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COMPARATIVE ANALYSIS OF SOCIAL AND UNIVERSITY INCUBATORS FROM THE PERSPECTIVE OF PUBLIC-PRIVATE PARTNERSHIP

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Abstract

As the concept of corporate sustainability is being advocated, social innovation is also gradually gaining importance. Many startups encounter difficulties in their early stages of development, both in terms of operations and capabilities. Companies with business support can shorten the time to adapt to the market and increase the survival rate of startups. Meanwhile, incubators supporting entrepreneurship have evolved into different forms with the development of various industries. Incubators, which support entrepreneurship, have evolved alongside various industries, with some focusing specifically on social issues. Incubators focusing on social issues have also emerged, yet only a few studies have investigated social incubators. Therefore, this study conducts multiple case studies focusing on startups in the creative industry. weIt examines the processes of participating in both social incubators and university incubators, employing a comparative analysis framework based on the theory of Public-private partnership (PPPs). We selecting potential candidates from the list of supported companies listed on the incubator websites and choosing those within the creative industry domain, inviting them to participate in interviews. The study found that clustering similar types of enterprises helps deepen and enhance their growth. On the other hand, social incubators, due to their goals, resources, and activities, can provide more opportunities for collaboration with private enterprises and access to industry resources. Additionally, participation in university incubators not only provides comprehensive business support but also access to key resources for collaboration with the public sector. The experiential evidence from case studies of creative industry incubators in Asia fills the research gap related to social incubators. Through the comparison of different types of incubators, it enriches the knowledge base of stakeholders (private enterprises, government, universities, and business incubators) regarding PPPs. It aids researchers and practitioners in gaining a more comprehensive understanding of the current status and future directions of incubator development, highlighting the distinct roles and contributions of social and university incubators in supporting startup growth and innovation.

Keywords

Incubator, Social Business Incubation, University Incubation, Creative Industry, Public-Private Partnership (PPPs)

1. Introduction

With the rise of the knowledge economy, the creative industry is gradually gaining importance, and micro-entrepreneurship and brand awareness are fermenting within it. Many innovative creators, with their creative works, are starting to establish brands by setting up personal studios to sell goods or provide services. However, when these new brands enter the market, they inevitably encounter challenges in brand management and capabilities. Units participating in entrepreneurship support can help shorten the time for market adaptation, thereby increasing the survival rate of new enterprises.

Incubation centers that provide entrepreneurial support play crucial counseling roles in the process of brand growth. At the outset of the development of the creative industry, these centers mostly offer guidance tailored to cultural and creative enterprises through general incubation mechanisms. However, the creative industry's numerous characteristics differ from those of conventional industries (Caves, 2000), exhibiting many distinctions in aspects such as product provision and industry environment. Therefore, in recent years, with changes in the industry landscape, incubation centers have shifted from traditional technology incubation for general industries to providing specific industry guidance for the service and creative sectors.

Supportive entrepreneurship institutions have evolved into various forms corresponding to different industries. Current incubation institutions can be categorized into coworking spaces, incubation bases, incubation centers, accelerators, and others, depending on the services they provide. By acting as intermediaries, incubation organizations connect resources from various parties and intervene in the process of enterprise growth, thereby enhancing the efficiency and stability of enterprise development. Although some studies have indicated that business participation in an incubator may have a negative impact on short-term sales revenue and does not significantly affect job creation (Lukeš et al., 2019). However, in terms of long-term impact, the majority of literature still supports the notion that incubators can enhance business performance (Lukeš et al., 2019; Mian et al., 2016). In such a context, we should focus on the impact and differences of different types of incubators, providing incubators or businesses with choices that are more suitable for their own needs.

As the concept of corporate sustainability expands, social innovation is increasingly emphasized, leading to the emergence of incubators focusing on related issues. Business models continue to innovate, resulting in changes in the classification of incubators. While literature analyzes different types and models of incubators(Mian et al., 2016), only a few studies have investigated social incubators (Galbraith et al., 2019). Social incubators not only focus on startups pursuing economic goals but can also effectively assist in the economic growth of businesses, similar to other types of incubators(Sansone et al., 2020). Sansone et al. (2020) provided definitions and analysis of recently emerged social incubators. Their research data indicate that social incubators, like other types of incubators, are effective in mentoring businesses. However, this study only demonstrates the positive impact of social incubators on the economic growth of businesses, without addressing differences in other aspects (such as resources, interactions, or relationship networks) compared to other types of incubators.

Therefore, this study attempts to analyze the differences in the impact of business participation in social or university incubators on the entrepreneurial process from a Public-private partnership (PPPs) perspective. Given the exploratory nature of the research objectives, qualitative methods are employed, focusing on multiple case studies of startups in the creative industry. Drawing on experiential evidence from case studies of creative industry incubators in Asia and adopting the theoretical perspective of PPPs, this study aims to explore the differences in entry into different types of incubators for the creative industry and fill the research gap regarding social incubators.

2. Literature Review

During the initial stages of small business startups, there is considerable uncertainty regarding their operational levels. In the early phases of entrepreneurship, companies must undertake various activities such as basic research and development, new product development, and marketing with limited resources. This often results in resource gaps in areas such as equipment, funding, and accessing potential customers. (Hackett & Dilts, 2004; Rice, 2002). Incubators, on the other hand, can provide many services that help reduce the establishment costs for businesses(Verma, 2004). Therefore, incubators that can provide complementary resources become essential supportive partners in the entrepreneurial process (Hackett & Dilts, 2004; Rice, 2002).

2.1 Types of incubators

The main elements of an incubator include the services it provides: financing, goals and structure, resources and support, and entrepreneurial spirit. (Dettwiler et al., 2006; Löfsten & Lindelöf, 2002; Patton et al., 2009) The most basic classification distinguishes between for-profit incubators (also known as public incubators)) and non-profit incubators(Becker & Gassmann, 2006a, 2006b; Grimaldi & Grandi, 2005). For-profit incubators are professional organizations that seek profits through engaging with new businesses. This type can access internal knowledge bases such as technology, suppliers, customers, and business development(Becker & Gassmann, 2006b). The core of for-profit incubators is to provide logistical services to reduce the costs for new startups(Grimaldi & Grandi, 2005).

Many studies have classified incubators. Based on the industry context at the time, Allen and McCluskey (1991) categorized incubators into four types: for-profit real estate development, non-profit development corporations, academic institutions, and for-profit seed capital. Von Zedtwitz and Grimaldi (2006) distinguished between economic enterprise, university, independent, corporate internal, and virtual incubators, amid the development of diversified incubator businesses. According to Barbero et al. (2014) , incubators can be further classified into economic development, university, basic research, and private incubators.

Economic development incubators primarily aim to promote regional economic development by transforming businesses into small and medium-sized enterprises with an international perspective(Von Zedtwitz & Grimaldi, 2006). University incubators can provide typical incubator services (shared office space, services, rent reductions, etc.), along with access to university-related services (faculty consultation, technology transfer programs, employee education and training, library services)(Mian, 1996). Basic research incubators, meanwhile, are a type of incubator associated with research centers, investing public funds in developing infrastructure

(Aernoudt, 2004). Alternatively, private incubators refer to large companies supporting businesses by providing innovative ideas and transferring their knowledge internally within the company(Becker & Gassmann, 2006a).

With the rapid evolution of business models, the services offered by incubators have become increasingly diversified to support the establishment and growth of businesses. Physical infrastructure, financing, equipment, shared services, consulting, training, and access to knowledge networks are all vital needs for startups(Caetano, 2012). Therefore, providing diversified mixed services has become a new model for incubation centers. The role of incubators in the entrepreneurial process has evolved from merely being a business center with office facilities to becoming centers that offer training, networking, and consulting in all professional domains for startups(Peters et al., 2004). Incubators also encourage innovation and regional development(Hochberg & Fehder, 2015; Mas-Verdú et al., 2015; Phan et al., 2005).

2.2 University and social incubators

Current literature generally acknowledges that university incubators provide significant advantages to emerging growth companies in terms of offering shared facilities such as office space and administrative staff, as well as accessing university research and funding support (McAdam & McAdam, 2006). The environment provided by university incubators fosters the development of social networks, thereby providing support to new entrepreneurs at the critical stage of business establishment. These networks also facilitate the design and implementation of company development strategies. (McAdam & McAdam, 2006). Research has found that tenants within incubators assist each other, establishing close collaborations, and can leverage these collaborations through the formation of learning communities (Branstad & Saetre, 2016). This is particularly effective in university-affiliated incubators(Sansone et al., 2020).

Recent research surveyed data from companies participating in university incubators and non-university incubators, finding that companies from university incubators generally outperformed those from non-university incubators in terms of employment numbers and sales revenue (Lasrado et al., 2016). The study also found that post-incubation, companies previously involved in university incubation continued to show sustained improvement in performance. Employment numbers and sales revenue increased over time following the incubation period. This research also indicates that university-incubated companies outperformed non-incubated companies post-incubation (Lasrado et al., 2016). Barbero et al. (2014) argue that different types of incubators generate different types of innovation. Their study further found that basic research and private incubators generate more innovation compared to university or regional development incubators, essentially serving as the most effective prototypes for fostering external innovation.

With the concept of corporate sustainability increasingly penetrating into businesses, social innovation is also gaining importance, leading to the rise of incubators focusing on related issues. Social incubators, along with other types of incubators, offer similar services but have different missions. (Aernoudt, 2004) Pandey et al. (2017) defined several key services of social incubators, such as training, mentoring, connecting with clients, partners, and entrepreneurs, direct financing through seed capital, indirect financing by attracting investors, as well as building credibility and awareness. Narrowly defined, their goal is to encourage the development, growth, and sustainability of companies that employ individuals with lower employability skills (Aernoudt, 2004). Casasnovas and Bruno (2013) proposed a broader definition, stating that social incubators support organizations in addressing societal challenges through innovative and market-driven solutions, thereby facilitating organizational expansion or growth.

2.3 Public-private partnership (PPPs)

Most incubation programs worldwide can be referred to as corporate partnership relationships (Lalkaka, 2001). Kanter (1999) found that many businesses are beginning to realize that, beyond social responsibility, social initiatives can also enhance a company's profitability. Therefore, enhancing partnerships between private enterprises and public interests can bring profitable and sustainable transformations to businesses (Samii et al., 2002). Most incubators are nonprofit-based and aim at economic development (Lalkaka, 2001).

The financing of an incubator largely depends on whether the facility is privately or publicly funded (Allen, 1985; Allen & Rahman, 1985) Private sector sponsors include corporate funding and direct donations. Policymakers and private organizations also facilitate the creation of incubators (Messeghem et al., 2018; Nordling et al., 2020) Compared to public incubators, private ones are more focused on providing opportunities to access capital directly and offering more intangible and high-value services (Grimaldi & Grandi, 2005). However, private incubators cannot completely replace public ones; even after companies enter technology incubators, there are reasons for public incubators to continue. This is because private incubators often concentrate on specific areas, while public ones sponsor a variety of activities that can promote development in peripheral areas (Frenkel et al., 2008)

Regarding research on PPPs, stakeholder analysis is often considered (Wang & Ma, 2021). Most incubators are project-based and involve participants beyond private enterprises, such as institutions, public organizations, and universities (Carloni, 2022). The relationships between businesses and strategic partners are not static; their evolution depends on environmental conditions and the involvement of organizational participants (Zhang et al.,

2020). Existing research emphasizes the importance of partnership approaches in influencing entrepreneurial decisions (Liu & Almor, 2016) and fostering entrepreneurial activities and business growth (Liu, 2017). As intermediaries between businesses and other partners, incubators are best positioned to bring or coordinate diverse network relationships for businesses, and even foster beneficial partnerships conducive to business growth.

3. Method

3.1 Research design

This study investigates how social incubators and university incubators interact with businesses and compares PPPs relationships. To address our research questions, we employed a qualitative case study method (Yin, 2009). Stakeholder engagement in the study necessitates exploring interactions between stakeholders and entrepreneurial organizations in the context of business incubation using qualitative methods (Mian et al., 2016). Qualitative methods are suitable for providing insights into process-oriented research and entrepreneurial studies (McMullen & Dimov, 2013), allowing for a deeper understanding of the impacts on entrepreneurial development.

3.2 Data Collection

The first data source utilized in this study is one-on-one semi-structured interviews (Kvale & Brinkmann, 2009). This type of data is widely used to comprehend the complexity of relationships and is described as "the most efficient means of data collection" (Lindgreen et al., 2020). We employed a multiple-case research approach, selecting potential candidates from the list of supported companies listed on the incubator websites and choosing those within the creative industry domain, inviting them to participate in interviews. Ultimately, observations and interviews were conducted for three companies that had experience with social incubators or university incubators

The second data source involved collecting secondary data from newspapers, press releases, social media channels, and policy documents. Through diverse data collection methods, data reliability was ensured, and an interpretative approach was adopted to analyze the data (Cornelissen, 2017).

Stakeholders	Incubator involving	Positions	Period of interview	
Entrepreneurs A	Social incubator University incubator	CEO	2021/12 2023/6	1.5hr 30min
Entrepreneurs B	Social incubator University incubator	CEO	2021/12 2023/6	1.5hr 30min
Entrepreneurs C	University incubator	CEO	2021/12 2023/7	1hr 1hr

Reference: Organized by the researcher

Table 1 An overview of the interviewees in this study

3.3 Background of cases

The assisted companies have participated in both social incubators and university incubators at different stages of their business development. Entrepreneur A initially engaged with a university incubator before joining a social incubator. Entrepreneur B started with a social incubator in the early stages of entrepreneurship and later transitioned to a university incubator. Entrepreneur C, due to venue availability, participated in incubators from two different universities.

The social incubator where the companies participated is located in Taipei, Taiwan, established in 2012 as the first social enterprise entrepreneurship counseling unit in Taiwan. Through its incubator and accelerator services, it supports social entrepreneurs from idea generation, market validation, stable operation to scale-up stages. Key services provided include training courses, networking events, consulting, and resource matching, assisting entrepreneurs in achieving social impact through commercialization. As of the end of 2022, it has supported 207 teams, serving as a social innovation platform primarily for the creative industry, social enterprises, and startups.

The university incubator, affiliated with an arts university, is located in Banqiao, New Taipei City, established in 1999. In addition to on-campus entrepreneurial services, it connects various incubation resources both inside and outside the campus through diverse counseling mechanisms. By providing workspace, counseling, and marketing promotion strategies, it nurtures startups primarily in the fields of arts, culture, and creativity. All three cases have participated in this arts university incubator, while Entrepreneur C also engaged with a comprehensive university incubator located in Hualien, Taiwan, as part of the Eastern Innovation Incubation Alliance. This incubator focuses on fostering innovation and development in local industries, emphasizing the incubation of local industry innovation and development.

4. Result

This study, utilizing the PPPs theory and focusing on three key dimensions of incubators: Stakeholder (Liu, 2020; Vandekerckhove & Dentchev, 2005), Resources (Liu, 2020), and Activity (Frenkel et al., 2008; Liu, 2020), first organizes and describes the data between social incubators and University incubators.

4.1 Stakeholder

4.1.1 Stakeholder in social incubator

The primary assistance provided by social incubators targets enterprises focused on social welfare. They aid these enterprises in shaping their corporate image related to social issues effectively, aiming to garner consumer identification and corporate social responsibility, thus establishing a bridge for communication with the market. The products of enterprises they have assisted include medical equipment, products made from recycled waste, personal care products, printed fabrics, agricultural products, tourism services, covering various industry types. The selection criteria for mentoring enterprises by social incubators are based on the core principle of "improving social issues through business models", selecting enterprises with potential, whether they are startups or engaged in enterprise transformation. Social incubators are divided into incubators and accelerators, allowing enterprises to choose according to their needs, and incubators also conduct eligibility reviews.

> Entrepreneurs A: “We have participated in programs initiated by the Industrial Development Bureau, the Institute for Information Industry, National Taiwan University of Arts, and Social Enterprise Insights. The courses and directions provided by these programs focus on corporate social responsibility, strategies for communicating with the market, gaining recognition, and other related aspects.”

The social incubator itself is also a startup with limited resources. It often collaborates with private enterprises, including conglomerates, banks, associations, foundations, and real estate companies. Through various channels, it seeks additional sponsorship resources or transforms the role of the assisted enterprises into partners to expand its network resources. However, it also engages in cooperation with the government on project initiatives, such as undertaking bids related to sustainable issues for local governments and assisting in activity planning and execution. Nevertheless, collaborations with private enterprises represent the majority in terms of proportion.

4.1.2 Stakeholder in university incubator

The university incubator offers physical workspace, counseling and advisory services, entrepreneurial courses, and marketing opportunities. The workspace accommodates brands at various stages of entrepreneurship, encompassing different types of products. Through daily interactions, various event exchanges, problem consultations, observations, and more, collaborations and exchanges between brands are facilitated, further enhancing the rapid development of these brands.

In the university incubator, one crucial aspect is the expertise provided by university faculty members, whose advice differs from that of other businesses. However, most enterprises perceive that while these faculty members possess expertise and theoretical knowledge, and can offer appropriate supplementary resources and content advice, their market advice may not align well with practical aspects. When facing difficulties, enterprises tend to seek advice from other businesses with relevant experience and friends. Conversely, project managers hired by university incubators can provide practical and feasible recommendations tailored to the situation of each brand or serve as a communication bridge among professors. From the recommendations provided, it can be observed that university professors have sufficient control over public sector resources and networks, enabling them to offer appropriate resource advice to enterprises.

> Entrepreneurs B: “Professors and typical cultural and creative brands may have differing perspectives and understandings of the market. While professors may offer some good advice, it may not always be highly impactful. Consulting with project managers, who understand the growth stage of each brand and analyze the respective markets, can be more helpful. However, if professors are familiar with subsidy programs and similar content, they may be able to provide some assistance.”

4.2 Resources

4.2.1 Resources in social incubator

The guidance provided by social incubators primarily focuses on addressing social issues. Therefore, the resources they offer are related to social innovation, environmental sustainability, and other relevant topics. By directing

efforts toward solving social problems, these incubators emphasize marketing strategies that highlight the social impact of the products, thereby enhancing the overall social image of the enterprise.

> Entrepreneurs A: "By enriching the overall image of the enterprise, it transcends the mere perception of being a seller of goods. This way, customers are more likely to perceive the product positively, akin to the concept of a badge or seal of approval."

In addition to providing courses, social incubators also facilitate industry or channel matching. For instance, they may recommend enterprises to list their products or services on the website of a Social Innovation Hub, allowing customers with goals related to green procurement or corporate social responsibility to make purchases. They may also facilitate connections with venture capital firms, enabling interested investors and assisted enterprises to find suitable partners and opportunities accurately. Therefore, Social incubators primarily respond to the trends in social innovation by providing corresponding resources, while also enhancing the overall social image and positioning of the enterprises.

4.2.2 Resources in university incubator

University incubators conduct initial screening to select enterprises related to arts, culture, creativity, and design for guidance, which helps shape the overall image of the incubator and attracts more similar enterprises to join. The resources provided by university incubators mainly focus on comprehensive guidance for enterprise growth, including space, channels, courses, and consultations, all of which can meet the needs of startups. When the business model, core values, and product development of enterprises are still undetermined, and the direction of the required resources is unclear, such comprehensive guidance is more suitable for startups to join.

> Entrepreneurs A: "It was very fitting for us at the nascent stage when we knew nothing, especially since we were venturing into arts and culture-related entrepreneurship, rather than technology research or digital transformation."

However, the comprehensive nature of support also has its drawbacks. If the expertise of the university itself cannot meet the resource needs of the businesses, it weakens the provision of those resources accordingly. For instance, an art university may lack expertise in digital aspects, such as digital transformation or providing digital resources, leading the businesses to seek these resources elsewhere. However, acting as an intermediary and assisting businesses in resource matchmaking on behalf of the university tends to yield more successful matches. Through this approach, a diverse range of resources can still be provided.

> Entrepreneurs A: "University provides comprehensive support for brand growth, focusing more on physical channels and exhibitions rather than digital ones. For instance, aspects like website management, pathway optimization, and order processing may receive less attention in their support programs."

4.3 Activity

4.3.1 Activity in social incubator

Social incubator, being a startup itself with a small team, arranges monthly consultations involving the CEO and project manager to track the company's progress and provide professional advice tailored to its current development status. This approach enables them to offer customized recommendations for each assisted enterprise, effectively addressing their specific challenges. In addition to in-house resources, the incubator also organizes networking events with industry professionals, providing opportunities for startups to expand their network and potentially foster collaborations across different sectors.

> Entrepreneurs B: "Every month, I have meeting with the project manager and CEO, where there's no specific agenda. We just follow up on progress and provide brand advice. I find this quite helpful for the brand; offering personalized, tailored advice to each individual feels like tutoring."

4.3.2 Activity in university incubator

The university incubator provides a plethora of resources and activities, with a significant focus on courses and marketing channels. These resources are often aligned with existing university programs or initiatives and may include participation in international exhibitions, markets, pop-up stores, and more. Most of these activities and resources are provided through collaborations between the university and public agencies or private enterprises. However, the instability of these collaborative projects is quite high. Sometimes they involve ad-hoc partnerships, or specific companies are designated to participate to achieve project goals, which can create pressure on the involved companies.

> Entrepreneurs A: "The incubator already provides a lot, from physical space to funding for attending exhibitions. The key is whether you can make use of it and proactively engage. However, one thing that has been consistently overlooked is healthy competition. That's what I feel is lacking."
>
> Entrepreneurs B: "The incubator sometimes organizes impromptu events, like sudden exhibitions or pop-up shops. These interruptions can disrupt our workflow, leading to issues such as the termination of planned product launches."
>
> Entrepreneurs C: "The incubator mainly facilitates direct business matching, but currently, there are too many sales-related activities. It would be better if we could collaborate with other businesses or events."

Some companies have even directly expressed that the activities organized by the incubator are too frequent or too narrowly focused. They would prefer to see more events that facilitate collaboration or partnership with other private enterprises, thereby expanding their network and aiding in business growth. Moreover, being in the same environment for too long can lead to complacency and a lack of healthy competition. In addition to fostering collaboration among companies, the incubator could organize public competitions or evaluations to instill a sense of urgency among the companies.

5. Discussion

This chapter builds on the previous analysis and further synthesizes the interview data to produce Table 2, which analyzes the three dimensions (stakeholder, resources, & activity) of social and university incubators.

Dimensions	Social incubator	University incubator
stakeholder	● Low homogeneity among participating enterprises. ● Private enterprises take the lead, with the public sector playing a supporting role. ● Key stakeholders primarily include project managers and executives. ● *Entrepreneurs may transition into partners.*	● High homogeneity among participating enterprises. ● Public sector is prioritized, with private enterprises playing a supportive role. ● Key stakeholders are project managers and university professors.
Resources	● Provision of resources related to social innovation. ● Facilitation of connections with industry venture capital firms. ● Enhancement of the social image of enterprises.	● Provides comprehensive coaching resources, including space, channels, courses, and consultations. ● Varies based on the university's own professional resources.
Activity	● Monthly professional consultations. ● Organizing industry matchmaking events to expand networks.	● Existing courses or collaborative projects ● Activities tend to have a singular nature.

Table 2 The difference between social and university incubator

Reference: Organized by the researcher

In terms of stakeholders, while creative industry enterprises participating in both Social and University incubators exhibit diversity, allowing for interaction across different fields, the depth of discussions may be limited. However, in university incubators, where participating enterprises are more homogenous, primarily consisting of arts and creative products, there is a greater pool of shared experiences to facilitate deeper discussions and exchanges.

Social incubators tend to have closer relationships with private enterprises, enabling them to access more private resources for investment in Entrepreneurs and even potentially converting Entrepreneurs into partners, thus resulting in relatively weaker PPPs in social enterprises. On the other hand, University incubators often secure resources through applications for public sector projects, directing these resources towards supporting incubated enterprises, albeit potentially weakening their relationships with private enterprises.

Furthermore, the resources provided by Social and University incubators differ. Social incubators, due to their nature, offer resources related to social innovation, facilitate matchmaking with venture capital firms, and help enhance enterprise social images. University incubators primarily provide comprehensive support resources, with

the resources offered to Entrepreneurs varying based on the university's expertise. However, the lack of digital resources may prompt enterprises to seek external resources.

Regarding activities, most incubators opt to combine existing resources to organize various events. Social incubators schedule monthly discussions with CEOs and project managers, offering different professional suggestions for the company's current situation, along with matchmaking events to help Entrepreneurs expand their networks. Meanwhile, University incubators integrate their university's expertise, offering courses or collaborative projects, with activities focusing on a single nature, potentially limiting opportunities for collaboration with private enterprises. However, they also learn how to access public sector or critical resources in the process.

Proposition 1: Bringing together and fostering collaboration among brands of similar types within an incubator environment can contribute to mutual growth for the enterprises involved.

Proposition 2: Enterprises participating in social incubators may gain access to a greater pool of industry resources from private enterprises, while participation in university incubators may lead to access to more critical resources through collaboration with the public sector.

6. Conclusions

6.1 Theoretical contributions

Some studies focus on the importance of social enterprises and the role of incubators in supporting them. The study of Sansone et al. (2020) emphasizes the core objective of social incubators in supporting startups with significant social impact, which aligns with the definition of objectives in this study. However, unlike this study, they did not delve into a detailed comparative analysis of the differences between social incubators and other types of incubators. This underscores the significance of this research, which fills a gap in the literature by exploring the actual experiences of interviewed enterprises and using the PPPs theory as a framework to conduct a more nuanced comparative analysis of social and university incubators. Thus, it enriches the content of incubator-related research.

6.2 Managerial and policy implications

In a study on platform ecosystems, it was proposed that existing businesses are highly likely to participate in multiple ecosystems, leading to the phenomenon of multi-homing (Chen et al., 2022). Through our research, we also discovered that contemporary enterprises do not rely solely on a single incubator. As evidenced by the three cases interviewed in this study, enterprises engage with incubator activities at different time points during their growth process, actively seeking collaborations with various institutions to access diverse resources and develop their dynamic capabilities and networks. Therefore, gaining a thorough understanding of the impact and assistance that an incubator can provide to businesses can reduce the chances of mismatches in collaborations, thereby enhancing the effectiveness and precision of incubator resource allocation.

6.3 Limitations and future research directions

Through case studies of social incubators and university incubators, viewing them from the perspective of entrepreneurs provides ample experiential evidence to fully understand the resources and partnerships brought by different types of incubators, as well as their actual impact on businesses. Future research could further analyze the social impact brought about by social incubators from different theoretical perspectives, considering aspects such as entrepreneurs, incubators, and external partnership relations, thereby enhancing the analytical depth.

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