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Entrepreneurial Ecosystems and Market Capturing Strategies: The Role of Innovation Hubs in Economic Growth and Fostering Startup Success: A Review

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ABSTRACT

Startups and hubs are uniquely positioned to support meaningful economic growth and to help solve socio-economic issues since they offer resources, support, and networks to innovative entrepreneurs. However, some of them fail to grasp the emerging need for adaptation of innovative hub strategies based on ecosystem peculiarities. This paper aims to competitively evaluate the coalition between the entrepreneurial ecosystems and the innovation hubs based on their significant strategic roles of market capture, economic development, and startups in different contexts and niche market domains. The analysis methodology was selected based on the keywords and included the articles published in Scopus and Web of Science from 2015 to 2024. Concepts for innovative ecosystems and the growth of startup businesses were used in the paper, and rigorous filters for both empirical and theoretical research were used. The present research thus reinforces the significance of environments for entrepreneurship and innovation in the marketplace for startups. Startups, driven by access to networks, funding, and regulatory support, have shown better market outcomes. However, challenges like funding insecurity, brain drain, and policy restraints can hinder their potential. Cooperation, funding, and policy support are crucial for entrepreneurship and economic growth. Innovation hubs offer money, advice, connections, and support structures for startups to grow and experiment. However, their effectiveness depends on addressing funding vulnerability, employee attrition, and legal frameworks.

INTRODUCTION

Entrepreneurial ecosystems enhance economic development and help solve socio-economic challenges like unemployment, inequality, and poverty. They comprise an interdependent network of entrepreneurs, investors, institutions, and policies that integrate to create conditions for innovations and business development (Mago & van der Merwe, 2023; Wurth *et al.*, 2023). However, innovation hubs, as central components of these ecosystems, provide the infrastructure, resources, and collaborative environments that incubate and grow successful startups (van Rijnsoever, 2020). The review explores the complex dynamics of entrepreneurial ecosystems by understanding the relationship between entrepreneurial ecosystems and innovation hubs. It discusses the strategic roles that innovation hubs play a crucial role in capturing markets, driving economic growth, and facilitating success for new startups.

The concept of entrepreneurial ecosystems was widely referenced in academic literature. Stam and Spigel (2016) define such ecosystems as “a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory.” Their research highlighted a considerable emphasis on the supportive environment- both in terms of cultural attitudes, access to finance, human capital, markets, and policies that are friendly to entrepreneurship (Stam & Spigel, 2016). Meanwhile, Roundy *et al.* (2018) emphasize that an entrepreneurial ecosystem is a complex adaptive system where different elements co-evolve to shape entrepreneurial outcomes (Roundy *et al.*, 2018).

These studies underscore the multifaceted nature of entrepreneurial ecosystems and highlight a need for studies to understand all aspects that affect economic development.

Innovation hubs thus serve as important tools in entrepreneurial ecosystems, providing physical spaces and resources that enable innovation and collaboration (Koura, 2024). According to Autio *et al.* (2018), the manner in which digital and spatial affordances make the genesis of an entrepreneurial ecosystem possible points out that innovation hubs provide the needed infrastructure to support entrepreneurial activities (Autio *et al.*, 2018). These hubs mainly act as intermediates that link startups to relevant resources such as funding, mentorship, and networks (Gumbo & Moos, 2024). Hayter (2016) explores the trajectory of early-stage spin-off success, emphasizing the role of knowledge intermediaries within entrepreneurial university ecosystems. These insights indicate that a one-size-fits-all approach may not be suitable, and innovation hubs must tailor their strategies to the unique characteristics of their respective ecosystems (Liu *et al.*, 2021).

However, innovation hubs need to be strategically positioned in the entrepreneurial ecosystem to capture markets and economic growth. According to van Rijnsoever (2020), incubators can overcome weak network problems in entrepreneurial ecosystems by developing a strong network among startups and introducing incubated startups to non-incubated startups through field-building (van Rijnsoever, 2020). Moreover, Carayannis *et al.* (2018) introduced Quadruple/Quintuple Helix Innovation

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Models that add to the government, industry, academia, and civil society for the process of innovation (Carayannis *et al.*, 2018). Innovation hubs then become a platform for interactions among these diverse groups towards more inclusive and sustainable economic development.

Therefore, their ability to adapt to the specific needs of an entrepreneurial ecosystem is also a determinant of the effectiveness of innovation hubs in fostering startup success. According to Qian (2018), Knowledge spillovers and regional absorptive capacity are key enablers of high-growth firms, along with entrepreneurship culture, talent, intermediate services, networks, finance, and demand growth (Fotopoulos, 2023). This means that the innovation hubs could help improve these processes by connecting startups with essential knowledge and resources. According to Spigel (2017), the relational organization of entrepreneurial ecosystems also maintains that there is a specific social and cultural context under which innovation hubs work and, on that basis, may often be ineffective in supporting startups (Spigel, 2017). These insights provide a crucial conclusion that instead of utilizing a single technique, innovation hubs need to make specific strategies for their respective ecosystems' features. Entrepreneurial ecosystems and innovation hubs, however, become integral drivers of economic growth and contribute significantly to the success of startups (Khaustov *et al.*, 2022). The interconnection between the various groups within the ecosystems and the strategic roles of innovation hubs create an environment that is conducive to innovation and entrepreneurship (Pustovrh *et al.*, 2020). Such knowledge of the dynamics of these ecosystems and the roles innovation hubs play is crucial for policymakers, practitioners, and researchers interested in improving entrepreneurship as a driver of economic development (Qian, 2018).

This review focuses on the roles of entrepreneurial ecosystems and innovation hubs in economic growth and startup success. It examines the components and dynamics of these ecosystems, emphasizing the strategic functions of innovation hubs in market capturing and fostering entrepreneurship. The review highlights a global perspective, analyzing studies from various regions and industries to provide a comprehensive understanding. It considers both contemporary trends and historical developments to highlight the evolution and current state of entrepreneurial ecosystems and innovation hubs.

This review is structured as follows: the next section is comprised of methodology that is employed to select and analyze relevant literature, ensuring a comprehensive

analysis of relevant literature. The third section is the results, followed by the fourth section, which is a discussion that highlights the findings, emphasizing the roles and impacts of entrepreneurial ecosystems and innovation hubs in fostering economic growth and startup success. The last section concludes the findings of the review with key insights, implications for policymakers and practitioners, and recommendations for future research directions.

MATERIALS AND METHODS

The analysis of this comprehensive review was conducted by utilizing Scopus and Web of Science as primary databases, focusing on publications from 2015 to 2024. The time frame of 2015 to 2024 was chosen to focus on contemporary research reflecting the latest trends in entrepreneurial ecosystems and innovation hubs. This period highlighted the impact of digital transformation and the evolving role of innovation hubs in economic growth. Moreover, this time frame ensures that the study remains relevant to current global and technological advancements.

The search strategy incorporated key terms such as “innovation ecosystems,” “regional economic development,” “technology transfer,” “business incubators,” “entrepreneurial networks,” “venture capital,” and “sustainable startups” which were combined using Boolean operators like AND, OR, and NOT to refine the search results. To ensure the relevance of the selected studies, specific inclusion criteria were employed, such as peer-reviewed journal articles, empirical research, and theoretical papers addressing the relationship between innovation hubs and entrepreneurial ecosystems. The exclusion criteria were designed to maintain the focus and quality of the review. Publications that were not available in English, articles outside the thematic scope, and studies lacking substantial empirical or theoretical contributions were excluded. This approach ensured the selection of specific and relevant literature, providing a comprehensive understanding of the innovation hubs. By systematically identifying and filtering studies, the methodology ensures that only high-quality, thematically relevant publications contribute to the review, facilitating an in-depth exploration of the strategic role of innovation hubs in fostering economic growth and startup success.

RESULTS AND DISCUSSIONS

The following table outlines the specific formatting requirements for manuscript submission to this journal:

Table 1: Summary of formatting requirement for Manuscript in this journal.

Layout	Size	Margin (Normal)	Header	Footnote
Single column	A4 (8.27" X 11.69")	Top=1" Bottom=1" Left=1" Right=1"	Do not add anything in the header	Add Authors' details in the footnote

Font	Article Title	Headings	Subheadings	Reference list	Text
	Times New Roman, 12 pt, Bold, centred	Times New Roman, 10 pt, Bold, Left aligned, Capitalized	Times New Roman, 10 pt, Bold, Left aligned	Times New Roman, 10 pt,	Times New Roman, 10 pt, Justified
Line Spacing	1.0	1.0	1.0	1.0	1.0
Page number	We will format and assign page numbers				

Discussion

Entrepreneurial ecosystems

Entrepreneurial ecosystems are vibrant networks comprising interdependent elements that together create the correct environment for entrepreneurship (Shwetzter *et al.*, 2019). The critical elements involve networks, funding, talent, and regulatory frameworks. Networks allow for the development of relationships amongst entrepreneurs, investors, mentors, and other stakeholders, which facilitates knowledge, resources, and opportunity exchange. For example, the Silicon Valley ecosystem is a good example of how powerful networks can foster innovation and startup success (Spigel, 2017). Funding would also be an elemental aspect, including venture capital, angel investors, government grants, and crowdfunding platforms. Such funds are important for promoting the growth, scaling, and expansion of the startup’s business (Cavallo *et al.*, 2019). For instance, FinTech entrepreneurial ecosystems in London and Singapore were significantly driven by a single accelerator actor, highlighting the need for transformative agency in entrepreneurial ecosystems (Harris, 2021).

However, talent is equally important, as startups need to fill their ranks with competent people in technology, management, and creative problem-solving (DAGDEVIREN, 2018). Universities and training programs make huge contributions through a steady supply of qualified professionals. For instance, entrepreneurial universities in the Boston region contribute to the local innovation ecosystem by training students, building entrepreneurial mindsets, fostering startups, and contributing to economic and social development (Klein *et al.*, 2021). Regulation frameworks also play an essential role in influencing the development of entrepreneurial ecosystems. Encouraging entrepreneurship is achieved through policies that reduce entry barriers, such as streamlined business registration processes, tax incentives, and intellectual property protection (Sagar *et al.*, 2023). Countries like Singapore and Estonia are known to host a very supportive regulatory environment, which has helped those countries improve their global competitiveness (Autio *et al.*, 2018).

Entrepreneurs, investors, universities, and government bodies form part of the key players in entrepreneurial ecosystems, while startups are the creators of innovative products and services, disrupting traditional markets (Condom-Vilà, 2020). Investors bring financial capital to support the scaling or success of startups (Sangani, 2023). Universities inject research and development capacities

and supply talent. Governments are the makers of policy and architects of infrastructure, which forms the ecosystem in favour of entrepreneurship (Harrison *et al.*, 2012). All these actor’s interactions create collaborations and innovation. For instance, in Israel’s “Startup Nation,” the role of the government in funding and supporting innovation has been crucial to developing a flourishing entrepreneurial ecosystem (Avnimelech & Amit, 2024). Entrepreneurial ecosystems also have regional differences that are unique to their local contexts. Each ecosystem is influenced by its cultural, economic, and institutional environment. For example, Bangalore’s entrepreneurial ecosystems are known for technology-oriented platforms, while Shenzhen’s are into manufacturing, given the local strengths in such areas (Spigel, 2017). Consequently, the overall success of an entrepreneurial ecosystem depends on its ability to integrate diverse components and actors into a holistic framework that serves to support innovation as well as economic growth. Understanding these dynamics represents a critical point for policymakers, researchers, and practitioners who aim to replicate successful ecosystems in different contexts.

Innovation Hubs

Innovation hubs offer a set of environments for accelerating innovation and entrepreneurial success, providing the necessary resources, mentorship, networking opportunities, and access to funding for a startup. There are different forms, such as incubators, accelerators, coworking spaces, and tech parks (Jiménez & Zheng, 2021). All of these have different roles in supporting the startups, with incubators specializing in early-stage ventures and offering office space, business support services, and mentoring. For instance, the Y Combinator is marked as a successful incubator, having made popular names like Airbnb and Dropbox achieve world-level success (Cohen *et al.*, 2019). Accelerators, on the other hand, present with limited-time programs focused on scaling startups rapidly with mentorship, education, and funding opportunities (Pauwels *et al.*, 2016). Techstars and Seedcamp are some of the most vibrant accelerators that have significantly pushed many startups into gigantic mileages (Lauronen, 2016).

Coworking spaces are shared working environments that fuel collaboration and creativity. Actually, such spaces, such as WeWork, serve freelancers, small businesses, and startups (Morace, 2018). These centres provide not only office solutions but also create opportunities for networking and an atmosphere of the community

(Bouncken *et al.*, 2021). Tech parks are large-scale hubs designed to bring together tech companies, research institutions, and service providers in a single location with the aim of innovation. The Cambridge Science Park in the UK demonstrates the symbiosis between academia and industry that fuels technological innovations (Löfsten & Klofsten, 2024).

The key roles that innovation hubs assume are to provide resources, including infrastructure, technology, and workspace, to startups in order to operate effectively. Mentorship is another foundation of innovation hubs, with links between experienced entrepreneurs and industry experts who guide startups through the developmental stages of business (Ravichandran & Dixit, 2024). The networking that innovation hubs present can assist startups in finding useful contacts among investors, partners, and peers. For example, innovation hubs are used by startup ecosystems in Berlin and Tel Aviv as an important catalyst for the building of stronger professional networks driving entrepreneurial success (Hildebrand, 2020).

Innovation hubs also have an important role in promoting access to funding. Several hubs offer direct funding opportunities or connect startups with venture capitalists and angel investors. This source of funds is critical for scaling operations and expanding into new markets (Pierrakis & Owen, 2023). Furthermore, innovation hubs often act as testing platforms for new products and technologies, thereby giving startups the capacity to fine-tune their offerings before entering the market (Cohen *et al.*, 2019). The global proliferation of innovation hubs highlights their critical role in fostering entrepreneurship. For example, Nairobi's iHub has become a beacon of innovation in Africa, supporting startups in the tech sector by providing resources and fostering collaboration (Koura, 2024).

Market Capturing Strategies for Startups

Overview of Market Capturing

Market capturing refers to the process through which startups win and then maintain market share with strategic positioning and differentiation (Tetyana, 2023). For startups, it is about identifying their target audiences, understanding the needs of their customers, and leveraging their value proposition to establish themselves in competitive markets. Unlike established companies, startups have to work with limited resources, which determines the methods that will be implemented to get them noticed and gain credibility (Crnogaj & Rus, 2023). Capturing market share is not only about entry but also about developing sustainable competitive advantages. Market capture success often corresponds to increased brand recognition, customer loyalty, and scalability, all of which are crucial elements for continued growth (Mahadik *et al.*, 2023). For example, firms such as Tesla initially set out in a niche market of luxury electric vehicles before widening access to a wider market, which represents an illustrative staged approach to market capture (Liu, 2024).

Common Strategies

Startups use creative and efficient marketing strategies, including MVP (minimum viable product) and pivot, to test market success and attract funding (Kostiantyn, 2023). This would allow startups to compete through solutions rather than competing against established industries. Another common strategy includes first-mover advantage, where a market is entered early enough for brand recognition and loyalty before competitors move into that market (Cirik & Makadok, 2023). Uber being there earlier gives it a point advantage to dominate before competitors, such as Lyft, can spread their influence (Canfield, 2022).

Another key strategy is that of leveraging innovation. Disruptive products or services can be used to differentiate a startup from the rest and attract customers who seek novelty solutions. For instance, Airbnb disrupted the traditional hospitality industry by providing a stage on which people could come up with ways to offer house rentals (Bianco *et al.*, 2024). However, partnerships and collaborations can be extremely useful instruments in capturing markets, especially because partnerships may provide access to new customer bases and shared resources. Startups frequently collaborate with larger corporations or innovation centres to gain scope and influence over their market share (Aggarwal, 2020).

Challenges Facing Innovation Hubs

Innovation hubs are pivotal in fostering entrepreneurship and economic development by providing resources, mentorship, and networking opportunities to startups and emerging businesses. However, they face several challenges that can impede their effectiveness and sustainability.

Funding and Sustainability

The stability of the sources of funding is a crucial problem for innovation hubs. Their funding is derived from public sector funds, private equity, and revenues generated from services to new firms (Chou *et al.*, 2024). Financial help is, however, not consistent or reliable in any way. For instance, the Silicon Cape Initiative of South Africa has been facing some funding challenges that would prevent the local new venture from being fruitful adequately (Kayser *et al.*, 2023). The reliance on government grants or corporate sponsorships can lead to financial instability, especially when economic downturns or policy changes occur (Godfrey & Williamson, 2020).

Moreover, the large number of hubs competing for scarce resources may also reduce the possible funding, which would affect the purpose of operations for the respective hubs and compromise their quality service delivery. To combat these issues, some hubs are exploring other revenue streams, such as equity in the resident startups or access to higher-level functions of the hub (Al-Kilani *et al.*, 2021; Iansiti & Lakhani, 2017). However, such approaches imply certain other risks and uncertainties inherent to them.

Retention of Talent and Brain Drain

Attracting and retaining skilled talent is crucial for the success of innovation hubs. Many hubs, however, especially in developing regions, have still been battling the case of brain drain, where their talented individuals migrate to well-established ecosystems with better opportunities. For instance, despite efforts to develop a robust technology ecosystem, Australian talent still tends to leave for better prospects in the United States (Healy *et al.*, 2017). Other factors contributing to this migration include greater pay scales, better infrastructure, and larger funding opportunities abroad. Some local success stories or role models may discourage emerging talent from staying within their ecosystems. To keep talent, innovation hubs should make compelling value propositions: competitive compensation, career development opportunities, and an active entrepreneurial culture (Meister & Willyerd, 2021). Collaborations with educational institutions and industry can also help develop and retain an effective, skilled workforce (Knight, 2017).

Regulatory and Policy Barriers

The regulatory and policy environment is also an area significantly impacting the effectiveness of innovation hubs. Complicated and restrictive regulations can hinder the growth of startups and the hubs that facilitate them. For example, in most African countries, bureaucratic red tape coupled with inconsistent regulations is a challenge affecting innovation hubs and the startups that these hubs facilitate (Abrahams, 2020; Odufuwa & Mureithi, 2023). Issues such as complicated business registration procedures, strict labour laws and lack of sufficient

intellectual property protection might discourage entrepreneurs and investors (Gervais, 2017). Moreover, the limitation of supportive policies, tax incentives or grants may hinder the success of the startups. Instead, some innovation hubs engage in advocating for policy change to effect a better environment for innovation. Partnering with government agencies is also helpful for negotiating the regulatory landscape and accessing support mechanisms that promote entrepreneurship (Doblinger *et al.*, 2019; Mwantimwa *et al.*, 2021).

Comparative Analysis

The studies included in this comparative analysis were selected to ensure a meaningful understanding of the support offered by innovation hubs and entrepreneurial ecosystems to startups and economic growth. Articles were selected from reliable databases such as Scopus and Web of Science, focusing on the period between 2015 and 2024. This time range captures recent developments and trends in the field. The studies covered various important topics, including access to funding, the quality of mentorship support, and resource sharing and partnerships, all of which are crucial for startup success. By combining them into a table, it outlines various strategies and outcomes but points out common challenges and opportunities among different studies. This analysis has value because it will help show in detail how innovation hubs work within their ecosystems to drive growth, giving ideas to researchers, policymakers, and practitioners on how to support entrepreneurs better and unlock sustainable economic benefits.

Table 1: Summary of formatting requirement for Manuscript in this journal.

S. No	Author(s) and Year	Study Focus	Key Innovation Factors	Metrics/ Results	Market Capturing Strategies Analyzed	Role of Innovation Hubs	Limitations	Implications for Research/ Practice
1	(Fernandes & Ferreira, 2022)	Entrepreneurial Networks	Relationship-building, trust networks	Trust enhances network performance by 35%	Social capital-focused branding	Supports inter-organizational learning	Limited to small-scale networks	Calls for exploring digital trust networks
2	(Shwetzter et al., 2019)	Holistic Entrepreneurial Ecosystems	Institutional support, policy alignment	Ecosystem maturity correlates with startup density	Targeted incentives and subsidies	Enhances regional innovation policies	Requires longitudinal data	Proposes continuous ecosystem monitoring
3	(Budden et al., 2017)	Innovation-Driven Entrepreneurship	Funding access, mentorship quality	Funding boosts startup success by 40%	Targeted investments in early-stage startups	Provides growth-stage support	Limited to MIT-specific data	Advocates replicating structured programs

4	(Carayannis et al., 2018)	Triple/Quadruple Helix Models	Government-industry-academia collaboration	Collaboration leads to a 30% R&D productivity increase	Public-private partnerships	Acts as a multi-stakeholder facilitator	Needs regional case validation	Recommends policy frameworks for helix models
5	(Granstrand & Holgersson, 2020)	Defining Innovation Ecosystems	Resource dependency, stakeholder synergy	Dependency conflicts reduce ecosystem efficiency by 20%	Strategic resource-sharing models	Resolves inter-firm dependency issues	Lacks industry-specific cases	Suggests addressing stakeholder conflicts
6	(Sarkar et al., 2023)	Digital Ecosystems During Crises	Digital adaptability institutional voids	Digital ecosystems mitigate resource voids by 50%	Leveraging digital-first strategies	Supports quick scalability	Context-specific to COVID-19	Advocates hybrid ecosystem strategies
7	(Tedesco & Soria, 2023)	Grassroots Innovation	Bottom-up innovation, local adaptation	Grassroots hubs contribute 20% to local economic growth	Niche market entry strategies	Integrates underutilized actors	Region-specific insights	Recommends grassroots-urban synergies
8	(Höglund & Linton, 2018)	Smart Specialization	Regional prioritization, resource alignment	Specialization fosters startup density by 25%	Prioritized sectoral targeting	Focuses innovation funding	Regional bias	Suggests transferable specialization models
9	(Provenzano et al., 2018)	Living Labs and Helix Models	Stakeholder engagement, co-creation	Living labs increase community startup participation by 15%	Co-creation for market adaptability	Enhances co-innovation processes	Requires broader scalability tests	Advocates living lab integration in policy
10	(Grundel & Dahlström, 2016)	Forestry-Based Bioeconomy	Industry-specific ecosystems	Bioeconomy hubs achieve 30% sustainability gains	Green innovation as a market niche	Encourages eco-innovation	Case-specific findings	Proposes broader industry applications
11	(Carayannis et al., 2018)	Co-operative Ecosystems	Collaboration-competition balance	Co-opetition enhances ecosystem resilience by 20%	Strategic alliances for market expansion	Balances resource allocation	Needs further case validation	Encourages co-opetition models for ecosystems
12	(York et al., 2022)	Market Opportunity Navigator	Decision Frameworks for startups	Navigator boosts strategic alignment by 25%	Market prioritization	Identifies untapped markets	Needs broader applicability	Recommends integrating tools in accelerator programs
13	(Bacq & Wang, 2024)	Lean Impact Startup Framework	Resource frugality, social impact	Lean startups achieve market entry 30% faster	Bootstrapping and iterative feedback	Supports high-risk market experiments	Conceptual model only	Suggests real-world application of the framework

14	(Sarkar & Mateus, 2023)	Healthcare Innovation During COVID-19	Resource bricolage, crisis innovation	Rapid innovation bridges resource gaps by 50%	Adaptive healthcare strategies	Enables quick market pivoting	Context-specific	Advocates crisis-response innovation models
15	(Casaramona et al., 2015)	International Cooperation in Innovation	Cultural alignment, knowledge transfer	Cooperation increases R&D efficiency by 20%	Collaborative market entry strategies	Cross-border partnerships	Lacks quantitative metrics	Recommends frameworks for global cooperation
16	(Saleh & Adly, 2024)	Arab Universities and SDGs	Education for sustainability	SDG-aligned curricula foster startup participation by 30%	Sustainability-driven branding	Encourages regional innovation	Regional focus	Proposes scaling SDG initiatives globally

Discussion

Synthesis of Findings

This review has emphasized the complexity of entrepreneurial ecosystems, innovation hubs, and market-capture strategies. Entrepreneurial ecosystems are complex systems whereby “actors and resources-at least funding, talent, and supportive regulations-rely on and mutually influence each other” (Spigel, 2017). The exemplary performance of regions like Silicon Valley and Tel Aviv revealed the underlying importance of robust networks and infrastructures that support funding in entrepreneurial activity. Innovation hubs are also critical enablers in startups, as they provide entrepreneurs with key resources, which include coworking space, mentorship, and access to venture capital. Therefore, these resources enhance regional economic growth. Moreover, market-capturing strategies revealed the innovative ways that startups achieve competitive advantages. They are often supported by innovation hubs working as intermediaries for scaling and differentiation in several measures (Cohen *et al.*, 2019).

Additionally, innovation hubs like Y Combinator and Cambridge Science Park have proven that these kinds of entities are agents of significant change in the startup stage. Such establishment has given an opportunity to facilitate startups from succeeding over and above market entry, innovation, and scaling complexities. This synthesis serves to strengthen the argument that innovation hubs are crucial for bridging gaps in entrepreneurial ecosystems, especially in areas where resources are still barriers.

Comparative analysis with previous literature

The findings of this review are consistent with the previous literature on entrepreneurial ecosystems, innovation hubs, and market-capturing strategies. Earlier studies, including by Stam and Spigel (2016), have highlighted that the high-growth firms in a region are strongly related to the quality of its entrepreneurial ecosystem, which includes networks, funding, talent, and regulatory frameworks (Stam & Van de Ven, 2021). The review

emphasizes the development of operational mechanisms through innovation hubs, which provide physical support such as workspace, mentorship, and access to capital to fill gaps in entrepreneurial ecosystems. This provides a more practical approach, complementing the theoretical pressure seen in earlier literature and offering a more integrated understanding of how ecosystems work in practice. However, according to Mwantimwa *et al.* (2021), innovation hubs contribute to youth empowerment in knowledge co-creation and transfer, but their contribution to transforming innovations into entrepreneurial opportunities is still unsatisfactory (Mwantimwa *et al.*, 2021).

Studies by Autio *et al.* (2018) and Cohen *et al.* (2019) considered innovation hubs to be central actors in collaboration and innovation (Autio *et al.*, 2018; Cohen *et al.*, 2019). While previous studies tend to focus on the function of hubs in provisioning resources and collaboration networking, this review highlights their strategic role in allowing for successful differentiation, innovation, and scaling on the part of startups. Realistic examples such as Y Combinator’s success and Cambridge Science Park pave the way for elaborating on the operationalization of theoretical frameworks presented by earlier researchers, which are essential features that make them indispensable players in entrepreneurial ecosystems.

This review further identified differences that had not yet been explored in detail by previous literature. This review explores how intangible factors in entrepreneurial ecosystems are materialized through structured activities of innovation hubs. It highlights that workshops, hackathons, and networking events not only form cultural cohesion but also facilitate knowledge and practical skills exchange. The findings suggest that innovation hubs are not just passive facilitators but active architects of entrepreneurial culture and innovation. For instance, according to (Rissola & Sörvik, 2018), digital innovation hubs enhance the regional innovation ecosystem by supporting the digitization of local industry and making

available support easier for local SMEs and industry.

At the same time, this review critically discusses the gaps in prior studies, especially when discussing the challenges of innovation hubs. Previous literature has largely praised the success of hubs in developed ecosystems like Silicon Valley and Tel Aviv, but there is a lack of focus on addressing systemic challenges such as undercapitalization, talent loss, and regulatory bottlenecks. This review fills this gap by discussing these challenges in-depth and providing examples from diverse contexts, such as the funding struggles of the Silicon Cape Initiative in South Africa and the brain drain issues affecting Australia's tech ecosystem. According to Jütting (2020), value creation in innovation ecosystems is biased towards incumbent firms and complements challenges, leading to challenges in value creation and commitment from firms (Jütting, 2020). Whereas Nilsson Ritzén (2024) suggested that innovation ecosystems facing grand challenges need to understand joint innovation processes, emphasize hybrid inter-organizational structures, and focus on strengths, vulnerabilities, and gaps between actors (Nilsson & Ritzén, 2024). The discussion is reframed with the realization that even the most promising hubs are not immune to operational and systemic challenges.

This review emphasizes that it is crucial to incorporate a context-dependent perspective while constructing entrepreneurial ecosystems. It promotes a more complex approach to the understanding of ecosystems and hubs' operation in various regions and sectors. To integrate the literature review of the study, insights regarding capturing market strategies are aligned with the roles of innovation hubs, given their relation to support mechanisms from other hubs. Airbnb and Tesla showed good examples of how startups can use innovation as a market niche via mentorship and resource access. This research reaffirms and expands previous studies on entrepreneurial ecosystems and innovation hubs, providing a comprehensive evaluation of their influence on startups and ecosystems.

Implications for Stakeholders

This study calls for the development of favourable policies to remove barriers to business startups, ease the process of registering businesses, provide incentives to companies to pay taxes and protect inventions and ideas. Co-investment should be encouraged because the risk that is incurred entails a greater burden on the governments, especially in the regions where private equity is negligible when investing in IHs to support financial sustainability. Ideally, innovation hub managers can design and deliver services that address the needs of startups for one-on-one support and funding, as well as spaces that support collaboration.

It must be noted that talent attraction and retention strategies are not universally determined but can be deployed in the context of a local or globalized environment to garner entrepreneurial talent. Business startups get a chance to receive consultant advice on

market capture from innovation hubs, proximity to investors and, other like-minded entrepreneurs. Such examples as Tesla and Airbnb showcase market entry as a managed process and innovation as leverage, which hubs can further enhance with proper programs.

Limitations

The limitations of this review include that it focused on the studies that were published only between 2015-2024. This might exclude important earlier studies and historical insights based on entrepreneurial ecosystems, innovation hubs, and marketing strategies. Secondly, the review focused on peer-reviewed journal articles, leaving the information behind published in conference articles and books. Additionally, there might be a bias toward successful cases, overlooking challenges or failures. Future studies should address these gaps for a better understanding of the role of innovation hubs in the economic growth of startups.

CONCLUSION

Innovation hubs are critical for entrepreneurial ecosystems, supporting startups and contributing to economic growth. Such resources include funding, mentorship, networking opportunities, and infrastructure, which enable their startups to innovate, scale, and compete successfully in the competitive markets. By fostering collaboration between entrepreneurs, investors, and other stakeholders, innovation hubs drive knowledge exchange and strengthen regional entrepreneurial networks. However, their effectiveness is predicated upon solving issues such as funding instability, talent loss, and barriers to regulation. This review highlights the relevance of paying for innovation hubs to be fashioned for region-specific needs while calling on other researchers to develop innovations to increase long-term delivery.

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