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Innovate to Elevate: Understanding the Nexus of Entrepreneurship, Business Incubation Centers (BICs), and Economic Growth. A Review of Literature

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ABSTRACT

Purpose: This comprehensive review delves into the multifaceted impact of Business Incubation Centers (BICs) on economic growth and the broader startup ecosystem
Design/Methodology: Drawing on various research streams, encompassing entrepreneurship, BIC practices, geographical analysis, performance measurement, and theoretical developments, the study employs the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology to enhance transparency and effectiveness in the review process. The central focus is on elucidating the critical role of BICs in fostering innovation, providing crucial support to startups, and ultimately contributing to economic prosperity.
Findings: The review identifies the significance of cultivating an entrepreneurial attitude among founders and emphasizes the proactive role of marketing in ensuring the success of startups within BICs. Striking a delicate balance between providing support and promoting excellence emerges as a key theme in the analysis. In conclusion, the review affirms that BICs play a pivotal role in driving economic growth and fostering innovation within the startup ecosystem.
Originality: The future outlook for BICs is promising, with the potential for significant economic transformation. The study suggests that future research should hone in on critical areas such as startup selection, incubator roles, comparative survival rates, and accountability. Additionally, leveraging technological advancements and conducting in-depth analyses can further strengthen the overall

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incubation ecosystem. This review serves as a comprehensive resource for scholars, policymakers, and practitioners interested in understanding the dynamic interplay between BICs, economic growth, and innovation in the contemporary business landscape.

Keywords: entrepreneurship, emerging economy, business incubation center, Startups, SME's

Paper type: Review Paper

INTRODUCTION

Economic growth is a vital necessity, and entrepreneurship is a proven technique for achieving it, particularly through startups (World Bank, 2019; Widiastuti, 2013). Hence, in the context of the dynamic landscape of economic advancement, this article investigates the complex correlation between entrepreneurship, Business Incubation Centers (BICs), and economic growth. Studying the role of BICs as support systems for startups and stimuli for innovation, this study probes the profound effect they exercise on incubating entrepreneurial ecosystems. From providing a supporting environment for young ventures to stimulating regional economic growth, the synergy among entrepreneurship and BICs serves as a cornerstone for sustainable development. According to Ács et al. (2018), entrepreneurs not only establish startups but also contribute significantly to the economy, generate employment opportunities, influence social change, and play a pivotal role in community development. Their innovative ideas and initiatives can significantly transform the way people live and work, thus leading to an improved standard of living (Baijal, 2016).

It can be noted that startups are not merely enterprises. Rather, they function as catalysts for change and perform an identifiable role in addressing various global challenges, such as technological advancements, economic fluctuations, and demographic changes. Indeed, these challenges have emerged as unique threats to organizations and reshaped societies worldwide (Toma, Grigore, & Marinescu, 2014). In view of the above, government institutions, policymakers, and universities have emerged as key stakeholders in understanding the significance of startups and implementing entrepreneurial initiatives. It is worth noting that the latter institutions are key players in fostering a business-friendly environment which supports the growth and success of startups (Canton, 2021).

According to Prasetyo and Kistanti (2020), entrepreneurship is the only solution for controlling unemployment not only in underdeveloped countries but also in developed nations. Indeed, entrepreneurship has the power to revolutionize societies globally, paving the way for groundbreaking approaches and innovative solutions (Acs & Audretsch 2005). In this context, let us consider examples from China, Malaysia, Europe, and America. Their entrepreneurial initiatives have not only transformed the world order but also contributed significantly to the global economy. For instance, in the global business arena Jack Ma stands out as a leading entrepreneur whose e-commerce initiatives have changed the shopping industry worldwide (Kim,

2018), whereas Mark Zuckerberg's invention of Facebook has helped to transform the notion of socialization (Kirkpatrick, 2011), and Steve Jobs' leadership and vision for Apple have revolutionized the communication industry (Gallo, 2011). To support the above arguments for developing an entrepreneurial startup culture, there is a clear need for business incubation centers which can act as key players in fostering entrepreneurship and innovation.

The theory of business incubation has gained popularity worldwide due to its effectiveness in providing a valuable environment for start-up growth (Xu, 2009). During the early 1950s, BIC practices began in the US as a path for startup development (National Business Incubation Association, 1985) to nurture startups for future growth. Business incubation provides budding entrepreneurs with the necessities for a startup, including capital, training, mentoring, and team strengthening (Salem, 2014). According to Ndagi (2017), incubation is a temporary process that encourages support for start-up companies through the provision of compound resources and a special environment, to improve their chances of survival during the early stages of their lifespan and result in their intensive advancement. This study aims to provide a comprehensive review of the literature on business incubation centers over a period of 2010 to 2021.

The primary focus is to offer valuable insights into the effectiveness of business incubators as catalysts for entrepreneurship and long-term economic sustainability. The review articles surveyed in this study focus on the role of incubation centers in establishing successful startup ecosystems, impactful incubation practices, the historical origins of business incubation, their evolution, and geographical analysis of incubation practices.

While this review is primarily intended for researchers exploring future research subjects, we believe that its insights will also be of value to stakeholders in the incubator business who seek to understand the epistemological growth of the incubation concept. Additionally, these insights may also benefit policymakers striving to implement important strategies for successful startups. Hence, this research aims to shed light on the mechanisms driving this synergetic relationship and its implications for broader economic prosperity and changing entrepreneurial landscape. In line with this, the present contribution represents a synthesis and analysis of existing incubation research concepts, actual findings and challenges as well as the identification of areas for future research.

METHODOLGY

Based on the deductive reasoning principle of moving from a broad observation to specific outcomes, the present study was designed to cover relevant articles published between 2010 to 2021. The adoption of the PRISMA approach further evidences deductive principles, providing a transparent and structured framework for systematic reviews. Keyword development and insertion benchmarks follow deductive logic, with predefined words apprehending the research spirit. The

selection process, implying screening and elimination criteria, also showcases deductive reasoning by reducing the focus to 62 significant articles. The final classification of the articles into diverse streams that focus on incubation practices, theoretical development, and performance metrics also reflects a similar reasoning, thus accommodating a fuller exploration of Business Incubation Centers' role in economic growth.

PERIOD SELECTION AND RATIONALE

To focus our research, a systematic search was conducted spanning the years 2010 to 2021. This decade-long timeframe was chosen for its relevance, covering a substantial period of research and allowing for a comprehensive examination of the current state of knowledge regarding the role of incubation centers in economic growth (Munn et al. 2018). Additionally, the emphasis on recent years ensures the inclusion of the most up-to-date research and insights in this field. High-impact factor journals were the focus of an in-depth literature study conducted between 2010 and 2021, indicating the significance of the research in this area.

PRISMA METHODOLGY & LITERATURE REVIEW PLAN AND SEARCH STRATEGY

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology designed to enhance transparency and effectiveness in review processes was employed. Developed in 2009 by (Liberati et al. 2009), PRISMA provides a structured approach to conducting systematic reviews and meta-analyses, minimizing bias, and maximizing the quality of synthesized evidence. The literature review plan was comprehensive, with a priori derivation of the search strategy to decrease the risk of bias. The selection of five electronic databases, namely ABI-ProQuest, EBSCO, PsycINFO, Science Direct, and SCOPUS, was grounded in the dual considerations of comprehensiveness and resource efficiency, and their inclusion reflects confidence in the credibility and relevance of these databases for the research on incubation centers in economic growth. The search extended beyond electronic databases, encompassing an examination of bibliographies in relevant articles to identify additional literature on the role of incubation centers in economic growth.

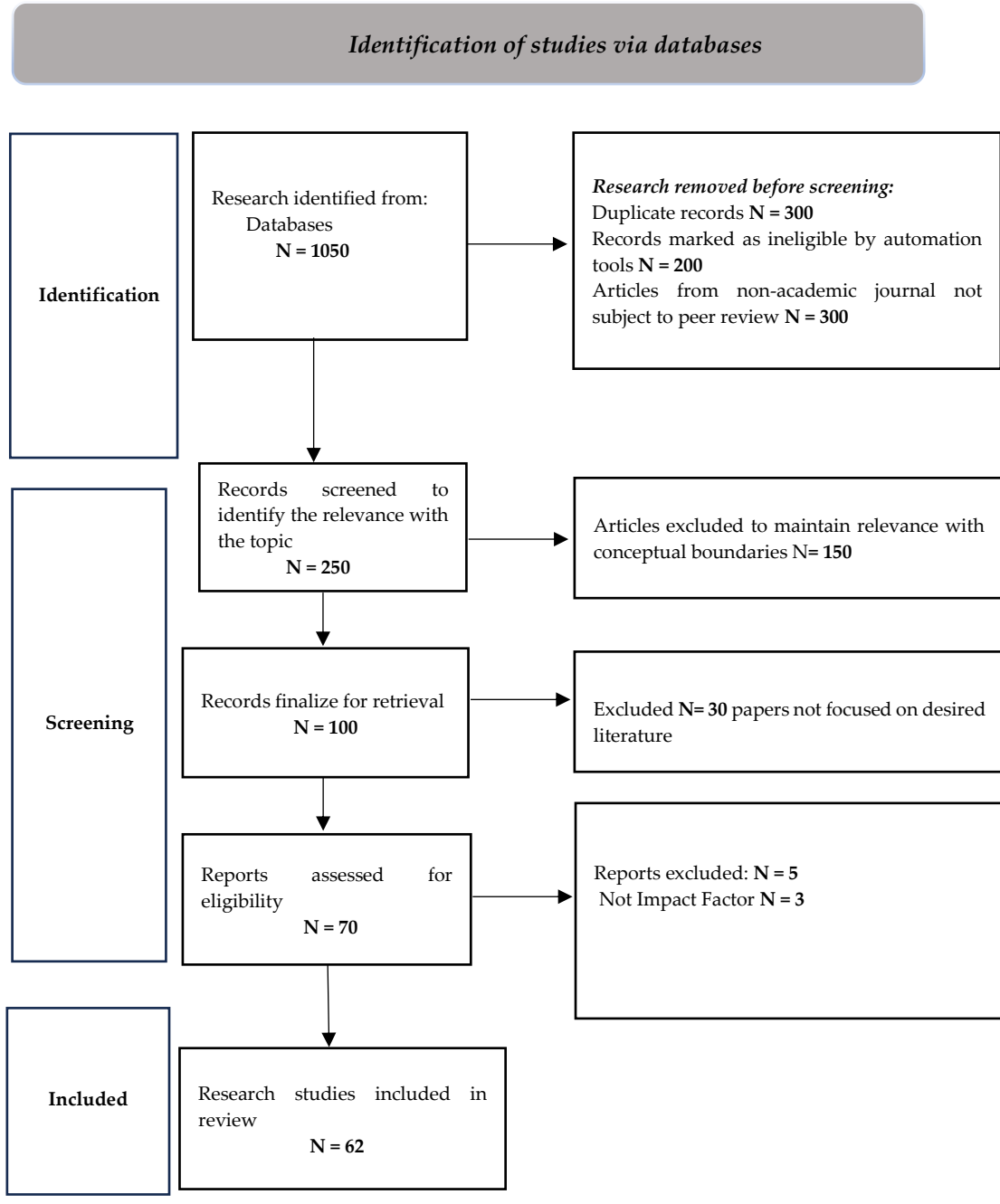

Figure 1: PRISMA of Selection Methodology

KEYWORD DEVELOPMENT AND INCLUSION CRITERIA

A series of keywords was developed to capture the essence of the research, including terms such as "Entrepreneurship - Economy," "Incubation centers – Startup ecosystem," and "Economic growth–Incubation practices." Boolean operators 'OR' and 'AND' were used to combine keywords. Subject filters applied during database searches focused on the role of incubation centers, economic prosperity, economic growth, and entrepreneurial ecosystems. The search was refined by applying inclusion criteria, emphasizing conceptual articles on entrepreneurship as an economic growth tool, the need for incubation centers in creating impactful startup ecosystems, and the role, practices, and outcomes of incubation centers globally. Precision was enhanced by aligning search terms with designated categories in electronic databases, including entrepreneurship, incubation, economic growth, Business Incubation centers, and startup ecosystems.

SELECTION CRITERIA, JOURNAL PRIORITIZATION, AND REVIEW ANALYSIS

The initial screening of titles reduced the number of related articles significantly. Exclusion criteria, such as book reviews, old survey reports, and websites, were applied. The final selection comprised 62 articles. To enhance precision, the research strategy prioritized esteemed and reputable journals in the field. The literature underwent meticulous categorization into five distinct streams to facilitate a comprehensive analysis. The first stream delved into mapping the intricate relationship between entrepreneurship, Business Incubation Centers (BICs), and their consequential impact on economic prosperity. The second stream focused on the evolution, incubation process, and various practices employed within these centers. Geographical nuances took center stage in the third stream, providing an in-depth analysis of business incubation models, practices, and recommendations across different regions. The fourth stream critically assessed the performance, measurement metrics, and overall impacts of Business Incubation Centers, shedding light on their efficacy and contributions. Lastly, the fifth stream centered on theoretical development, exploring conceptual frameworks and advancements that contribute to the evolving understanding of incubation practices. Organizing the literature into these streams provides valuable insights into conceptual and theoretical aspects, factors influencing incubation, different approaches and financial aspects, dynamics of the incubation process, and outcomes and measures of success in this context.

REVIEW OF LITERATURE

MAPPING THE RELATIONSHIP BETWEEN ENTREPRENEURSHIP, BUSINESS INCUBATION CENTRES (BICs), AND ECONOMIC GROWTH.

Entrepreneurship is fundamental to economic prosperity. Moreover, there are multiple aspects of the theory of entrepreneurship research: culture; human behavior; economic, political, and social environments; and institutional-financial intermediaries (Bruton, Ahlstrom, & Li, 2010). Armanios et al. (2017) further explain the concept of financial intermediaries and their impact on entrepreneurs and suggest two important dimensions: certification and capacity building. These attributes play a significant role in creating a favorable environment for entrepreneurs to receive financial assistance. In the continuation of the above concept, financial strategies suggested by Armanios, Eesley, and Eisenhardt (2017) to procure financial assistance for well-connected budding entrepreneurs are supported through their political relationships and less connected through incubators, accelerators, and government financial schemes.

Lerner (2010) explains the ground realities of Singapore and emphasizes its journey from an unstable economy to national prosperity, as well as the role of entrepreneurship, in his study. Subsequently, this study explains the role of the government in creating an entrepreneurial ecosystem through public funds, technological assistance, mentoring, R&D, and recognition of failed entrepreneurs to enhance their risk-taking skills. Baijal (2014) and the rest of the symmetrical entrepreneurship scholars and researchers' emphasis on the importance of entrepreneurship and its impact on economic growth (Toma et al., 2014), highlight the positive relationship between job creation and startups (Haltiwanger, Jarmin, & Miranda 2013), the role of financial intermediaries in creating a startup ecosystem (Armanios, Eesley, & Eisenhardt 2017), and that economic growth depends upon budding entrepreneurs because they are the basic movers of the program (Lerner, 2010). According to Bjrnskov and Foss (2016), there is exceptionally significant evidence that the entrepreneurial movement has positive long-run financial results in terms of wealth, productivity, and development. Moreover, institutions are macro variables of entrepreneurship in institutional theory (Bruton et al., 2010).

Mason and Brown (2013) identify high-growth firms (HGFs) as a policy to support startups in terms of asset endowments, financial structures, and entrepreneurial environment. Luke and Zouhar (2016) explain the stages at which nascent entrepreneurs discontinue their venture operations. They further suggest that team entrepreneurship is more impactful in the case of startup efforts than solo entrepreneurship.

EVOLUTION, PROCESS, AND PRACTICES OF BIC

Business Incubation centers are vital resources for creating an impactful startup ecosystem. In this context, past literature is reviewed to understand business incubation evolution, definition, theoretical lens, and its relationship with economic growth. Ratinho & Henriques (2010) found that incubator firms and technology startups located within them seemed to be a critical source of development, technological innovation, and financial development at the local, regional, and

national levels for both academics and policymakers (Ratinho and Henriques, 2012). Moreover, Barbero, Casillas, Ramos, and Guitar (2012) explain the concept of economic growth incubator performance and its measures (i) startup growth, (ii) R&D role, and their input or output significance (iii) job creation. Multiple stakeholders such as government organizations, institutions, and business support associations play a significant role in creating the startup ecosystem (Liu, 2020). Burns, Barney, Angus, and Herrick (2015) also acknowledge stakeholder importance and the role of opportunities created by them to support the entrepreneurial ecosystem. According to Bruneel, Ratinho, Clarysse, and Groen (2012); and Pauwels, Clarysse, Wright, and Van Hove (2016), the evolution of business incubation happened from 1950 to 2000 onwards. The main aspect of this process is the nature of the services offered to startup founders and budding entrepreneurs.

Table 1. Summary of BIC's Evolution

	1st Generation BIC'S *1950's – 1980's*	**2nd Generation BIC'S** *1980's – 1990's*	**3rd Generation BIC** *1990's – 2000's*	**4th New Acceleration Model** *2000's – Onwards*
Services	Office space and resources for startups	Mentoring and training support for budding Entrepreneurs	Provides technological, professional, and funding opportunities.	Counselling services, Industry/sector focus, Investor funding, Corporate funding & Public funding and curriculum/training program.
Theoretical framework	Economies of scale	Quickening the learning curve	Access to external resources, knowledge, and legitimacy	Program package, strategic focus, selection process, funding structure, and alumni relations.
Incubation Era	Infrastructure: Economies of scale	Business support: Quickening the learning curve	Networking: Facilitating the startups to get external and knowledge support.	Heterogeneity: Strategies and Operations and Investment.

Source: (Bruneel, Ratinho, Clarysse & Groen 2012: Pauwels Clarysse, Wright, & Van Hove, 2016)

The business incubation process and its operating mechanisms include pre-incubation or idea development; incubation or acceleration; and post-incubation, consolidation, or growth (Mian et al., 2016). These operating mechanisms are adopted by both private and government-sector BICs. Based on business incubation resource theory, Amezcua, Grimes, Bradley, and Wiklund (2013) explain the relationship between incubator firms and the regional business environment. Researchers further believe that BIC has developed impact, number, and assortment. Nowadays, those fascinated by stimulating knowledge-based entrepreneurial advancement cultivate the use of BICs to sustain firms. Lose and Tengeh (2015) believe that incubation managers with good aptitudes will make a significant contribution to the development of Incubated Startups. Mrkajic (2017) discovered two incubation

models: a nascent incubation model (NIM) and a seed incubation model (SIM). They are separated by their role in terms of an early-stage startup venture, incubation support system, administration services, and goals and missions for startup growth. Previous first-generation incubation models have demonstrated infrastructural support and capacity building.

Business incubators assist startup ventures by providing administrative support, such as assistance in developing business and marketing plans, building administration groups, obtaining capital, and advancing to a more specialized level of proficient management. They also provide flexible spaces, shared equipment, and administrative services. According to Brunee, Ratinho, Clarysse, and Groen (2012), business incubation's poor performance is due to the lack of selection criteria to select startups and the absence of clearly defined exit policies. As per Baraldi and Havenvid (2016), the important components of business incubation practices are time, space, physical resources, connection, control/governance, activities/services, and outcomes. Managerial implications need to be emphasized more than traditional incubation practices.

Table-2. Components of Incubation Practices

Services		Offering	Difficulties
1-	**Access to physical resources**	Office space, furniture, computer network 27- hours security and so on.	Incubation centers start performing as landlords.
2-	**Office Support**	Reception services, mail handling, fax, and photocopying services, computer network support, and book-keeping	Usually, incubation managers neglect these services.
3-	**Access to financial resources**	Connect with venture capitalists, angel investors, local funding institutions, and banks.	Lack of financial resources for startups and budding Entrepreneurs.
4-	**Entrepreneurial Startup- Support**	Guidance to cope with organizational, management, and legal skills.	Usually, incubators fail to provide real value added in start-up coaching in the field of management.
5-	**Access to knowledge**	Connect Startups with different CEOs, Successful Entrepreneurs, and so on for mentoring and guidance.	Incubation management is unable to provide an efficient mentoring network.
6-	**Bottom-up Networking**	Facilitate startups in entrepreneurial networking and partnership among startups.	Lack of effective networking opportunities leads to no financial support from the public and private sectors.

Source: (Bøllingtoft, 2012; Carayannis & Zedtwitz, 2005)

Millette et al. (2020) suggest that we construct more local-centric BICs that improve the local economy, contribute to natural sustainability, develop student-managed successful startup companies, and create employment. Small and medium enterprises can create jobs and work as fuel for the economic growth of developing countries (European Commission, 2003). According to Tsai, Hsieh, Fang, and Lin (2009), business incubation not only provides a differentiated and coordinated benefit for entrepreneurial ventures but also contributes to local and national advancement and economic growth. Narayanan and Shin (2019) suggested that in emerging economies academic incubation is more impactful than private incubation because of the advanced knowledge environment which can create an entrepreneurial mindset. Bllingtoft (2012) defines the bottom-up business incubation approach as one that not only enables startup ventures to become viable but also supports them in terms of networking and partnership among companies. According to Sagath, Van Burg, Cornelissen, and Giannopapa (2019), the success of the incubation method is, therefore, influenced by several aspects, most importantly by the enactment of incubation practices.

Other than quality incubation centers, researchers also believe that external factors like the economy and ease of doing business are also important considerations in the entrepreneurial lives of startup founders. Ndebele and Chinjova (2021) suggest multiple strategies to improve incubation centers to get sustainable small and medium enterprises. Business incubation management needs to engage trainers and mentors with business incubators to enhance their knowledge and abilities. Furthermore, there's a requirement for BIC to follow the business research approach, which gives a systematic approach to their research about incubation policies and the implementation of innovative or impactful business ideas. Indeed, there is a requirement to connect startup founders with financial institutions, universities, the corporate sectors, and industrial experts to get financial assistance and guidance. On the other hand, in emerging economies, the government has multiple financial policies for them (Armanios, Eesley, & Eisenhardt, 2017).

According to Aerts et al. (2007), most incubators do not screen potential startups on a balanced set of variables, concentrating either on the characteristics of the startup founder market or on the characteristics of the startup team. Business incubators have been demonstrated to provide a platform for supporting businesses (Lose & Tengeh, 2015). By investing large amounts of money in incubation centers by national and international organizations, government institutes, research associations, and universities can design strategies to analyze their performance and outcome (Bruneel, Ratinho, Clarysse & Groen, 2012). Entrepreneurial risk-taking ability, time, financial model, management/control, internationalization, and partnership/competition" are some of the exponential factors in BICs (Baraldi & Havenvid, 2016).

GEOGRAPHICAL ANALYSIS OF BUSINESS INCUBATION MODELS: PRACTICES AND RECOMMENDATIONS

When it comes to running incubators, the authors make a few key actionable recommendations for managers. Business incubators in developing countries have experienced several problems in the past, including a lack of entrepreneurial ability, the need for investment, a slow growth rate, a maturing population, downsizing, and a lack of entrepreneurial aspirations (Lose & Tengeh, 2015). University affiliations and the suitability of incubation management are confirmed by Ratinho and Henriques (2010) findings are vital in bringing the economy together and developing an entrepreneurial ecosystem. This study's extensive literature evaluation focuses on countries such as the United States, South Africa, India, China, Germany, Italy, Lithuania, Norway, and Portugal. The main purpose of this section is to summarize the country-wise previous research articles on incubation centers, their practices, and future research recommendations.

Table 3 - Geographical Analysis of Business Incubation Models

Year	Author	Country	Incubation practices	Recommendation
2010	Michael Schwartz & Christoph Hornych	Germany	Basic Incubation support includes infrastructure, Administration, and Mentoring. Access to financial support. Technology transfer. Access to customers.	Incubation centers should work as intermediaries between Startups and Industry, Venture capital firms. Create strong relationships with academic institutions and develop customer-supplier relationships.

2010	Tiago Ratinho & Elsa Henriques	Portugal	Business incubation strategy Administration support Infrastructure support Providing startups with promotional support across the ecosystem.	Policymakers, Gov. organizations, and BIC associations must develop a framework for the successful execution of Incubation centers and the creation of startup ecosystems.
2010	Thomas Gstraunthaler	Lithuania	**Offered services:** Physical infrastructure Standardizedknowledge about business plan guidelines. Guidance to identify funding opportunities. Access to potential industry partners. Bridge the relationship between Startups and the outside world.	Management of BICs needs to understand their roles & and responsibilities in creating an entrepreneurial ecosystem and identify future challenges of Incubation centers and incubators.
2012	Tommy Clausen & Tor Korneliussen	Norway	Emphasis on two important aspects for Startups: **Entrepreneurial orientation** of selected startups through processes, techniques, and decision-making style of budding entrepreneurs. **Speed to the market**: is a vital performance criterion for incubator firms.	Future research proposes that the incubators, including their support and advice, may have the most grounded impact on innovation speed when incubator firms point to commercializing less radical advancement.

2015	Thobekani Lose & Tengeh	South Africa	Affordable infrastructure support for Startups Counseling and training support for financial assistance, product development, and marketing. Significant selection & and exit criteria for startups. Mentoring on R&D, risk-taking, and funding by Industry experts. Professional guidance on Business plan development & and execution.	Creating a compelling business framework for incubators or looking at the viability of the incubation program in creating a startup ecosystem.
2016	Yaping Wang, Miyoun Paek & Kwangsoo Ko	China	Despite the basic incubation services, here is a strong relationship between incubation centers and copying equity funds in China. BICs with low turnover will have more access to the fund.	In the future, Research may investigate the impact of new equity funds on Incubation centers.
2019	Martin Lukeš, Maria Cristina Longob & Jan Zouharc	Italy	Successful ingredients of Incubators: Entrepreneurial orientation to prepare startup founders for the competition outside. Efficient screening process Counseling for funding opportunities.	Future recommendation: Policymakers and incubation managers should pay more attention to customer support to improve the performance and selection criteria.

2019	V.K. Narayanan &Jungyoun Shin	India	As India is a developing economy, their screening procedure to select startup enterprises is more intense and detailed. ✓ Mentoring support to enhance business skills as well as personal motivation. ✓ Networking activities to showcase role models to inspire future entrepreneurs and inculcate real values of entrepreneurship. ✓ Incubation activities also have a mandate to promote 'Social innovation' Government & and institutions provide assistance to get licensing for import and export.	In the future, the Government and concerned authorities should encourage incubation centers to explore the 'Institutional perspective' to solve business incubation operations specifically in emerging economies. Four future research criteria are offered by the author. (i)University incubation versus Private incubation (ii) Science & Tech versus General incubation centers (iii)Local business incubation versus International (iv) Cultural & regional diversity BICs.

PERFORMANCE, MEASUREMENT, AND IMPACTS OF BUSINESS INCUBATION CENTRES

In evaluating the international landscape of Business Incubation Centers (BICs), a nuanced assessment of their measurement, performance, and impact across varied countries shows interesting patterns. In the United States, BICs have shown a strong track record, encouraging innovation and contributing substantially to job creation. South Africa's BICs play a key role in strengthening evolving businesses particularly within historically deprived communities and aiding broad economic growth. In China and India, BICs act as crucibles for entrepreneurial drive, steering technological developments and improving competitiveness on the global stage. In European nations such as Germany, Lithuania, Italy, Portugal, and Norway, BICs showcase contrasting models of success, from driving technological innovation to backing sustainable development projects. Assessing the societal impacts and performance metrics of BICs in these varied contexts reveals the multifaceted contributions of these centers to economic ecosystems globally. The evaluation of performance, measurement, and impact of business incubation centers has attracted significant research attention. BICs play a crucial role in supporting and nurturing startup ventures, making it important to assess their effectiveness and potential contributions to the economy. One aspect of evaluating business incubation centers is considering the quality of these facilities. Researchers have shown a keen interest in assessing the

performance and potential effects of incubators, although the methodologies and measures employed in these studies vary. The long-term viability and growth of startups are influenced by several factors within the incubation process. These factors include infrastructure, mentoring support, business counseling, consultation, and the overall environment provided by the incubation center. According to Clausen and Korneliussen (2012), incubation management plays a vital role in instilling an entrepreneurial spirit among startup founders.

Studies have also investigated the impact of business incubators at the individual firm level. These investigations delve into the effects of incubation activities on factors such as firm survival rates, growth trajectories, and innovation outcomes. Quantitative methods, including regression analysis and propensity score matching, are commonly used to assess the causal relationship between incubation and firm-level outcomes. For example, Delgado, Porter, and Stern (2010); and Ucbasaran, Wright, and Westhead (2006) have conducted studies in this regard.

To analyze the ripple effects of incubation on the economy, input-output analysis, economic modeling, and social network analysis are frequently employed. The studies by Audretsch, Grilo, and Thurik (2007); and Hackett and Dilts (2004) provide insights into these macroeconomic impacts. To gain a comprehensive understanding of incubator performance, some studies utilize frameworks that incorporate multiple dimensions. These frameworks consider various aspects such as financial performance, network connections, mentorship quality, and access to resources. By considering these multiple dimensions, researchers aim to capture the holistic impact of business incubation centers on the startups they support.

Lastly, evaluating the performance, measuring the impacts, and understanding the role of business incubation centers is a topic of significant research interest. The studies conducted in this field adopt diverse methodological approaches and focus on individual firm-level effects as well as broader macroeconomic impacts. Incorporating multiple dimensions through frameworks allows for a comprehensive assessment of incubator performance.

THEORATICAL DEVELOPMENT

When exploring the literature on Business Incubation Centers (BICs) and their role in economic prosperity, researchers and scholars emphasize the importance of theoretical foundations. Numerous empirical and normative descriptions have been accumulated to explain this phenomenon. Institutional theory has emerged as an expanding theoretical perspective to understand the impact of BICs, startup ecosystems, and economic prosperity. Despite its proven usefulness, a deeper understanding of the extensive application of institutional theory in entrepreneurship research is needed.

In the late 1970s, John Meyer and Brian Rowan developed institutional theory to comprehend how businesses are influenced and shaped by societal, state, national,

and global systems. Su, Zhai, and Landström (2015) argue that institutional theory investigates the influence of institutions on company behavior, including new ventures and startup businesses. In the early stages of a company, the risk of failure or exit is higher due to the "liability of newness," as stakeholders may not support new organizations lacking legitimacy. Institutional theory offers valuable insights into the behavior of companies within their societal and regulatory contexts. By considering both formal and informal institutional factors, researchers can better understand the impact of these factors on startup success and the entrepreneurial journey. The wide-ranging applications of institutional theory in entrepreneurship research warrant further investigation to enhance our understanding of its implications. (Guerrero & Espinoza-Benavides, 2021; North, 1991; Scott, 2001; Scott, 2005; Su, Zhai, & Landström, 2015). Institutional theory proposes that new startups and ventures are influenced by determined values, norms, and regulations within their institutional atmosphere. In terms of behaviors and strategies, entrepreneurs often adapt to these institutional pressures to acquire resources and legitimacy. Comprehending and steering these institutional forces is essential for startups to create secure funding and credibility as well as to foster continuing success in their relevant industries.

DISCUSSION

This comprehensive review provides a thorough analysis of various aspects related to Business Incubation Centers (BICs) and their impact on economic growth and the startup ecosystem. The explored research streams include the relationship between entrepreneurship, BICs, and economic growth; the evolution and practices of BICs; geographical analysis of BIC models and practices; performance measurement and impacts of BICs; and theoretical developments in understanding their role. The review highlights the consensus among researchers on the critical role played by powerful startup ecosystems in driving economic growth. Small businesses, nurtured by business incubation centers, contribute significantly to employment creation, outweighing the impact of large corporations. BICs serve as primary tools in developing entrepreneurial ecosystems, fostering innovation, and supporting startups. The study emphasizes recent developments in the incubation process, including the emergence of accelerator programs and advanced incubation facilities, referred to as the 4th generation. However, it also points out that while much attention has been given to the structure and services of BICs, there is a need to focus on the startups themselves, their entrepreneurial skills, the validity of their ideas, and their dedication to venture goals. Another crucial aspect highlighted is the importance of incubation management. The effectiveness of BICs is heavily dependent on the competence and expertise of incubation managers in creating a supportive and conducive environment for startups to thrive. The role of stakeholders such as the government, private businesses, academia, NGOs, and entrepreneurs is also emphasized in developing effective incubation policies. Collaborative efforts and

support from these entities are essential to ensuring the success of incubation centers and the startups they nurture.

Additionally, the review addresses the significance of an entrepreneurial attitude among startup founders and the speed at which they can market their products in a competitive market. The study also raises the issue of creating an environment that challenges startups and promotes a culture of striving for excellence. Incubation centers need to strike a balance between providing support and ensuring that startups face enough challenges to grow and perform at their best.

FUTURE RESEARCH DIRECTIONS

It is suggested that future studies should address various understudied aspects of the incubation process. For example, selection criteria for startups should be a primary focus of investigation. Incubation centers should also act as bridges between incubated firms and industry and academia, warranting further research. Comparing the survival rates of startups in different incubators can provide valuable insights into the effectiveness of various incubation models. In countries like Pakistan, where the startup ecosystem is still developing, there is a knowledge gap that needs to be addressed. Future researchers can perform local/regional analysis of Business Incubation Models. Stakeholders must encourage more research in this area to identify and solve existing problems. Policymakers should collect data on incubation failure and success statistics, including metrics like the number of startups per incubation, employment creation, and the reasons behind success or failure. Incubation managers should be held to higher standards of accountability, and technological advancement should be prioritized in the incubation infrastructure. Additionally, there should be a focus on understanding the function of incubators beyond providing essential services, seeking further implications in theory and practice. To gain a deeper understanding of various facets of incubation, scholars and researchers may also conduct in-depth bibliometric analyses using additional sources, databases, and research journals. This will help to expand the scope of their work and shed more light on the intricacies of the incubation process.

CONCLUSION

In conclusion, this comprehensive review of the literature on business incubation centers provides valuable insights into their impact on economic growth and the startup ecosystem. It emphasizes the need to focus not only on the structure and services of incubation centers but also on the startups themselves and the competence of incubation management. The ability to start and run one's own business is considered crucial for a vibrant economy. Scholars and researchers recommend the implementation of an incubation framework by governments, politicians, institutions, and incubation managers to foster successful entrepreneurship and economic growth.

The growing number of Business Incubation Centers (BICs) worldwide highlights their role as catalysts for economic growth. The commercialization process heavily relies on effective support and counsel for fostered companies, as pointed out by Clausen and Korneliussen (2012). However, despite decades of growth and expertise in the field, there are still many unresolved questions about the current incubation system. To ensure the success of the entrepreneurial ecosystem, all its components must be in place, including the establishment of an entrepreneurial climate in both developed and developing economies.

Against this backdrop, collaborative efforts amongst various stakeholders are crucial to developing effective incubation policies, and fostering an entrepreneurial attitude among startup founders is essential for their success. By considering these factors, business incubation centers can continue to play a pivotal role in driving economic growth and innovation in the years to come.

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