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Review Article

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Incorporation of Corporate Startup: A Definition, Challenge, and Future Research Agenda

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Abstract

Objective: A corporate startup is a business development initiative led by a company's employees, using the company's resources and with the support of top managers. It aims to address business problems that arise within the company. This study seeks to define a corporate startup, highlight its challenges, and identify areas for future research.
Design/Methods/Approach: The method employed is a literature review based on the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) paradigm, with systematic searches from a database of high-quality scientific journals indexed by Scopus (Q1 and Q2). Selected publications relevant to the theme will be reviewed, and data will be summarized.
Findings: This study finds three challenges that occur for corporate startups, namely collaboration development with internal and external corporate startups, finding competent mentors for corporate startups, and resource management competency. Further research can be continued by discussing three things, namely identifying companies that practice corporate entrepreneurship and capturing qualitative and quantitative organizational designs to enable corporate entrepreneurship, more research on developing countries, and the creation of standard standards regarding the evaluation of startup corporate models in various companies across industries and countries.
Originality/Value: This research is the first study to describe the definition of corporate startups obtained from various high-quality journals (Scopus Q1 and Q2), which discusses various applications of corporate startups worldwide, the majority in the form of case study studies. With various views on the applications in the industry through Case Studies, this research also explained a review of the challenges and agenda of research in the future Corporate Startup, originating from various practices over the past 20 years on four different continents.
Practical/Policy implication: Companies can implement corporate startups by utilizing a model derived from this paper. This involves embracing specific definitions, addressing challenges proactively, and outlining future research directions based on the findings of this study. Academics can also apply future research agendas to subsequent research to develop research related to Corporate Startup.

Keywords: Corporate Startup, Challenge, Systematic Literature Review

JEL Classification: L2

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1. Introduction

The acceleration of information drives rapid business competition today. The activity of starting a business, which was previously considered to be a serious challenge, has now been disrupted by new concepts in management science. One of these new concepts is startup, which was initially introduced to the public by technology companies at the beginning of the millennium (Umbreen et al., 2022) and is considered to answer various problems and obstacles that arise when starting a company. Startup is a phase when the company is still developing ideas that will be validated in the idea validation process (Pattyn, 2023). Startups are believed to be able to answer the company's challenges in developing products so that time-to-market can be faster and customer feedback can be directly processed by the company.

The startup concept is familiar to management practitioners when examined further in practice. The startup concept is the beginning of a company, where all companies must start from the startup phase (Verhoef et al., 2021). The company first deals with the idea, which is formulated by the founders to become a product/service. Next, validated ideas are focused on being product tests, changing frequently (called pivots), comprehensive efforts to increase the customer base, and leveraging any customer feedback it receives to improve the product or service. In the startup phase, the company develops products adaptively to improve product quality. Tactically, this form of iteration creates minimal risk effects and opportunities to become a framework for innovation in mature organizations (Schuh & Hamm, 2022). Moreover, market demands continue to change quickly and unpredictably, making it difficult for companies to pursue higher levels.

With the increasingly intensive application of startups in the world, the subject of startup founders who are identified as individuals can now also be carried out by companies. A startup concept initiated by a company is called a corporate startup. Founding companies or companies that initiate corporate startups have a solid organizational structure, a rigid business model, and a stable income flow model (Gutmann & Lang, 2022). Based on existing observations, corporate startups are created to solve problems inside and outside the company, such as the efficiency of new business processes and revenue (Steiber & Alänge, 2020). With startup principles such as starting small, iterating quickly, and thinking big, mature companies can start innovation by forming small teams to develop the desired product until the product is declared valid and then ready to be improved (Kager et al., 2022). After experiencing improvement, this organization can be integrated into existing business units, form new business units, or become new corporate entities (Kager et al., 2022).

This startup model in corporate-startup companies is very important for founding companies to increase innovation power (Heinzelmann et al., 2020). The development of innovative founding companies can be hindered by several factors, including large organizational size leading to more bureaucratic movement, a focus on cash-cow business as usual, and employees who see themselves as mere employees rather than problem-solvers for the company. (Kitsuta & Quadros, 2022; Schuh et al., 2022). With the existence of a corporate startup, the company's management hopes that the business is increasingly growing with good organizational governance without disrupting business as usual, which has been pioneered for years.

Although several application examples exist (such as Gutmann & Lang, 2022; Steiber & Alänge, 2020a; Tinskey, 2021), there is no standard definition related to corporate startups. Even though the research mentioned is entitled corporate startup, there is no further explanation regarding the standard definition of corporate startup. Understanding corporate startups is only taken from implementation phenomena in the industrial world that companies have implemented. In this way, the understanding and application related to corporate startup in these studies are only limited to the research object company, not a general term that is used or can be used by anyone. Both the definitions, challenges, and future research plans are three essential combinations for other founding companies adopting corporate startups for their companies (Kager et al., 2022). Therefore, the authors provide a systematic literature review of corporate startups to see how the definitions, challenges, and future research reviews related to this topic worldwide from previous studies (Steiber & Alänge, 2020a, 2020b; Steiber, 2020).

Finally, the contribution of this study is to provide a definition, challenges, and review of future research related to corporate startups in companies and academics. By having a standard understanding, research on corporate startups will be more focused, especially on the differences with startups. Establishing this definition will also give rise to academic research to develop methodologies related to corporate startups, which are supported by the discovery of existing challenges from applying various corporate startup practices in the industry. For company management in the industry, corporate startup terminology, which has a clear and standard definition, provides a solid basis for developing this program as an option for the company's internal innovation program in the future. Challenge and future research agendas can be tips and tricks for company management in starting and supervising corporate startup innovation programs.

2. Method

The proposed method has used a Systematic Literature Review (SLR) to find the success factors of implementing a corporate startup. SLR is a new way to recognize, calculate, and produce the available evidence regarding a particular technology to identify the recent direction and grade of research and to investigate research

question(s)/hypotheses (Xiao & Watson, 2019). SLR follows a systematically evaluated procedure that is different from an ordinary literature survey. It used a pre-defined search string based on the research question to identify the relevant literature. The results achieved through SLR are more precise, consistent, and unbiased than a regular literature review (Verma & Mehta, 2022). The SLR method is used to conclude specific topics from previous research collections. SLR is more scientific and authentic than other methods to reach a significant conclusion because it is obtained from journals that have been reviewed before, so the quality of opinions and facts is guaranteed (Mendoza-Silva, 2020).

2.1. Search Query Design

There are a few crucial steps involved in creating an effective search query. Firstly, it is essential to identify alternative spellings and synonyms related to the research topic. For instance, if the research is about finding a standard definition of a corporate startup, the researcher should look for terminologies with similar characteristics as a corporate startup. Secondly, it is essential to authenticate the keywords used in the search by cross-checking them with relevant literature. This ensures that the search queries and terminologies are valid and can be used as objects in the research. Lastly, using Boolean operators (OR, AND) in the queries helps guide search engines to perform specific searches. This creates a unified meaning instead of obtaining independent meanings.

The proposed method has conducted the initial search to search the relevant resources. Based on its characteristics as developed by the parent company, driven by employees, into an innovation tool, to entrepreneurship in the company, corporate startups are similar to several concepts circulating in previous studies, such as internal startups, internal innovations, internal entrepreneurs, internal entrepreneurship, corporate entrepreneur, corporate entrepreneurship, and internal innovator (Kitsuta & Quadros, 2022; Kumar & Pathak, 2022; Steiber & Alänge, 2020a, 2020b). The proposed method primarily makes a trial search string that is further used in digital libraries, as described in Table 1.

Table 1. Search String

Theme	Search String
Corporate Startup	”internal startup” OR ”corporate startup” OR ”internal innovation” OR ”internal entrepreneur” OR ”internal entrepreneurship” OR ”corporate entrepreneur” OR ”corporate entrepreneurship” OR ”internal innovator”
Incorporation	incorporat* OR develop*
Challenge	challeng* OR inhibit* OR barri*

2.2. Inclusion and Exclusion

The first step of this research paper is to select relevant literature using the inclusion criteria. It involves choosing the literature that is directly related to the research questions. On the other hand, the exclusion criteria phase will exclude literature that is not within the domain of our research questions. This study chose Scopus as the database for this journal because it covers most topics related to corporate startups in the management science group. Additionally, Scopus indexes internationally recognized journals with contributions from authors worldwide, providing diverse perspectives on implementing corporate startups. To ensure the quality of published work, only the Q1-Q2 cluster, which includes high-quality journals, will be the basis for analysis. The research will cover literature from 1997 to 2023. This paper's inclusion and exclusion criteria are as follows in Table 2.

Table 2. Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Study Type	Research about the challenge of corporate startup incorporation	Not related to the challenge of corporate startup incorporation
Language	English	Any other language
Paper Quality	Q1-Q2	Any other quartile
Publication Type	Journal, Article, Early Access, Review Article, Conference Proceeding	Any other type

2.3. Data Extraction

In recent years, the term corporate startup has become a term that is widely used with various synonyms. To provide neutral data collection and analysis in these unpredictable situations (Bryman, 2006) and also to improve the statistical and graphical description of data (Curry et al., 2009), this study was conducted by applying a systematic literature review method using methods described in the Preferred Reporting Items for Systematic review and Meta-

Analysis (PRISMA) Statement (Moher et al., 2009). The PRISMA flowchart reporting the different phases of this systematic literature review is shown in Figure 1.

Figure 1. The PRISMA flow chart reports the different phases of the systematic literature review.

The extraction of data from the literature results from the search string obtained. From the results of this search query, further grouping is carried out based on the specified inclusion criteria.

3. Result and Discussion

Result

3.1. Result

According to the four prominent inclusion and exclusion criteria and their subsets presented in Table 2, the number of papers included or excluded is shown in Figure 1 according to the PRISMA flowchart. In the end, 43 out of 143 potential papers entered the data collection stage for qualitative and quantitative analysis. This section presents some primary data analysis to provide an overview of the papers included in Table 3, then provides recommendations for each point of the contribution of this paper in the Introduction section.

Table 3. List of Included Publications

No.	References	Title	Year	Emerging Topics	Country/City
1	(Vandermerwe & Birley, 1997)	The corporate entrepreneur: Leading organizational transformation	1997	Corporate Venture	Germany, Switzerland
2	(Filatotchev et al., 1999)	Corporate entrepreneurs and privatized firms in Russia, Ukraine, and Belarus	1999	Corporate Entrepreneur	UK
3	(Brennan & McGowan 2006)	Academic entrepreneurship: An exploratory case study	2006	Corporate Entrepreneurship	UK
4	(West & Gallagher, 2006)	Challenges of open innovation: The Paradox	2006	Open Innovation	USA

No.	References	Title	Year	Emerging Topics	Country/City
		of firm investment in open-source software			
5	(Duobiene et al., 2017)	Applying Indicators of Orientation to Innovations, the potential of growth and strategic objectives to explain corporate entrepreneurship: A case study of the Three Finnish Companies	2007	Corporate Entrepreneurship	Lithuania
6	(Callaway, 2008)	Global Corporate Ventures: A New Trend of International Corporate Entrepreneurship	2008	Corporate Venture	Spain
7	(Li et al., 2009)	An empirical study of corporate entrepreneurship in hospitality companies	2009	Corporate Entrepreneurship	Unknown
8	(Salvato et al., 2010)	A farewell to the business: Championing exit and continuity in entrepreneurial family firms	2010	Corporate Entrepreneurship	Italy; Switzerland; Canada
9	(Umashankar et al., 2011)	Developing customer service innovations for service employees: The effects of NSD characteristics on internal innovation magnitude	2011	Internal Innovation	USA
10	(Bhardwaj et al., 2011)	Drivers and enablers of corporate entrepreneurship: Case of a software giant from India	2011	Corporate Entrepreneurship	India
11	(Teirlinck & Spithoven, 2012)	Formal R&D management and strategic decision-making in small firms in knowledge-intensive business services	2013	Innovation Strategy	Brussels
12	(Spitzeck et al., 2013)	Sustainability as a driver for innovation - towards a model of corporate social entrepreneurship at Odebrecht in Brazil	2013	Corporate Entrepreneurship	Finland, UK, Italy
13	(Heavey & Simsek, 2013)	Top management compositional effects on corporate entrepreneurship: The moderating role of perceived technological uncertainty	2013	Corporate Entrepreneurship	Unknown
14	(Aaltonen et al., 2015)	Enterprise cultural heritage: The source for sustainable competitive	2015	Sustainable Competitive Advantage	Finland, Italy, UK

No.	References	Title	Year	Emerging Topics	Country/City
		advantage and survival for food sector SMEs			
15	(Greer & Stevens, 2015)	HR in collaborative innovation with customers: Role, alignment, and challenges	2015	Innovation	USA
16	(Robbins & O'Gorman, 2014)	Innovating the Innovation Process: An Organizational Experiment in Global Pharma Pursuing Radical Innovation	2015	Innovation	Brazil, USA, Russia
17	(Abrell & Durstewitz, 2016)	The role of customer and user knowledge in internal corporate venturing: The viewpoint of the corporate entrepreneur	2016	Corporate Entrepreneur	Unknown
18	(Scarpellini et al., 2017)	Human capital in the eco-innovative firms: A case study of eco-innovation projects	2017	Corporate Entrepreneurship	Spain
19	(Kiani Mavi et al., 2016)	Modeling corporate entrepreneurship success with ANFIS	2017	Corporate Entrepreneurship	Italy, USA
20	(Veleva & Bodkin, 2018)	Corporate-entrepreneur Collaborations to Advance a Circular Economy	2018	Corporate Entrepreneurship	Unknown
21	(Subtil de Oliveira et al., 2018)	Critical success factors for open innovation implementation	2018	Open Innovation	Unknown
22	(Edison et al., 2018)	Lean Internal Startups for Software Product Innovation in Large Companies: Enablers and Inhibitors	2018	Innovation	Germany
23	(Radziwon & Bogers, 2019)	Open innovation in SMEs: Exploring inter-organizational relationships in an ecosystem	2019	Digital Transformation	Germany
24	(Gonthier & Chirita, 2019)	The role of corporate incubators as invigorators of innovation capabilities in parent companies	2019	Corporate Entrepreneur	Dublin
25	(Guerrero & Martínez-Chávez, 2020)	Aligning Regional and business strategies: Looking Inside the Basque Country entrepreneurial innovation ecosystem	2020	Innovation	Chile; UK; Spain
26	(Mäkitie, 2019)	Corporate entrepreneurship and sustainability transitions: resource redeployment of oil and gas industry	2020	Corporate Entrepreneurship	Norway

No.	References	Title	Year	Emerging Topics	Country/City
		firms in floating wind power			
27	(Egfjord & Sund, 2020)	Do you see what I see? How differing perceptions of the environment can hinder radical business model innovation	2020	Business Model Innovation	Denmark
28	(Giniuniene & Pundziene, 2020)	Dynamic capabilities: Closing the competence gap in order to assure the exploitation of new opportunities	2020	Corporate Entrepreneurship	Lithuania
29	(Moraes Silva et al., 2020)	Internal Barriers to Innovation and university-industry Cooperation among Technology-based SMEs in Brazil	2020	Innovation	Unknown
30	(Ungureanu et al., 2020)	Multiplex boundary work in innovation projects: the role of collaborative spaces for cross-functional and open innovation	2020	Open Innovation	Denmark
31	(Urbaniec & Żur, 2020)	Business Model Innovation in corporate Entrepreneurship: Exploratory insights from Corporate Accelerators	2021	Corporate Entrepreneurship	Unknown
32	(Lynch et al., 2021)	Combining technology and entrepreneurial education through design thinking: Students' reflections on the learning process	2021	Enterpreneurial Education	Norway
33	(Huang et al., 2021)	Cultivation of Intrapreneurship: A Framework and Challenges	2021	Intrapreneurship	Unknown
34	(Wiedeler & Kammerlander, 2019)	Learning the ropes of entrepreneurship: Understanding internal corporate venturing for family firms from an entrepreneurial learning perspective	2021	Corporate Venture	Germany
35	(Raitis et al., 2020)	System-Spanning Values Work and Entrepreneurial Growth in Family Firms	2021	Corporate Entrepreneurship	Unknown
36	(Begeç & Arun, 2020)	The bottleneck of intrapreneurship: Are social positions and held expectations constraints in organizations' entrepreneurial process? A conceptual view	2021	Intrapreneurship	Unknown

No.	References	Title	Year	Emerging Topics	Country/City
37	(Korber et al., 2021)	Corporate Entrepreneurs and collaborative innovation in Crisis: The Case of the Covid-19 Ventilator Shortage	2022	Corporate Entrepreneur	Unknown
38	(Verma & Mehta, 2022)	Corporate entrepreneurship and leadership theories: Conceptual review	2022	Corporate Entrepreneurship	Unknown
39	(Alänge et al., 2022)	Evaluating corporate-startup collaboration: A government perspective	2022	Corporate Entrepreneurship	Arab
40	(K. D. T. Li, 2022)	Functional upgrading dynamics of latecomer firms in challenging innovation system and global value chain contexts: evidence from cacao-chocolate firms in the Philippines	2022	Global value chain	Japan
41	(Asplund et al., 2021)	Knowing too much? On bias due to domain-specific knowledge in internal crowdsourcing for explorative ideas	2022	Lean Startup	Italy, Norway, Finland
42	(Keller et al., 2022)	Pathways to Developing Digital Capabilities within Entrepreneurial Initiatives in Pre-Digital Organizations: A Single Case Study	2022	Corporate Entrepreneurship	Pakistan, Saudi Arabia
43	(Soomro & Shah, 2020)	Robustness of the transformational leadership toward corporate entrepreneurship	2022	Corporate Entrepreneurship	Brazil

Of the 43 publications listed in Table 3, the majority of research objects and case studies that occurred in the research came from the European continent. This fact shows that research related to corporate startups is proliferating in organizations based on the blue continent, followed by the American continent and the Asian continent. Topics related to Corporate Entrepreneurship are the most common topics because they are recorded in the Americas (Brazil, the United States of America, and Canada), Asia (Arab, India, Pakistan, and Saudi Arabia), and Europe (Finland, Italy, Lithuania, Norway, United Kingdom, Switzerland, and Spain). The second topic is Innovation, namely all continents in Corporate Entrepreneurship minus the Asian continent.

Previous research was dominated by research within the last ten years. There are only 13 studies recorded outside this decade, the oldest of which was in 1997. In the oldest research, Vandermerwe & Birley (1997) discussed Corporate Ventures, which continued under the name Corporate Entrepreneur in 1999 by Filatotchev et al. (1999). For 14 years, research on corporate startups was still on the European continent before finally, Bhardwaj et al. (2011) researched Corporate Entrepreneurship in India. On the American continent, most research is on topics related to innovation, such as Open Innovation (West & Gallagher, 2006; Innovation (Robbins & O'Gorman, 2014; Greer & Stevens, 2015; Guerrero & Martínez-Chávez, 2020), and Internal Innovation (Umashankar et al., 2011). Meanwhile, most research on the Asian continent is still about Corporate Entrepreneurship.

Even though they look similar, the topics of Corporate Entrepreneurship and Corporate Entrepreneurship are different. Corporate Entrepreneurship concerns people or actors who carry out corporate entrepreneurship (Abrell & Durstewitz, 2016; Filatotchev et al., 1999; Filatotchev et al., 1999; Gonthier & Chirita, 2019; Korber et al., 2021). On the other hand, corporate entrepreneurship is all efforts made within a company to create a better experience or product for customers (Alänge et al., 2022; Bhardwaj et al., 2011; Brennan & McGowan, 2006). Both have one factor in

common, namely transformational. Transformation is a process of change that occurs between conventional conditions to a desired or expected condition.

Table 4. Methodology Used in Literature

Methodology	Method	Frequency
Qualitative	Case Study	11
	Interview	8
	Observation	2
Quantitative	Literature Review	10
	Questionnaire	7
	Secondary Analysis	5

According to Table 4, the most commonly used research methodology in studies related to corporate startups is the case study. This research technique is categorized as qualitative, where the researcher investigates a program, event, activity, process, or one or more individuals in-depth. The cases are bounded by time and activity, and the researchers gather detailed information over a continuous period using various data collection procedures (Rashid et al., 2019). This methodology is particularly relevant to research on corporate startups as research conducted in different places and at different times can produce different results. It is noteworthy that in the research conducted, the case studies that were conducted in more than one country were only found in Norway. (Lynch et al., 2021; Mäkitie, 2019).

The second most frequently used methodology in all previous research is Literature Review. This method is systematic, explicit, and reproducible for identifying, evaluating, and synthesizing research works and ideas that previous researchers and practitioners have produced. The literature review method can be the primary method for conducting research or a supporting method so that researchers get an initial picture of the phenomena that occur in the research object. Uniquely, this methodology is the method most used in the quantitative research cluster and is followed by questionnaires in the studies collected for review in this paper. The advantage of the literature review methodology is that it does not need to mention the place and location of the case study so that it can review more case studies than the previous case study method. On the other hand, the studies carried out are broader than case studies, such as some of the research in this paper (Begeç & Arun, 2020; Heavey & Simsek, 2013; Huang et al., 2021; Li et al., 2009; Moraes Silva et al., 2020; Subtil de Oliveira et al., 2018; Veleva & Bodkin, 2018; Verma & Mehta, 2022).

Table 5. List of Included Publications

Categories	Total
business and international management (Q1)	14
management of technology and innovation (Q1)	14
business, management, and accounting (miscellaneous) (Q1)	10
strategy and management (Q1)	9
business and international management (Q2)	7
strategy and management (q2)	6
management of technology and innovation (q2)	5
information systems (Q1)	3
applied psychology (Q1)	3
political science and international relations (Q2)	2
economics, econometrics, and finance (miscellaneous) (Q1)	2
marketing (Q2)	2
geography, planning, and development (Q2)	2
organizational behavior and human resource management (Q1)	2
law (Q2)	2

Table 5 shows that most publications related to corporate startups are found in business and management journals, which make up 89% of the top 10 journals in this study. However, there are also journals related to information systems that discuss corporate startups. These journals fall into categories such as computer science (3), applied psychology (3), and political science and international relations (2). It is important to note that one journal can fall into multiple categories, and the author counts the number of occurrences of each category in each journal. Upon closer examination, the top six categories are all in the business and management field, with journals in both the first and

second quartiles. This suggests that analyzing research questions from a variety of sources can yield more diverse insights than relying on a single source.

From the data extracted from Scopus, it can be concluded that all corporate startup topics are related to innovation and business management. As explained in Table 5, all papers related to business, management, and innovation are classified as high-quality papers (Quartile 1/Q1). That way, definitions that can be explained, challenges that occur, and the future research agenda explained in the third chapter of this research will be better than looking for papers on general topics without creating paper quality clusters in them.

3.2. Definition of Corporate Startup

To find the true definition of a corporate startup, the author conducted a general to specific analysis of the clusters that occurred in this research. No cluster converges in one research direction, so it is necessary to analyze each previous research topic attached to this paper.

The corporate startup is very closely associated with the word "Entrepreneurship". A total of 24 papers, aka 55% of all literature related to corporate startups, contain the word entrepreneurship, namely papers related to corporate entrepreneurship, corporate entrepreneurship, entrepreneurial education, and intrapreneurship. Even more unique, the papers related to these four topics have an extensive range of years, namely the first appearing in 1999 (Filatotchev et al., 1999) until the last appearing in 2022 (Alänge et al., 2022; Verma & Mehta, 2022). The closeness of corporate startups to other entrepreneurship can be seen from the distribution of cases that occur in all continents, including Asia, America, and Europe. Therefore, it can be concluded that entrepreneurship is closely related to corporate startup, aka corporate startup, which is closely related to entrepreneurship in a company.

The next topic cluster is Innovation, which includes 11 papers, or 25% of the total papers included in this research. This cluster is related to Business Model Innovation, Innovation, Innovation Strategy, Internal Innovation, and Open Innovation. Even though it sounds like a topic related to innovation, corporate startups are still more inclined towards entrepreneurial activities than innovation. Uniquely, in this cluster, there is the topic of Open Innovation, where the meaning of topic is the use of innovation resources, including ideas, materials, and people from external companies, to increase the company's competitiveness in carrying out innovation (Subtil de Oliveira et al., 2018; Ungureanu et al., 2020; West & Gallagher, 2006). So, there are two directions of innovation in corporate startups, namely internal and external. The conclusion is that corporate startup is related to innovation as a supporting term for entrepreneurship.

The next step is for the author to relate the existing understanding of Corporate Entrepreneurship to Innovation in the papers listed in this research. Entrepreneurship in corporate startups can be discussed based on the phenomenon that causes these building blocks. The oldest paper in this research, Vandermerwe & Birley (1997), brings a unique perspective regarding corporate entrepreneurship. Corporations that carry out corporate entrepreneurship originate from the need for transformation from the customer side. This transformation concerns how the ecosystem moves from a traditional form to a transformational one (Vandermerwe & Birley, 1997). How this process is created depends on the company, how much management support it has, and the company's vision. The development of corporate startups is unique because establishing a corporate startup requires a parent company that oversees it (Teirlinck & Spithoven, 2012). The company will function as a launcher and user, two protagonist roles running simultaneously. The company will supply funds to these startups, which will be run professionally by employees with entrepreneurial skills through training. That way, the startup can be on the right track in achieving the vision it has created.

As an implication of the strong dependence of the startup corporation on the parent company, every initiative developed by the startup corporation must meet the requirements and various needs of the parent company (Veleva & Bodkin, 2018). This includes funding and mentoring, part of the startup company launch package. So, it is unsurprising that corporate startups differ from those run organically; that is, they require user income and run from personal funds, loans, or investors (Urbaniec & Żur, 2020). Corporate startups cannot raise funds outside the company, even under the startup name. This is because the corporate legal entity is used as the legal entity of the parent company.

Corporate entrepreneurship and innovation are very strongly related to internal characteristics in the organization. Innovation has been known to focus on results, which can often only be done ex-post because it is almost impossible to determine the right product before the opportunity creation process occurs (Salvato et al., 2010). Also related to corporate entrepreneurship, namely whether the results are ultimately profitable and supported by the organization may be the result of political or strategic decision-making, which is influenced by the dominant logic of managers (Begeç & Arun, 2020; Vandermerwe & Birley, 1997). Thus, in corporate entrepreneurship, an opportunity may be considered by one of the top managers as something beneficial for the company (and also for corporate entrepreneurship). In contrast, other top managers may view the same opportunities as irrelevant to the organization. Relevance will ultimately be critical in deciding what to do with the opportunity.

So, a corporate startup is a business development effort in a company by its employees with the resources owned by the company with the help of top managers to resolve business problems that occur in the company. This may not be the most relevant factor in determining corporate entrepreneurs at the identification stage. This business is relevant to the various explanations presented above, starting from corporate entrepreneurship, which turns out to be the direction of corporate startups, followed by the concept of innovation. Finally, the relationship between the two writings

can be further traced to become an appropriate common thread in stating the definition of the corporate startup concept.

3.3. Challenge of Corporate Startup

The main challenges experienced in various cases of corporate startups are collaboration issues (Ungureanu et al., 2020; Greer & Stevens, 2015; Teirlinck & Spithoven, 2012; West & Gallagher, 2006; Korber et al., 2021) and mentorship (Urbaniec & Żur, 2020; Duobiene et al., 2017; Robbins & O'Gorman, 2014; Vandermerwe & Birley, 1997). These cases are taken based on the definition of corporate startup used in Section 3.2. The power of collaboration can provide startups with new ideas, increase efficiency with closer teamwork, and provide innovators with new resources and connections to leverage in the future. Very few companies can undertake successful innovation through the sole efforts of one individual (Weiblen & Chesbrough, 2015). It takes a team working together through their strengths and weaknesses to produce the best results. As an entrepreneur, the innovator likely knows this and has tried to build the most compatible, teamwork-driven group possible. However, collaboration must surpass internal teams (Alänge et al., 2022). Finding new connections with other entrepreneurs is critical to sharing experiences and learning from fellow business creators. When innovators meet and talk with other entrepreneurs, they learn more about the startup world and what innovators can do to improve their businesses.

Interestingly, corporate startups are considered the best way to retain generations when developing family-based companies (Salvato et al., 2010). The corporate startup model for family companies is useful for creating education for family business successors, where the role of mentor and hands-on experience in business is challenging to obtain as an entrepreneurial education (Wiedeler & Kammerlander, 2019). In this way, corporate startups can be used as experimental fields for business successors before jumping directly into controlling the company.

The second challenge is finding competent mentors for corporate startups. Most startup mentors are well-connected individuals (Steiber & Alänge, 2015). As stated in the definition in Section 3.2, one of the startup mentors is a top manager from the parent company. Parent managers and other internal and external mentors are professionals who have been part of their industry, field, or community and have assembled a broad network of people who can provide excellent value to any entrepreneur. Additionally, mentors are usually connected to other entrepreneurs in the startup ecosystem (Steiber & Alänge, 2013). These entrepreneurs have the potential to offer partnerships or other forms of collaborative interaction. A good mentor will not try to answer any questions the innovator has that are inconsistent with his or her personal experience. Instead, mentors will find individuals within their extensive networks who can provide the knowledge innovators seek and connect with them. According to Heavey & Simsek (2013), the managerial and echelon of companies running corporate startups do not have adequate insight and foundation for corporate entrepreneurship. This is related to the habits of managers and company echelons who have been working as employees but have had to change their mindset to become entrepreneurs, which not everyone can do. External mentors tend to be part-time (Subtil de Oliveira et al., 2018), while growing companies need guidance and constructive input (Lynch et al., 2021). In this way, innovators should not only grow the company. However, they should also expand the network of innovators and provide leads for early adopters or service providers to contact in the later stages of the startup's growth.

Third, the challenge in corporate startups is resource management. Management of corporate startup resources still comes from within the company, but the startup must also look for ways to grow by carrying out various activities to improve itself (Keller et al., 2022). Collaboration with external parties is still an obstacle for parent companies, especially highly regulated companies (Urbaniec & Żur, 2020). External influences such as technology transfer and the use of financial resources cannot be included immediately due to various factors (Huang et al., 2021). Also, managing internal resources is often problematic due to unfocused usage directions, market changes, and incompetent teams (Radziwon & Bogers, 2019; Asplund et al., 2021). Ineffective use of internal resources can shorten the life of the company. Therefore, experience, more specifically experience in entrepreneurship, speaks volumes in this section.

Finally, the environment is a determining factor in the success of a corporate startup. This can be seen from several previous studies in private, state-owned, and family-owned companies (Filatotchev et al., 1999; Guerrero & Martínez-Chávez, 2020). Of course, each form of company has a different managerial approach. The types of decision choices are also different; for example, family companies prioritize a figure to make decisions (Raitis et al., 2020). Democracy in decision-making does not exist in every organization and every country's culture. Therefore, things related to cultural research would be beneficial in future research.

3.4. Future Research Agenda

In this section, the researcher presents several potentials for further research obtained from the analysis of corporate startups. This analysis was taken after seeing each paper's development and future research. Therefore, there are several clusters of future research agendas, which are described in the next paragraph.

The first research agenda is more research on developing countries. Previous studies suggest research in developing countries (Filatotchev et al., 1999; Duobiene et al., 2017; Moraes Silva et al., 2020; Soomro & Shah, 2020). This research is dominated by the issue of Corporate Entrepreneurship, which means that previous research wants to

look at the same practices between developing countries or compare practices that occur in developing and developed countries. Of course, this agenda will show how cultural factors and other social aspects have an impact on success in creating a corporate startup. National and organizational cultural factors will emerge from this agenda.

Second, future researchers are required to identify companies that practice corporate entrepreneurship and capture qualitative and quantitative organizational designs to enable corporate entrepreneurship. Regardless of the rate of business change, all large companies have begun building their emerging digital ecosystems by partnering with startups (Callaway, 2008). The hope is that a digital ecosystem that has been formed in such a way can encourage these organizations to learn quickly and build relationships with other digital actors to attract and spread new practices within them, increasing their capacity to recognize, utilize, and make changes (West & Gallagher, 2006). However, even though new solutions are approaching the core business, integration of these solutions is currently still an obstacle for the types of corporate companies that have run corporate startups, either because of the Not Invented Here mentality that has not yet occurred everywhere (the company itself or the company other similar) or because the innovation is too far from what is currently done in employee business processes (Abrell & Durstewitz, 2016).

The right ecosystem for a company's internal entrepreneurs influences emotional skills and the type of entrepreneurial opportunity (incremental or inventive). Various sources state that real experience in the field will help more (Bhardwaj et al., 2011; Aaltonen et al., 2015; Robbins & O'Gorman, 2014). The results of the transformation of tacit and explicit knowledge should be able to be processed by the parent company to help other startup companies replicate and correct their mistakes (Fauziyah et al., 2022). This is also called knowledge management, where lessons learned by other people are used as a source of shared knowledge (Abrell & Durstewitz, 2016; Heavey & Simsek, 2013). Ultimately, the benefit of creating the right ecosystem for an organization is the internal capability to consider each startup partnership project's ultimate goals and objectives and the possible benefits of building a portfolio of specific initiatives (Filatotchev et al., 1999).

Finally, a future research agenda that can be carried out is the creation of standard standards for evaluating startup corporate models in various companies across industries and countries. This research contains many management implications, which require metrics as standard guidelines for achieving an activity. However, unfortunately, many corporate startup and entrepreneurship models in companies do not yet have an evaluation model, so it is difficult to measure their respective successes other than the subjective assessment of leaders (Kiani Mavi et al., 2016; Ungureanu et al., 2020; Radziwon & Bogers, 2019). National and organizational culture can influence how people and consumers behave. These two sides will influence cooperation and company performance (Soomro & Shah, 2020; Spitzeck et al., 2013). Companies see metrics as the basis for continuing or shutting down corporate startups (Greer & Stevens, 2015) so that whatever corporate partnerships have occurred may be canceled if the company's dynamic capabilities are not formed (Raitis et al., 2020). Various types of applications of new approaches to metrics need to be studied again to become modules ready for replication for various industries in the future.

Figure 2 summarizes all discussions related to definitions, challenges, and future research agenda obtained from this research.

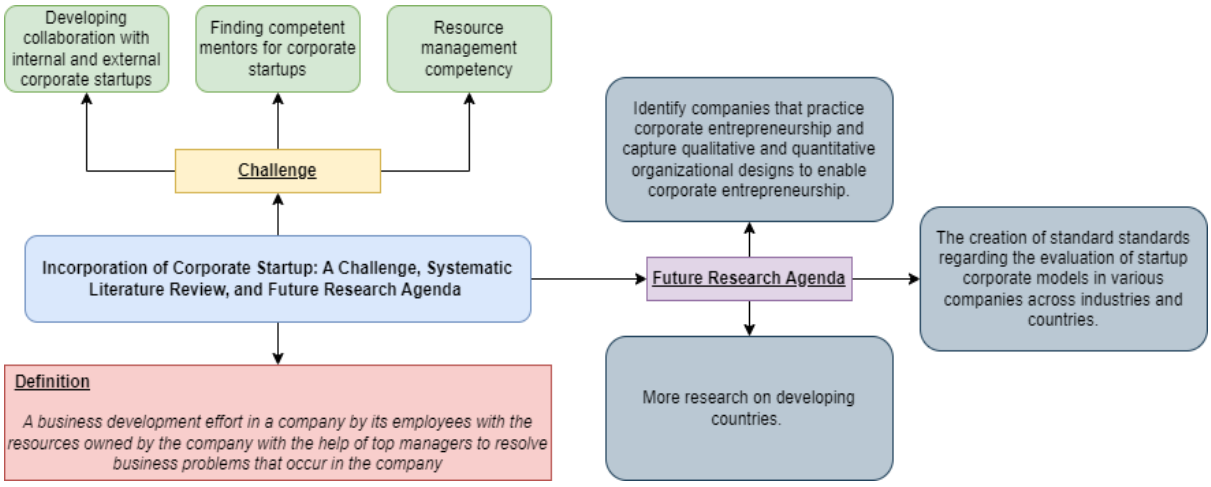

Figure 2. Conclusion Diagram from This Research.

4. Conclusion

The objective of this research is to examine and evaluate the academic obstacles that corporate startups face. To achieve this, a systematic literature review is conducted to identify three aspects: the definition of corporate startups, their challenges, and the future research agenda related to this phenomenon. These three aspects are interconnected as they can provide insights into the future of corporate research. The findings of this study are a model that flows from

definitions and challenges that must be faced to future research agendas that can be explored so that anyone who wants to research or adopt a corporate startup already has a direct way of thought (Figure 2). The hope is that corporate management can apply corporate startups in their companies by using a model that is the output of this paper, which is to adopt definitions, avoid challenges, and trace the future research agenda from the results of this study. Also, the academics can apply future research agendas to subsequent research to develop research related to Corporate startups.

The understanding that can be obtained from this article is that a corporate startup is a business development effort in a founding company carried out by its employees with the resources owned by the company with the help of top managers to solve business problems that occur in the company. The management of the founding company can adopt this definition as an initial basis for building a corporate startup to provide clear objectives for the corporate startup that will be run by its employees. In the end, the objective being pursued is the goal of the founding company, to which employees can be creative by using the founding company's resources. (Edison et al., 2018; Guerrero & Martínez-Chávez, 2020; Moraes Silva et al., 2020). Even so, the parent company supplies resources such as operational funds and human resources so that the start-up company continues to exist and follow the parent company's vision.

Three challenges occur for corporate startups: collaboration development with internal and external corporate startups, finding competent mentors for corporate startups, and resource management competency. These three are interconnected with one precise outcome, namely policy. Clear policies for the mentoring process, selection of external and internal mentors, and selection of human resources can solve this issue (Verma & Mehta, 2022; Teirlinck & Spithoven, 2012; Robbins & O'Gorman, 2014). Then, one important thing needs to be considered in the company's startup development team, which consists of company employees. This means an implementer must have three essential things: results-oriented, context-oriented, and individual-oriented (Abrell & Durstewitz, 2016; Heavey & Simsek, 2013). Of course, this is coupled with an agile and entrepreneurial mindset (Begeç & Arun, 2020). As policymakers in founding companies, management must pay attention to these three things before forming a corporate startup for their company.

Finally, further research can be continued by expanding the research database. Technology research databases could be an option because these databases are related to corporate-startup topics. However, the author cannot include them in this research because the scope falls into the management science research category. Also, this research is not free from shortcomings in data collection because it considers the quality of the journal. Future researchers can also include other quality research besides the Scopus index, for example, Web of Science. That way, the data sources obtained for this research will increase and can expand the scope of the research. The limitation of this method is that the SLR only assesses from the journal, which is a research summary, so there are other parts of the results and research that are not covered. Therefore, future researchers can use other research models, such as case studies, to capture all conditions in the research scope.

Author Contribution

Author 1: conceptualization, writing original draft, data curation, formal analysis, investigation, methodology.
Author 2: review and editing, writing and editing, supervision, correspondence, revisions.
Author 3: review and editing, writing and editing, supervision, correspondence, revisions.

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Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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