, stewardship theory) to conceptualize and theorize the dynamic and complex nature of successions involving strategic leaders.

Methodological consideration for strategic leadership research. Methodological considerations are important in research. Moving forward, future strategic leadership research will need to explore for new ways to design their research to support theoretical validation and pragmatic recommendations, wherein research designs adopted are both complex and rigorous. One methodological consideration is the pursuit of mixed methods to leverage off the benefits that such research designs entail. Another methodological consideration is the adoption of multilevel analysis, wherein the relationships between the different level of the upper echelons (e.g., BOD-TMT) are untangled alongside leader-leader and leader-member exchanges (as leaders rely on information from other leaders and members in the organization for decsion making). Moreover, the emergence of big data and associated software capable of handling large amounts of data warrants attention as a methodological consideration in future research. Such techniques can include bibliometric analysis as well as supervised and unsupervised machine learning of big data. Finally, publication bias is an issue that future research can address, though it cannot be eradicated completely, through the use of Bayesian and meta-analysis techniques, and thus, strengthening the power of conclusions. In this regard, leadership scholars are encouraged to pursue an integrated inductive-deductive approach by combining qualitative and quantitative research designs to detect the theoretical and practical mechanisms (e.g., mediating and moderating factors) affecting strategic leadership and how they can be capitalized into sustainable competitive advantages. They can also pursue a triangulation approach by employing different data and analytical techniques (e.g., a combination of science mapping techniques such as bibliographic coupling and co-occurrence analysis) to establish the key underpinnings of strategic leadership and its impact on various organizational outcomes.

5.3. Contributions

The present study has delivered 10 contributions that can be organized around the two major frontiers of theory and practice in line with Kraus et al. (2022) and Mukherjee et al. (2022). These contributions are discussed in the next sections.

5.3.1. Theoretical contributions

From a theoretical frontier, this study has revealed the major clusters of knowledge for strategic leadership research, which have typically followed two pathways: the innovation pathway and the upper echelons and digital transformation pathway (1st theoretical contribution). The nomological network of key research in each pathway has also been established through a historiography of the most influential publications on strategic leadership (2nd theoretical contribution). Taken collectively, the first and second contributions of this study should support future research in developing their theoretical positioning by locating their theoretical contribution against the extant literature based on (i) the established pathways(s) and (ii) the key research in the established pathways(s) on strategic

leadership.

Furthermore, this study has delineated the *social processes* (*co-authorships* or *research groups*) that have contributed to the *knowledge development* of strategic leadership research (*3rd theoretical contribution*). By identifying the major themes characterizing the major research groups for strategic leadership research, this study should enable future research to *acknowledge the contributions of major research groups* and *locate the recent and relevant literature associated to each major theme that have been contributed by the respective major research group(s)*, who are likely to be called upon as reviewers for new research in the field (Lim, 2021b, 2022a).

Moreover, this study has rigorously mapped the knowledge trajectory of strategic leadership research, as seen through (i) the decade-wise thematic clusters based on the co-occurrences of words in the titles and abstracts of strategic leadership research (i.e., first method) and (ii) the thematic evolution based on the co-occurrences of keywords in strategic leadership research (i.e., second method), which, together with the historiography of the most influential publications on strategic leadership (i.e., third method), inform the triangulated summary in (iii) the evolutionary diagram of the intellectual structure on strategic leadership (4th theoretical contribution). This is an important and significant contribution as it empowers future research with a state-of-the-art understanding of the field's evolution and thus enables future research to be better informed so that they can truly pursue novel rather than redundant research in their aspirations to advance the body of knowledge on strategic leadership.

Finally, this study curates a collection of promising ideas that should serve as knowledge-advancing avenues for future research on strategic leadership (5th theoretical contribution). Noteworthily, a total of 16 future research directions were developed to promote strategic leadership research in the contemporary and trending areas of innovation and digital transformation, ambidexterity and sustainability, women empowerment, and transitions in family business. Two future research directions relating to mixed methods and triangulation were also established to promote critical methodological practices in future strategic leadership research.

5.3.2. Practical contributions

From a practical frontier, this study has provided an objective assessment of research productivity in the field of strategic leadership (1st practical contribution). This objective assessment was made possible through a bibliometric analysis, or more specifically, a performance analysis, which detailed the publication performance by years and by articles, thereby providing a dual-lens for assessment.

By understanding the performance (productivity) of strategic leadership research, this study was also able to:

- ascertain coverage claims (e.g., representation of strategic leadership research in premier journals in the field of management) (2nd practical contribution);
- identify social dominance or hidden biases (e.g., high concentration of strategic leadership research in the United States; underrepresentation of strategic leadership research in Africa) (3rd practical contribution);
- raise anomalies (e.g., most publications on strategic leadership have appeared in 2020 despite the COVID-19 pandemic, signaling that the necessity, importance, relevance, and urgency of strategic leadership are amplified or greater during crises than non-crises) (4th practical contribution); and evaluate relative performance (e.g., the growth of strategic leadership research over time) (5th practical contribution).

5.4. Limitations

The present study is not without limitations. First, the insights herein are limited to the accuracy and availability of data from Scopus. Nonetheless, due diligence has been applied (e.g., data cleaning of duplicates and erroneous entries), where possible. Second, the insights

herein are macro in nature as they are meant to provide an overview of strategic leadership research. Though the present review, which is bibliometric and thus macro in nature, has met its intended goal and the purpose of pursuing such a review method (Donthu et al., 2021; Mukherjee et al., 2022), future research is encouraged to consider other review methods that will enable in-depth explorations (e.g., critical reviews; domain-, theory-, or methods-based systematic literature reviews that unpack the theories, constructs, contexts, and methods of specific domains in strategic leadership—see Kraus et al. (2022) and Lim, Kumar, and Ali (2022)), including the development of conceptual frameworks and propositions (e.g., Denter et al., 2022; Kolotylo-Kulkarni et al., 2021), which can be commissioned based on any of the themes identified herein this review.

CRediT authorship contribution statement

Anjali Singh: Writing – original draft, Visualization, Software, Investigation, Formal analysis, Data curation. Weng Marc Lim: Writing – original draft, review & editing, Visualization, Supervision, Methodology, Investigation, Conceptualization. Sumi Jha: Writing – original draft, Supervision, Conceptualization. Satish Kumar: Supervision, Methodology, Formal analysis. Maria Vincenza Ciasullo: Writing – original draft, review & editing, Investigation, Conceptualization.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

Data availability

Data will be made available on request.

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