

Corporate Entrepreneurship Champions: Mapping the past and present state of the field for future advancements

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ABSTRACT

Purpose: The purpose of this study is to critically examine and review the extant research on corporate entrepreneurship champions in the broader area of corporate entrepreneurship and to uncover the avenues for advancement of the scholarship with the purpose of engaging CE champions towards the upliftment of organizations in particular, and younger workforce in general.

Design/methodology/approach: In this study, authors employ bibliometric analysis through a review of 274 papers fetched from Web of Science and Scopus databases.

Findings: The authors set the agenda for future research and policy by elucidating research themes and potential research questions by bringing out twelve themes classified into five basic themes, three niche themes, three motor themes, and one key theme, while also providing the methodological inputs for carrying out this agenda.

Originality/value: This study adopts a unique lens of investigation in contextualising the role of self-efficacy, employee engagement, and career choice for the younger workforce.

Keywords. Bibliometric analysis; corporate entrepreneurship champions; employee engagement; factorial analysis; thematic map.

1. Introduction

Over the last three decades, the importance of corporate entrepreneurship (CE) in stimulating creativity, technological innovation, risk-taking, and proactiveness has been thoroughly explored, beginning with (Peterson and Berger, 1971). CE research, owing to some pioneering contributions (Burgelman, 1983a;

Covin and Slevin, 1989; Miller, 1983), is playing a critical role in assisting managers in cultivating entrepreneurial behaviour (Gutmann, 2019; Kuratko, 2017a). CE activities are becoming more widespread and diverse within companies (Narayanan *et al.*, 2009; Phan *et al.*, 2009; Schleppehorst *et al.*, 2020), resulting in the divestiture of divisions to establish new entities, many of which are funded by angel investors and private equity firms.

Previous experiences exhibit that corporate entrepreneurship in firms is nearly impossible without re-engineering the organizational culture toward corporate entrepreneurship by nurturing the CE champions (Deshpandé *et al.*, 2012; Howell and Higgins, 1990; Lee *et al.*, 2019). Continuous learning from such experiences motivates companies to develop champions that can accelerate the CE process, leading to a higher impetus on research, engineering, technology, and innovation (Arvidsson and Mønsted, 2018; Haar and White, 2013). The complexities involved in championing the cause of CE keep a majority of the individuals away from the process, leaving only a few to emerge as CE champions who lay the foundations of newer businesses or spinoffs (Evans and Leighton, 1989; Howell and Higgins, 1990). Given the critical nature of fostering a CE culture for businesses looking to unlock super-normal value in the long run, businesses are eager to consider the reasons that motivate certain individuals to indulge in entrepreneurial activity while refraining from others (Marques *et al.*, 2019; Shaver and Scott, 1992). The scholarly works in corporate entrepreneurship have to explore these reasons and inform the strategic business decisions. Interestingly, some pioneering studies related this motivation (or demotivation) to the rare ability to break out of customary thinking (Brenner, 1987) and dare to follow one's gut instinct (McGrath and MacMillan, 1992).

Additionally, despite the high number of publications in the field, the researchers are still unsure of how to create, inspire, and nurture champions within organisations. To the best of our knowledge, this is the first study that reviews the literature on the promising field of CE champions. The study aims to achieve three-fold research objectives – (a) to map the existing knowledge in this emerging field in a systematic manner to identify the critical literature trends, most productive authors, highly co-occurred keywords, most collaborating countries, themes and thematic areas, and bibliometric patterns (such as co-authorship visualisation analysis, country collaboration map, key authors, countries and keywords, co-citation analysis and factorial analysis using MDS); (b) to understand the placement of the CE champions literature in relation to the overall body of knowledge in CE as well as entrepreneurship in general; and (c) to identify the avenues for advancement of the scholarship with the purpose of engaging CE champions towards the upliftment of organizations in particular, and younger workforce in general. The attainment of these research objectives is primarily based on a detailed review of 274 papers, obtained through a Boolean-based search query on the Web of Science and Scopus databases.

These records are bibliometrically analysed through VOS viewer and bibliometrix package of R. In addition to some descriptive insights into the field (including publication output and growth trends,

most productive authors and keyword analysis), the authors present its social structure (comprising of co-authorship, country collaboration, key countries, authors and keywords), intellectual structure (co-citation analysis, and historiography), and conceptual structure (factorial analysis using multidimensional analysis, and thematic areas).

In addition to detailed and critical review of these papers, we identify the knowledge gaps in the field and propose the future agenda in terms of thematic research questions (RQs) and methodological suggestions. Most importantly, in this study four thematic questions have been proposed for the future scholarship. *First*, the authors draw from the self-efficacy theory, which has been studied widely by business management scholarship as independent from corporate entrepreneurship. For exploring the motivating (and demotivating) factors for CE champions in business, the authors argue for the self-efficacy and corporate entrepreneurship constructs to be studied together. *Second*, underlining the limited efforts by the extant literature to uncover how CE can contribute to employee engagement, in this study the authors call for an integrative framework to conceptualise CE as a tool of engaging the champions. *Thirdly*, the authors observe that by engaging champions and cultivating CE culture, companies can substantially contribute to macroeconomic development, especially in countries with a sizable younger workforce. Extending the argument further, the authors finally note that corporate entrepreneurship has the potential to develop as a career option for the younger workforce, a path that neither research nor policy has adequately considered. In addition to thematic RQs, this study suggests four methodological suggestions to advance the scholarship in this emerging field.

The remainder of the paper is organised as follows. The next section outlines the review methodology, the third section discusses the results, the fourth section outlines discussion, the fifth section proposes the agenda for future research and policy and the sixth section outlines the conclusion

2. Theoretical background

Over the last 40 years, the concept of CE has evolved (Hornsby et al., 2002). Research on corporate entrepreneurship has been fragmented and lacks accepted definitions (Hayes & Allinson, 1998). The literature studies dimensions of corporate entrepreneurship in the form of new business venturing, Proactiveness, self-renewal, risk-taking, and innovativeness (Schmelter *et al.*, 2010; Zahra *et al.*, 2009).

Dimensions of Corporate Entrepreneurship		
Risk-taking	The possibility of loss and it is evaluated as an inherent component of existing firms' innovativeness behaviors; their tendency to initiate new ventures; and their aggressive or proactive actions.	Antoncic & Hisrich (2001); Jancenelle et al. (2017); Shafique & Kalyar (2018); Wang & Yen (2012)

New business venturing	New business creation of an existing organization through redefining the company's products, services, and developing new markets.	Altinay (2005); Bratnicka & Kulikowska-Pawlak (2016); Castrogiovanni, Urbano, & Loras, (2011); Stopford & Baden-Fuller (1994); Zahra (1991)
Proactiveness	Opportunity-seeking, forward-looking perspective involving introducing new products or services ahead of the competition and acting in anticipation of future demand to create change and shape the environment.	Dess, Lumpkin, & Covin (1997); Jancenelle, Storrud-Barnes, & Javalgi (2017); Martín-Rojas, Fernández-Pérez, & García-Sánchez (2017); Sehora & Theerapatvong (2010)
Innovation	Product/Service innovation refers to the creation of new products, services, processes and technologies. Process/technology innovation refers to innovations in production processes, procedures and techniques, as well as in technologies.	Covin & Slevin (1991); Knight (1997)
Self-renewal	The periodic change in organizations through the renewal of critical ideas and resources on which organizations are built.	Ağca, Topal, & Kaya (2012); Burström & Wilson (2015); Martín-Rojas et al. (2017); Shafique & Kalyar (2018); Zahra (1991)

Starting with the pioneering works of Peterson and Berger (1971), Burgelman (1983), and Covin and Slevin (1989), CE research has developed into a tool for both large and established multinational corporations (MNEs) and small and medium-sized enterprises (SMEs). Prior research shows that CE allows MNEs to revitalize their businesses (Zahra, 1996), and allows SMEs to renew themselves strategically (Heavey and Simsek, 2013). The growing interest in CE is primarily motivated by the desire to understand the variables that facilitate or obstruct the efficient execution of entrepreneurial processes within organizations.

To date 'corporate entrepreneurship' has been investigated using four main perspectives (Ghura and Goel, 2018), namely – organizational factors comprising of organizational structure, culture, managerial support systems (Antoncic and Hisrich, 2001); environmental factors, consisting of dynamism, industry growth, customer demands (Antoncic, 2007); strategic factors, including stability strategy, retrenchment strategy (Zahra, 1986); and individual factors, entailing mainly focusing on the top leadership (Chen and Nadkarni, 2017). The organizational factors allow CE to take the form of Autonomous strategic behaviour, a bottom-up process in which product champions chase new ideas, often through a political process, employing which they develop and coordinate activities associated with an innovation until success is achieved (Burgelman, 1983a). The environmental factors such as dynamism, industry growth, customer demands (Antoncic, 2007) allows champions to make entrepreneurial contributions which are later rewarded (Ramachandran, Devarajan & Sougata, 2006); The strategic factors such as stability strategy, retrenchment strategy (Zahra, 1986); often allows idea

champions get an opportunity to drive the new project into a new business division (Ramachandran, Devarajan & Sougata, 2006) and finally the individual factors which mainly focus on the top leadership (Chen and Nadkarni, 2017) wherein top-level managerial decide to encourage champions to pursue risk-taking behaviour and not to penalise failure.

Numerous attempts have been made since the late 1980s to learn how to establish a CE culture within companies to consistently motivate champions and assist businesses in fostering research and development activities leading to the engineering of newer technologies and products, improving employee attitudes, increasing productivity, and improving firm performance (Antoncic and Prodan, 2008; Martín-Rojas *et al.*, 2013; Zahra, 1991). While there is no absolute consensus, the majority of studies argue that the CE process is typically bottom-up, with subordinates playing a vital role (Barney *et al.*, 2018; Preenen *et al.*, 2019). However, the primary responsibility for championing the cause of CE falls on middle managers, who serve as bridges between roles by introducing potential proposals to top management and encouraging subordinates to engage in entrepreneurial practices (Chen *et al.*, 2015). The criticality of the role of middle managers stems further from the need to constantly engage with higher-ups, peer colleagues, operational-level workers, and external partners (Ahearne *et al.*, 2014). Despite the high number of publications in the field, the researchers are still unsure of how to create, inspire, and nurture champions within organisations, calling for further advancement of the knowledge field, to which this study contributes.

3. Review methodology

In stage 1, prior to acquiring the dataset, we conduct a preliminary scoping exercise to gain an understanding of the current state of research and to establish a framework for the systematic review. This activity comprises conducting a thorough search of the literature in order to determine the most relevant search strategies (e.g., databases/sources, search terms/keywords, time periods, and language constraints) and to gain a general overview of the body of literature (see Briner and Denyer, 2012). Consequently, we also establish the research aims, that shall guide us throughout the study.

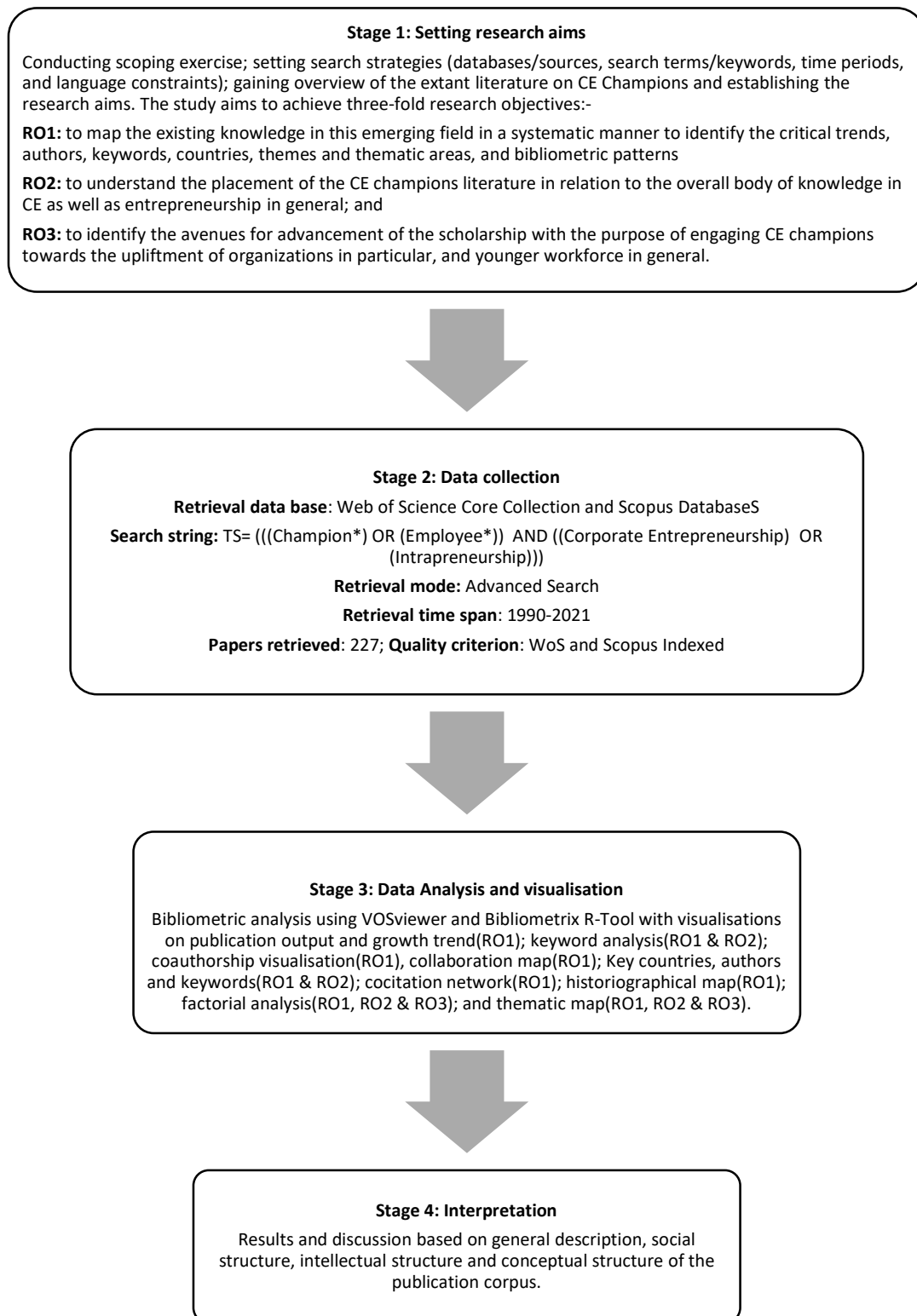


Figure 1. Bibliometric analysis stages

After performing the scoping exercise, the authors followed second stage as presented in figure 1, that includes searching the related literature on both Web of Science (WOS) and Scopus databases, which are the most widely accepted, frequently used, and multidisciplinary databases accessed to analyse scientific publications (Yang *et al.*, 2013). The authors performed the search in June 2021 and fetched 449 documents initially (218 from WOS and 231 from Scopus) using keywords such as ‘Champion*’, ‘Employee*’, ‘Corporate’, ‘Entrepreneurship’, and ‘Intrapreneurship’ along with the Boolean operators such as NEAR, AND, OR, “W/n” in both the databases. Moreover, conducting a bibliometric analysis using data from Scopus or/and apart from WOS cannot provide a comprehensive picture of a field's knowledge and trends. As a result, we conduct a bibliometric analysis of the literature on CE champions using both the Scopus and WOS databases.

We kept the time slice between 1990 and 2021, where 1990 is the default starting year in WOS database. To ensure high quality and reliability, the authors refer only WOS and Scopus-indexed articles. The document type is limited to articles and review papers published in peer-reviewed journals. We used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) technique proposed by Moher *et al.* (2009) to generate both the WOS and Scopus databases for bibliometric analysis (see figure 2).

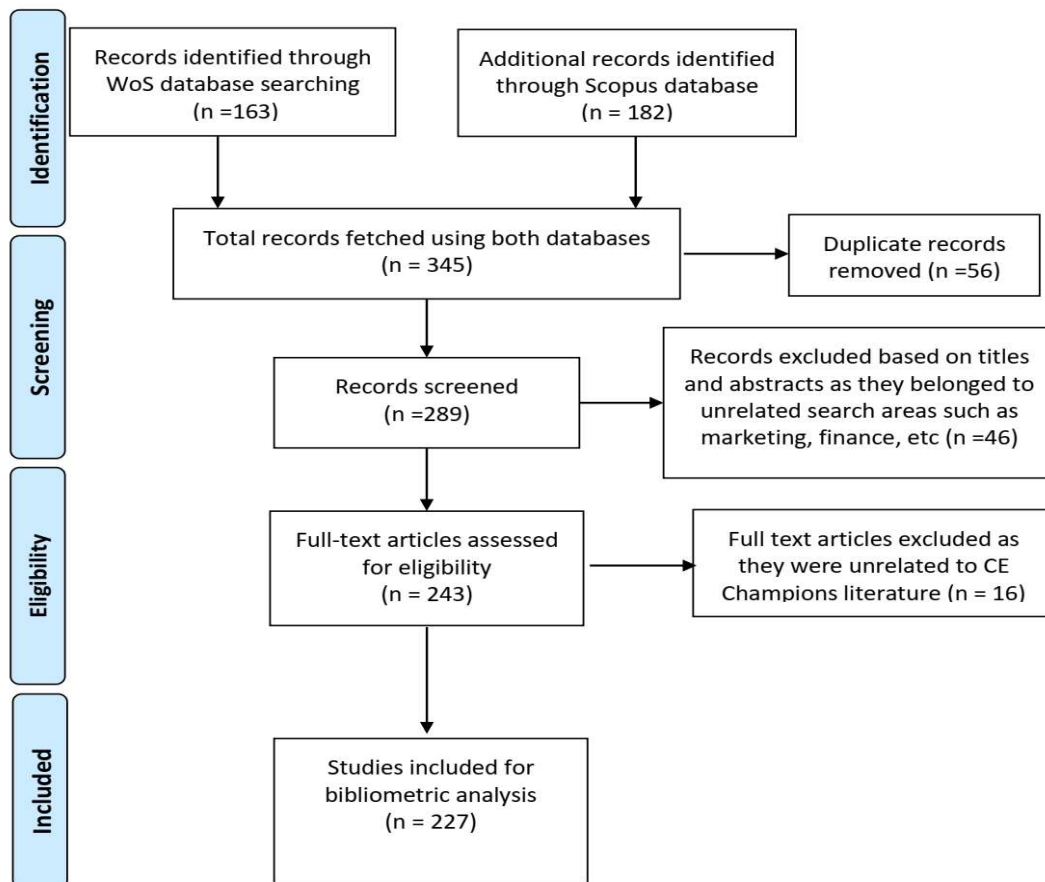


Figure 2. Study flow PRISMA diagram

Furthermore, we cleaned the data to eliminate duplicates and irrelevant items using Excel VBA feature (For details refer Echchakoui, 2020). We eliminated 'false positives,' which can occur throughout the search process, such as, when an article quotes a keyword or phrase that was used to locate the article but implies a completely other or unrelated issue (Linnenluecke *et al.*, 2020). After removing duplicates (56), the authors obtained 374 documents after removing the duplicates. Next we set an inclusion/exclusion criterion by looking at the titles and abstract, and we keep only the relevant articles (as given in figure 2). This inclusion/exclusion criteria are strictly based on the relevant WOS categories, WOS research areas and Scopus categories for our topic. For example, we limited the WOS categories to “Management”, “Business” and “Economics”; and Social Sciences Interdisciplinary; WOS research areas to only “business economics”; and Scopus categories to Business, Management and Accounting; Economics, Econometrics and Finance and Social Sciences.

This left us with 299 articles, which are manually assessed by looking at the full text, only those articles which are aligned with the “CE champions literature” and belonged to near or exact areas were retained (see figure 2).

This left us with a total of 274 documents that is further utilised to conduct bibliometric analysis. After obtaining the record count, i.e., 274, we downloaded the text and CSV (Comma Separated Value) files from WOS and Scopus databases containing comprehensive bibliographic data. In stage three (of figure 1), we perform the data analysis and obtain visualisations based on the bibliographic data. The bibliographic data consists of all the information related to the title, keywords, abstract, authors, authors' addresses, publication year, source journal, subject categories and references (van Nunen *et al.*, 2018). This comprehensive data is later utilised to efficiently employ bibliometric techniques and further information evaluation. The authors use the VOS viewer and bibliometrix R-package for carrying out the bibliometric analysis, where figure 5 and 7 are produced using VOS viewer (details are given in Zupic and Čater, 2015) and figure 6, 8, 9, 10, 11 and 12 are produced using bibliometrix R-package (for details refer, Aria and Cuccurullo, 2017). VOS viewer is a freely available software program used to visualise and analyse the relationships among keywords, authors, organisations, journals, documents, references, and countries (van Eck and Waltman, 2010; Rizzi *et al.*, 2014), while Bibliometrix is the R-package that performs bibliometric analysis by applying specific tools for conducting both bibliometric as well as scientometric quantitative study (Dervis, 2019). The VOS viewer software uses the VOS (Visualisation of similarities) mapping technique to calculate and locate each unit of analysis in a two-dimensional plane, where the distance between each node represents the similarity or relatedness among them (van Eck and Waltman, 2010). Every network visualisation produced via VOSviewer can be interpreted in terms of size of the node, the font size of the labels, the

colour coded clusters and the distance between each node that reveals the relatedness among any unit of analysis (Figure 5 and 7 in case of our paper) (Rizzi *et al.*, 2014). The bibliometrix R-package software is not only concerned with data display, but also with the results' accuracy and statistical completeness. Typically, the unit of analysis is a concept or a keyword, rather than a document, author, or journal. (Glänzel, 2001; Peters and Van Raan, 1991).

The stage 4 in figure 1 comprises of the interpretation of the results and listing future research agendas, thematic RQs and methodological suggestions. Furthermore, in addition to some descriptive insights into the field, the authors present its social, intellectual structure, and conceptual structure as given in Figure 3.

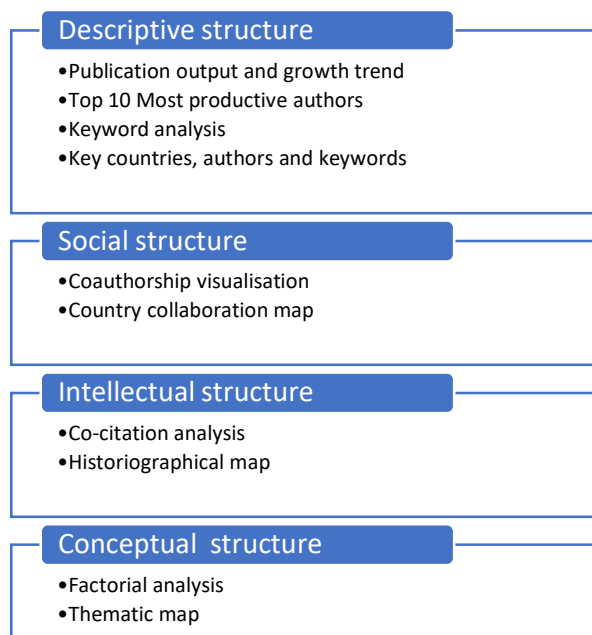


Figure 3. Flow of bibliometric analysis

4. Results

The results of this study are classified and discussed into the general description, social structure, intellectual structure, and conceptual structure (Aria and Cuccurullo, 2017). The general description section looks at the publication trend over the past 20 years, analysing keyword co-occurrence and the most productive authors. The social structure of the publication corpus provides a glimpse of various research cooperatives between the authors and countries. The intellectual structure of the publications focuses on how particular studies influence the body of knowledge. Lastly, the conceptual structure of the publication corpus outlines various research themes and trends in the ‘corporate entrepreneurship champions’ research area.

4.1. General description of publications

4.1.1. Publication output and growth trend

This section discusses the growing trend of the publication count in the corporate entrepreneurship champions research. The total number of studies related to a particular research area is one of the vital factors for determining its development trend. Figure 4 displays the combination graph depicting both the publication per year and the sum of citations per year. The primary x-axis depicts the publication ‘year’; the primary y-axis represents ‘publications per year’, and the secondary y-axis depicts the ‘sum of times cited per year’. The authors analysed the studies from 1990 (see figure 4), and there were only 110 publications on corporate entrepreneurship champions till 2005. There has been a growing trend for publications since 2006, with most publications happening in 2019 (45), while the highest number of citations are observed in 2020 (2648). The concept of corporate entrepreneurship has been evolving over the last 40 years (Hornsby et al., 2002). The era of the 1990s is known for establishing “restructuring” as a tool for organisation renewal. A major emphasis of the CEOs was to deliver higher profits through re-engineering efficiencies and cost rationalization. The financial markets crash in 2008 created a crisis of leadership “purpose”. Moreover, post-2008, the nature of shareholders has transformed and has moved away from that of individual owners, which accounted for 40% in 2001 and continues to decline even today. The new corporate ownership rests with financial institutions (pension funds, mutual funds, insurance companies, etc). This has led to a big trend in leadership purpose in innovation and collaboration, and CEO’s are focused on innovation and collaboration, which could help them disrupt the marketplace (Nagpal, 2013). Going further, firms are rapidly turning to corporate entrepreneurship as a strategy as organizations seek to develop innovation (Kuratko, 2017) continually. The rise in publications is witnessed post-2008, which signals the urge of corporates to re-enforce the CE culture post-global financial crisis.

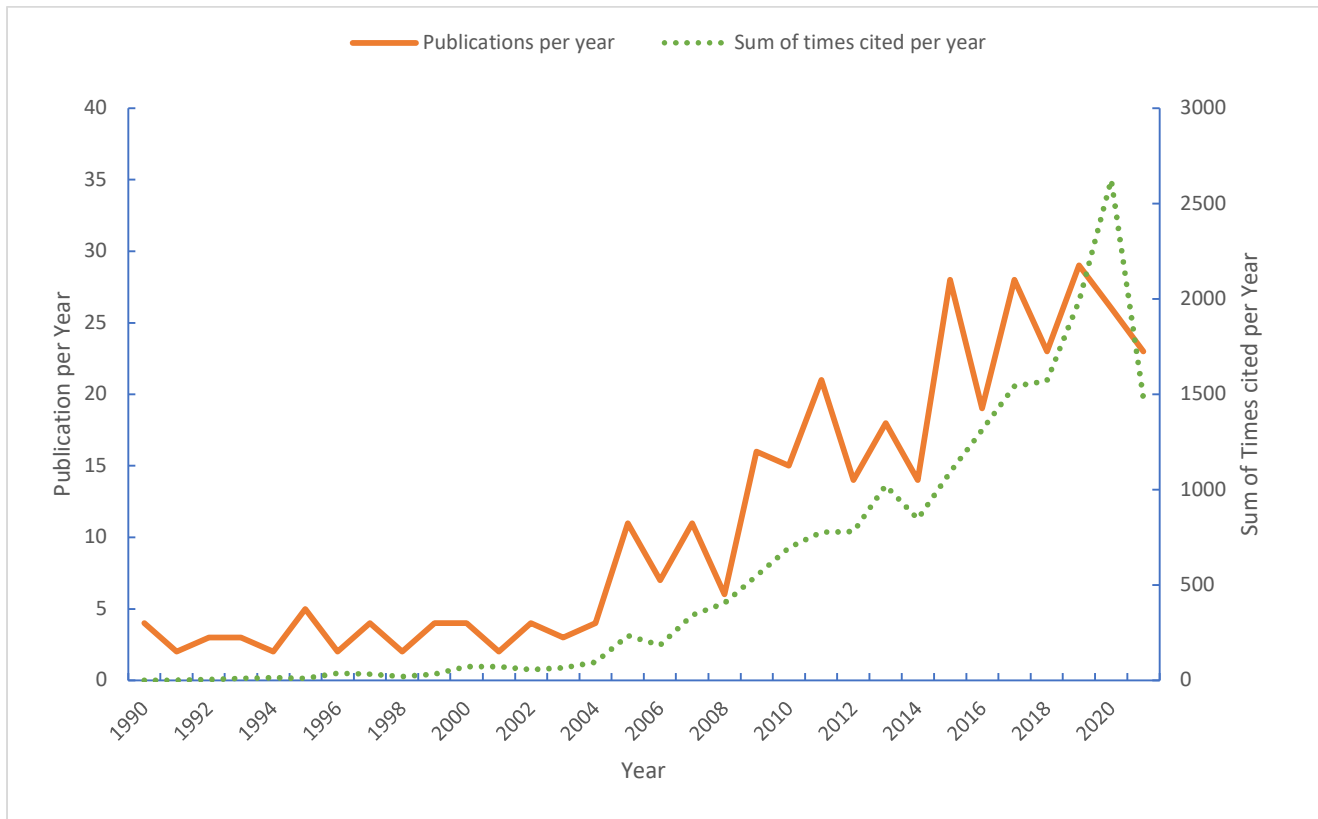


Figure 4. Publications and citations per year

4.1.2. Top 10 most productive authors

Rank	Author	Number of publications	h_index	g_index	m_index	Total citations	Year of first publication
1	Foss, Nicolai J.	4	4	4	0.5	83	2014
2	Hornsby, Jefferey S.	4	4	4	0.2	426	2002
3	Hughes, Mathew	4	4	4	0.667	49	2016
4	Kuratko, Donald F.	4	4	4	0.2	500	2002
5	Lyngsie, Jacob	4	4	4	0.5	83	2014
6	Chang, Yi Ying	4	3	4	0.429	30	2015
7	Patzelt, Holger	4	3	4	0.214	157	2008
8	Bakker, Arnold B.	3	3	3	0.6	55	2017
9	De Clercq, Dirk	3	3	3	0.273	76	2011
10	Gawke Jason C.	3	3	3	0.6	55	2017

Table I. Top ten most productive authors

Table I presents the most productive authors derived from the bibliometrix R-package and arranged according to the total number of publications (highest to lowest) in this study domain. The number of publications (column 3 from left) are part of the 274 downloaded papers. The h-index is an author-level metric that depicts the citation impact and productivity of the studies published by a researcher (Hirsch, 2005). The g-index and m-index are variants of the h-index, where the g-index assesses researchers' top articles' performance by estimating the distribution of citations received, and the m-index is computed as h-index per year since the first publication of the researcher. The m-index is particularly important for early-career scholars, as their contributions may not be well represented in the h-index due to their recent publications (Mazurek, 2017). Table 1 exhibits that 'Foss, N. J.' leads in the number of publications, h-index, and g-index, whereas 'Hughes, M' has the highest m-index (0.667).

4.1.3. *Keywords Analysis*

Keywords are nothing but the important terms used in articles, and its analysis can provide insight into main topics and research trends in the domain of corporate entrepreneurship champions. Figure 5 draws the keyword analysis map created with the help of VOSviewer software. For this study, the authors set the minimum number of occurrences at five, which corresponds to 85 of 11,58 keywords. For each of the 85 keywords, the total strength of the co-occurrence links with other keywords is calculated, and only the keywords with the greatest total link strength are displayed.

The node size represents the number of occurrences of each keyword, implying that the greater the node size, the higher the occurrences of a term in the abstracts and titles of the corporate entrepreneurship champions research. The distance between the keywords provides information on their relatedness or similarity. The shorter the distance between the keywords, the more is similarity or relatedness. The colour coding distinguishes the six clusters presented in this study (van Nunen *et al.*, 2018), where cluster 1 consists of 21 keywords mostly based on "role of middle managers and organisational commitment". According to Burgess (2013), senior management initiates CE; middle managers carry out their directives and hence have a significant role in its success. The cluster keywords include transactional leadership, productivity, turnover, intrapreneurship, behavior, model, business, leadership, impact, antecedents, creativity, decision-making, corporate entrepreneurship, middle managers, transformational leadership, job-satisfaction, work engagement, work, commitment, employees, organizational identification. Cluster 2 can be renamed as "entrepreneurial resources management" (Wiklund and Shepherd, 2003). The cluster comprise of 18 keywords such as opportunity recognition, discovery, information, capabilities, identification, knowledge, knowledge management, entrepreneurship, entrepreneurialism, competitive advantage, resources, performance, innovation, perspective, firm, dynamic capabilities, networks and technology. Cluster 3 includes 16 keywords that

Note: The node size represents the number of occurrences of each keyword whereas the distance between the keywords provides information on their relatedness or similarity. The colour coding distinguishes the six clusters presented in this study

Figure 5. Keyword Network Analysis map

4.1.4. Key countries, authors and keywords

Figure 6 presents an integrated view of interconnections among countries (left), authors (middle) and keywords (right) produced using bibliometrix R-package. The length of the rectangle of each field is representative of the total number of links with other fields. For example, 12 out of top 20 authors ('Hornsby', 'Kuratko', 'Mustafa', 'Simsek', 'Zahra', 'Hughes', 'Rightering', 'Patzelt', 'Shepherd', 'Marques', 'Foss' and 'Urbano') are from the USA, this is similar to the findings of country collaboration map where USA lead the publication count (see figure 8). The expertise of these authors spread around 'corporate entrepreneurship', 'entrepreneurial orientation', 'performance', 'intrapreneurship', 'creativity', 'human capital' and 'employees'; followed by eight authors from the United Kingdom ('Hornsby', 'Kuratko', 'Mustafa', 'Hughes', 'De Clerq', 'Rightering', 'Foss' and 'Lynsie') who also specialise in same areas (as USA). Additionally, the keyword 'corporate entrepreneurship' (12 links) is the most used keyword in the CE champions literature, followed by 'intrapreneurship' (8 links), which is evident from keyword analysis (figure 5) as well.

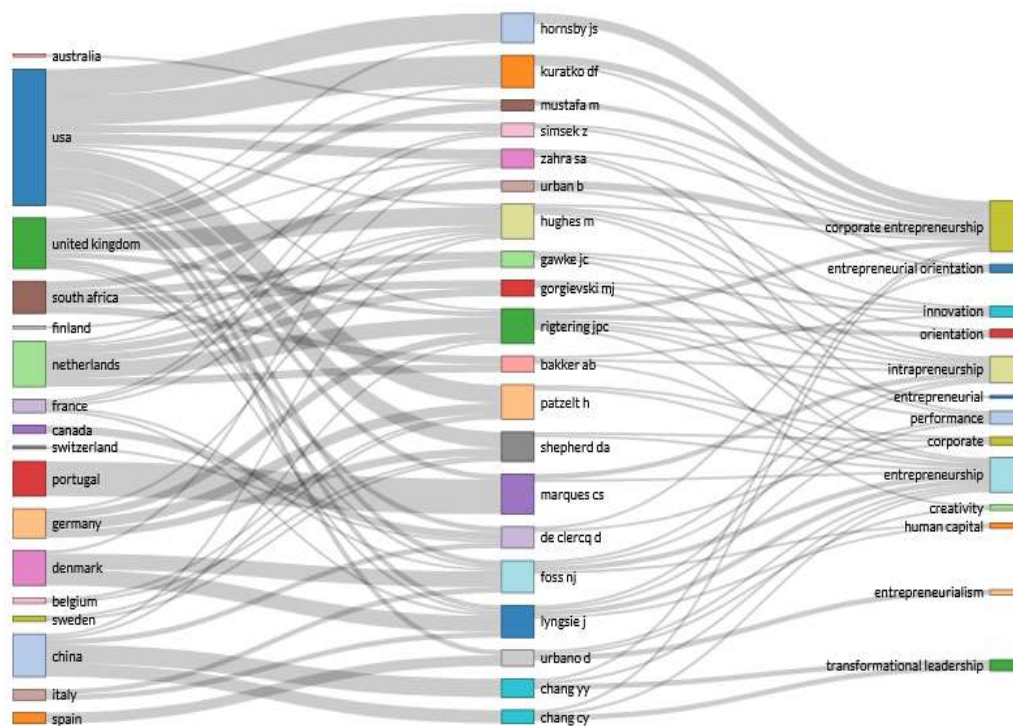


Figure 6. *Key countries, authors and keywords*

4.2. *Social structure of publication corpus*

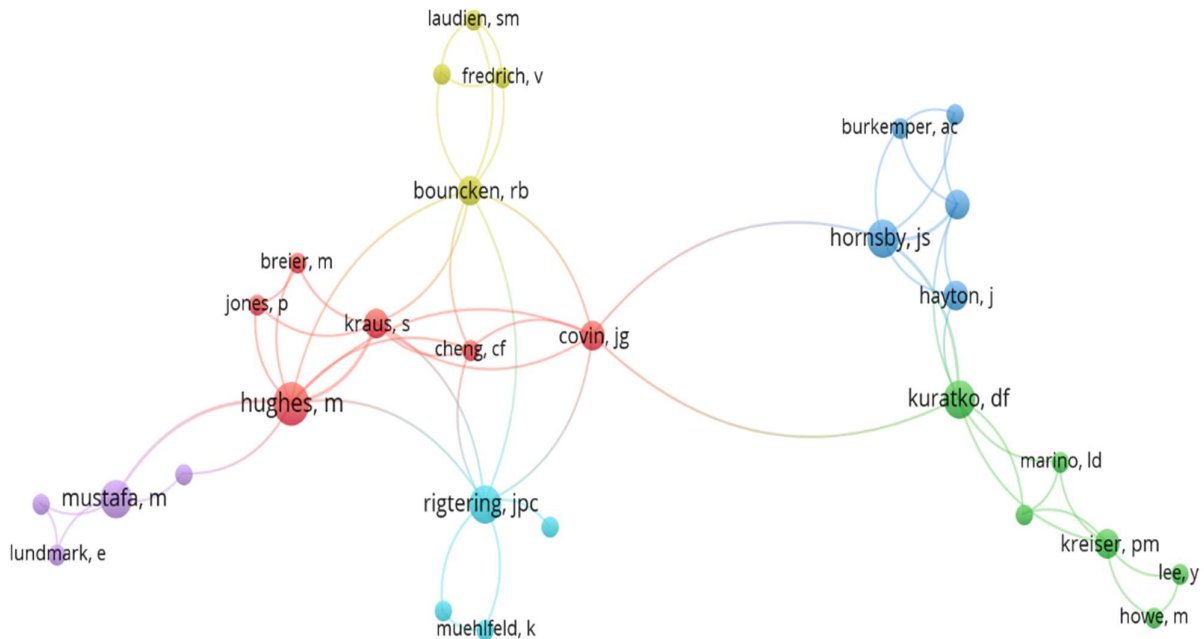
4.2.1. *Co-authorship visualisation analysis*

We applied the function module of the co-authorship visualisation in VOS viewer for analysing the cooperation pattern of the authors and their countries publishing on C.E. champions research. 564 authors (minimum '1' author per publication) contributed to the 274 papers used for this review. Figure 7 displays the cooperation network (involving 29 interconnected authors). The analysis also allows collaborations to be mapped across different time periods, allowing scholars to evaluate the trajectory of intellectual development in relation to collaboration networks and preparing aspiring scholars with crucial insight to reach out to formed and trending scholars in the research field (Donthu *et al.*, 2021). We observed six clusters in total, where the first (Hughes, M; Kraus, S; Covin, JG; Cheng, CF; Breier, M; Jones, P) and second (Kuratko, DF; Kreiser, PM; Marino, LD; Weaver, KM; Howe, M; Lee, Y) cluster comprises six authors each.

The authors part of first cluster have published on “entrepreneurial orientation and CE antecedents”, whereas the authors belonging to second cluster have mostly published on “firm performance, Innovation and disaggregating entrepreneurial orientation”. Third cluster includes five authors (Hornsby, JS; Bloodgood, JM; Burkemper, AC; Hayton, J; Sarooghi, H) and they have commonly published on topics such as network legitimacy diffusion as well as CE system dynamics perspective. Fourth (Bouncken, RB; Fredrich, V; Goermar, L; Laudien, SM), fifth (Mustafa, M; Lundmark, E; Martin, L; Ramos, HM) and sixth (Rigtering, JPC; Muehlfeld, K; Weitzel, GU; Weitzel, U) cluster contains four authors each, where authors belonging to fourth, fifth and sixth cluster have published on topic such as co-working spaces and cooperation; middle manager entrepreneurial behaviour and restaurant or hotel entrepreneurship; and intrapreneurship and employee behaviour, respectively. The topics on which these authors have been collaborating can be considered as trending ones, based on which future researchers can work on further lines.

Interestingly, “Hughes, Mathew” belonging to the red cluster, is the most productive author in the area of “CE champions” literature. He has been publishing on CE antecedents, job satisfaction, psychological ownership and middle Manager Entrepreneurial Behavior, etc (Hughes and Mustafa, 2017; Mustafa *et al.*, 2016). Furthermore, 10.98% ($n = 89/810 \times 100$) of the authors have contributed at least two publications, while 1.10% ($n = 9/810 \times 100$) authors have contributed four or more publications. The meagre proportion of collaborating authors (49) out of the total authors (810) underlines the need for more collaborative research in this domain as the multi-authored publications are only one-tenth of all the publications. A large number of co-authored publications is indicative of a closed knot

relationship among the authors within the same area of research and a greater probability for future collaborative work (Wang *et al.*, 2014).



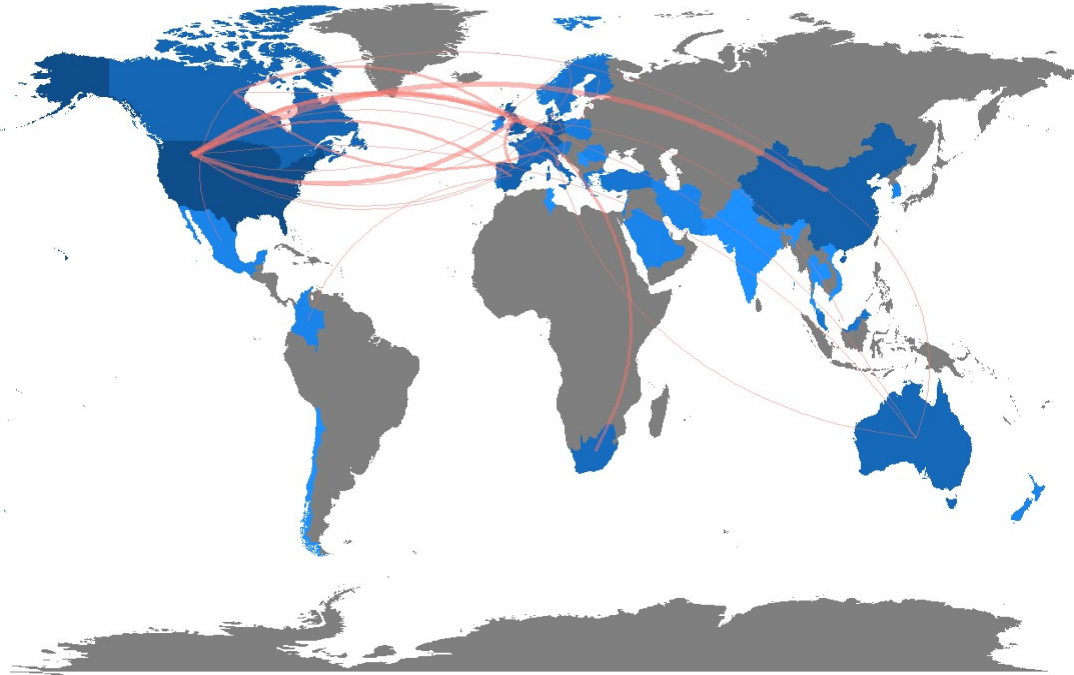
Note: The node size and thickness represent the number of occurrences of each author whereas the distance between them provides information on the relatedness or similarity in terms of research area. The colour coding distinguishes the six clusters based on area of interest.

Figure 7. Co-authorship visualisation map

4.2.2. Country collaboration map

Another frequently used bibliometric technique is country collaboration, which analyses authors and their relationships (based on countries) in order to determine the social structure and collaborative networks. The publications covered in this study originate from 60 countries as given in figure 8, produced using bibliometrix R-package. Figure 8 shows the collaboration pattern in the world where the colour scale represents the scientific productivity along with the existence of research networks with other countries in the area (light blue – low productivity, dark blue – high productivity). The maximum number of links and the link strength emerges from the USA (120), followed by China (42), Spain (35), Germany (33), England (33), Netherlands (32), Portugal (22), Australia (19), and Canada (14). The USA leads in multiple co-author publications (15) also, followed by the Netherlands (9) and Australia (6). This exhibits that most of the work on CE and champions has been undertaken in the developed countries, while the developing and underdeveloped countries lag. Only a few studies have been published from continents such as South America, Africa, and most of Asia (except for India, China,

Iran, Turkey and Pakistan). Moreover, ten countries have only single-authored publications, namely, South Africa (6), Turkey (5), Israel (3), Iran (2), Romania (2), Slovenia (2), India (1), Lebanon (1), New Zealand (1), Tunisia (1) (Nita, 2019). The authors from these countries need to work collaboratively to open prospects of working on the related topic, as the knowledge only increases when shared with others (Wang *et al.*, 2014).



Note: The colour scale represents the scientific productivity along with the existence of research networks with other countries in the area (light blue – low productivity, dark blue – high productivity)

Figure 8. Country collaboration map

4.3. Intellectual structure of the publications

4.3.1. Co-citation analysis of publications

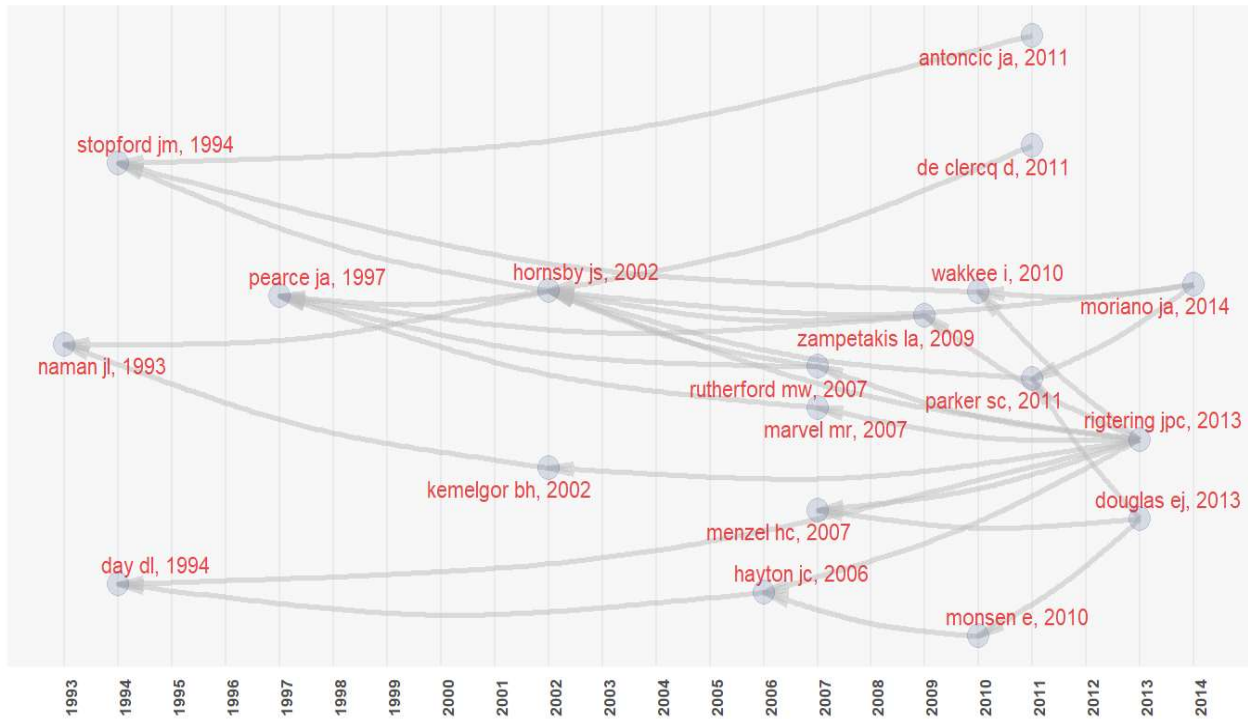
Figure 9 presents the visualisation map for document co-citation analysis of 15988 references of 274 documents analysed using bibliometrix R-package. We used the references of the sample documents to develop the visualisation of co-citation analysis and only those documents are shown that have minimum 20 co-cited references. Co-citation means the number of times two units are cited together, and the more the number of items is cited together, the more is the possibility of the content to be related. The authors conduct document co-citation analysis that bridges the published research (articles, proceedings, books or other published data) in the particular research domain (figure 9) using the Louvain method (Blondel *et al.*, 2008), one of the community findings algorithms and by keeping other

Note: The label size and thickness represent the number of occurrences of each publication whereas the distance between them provides information on the relatedness or similarity in terms of research area/topic. The colour coding distinguishes the three clusters based on area of interest. The number written after year depicts the number of times that reference has occurred amongst 50 references.

Figure 9. Co-citation analysis map based on publications

4.3.2. *Historiographical map of the most influential publications*

Figure 10 presents the historiographical map created using bibliometrix R-package. Through historiographical analysis, the authors capture the evolution and dynamics of the research area (Van Eck and Waltman, 2010) by examining the relationships between primary publications or those publications that are directly fetched using the database. It generates a chronological citation network, which acts as a timeline for the most significant citations in a bibliographic collection (derived from WOS and Scopus databases). The greater the citation count of a primary publication, the higher its importance as the knowledge diffuses from that primary publication to other primary publications. Consequently, historiography lays an understanding of dominant paradigms and their shifts in a particular research area (Garfield, 2004). Figure 10 shows that Day (1994); Naman and Slevin (1993); Stopford and Baden-Fuller (1994) are the oldest publications focussing on CE dimensions, entrepreneurship in SME's (small and medium enterprises) and championing innovation in corporate ventures, respectively. Further, Stopford and Baden-Fuller (1994) is used in three more studies (Antoncic and Antoncic, 2011; Hornsby *et al.*, 2002; Moriano *et al.*, 2014) on employee satisfaction, intrapreneurship and firm growth, internal environment for CE, and transformational leadership. Thus, showing the development of the C.E. champions field over time and displaying a chronological order of the most important publications, along with their thematic evolution and citation relations (Vogel *et al.*, 2020).



Note: The nodes are placed chorological manner based on the most relevant citations resulting from bibliographic data of the reviewed papers.

Figure 10. Historiographical map

4.4. Conceptual structure of the publication corpus

4.4.1. Factorial analysis using Multidimensional analysis

This section presents a two-dimensional conceptual structure map of the scientific field based on factor analysis and clustering using multidimensional scaling (MDS) methodology. The factorial analysis generates information regarding the main areas of the discipline and identifies how the most-cited studies have contributed to the construction of CE champions research (Wang and Hu, 2011). The results are evaluated in terms of the points' relative positions and their distribution along the dimensions; the more similar the distribution of the words, the more closely they are represented on the map.

Figure 11 outlines two clusters marked in red (49 keywords) and blue (7 keywords). The proximity between the keyword presents the degree of similarity among these words. For example, keywords like 'discovery', 'intrapreneurship' and 'champions' are placed closely, depicting the relevance of discovery for becoming CE champions in the organisation (Salvato *et al.*, 2010). The red cluster consists of keywords such as corporate entrepreneurship, performance, innovation, management, dynamic capabilities, environment, strategic management, human resource management, market orientation, etcetera, depicting the relevance of innovation and strategic planning in organisations (Kuratko *et al.*,

Generally, themes presented in the upper-right quadrant are called motor themes which are well established and are crucial for the research field structuring. The upper-left quadrant contains niche themes that are marginally significant for the field, with well-developed internal connections but less compelling external connections. Themes located in the lower-left quadrant are underdeveloped and marginal, indicating either emerging or disappearing. Basic themes falling within the lower-right quadrant are transversal and fundamental since these are essential for the study but are not sufficiently developed (Chen *et al.*, 2019).

Five basic or transversal themes, namely, ‘innovation’, ‘corporate entrepreneurship’, ‘human capital’, ‘entrepreneurial orientation’ and ‘entrepreneur’, appear in the lower-right quadrant. The size of the circles substantiates that these themes are well researched; however, scholarly inquiries into these themes are further warranted. ‘Innovation’ is the largest theme appearing in the basic quadrant with the highest Callon’s density (149.05) and low Callon’s centrality (5.023). The studies on this subject examined the firm’s capacity to improve creative capability, competitive processes, and an atmosphere conducive to innovation capabilities. The second-largest (in the same quadrant) theme of ‘Corporate entrepreneurship’ addresses the fundamental questions relating to the concept and measurement of the strategic process concerning entrepreneurial activity, developing intrapreneurial culture (Lee *et al.*, 2019). ‘Human capital’ touches upon the aspects such as strategic human capital management (Hayton, 2003) and human capital in eco-innovative firms (Scarpellini *et al.*, 2017). ‘Entrepreneurial orientation’ addresses research topics such as the aspects of entrepreneurial orientation at the company level, the importance of strategic process variables (participation in strategic decision-making, policy formulation mode, and strategic learning from failure) in entrepreneurial orientation, and the advancement of EO theory and research (Brown and Mason, 2014). The fifth theme, ‘entrepreneur’ contrasts the intrapreneurs from employees in the organisation (Dézsi-Benyovszki and Szabó, 2017; Filatotchev *et al.*, 1999).

Three niche themes, namely ‘leadership’ (Boukamcha, 2019; Chang *et al.*, 2018), ‘empowerment’ (Moghaddas *et al.*, 2020) and ‘family firms’ (Madison *et al.*, 2018) appear in the top left quadrant. Leadership appears partially as a peripheral theme, and its positioning indicates the importance of the theme in establishing CE champion’s research. The theme of leadership examines issues such as personality characteristics, leadership behaviours, and tactics of influencing innovation champions.

Three motor themes (‘intrapreneurship’, ‘absorptive capacity’ and ‘case study’) appear in the top right quadrant. ‘Intrapreneurship’ deals with corporate cultural factors that will promote intrapreneurship. The theme has the largest size, with Callon’s density as 224.14 and Callon’s centrality as 4.50, indicating sufficient development of the theme. ‘Absorptive capacity’ appears mainly as a motor theme highlighting the firm’s ability to recognise any new information and apply it to commercial ends for enhancing the innovative capabilities. The theme ‘Case study’ addresses intrapreneurial traits,

intrapreneurial mechanisms, and how businesses should cultivate an intrapreneurial culture through the case study approach.

The lower left quadrant of the strategic diagram (figure 12) includes a key theme, namely ‘entrepreneurial behaviour’. This indicates this could be either an emerging or disappearing theme within the CE champion’s research corpus. The analysis suggests it to be a disappearing theme as the publications having keywords of this theme were published during the initial years of the CE champions research. These included studies focusing on middle-level managers’ entrepreneurial behaviour (Hornsby *et al.*, 2002) and successful implementation of corporate entrepreneurship actions (Hornsby *et al.*, 2009), etc.

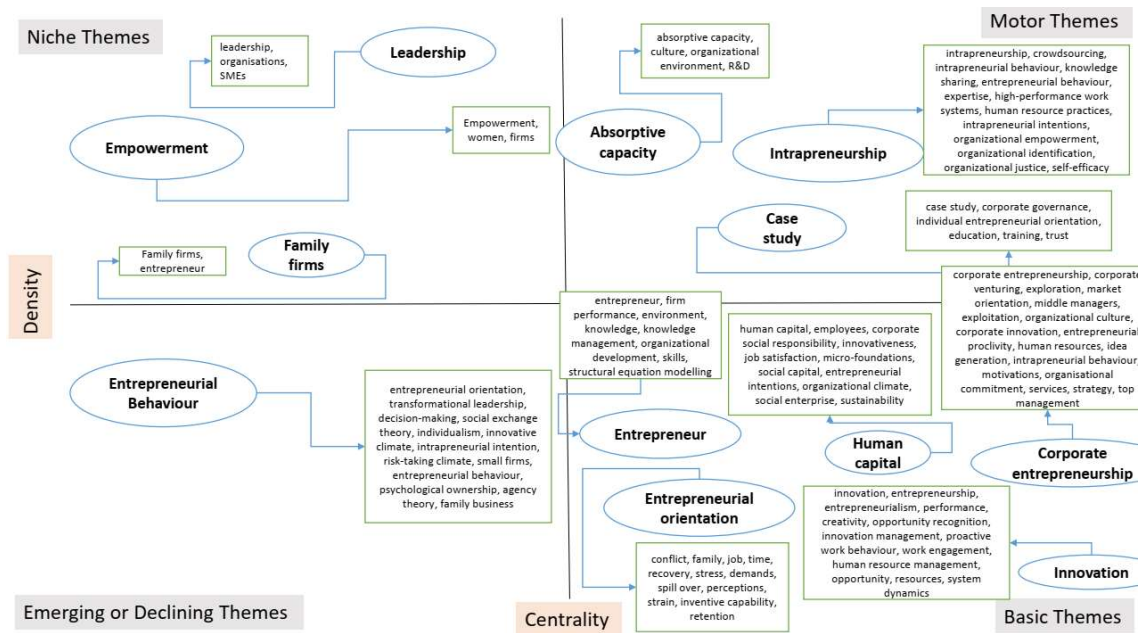


Figure 12. Thematic map

5. Discussion

Findings of this study bring out twelve themes in the CE champions literature classified into five basic themes (innovation, corporate entrepreneurship, human capital, entrepreneurial orientation, and entrepreneur), three niche themes (leadership, empowerment, and family firms), three motor themes (intrapreneurship, absorptive capacity, and case study), and one key theme (entrepreneurial behaviour). The key finding of this study underlines the need for creating a CE culture within organisations to foster research and development, create newer technologies and products, and unlock long-term value. The twelve themes outlined above serve as a roadmap for achieving this goal at the organisational level, thereby contributing to the policy implication of this study.

In this study, the authors posit that nurturing CE champions by creating a CE culture will have positive implications at organisation and individual levels. At the organisation level, firms can not only innovate in terms of R&D, develop newer products, improve employee engagement, increase productivity, and improve firm performance, but also contribute towards macroeconomic growth of the global economy by unlocking long-term value. Any decision to act intrapreneurially is the culmination of the interaction of three factors i.e. organization characteristics, individual characteristics, and a precipitating event. (Hornsby *et al.*, 1993). Organisations can consider suitable frameworks such as some may execute the task of new-business creation, assigning it to the existing divisions, while others may adopt a centralised approach by lodging it in special-purpose divisions or venture groups. Both approaches have delivered mixed results.(Garvin & Levesque, 2006)

At the individual level, as highlighted in the earlier parts of this section, this can also help engage the employees unprecedentedly (Toth *et al.*, 2021). More precisely, countries with younger demographics may leverage huge benefits from this culture, as millennials and generation Z would feel engaged and motivated by the happening nature of entrepreneurship, which the conventional jobs do not offer.

For this, the organizations can objectively assess the personality characteristics of either potential or current employees, as this is essential to identify the influence of individual differences on innovative behavior. Moreover, individuals identified as having intrapreneurial potential could be targeted for training or other intrapreneurial opportunities. (Hornsby *et al.*, 1993). Further, a framework linking employee aspirations with the organisation policies could be used. For instance, IndiaFirst Life Insurance Company Limited understood that growth and profitability were the common objectives of the organization and employees. Thus, the organisation created a new vision of being the change agent to achieve business objectives by meeting employee aspirations through innovative people, practices, policies and processes (Ghura, A.S., 2021).

Therefore, the authors argue that the scholarship in the countries with younger demographics needs to explore the possibilities and suggest how companies can create the CE culture and promote employee engagement towards CE. The authors hope that this study will advance the scholarly research in the field of CE champions while also instilling the CE culture within companies and thereby contributing to global economic growth.

6. Avenues for future research

Based on the analysis reported in the earlier sections, the authors propose a future agenda for research. To guide future scholarship in the field, the authors classify future research agendas in terms of thematic RQs and methodological suggestions. Thematically, we propose four key research questions for the future scholarship to study for advancing the knowledge on CE champions. On the other hand, the methodological recommendations of this study indicate the key methodologies to be employed by future

researchers in the field. Besides, in this section, the theoretical outcomes and practical (policy) implications from this study are indicated (figure 13).

The findings of this study point to certain crucial areas that have received insufficient scholarly attention. Despite repeated demands for qualitative research on this topic over the years (Covin and Slevin, 1988; Miller, 1983), the virtual absence of such research is still evident. The research on the individual characteristic of corporate entrepreneurship champions has been fragmented and mostly inconclusive. The scholarly interest in uncovering such constructs remains to be engaged (Stewart and Roth, 2004). Furthermore, because no comprehensive review of CE champions has been conducted to far, the future research and policy agenda is unknown, which is addressed in this section. (see figure 13).

Looking at the literature, the authors have highlighted thematic RQs and methodological suggestions. The thematic RQs are explained in detail in the below section. The practical and policy outcome will allow the firms to have a better engagement of the employees, which will further lead to value additions at both individual and organisation levels. Moreover, creating cultivating CE champions will lead the firms to maximise the value of a business by culminating in faster economic growth.

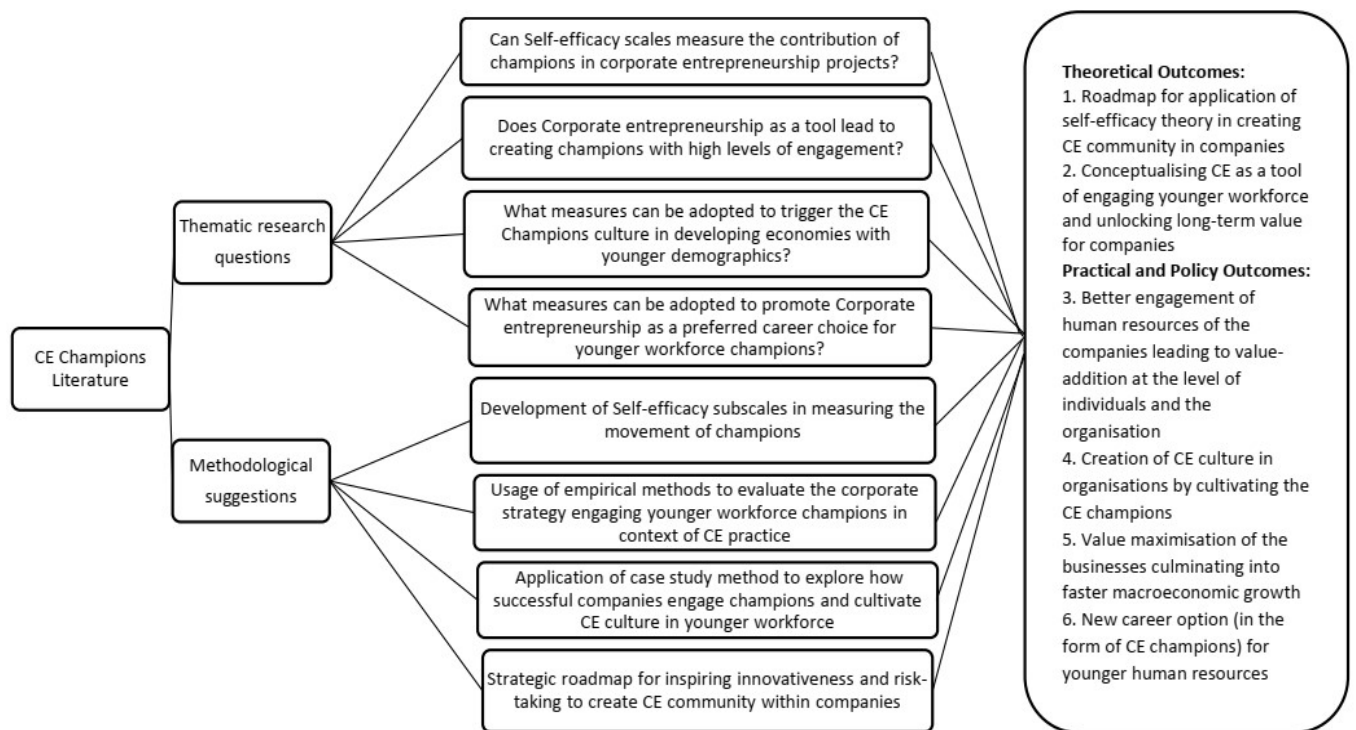


Figure 13. Thematic research questions and methodological suggestions

5.1. Self-efficacy scales measuring the movement of champions in corporate entrepreneurship projects

Self-efficacy theory emphasises the critical determinants of behavioural change and underlines the human differences in preconceived notions and generalised self-efficacy expectations. Self-efficacy is theorised to be a multidimensional construct (Drnovšek *et al.*, 2010), which makes it essential and appropriate for the study of entrepreneurship. For instance, it is a task-specific construct that includes an assessment of confident beliefs an individual has about internal (personality) and external (environment) constraints and possibilities, and it is close to the action and action intentionality (Boyd and Vozikis, 1994). The literature highlights two Self-efficacy subscales (a General Self-efficacy subscale (17 items) and a Social Self-efficacy subscale (6 items) which are useful (Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, 1982) to measure these generalised expectancies. One relevant entrepreneurship-specific aspect about intrapreneurship concerns the concept of Entrepreneurial Self-efficacy (ESE). Johnson and Wu (2012) state that ESE is a “pull” factor for entrepreneurship. Further, Douglas and Fitzsimmons (2013) examine differences in entrepreneurial and intrapreneurial intentions while maintaining ESE is related to both these intentions. Corporate entrepreneurship and self-efficacy independently are among the most commonly researched areas, but joint studies on these two constructs are rare. Given that minimal research concerning the two Self-efficacy subscales in measuring the movement of champions in corporate entrepreneurship projects within an organisation, there is a knowledge gap in this area. CE scholars may tailor the perceived efficacy scales to comprehend the behaviours so as to tailor towards individuals as CE champions (Bandura, 2006) because the genesis of corporate entrepreneurship for an entity begins with an individual to a community of innovators known as champions (De Jong, Parker, Wenekers, & Wu, 2015).

This leads us to propose research question 1 (RQ-1): Can Self-efficacy scales measure the contribution of champions in corporate entrepreneurship projects?

5.2. Corporate entrepreneurship as a tool for creating champions with high levels of engagement

Starting from the contributions of Kanter (1987), the literature addresses the outcomes of CE as improved company growth and profitability (Kuratko *et al.*, 2017). Different studies use different perspectives to quote the outcome of corporate entrepreneurship, but little is known regarding the engagement of the champions as an outcome. Considerable work has investigated the organisation, environmental, and strategic aspects of CE, but the opportunity to look at corporate entrepreneurship as a tool for engagement seems to have been missed considerably (Ghura and Goel, 2018).

In the context of corporate entrepreneurship, it is the champions who indulge in an array of behaviours that includes opportunities and threats identification, generating and championing ideas, selling these ideas to peers within the company, initiating an effort to make it happen, and confidently move ahead-searching opportunities while accepting the risk of potential losses (De Jong, Parker,

Wennekers, & Wu, 2015). Engaged employees are defined as “employees while performing their work employ and express them physically, cognitively and emotionally”, employee engagement is widely known and the most extensively used concept in the human resource development field (Rana *et al.*, 2014). Employee engagement benefits the organisation as there is growth in work performance (Mercer *et al.*, 2010).

The younger workforce, including millennials and generation Z (Ghura, 2017), has started to enter the global workforce (Bhalla *et al.*, 2017). They witness an employee engagement crisis with serious consequences for the economy (Mann and Harter, 2016). As per the Gallup study, the employee engagement rate worldwide is 13%, with the US having 32% of employees engaged (Bates, 2004) and India engaging only 9% of employees (Jena, 2016). Zahra *et al.* (1999) highlight that the existing research has missed identifying triangulation, which allows future exploration of exciting opportunities to endorse, review and enhance corporate entrepreneurship measures. For instance, the increasing population of younger workers, low levels of employee engagement, and the younger workforce's suitability as corporate entrepreneurship champions are the factors that CE research overlooks (Ghura and Goel, 2018). Corporate entrepreneurship and employee engagement independently are among the most commonly researched areas recently, but joint studies on these two constructs are scarce (Afework and Raju, 2015). As is evident from the analysis in the previous section, none of the themes focused on “employee engagement” is visible in the extant literature (figure 12). However, the keywords “corporate entrepreneurship” and “work engagement” are observed to be part of the red cluster (with the highest link strength) in the keyword network analysis map (Figure 5). Given that minimal research has studied employee engagement of the younger workforce champions as an outcome of corporate entrepreneurship practice, there is a knowledge gap in this area. It becomes essential to advance the discussions on corporate entrepreneurship by introducing an integrative framework conceptualising corporate entrepreneurship as a tool to engage the champions.

This leads us to propose research question 2 (RQ-2): Does Corporate entrepreneurship as a tool lead to creating champions with high levels of engagement?

5.3. Corporate entrepreneurship champions in developing countries with younger demographics

While most entrepreneurial ideas are oriented toward developing markets, their applicability to emerging economies remains largely untested (Van Wyk and Adonisi, 2012). Apart from China, no other developing country was part of the top 10 productive countries in the country collaboration map. Substantial research has been carried out on this theme in the US (Zahra, S. A., Nielsen, A. P., & Bogner, 1999), and fewer studies have used the data from non-U.S. companies, including Canadian (Miller, 1983), Norwegian (Knight, 1997), Japanese (Deshpandé *et al.*, 2012); Swedish (Wiklund, 1998); and South African and Portuguese (Morris *et al.*, 1994). The development of future research warrants papers

using multi-country samples or from countries with younger demographics, such as those from Asia, Latin America or Africa (Serrano-Bedia *et al.*, 2016).

For instance, India is one country with a huge amount of younger dynamics. India has witnessed an entrepreneurial revolution since 2000 with the rise in the number of first-generation entrepreneurs with more diverse backgrounds, leading to the democratisation of entrepreneurship in India. Access to education and exposure to role models changed the views of the younger workforce and opened up entrepreneurship as a career avenue (Ho *et al.*, 2021). The new generation is realising a huge emerging opportunity in India that is markedly different from earlier generations (Mendonca and Jain, 2019).

The literature has listed factors in different economies which are favourable for different forms of corporate entrepreneurship. These include higher GDP for developed economies (Guerrero and Peña-Legazkue, 2013); the role of culture and entrepreneurial orientation in the US and the Netherlands (Kemelgor, 2002); corporate governance in the UK (Elgharbawy and Abdel-Kader, 2016); and management support, rewards, and recognition in Thailand (Sebora *et al.*, 2010). In this way, the extant literature has studied the organisational and environmental factors concerning CE champions and has missed looking at the perspective of individual age i.e. younger demographics favourable for CE champions. It is critical to advance the discussions in this area by introducing a theoretical and policy framework that relates corporate entrepreneurship in economies with younger demographics such as India.

This leads us to propose research question 3 (RQ-3): What measures can be adopted to trigger the CE Champions culture in developing economies with younger demographics?

5.4. Corporate entrepreneurship as a career choice for younger workforce champions

Corporate entrepreneurship for an entity begins with champions, and these individuals have the characteristics of innovation, proactivity, and risk-taking, which becomes the base of the corporate entrepreneurship process (De Jong, Parker, Wennekers, & Wu, 2015). None of the previous studies has attempted to establish corporate entrepreneurship as a career choice for the younger workforce champions. The inner self of the younger workforce is that of an innovator, and as a result, more than 72% of high school students want to have their businesses, and 76% aspire to convert their hobbies into full-time jobs (Abramovich, 2015). As entrepreneurship is the new ambition, the younger generation is walking away from conventional jobs by becoming entrepreneurs (Bond, 2016; Harima *et al.*, 2021). This requires businesses to rethink their current organisational processes to facilitate the transfer of innovations from their younger employees to the boardroom (Grafton, 2011), thus enabling them to become champions.

Economists have long recognised the importance of inter-industry variations in explaining entrepreneurship and determining its effect on company performance. For instance, the current era has witnessed a tidal wave of change, where factors such as budding technologies, changing demographics, workplace attitudes and business models change simultaneously. As a result, current work practices such as changes in the demand for talent become unrecognisable rapidly (Bhalla *et al.*, 2017). Ener (2014) argues that companies will have to employ a corporate entrepreneurship strategy with a focus on idea champions to manage this shift, which requires using underutilised resources of ideas and people.

This leads us to propose research question 4 (RQ-4): What measures can be adopted to promote Corporate entrepreneurship as a preferred career choice for younger workforce champions?

6. Conclusions

This path-breaking study is the first one to review the literature concerning CE champions. The authors conducted an in-depth review of 274 papers drawn from the prestigious Web of Science database to sketch the social, intellectual, and conceptual structure of the scholarship in the field. While the field of CE research started developing for over 40 years now (Peterson and Berger, 1971), the focus shifted towards the role of champions in creating CE culture in organisations more than fifteen years later with the critical contributions from Brenner (1987); and McGrath and MacMillan (1992). Since then, extensive research has studied CE champions, but the findings remain fragmented due to the lack of a consolidating review in the field. Apart from impeding the advancement of scholarship to the next level, this lack of an exhaustive review has also hindered managerial policy's efforts to establish a CE community.

The authors posit that nurturing CE champions by creating a CE culture will have positive implications at organisation and individual levels. At the organisation level, firms can not only innovate in terms of R&D, develop newer products, improve employee engagement, increase productivity, and improve firm performance, but also contribute towards macroeconomic growth of the global economy by unlocking long-term value. At the individual level, as highlighted in the earlier parts of this section, this can also help engage the employees unprecedentedly. More precisely, countries with younger demographics may leverage huge benefits from this culture, as millennials and generation Z would feel engaged and motivated by the happening nature of entrepreneurship, which the conventional jobs do not offer. Therefore, this study argues that the scholarship in the countries with younger demographics needs to explore the possibilities and suggest how companies can create the CE culture and promote employee engagement towards CE. This study is expected to advance the scholarly research in the field of CE champions while also instilling the CE culture within companies and thereby contributing to global economic growth.

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