

# Creative incubator model as a catalyst agent to dynamize the creative ecosystem in a cultural city

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CASE REPORT

## Abstract

**Objective.** The research aims to discover the most critical factors that must be considered when building a creative incubator model to generate value for artists, arts organizations, entrepreneurs, and creative companies by providing direct and indirect services within a creative ecosystem and cultural communities. The study seeks to document and support the role that creative incubators play in accelerating the development of the creative ecosystem within a cultural city. Also, highlight the importance of its location and the use of a platform based on creative ideas, innovation, and technology, considering the incubator as a critical actor within the creative ecosystem network.

**Method.** Following the objectives defined for this study, a qualitative and descriptive investigation was chosen. For the research, the adaptive planning cycles and the action research design have been selected as methodology.

**Conclusion.** The proper implementation of the "creative incubator" can provide more significant business opportunities, envisioning an articulation with the private and public sectors, seeking to integrate with other public policies that generate development through, for example, the Agency for Innovation and Entrepreneurship of the Region. The integration of these actors will make it possible to value the cultural diversity, knowledge, and practices of citizens, thus enabling sustainable development. In this way, the academy can contribute to improving the lives of citizens, promoting projects and initiatives that improve living conditions and the integration of creative entrepreneurs.

## Keywords

*Creative ecosystem; Creative entrepreneurship; Creative incubator; Cultural and creative industries*

## Modelo de incubadora creativa como agente catalizador para dinamizar el ecosistema creativo en una ciudad cultural

## Resumen

**Objetivo.** Descubrir los factores más importantes que deben ser considerados al crear un modelo de incubadora creativa, con el propósito de generar valor para los artistas, las organizaciones de arte, emprendedores y empresas creativas a través de la prestación de servicios directos e indirectos, las cuales dentro del ecosistema creativo y las comunidades culturales están atenuados y en gran parte indocumentados. En este contexto el presente estudio tiene como propósito sustentar y documentar la importancia de las incubadoras creativas para acelerar el desarrollo del ecosistema creativo dentro de una ciudad cultural.

**Método.** Se optó por una investigación cualitativa y descriptiva. Para la investigación se han seleccionado como metodología, los ciclos de planeamiento adaptativo y el diseño de la investigación acción.

**Conclusión.** La adecuada implementación de la "incubadora creativa" puede brindar mayores oportunidades de negocios, vislumbrando una articulación con el sector privado y público, buscando integrarse con otras políticas públicas que generen desarrollo a través por ejemplo de la Agencia de Innovación y Emprendimiento de la Región. De esta forma, la academia puede contribuir a mejorar la vida de los ciudadanos, impulsando proyectos e iniciativas que redunden en la mejora de las condiciones de vida y la integración de los emprendedores creativos.

## Palabras claves

*Ecosistema Creativo; Emprendimiento Creativo; Incubadora Creativa; Industrias Culturales*

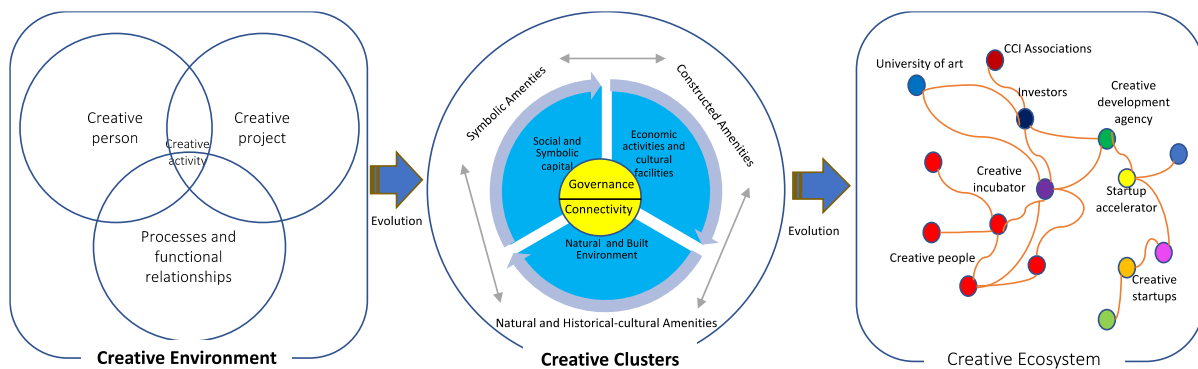
## 1 Introduction

Because of a lack of theoretical and empirical studies on cultural entrepreneurship, this study aims to contribute to filling a knowledge gap on creative incubators; especially on topics such as strategic objectives, forms, models, types of financing, or evaluation methods, according to a review by Essig (2018). In addition, it proposes considerations for building a creative incubator model as a catalyst and attracting agent for the development of the creative ecosystem, focusing on the entrepreneur rather than the idea or the entrepreneurial project itself.

Similarly, the study suggests that arts incubators play an essential role in the early stages of the evolution of businesses and art organizations, contributing to the skill development of individual artists (Essig, 2014; Gerl, 2000). In addition, the study raises the following questions: How do creative incubators dynamize the creative ecosystem? How can a business model for a creative incubator be developed considering key success factors? And finally, what should the planning approach for implementing a creative incubator be? To answer the first question, we can first assume that any system which emerges from a creative activity includes three essential elements (Harrington, 1990, 1999):

1. The creative person, centrally involved,
2. the creative project and creative environments,
3. and the functional relationships that connect them.

This system transforms into a creative cluster with essential characteristics, such as the ability to create cohesive cultural, social, and economic systems that support the development and growth of new ventures. This cluster develops the creative ecosystem and resembles a neuronal system, where all nodes are interconnected, creating and sharing resources. The role of a creative incubator is to become a catalytic node, an agent that facilitates, promotes, and strengthens relationships among different nodes. It enhances the connections by leveraging emerging characteristics, such as collective learning, knowledge, selection, integration, and promotion of innovative projects from their early stages (Corrales, 2019). Figure 1 illustrates the evolution of creative activity in a creative ecosystem (Corrales, Martha, 2019; Harrington, 1999; Tomaz et al., 2011).



**Figure 1. Evolution of creative activity**

**Source: Adapted from Harrington (1999), Tomaz et al. (2011), and Corrales (2019).**

According to Jaurová et al. (2018), the "V4 Creative Incubators" project helps to understand better the dynamics between creative incubators, the specific conditions for their development, and their existence in the reality of Central Europe. The report raises an important question that our study tries to answer: does creativity need incubators? Our answer focuses on the phenomenon that creative incubators are catalytic and agglutinating places that provide an atmosphere for unfolding the creative process. They nurture not only creative entrepreneurs with entrepreneurial skills but also innovations that can become commercially sustainable in time. Today, incubators create groups and workspaces for joint ventures that concentrate creative capital as an essential tool for new entrepreneurs based on culture, art, and business.

The article structure is as follows: first, it describes the methodology used in the study, followed by the definition of theoretical principles, the concept of a creative incubator, and the critical factors for its success. Then, in the central part, it proposes a creative incubator model by selecting the adaptive planning approach for its implementation. Next, we illustrate the implementation stage with a case study at Diego Quispe Tito National University (DQTNU) of Cusco, an arts university, and finally, draw some conclusions.

## 2 Methodology

Based on the objectives established for this study, a qualitative and descriptive research approach was selected and proven to be the best option, according to Bogdan and Biklen (1994). The research methodology chosen has the advantage of flexibility as it allows reality to speak for itself, avoiding any bias generated by the researchers, their ideas, or judgments (Martínez, 2006). It also seeks an intense and deep understanding of a specific social context to perceive it in all its complexity (Stake, 2005; Yin, 2009) from the perspective of its actors and the researcher's interpretation in a dialogical process (Denzin & Lincoln, 2011). The elected strategy is a case study within a holistic approach, as it implies a single unit of analysis: the creative incubator. In addition, they allow (i) predicting similar outcomes or (ii) predicting opposite outcomes, but for predictable reasons (Yin, 2009).

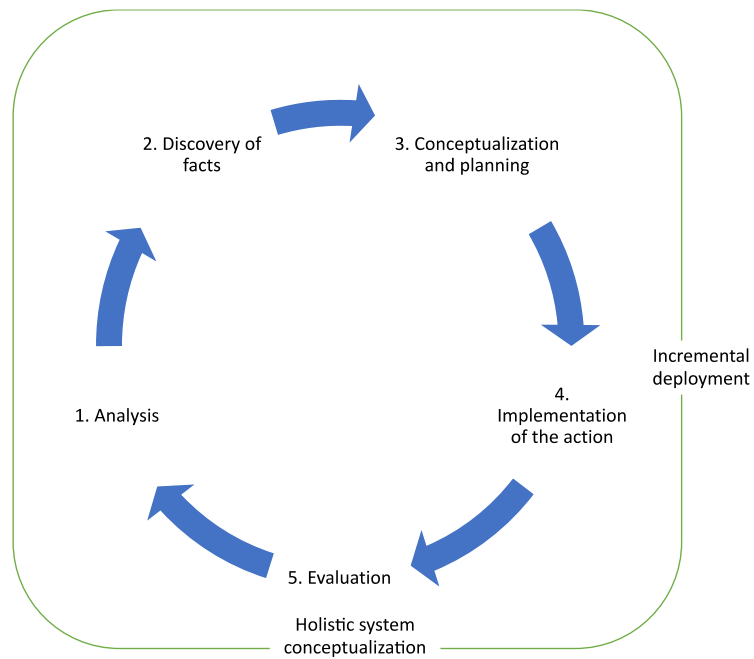
For research development, we selected the adaptive planning cycles and action research design since adaptive planning focuses on the process and learning, assuming an experimental posture; in this sense, the continuous cycle that characterizes adaptive planning corresponds to the action research methods. According to Melo (1982), González (1997), and González & Melo (2004), this characteristic includes the following phases: analysis, the discovery of facts, conception and planning, execution of actions, and evaluation (Figure 2 illustrates the cycles). The first action (Phase 0) was to develop a holistic concept of the system by reviewing the literature to understand the creative ecosystem and the cultural and creative industries and to determine the role of the creative incubator within the ecosystem.

**Phase 1** was the analysis to first find literature on incubator models and critical success factors of an incubator. Then verify, validate, and consider the recommendations of experts based on their experiences.

**Phase 2** was the process that allowed the discovery of facts to propose a creative incubator model based on various studies, such as success factors, dimensions, processes, and successful cases.

**Phase 3** was the concept of a successful creative incubator model and the design of the implementation plan. According to the study, the university is the best institution to implement an incubator. Also, the collective participation of the university community through co-creation should be done in a planned, systematic way, according to the good practices recommended in scientific studies and cases already tested and implemented successfully.

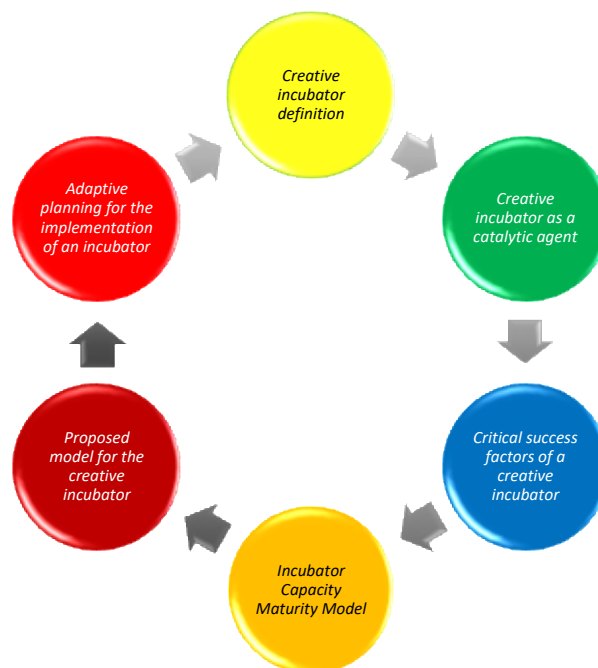
This study is currently in phase 4, which coincides with the implementation of the creative incubator at the NUDQT. Therefore, phases 4 and 5 constitute the future scope of this study.



**Figure 2. The cycles of Adaptive Planning and Action Research**  
 Source: Adapted from González (1997)

## 2 Literature review

As seen in Figure 3, the different theoretical principles allow us to define a creative incubator model and an implementation plan.



**Figure 3. Theoretical principles for defining a business model for a creative incubator and its implementation plan**

### **A. Definition of the Arts Incubator and the Creative Incubator**

The National Business Incubator Association (NBIA) considers arts incubators as a subset of business incubators that focus specifically on "arts and crafts" (Essig, 2014). The Art\_Inkubator institution provides a practical and up-to-date definition: "An arts incubator is an organization that supports future entrepreneurs, non-governmental organizations, and artists by helping them enter the creative industry sector. Arts incubators are platforms that enable artists and organizations to implement their commercial and artistic ideas". This definition is practical for our study because it includes for-profit, non-profit, and individual entrepreneur stakeholders, which implies an early stage of development and market entry, distinguishing arts incubators from other services for artists and funding organizations. In addition, it is essential to use the word "platform" instead of "facility" to include both physical and virtual incubators (Essig, 2014).

The keyword to define a creative incubator is "creative." Evidently, an incubator cannot be creative in principle. Not only does the adjective "creative" show that creativity is a characteristic of the people in an incubator, but the term "creative incubator" also implies specialization. It describes an organization dedicated to supporting businesses, not any business, but specifically those related to culture and the creative sectors. The essential point in defining a creative incubator is the specific target segment in which the incubation takes place. The target segment includes creative and unique individuals with various skills and mindsets. About the notion of the target segment, there is a distinction among several types of creative incubators: those in a specific branch sector, e.g., video game developers, cinema, animation, or design, with others that bring together different creative branches (with a common denominator: entrepreneurship); and those that mix creative businesses with art (Etmanowicz, 2017).

Considering the above, a definition of a creative incubator is a place that provides a safe and accessible environment for creative entrepreneurs to grow and achieve the potential to become self-sustaining Creative and Cultural Industries (CCIs) entrepreneurs. To do so, they need specific groups of skills and mindsets that complement their creative talent with entrepreneurial and financial skills (Etmanowicz, 2017). Finally, a creative incubator must be a link between creative entrepreneurs, CCI organizations, and the social, political, cultural, and economic environment.

### **B. The creative incubator as a catalyst for the creative ecosystem**

The creative incubator can sustainably contribute to the performance and further development of CCI clusters in several ways and thus be a catalyst for the creative ecosystem. First, an incubator is a new node in a CCI cluster that contributes to the self-reinforcing process of the cluster through the so-called network effect. This characteristic makes the incubator an attractor within the ecosystem that also produces new nodes (new companies, creative spaces, educational institutions, and successful artists), adding value to many nodes already in a cluster due to new network interactions (Wood & Dovey, 2015). An important point to consider is the contribution of incubators to the growth and development of a cluster, which depends on factors and processes unrelated to the "place and space." Another critical factor is the incubator policy regarding the sectoral profile of incubated individuals, specialization, or diversity of the cluster as a set (Wood & Dovey, 2015).

According to Kong (2009), it is incorrect to consider creative clusters as a subset of industrial clusters. Instead, he approaches the analysis of CCIs using a tool, considering the specificities of CCIs and location and the need for a complete examination to understand better the dynamics of production (in terms of space, time, and organization). We believe that this tool is an ecosystem approach to the creative environment. Notably, Simmie (2004) argues that the geographic proximity of economic actors with substantial linkages between them is not a valid reason to base policy on local clusters.

In that line, (UNIDO, 2014) suggests opting for a "creative ecosystem" development approach as a tool that considers the specificities of CCIs. This approach, proposed by UNIDO, is based on the triple helix model for analysis of National Innovation Systems (NIS) with the creative cluster approach. It also incorporates the Value Chain Approach (VCA) methodology and the ecosystem of entrepreneur-driven innovation. The triple helix model demonstrates that the systemic interaction between the university, industry, and the government is crucial to fostering innovation. (Etzkowitz & Leydesdorff, 2000; Ranga & Etzkowitz, 2013).

In the model of innovation and creativity proposed by (UNIDO, 2014), governance within the creative ecosystem becomes relevant in the second phase of the CCI development process. Policymakers' decisions become crucial once the targeted economic activity successfully integrates into a thriving creative sector and long-lasting linkages between the stakeholders (Academia, communities, public sector, private sector, technical centers, and vocational training) establish. Political support, both financial and institutional, enables the creative ecosystem to remain stable and continue growing, ultimately leading to sustainable and inclusive development of the creative industries sector.

Therefore, it is vital to consider that incubators play a key role within the creative ecosystem as catalysts through the sources of creativity, innovation, and technology transfer (Astebro et al., 2012). In addition, incubators are promoters of economic prosperity (Markman et al., 2005) at local, regional, national, and international levels (Carayannis & von Zedtwitz, 2005).

Finally, incubators are critical for developing countries as they face volatile and precarious economic situations, where per capita levels are inadequate, and few jobs are available for thousands of students. In this context, incubators have successfully promoted economic development and employment growth worldwide (AL-Mubarak & Busler, 2014).

### C. Critical factors for the success of a creative incubator

One goal of this research is to identify the critical factors required for the success of a creative incubator. For this purpose, we reviewed various conceptual models. Table 1 shows different critical success factor models for a creative incubator:

**Table 1: Critical factors for a creative incubator**

Critical Success Factors of an Incubator						
Nº	Verman (2004)	Alzaghaf et al. (2017)	González (2017)	Franco et al. (2018)	Correia (2018)	ECIA (2020)
1	Shared services	Incubator resources and services	Services	Shared services	Shared services	Services
2	Facilities and location	Corporate culture	Infraestructura operacional	Facilities and location	Facilities and location	Facilities and platforms
3	Financing and support	Funds and support	Financial infrastructure	Financing and support	Financing and support	Financial opportunities
4	Incubator Governance	Incubator Governance	Organizational structure	Incubator Governance	Incubator Management	Incubator Management
5	Entry and exit criteria	Selection policy		Entrepreneurship selection process	Tenants company selection process	
6		Network services	Network	Networking	Networking	Associations and networks
7		Mentoring services	Entrepreneurship promotion			ICC SME Support

- Sharing resources and services provided by the creative incubator, such as logistics, strategic, administrative, commercial, and financial support (Franco et al., 2018; González, 2017; Verma, 2004).
- Facilities and their location. As catalytic actors, incubators must be strategically located in the city center or university campuses. They must also facilitate access to digital manufacturing workshops (Fab lab), broadband, and other Information and Communications Technology (ICT) facilities, promote specialized training activities and provide a platform to manage all phases of incubation (ECIA, 2020; Franco et al., 2018).
- Financing and support opportunities are fundamental aspects in which the incubator roles should focus on exploring international financing opportunities, raising

awareness with traditional lenders, negotiating with banks and financial institutions, and helping to develop a strategic approach to effective value chains (ECIA, 2020).

- Adequate governance of the incubator. A detailed action plan with programs and milestones, and a board of directors composed of individuals with extensive experience in CCIs, are essential. Finally, hiring a manager with experience in managing incubators with a dynamic and efficient operational team (Gozali et al., 2015).
- Implementation of a good selection process (Alzaghal & Mukhtar, 2017; Franco et al., 2018; Gozali et al., 2015; Verma, 2004) because creative entrepreneurs exhibit several particular characteristics, compared to entrepreneurs in other industries, mainly because of an individual and artistic posture (DeFillippi et al. 2007; Eikhof y Haunschild 2006). In addition, creative people view their work not only as a source of income but, primarily, as a way to express themselves and realize their artistic and creative visions (Ellmeier 2003). However, financial skills and market knowledge remain key to survival in the business world (Eikhof y Haunschild 2007).
- Associations and networks, SMEs in the sector would benefit from collaborative sessions between research centers, industries, and entrepreneurs, as well as from participation in various events aimed at fostering solid connections and exploring new associations or product/service developments (ECIA, 2020).
- Finally, a pivotal point for the success of a creative incubator is having mentors with extensive experience in entrepreneurship and CCIs (Gozali et al., 2015). Regarding business knowledge, incubators must support SMEs in the sector by developing effective business models and boosting specific programs that help SMEs achieve an international scale (ECIA, 2020).

#### **D. Incubator Capability Maturity Model**

According to González & Melo (2004, p.4), planning is a continuous process: "the conception of the system, or the definition of the desired future state of the system, must be based on a holistic conception, involving the coordination of the various elements of the system and the integration at its different levels." Suppose we analyze the creative incubator holistically as a system, especially considering the processes for improving the incubator's capabilities. In this case, we can conclude that it is not possible to move directly from an initial state to the desired state without gradual transformation. Therefore, the characteristics of the desired state must be established only in general terms to provide directions and serve as a criterion for evaluating incremental changes (González, 1997). Considering the above, the development of the implementation of the creative incubator must follow an incremental pattern through implementation cycles involving multiple stakeholders to mitigate the resistance of these groups to change and create spaces for negotiation and learning (González & Melo, 2004).

Considering the complexity of the implemented processes in building a creative incubator model, the maturity level model proposed by (CERNE, 2018) was selected to develop the capabilities of a creative incubator and systematically create successful ventures. For this, there were four increasing levels of maturity defined.

It is essential to highlight that each maturity level is cumulative. In other words, the incubator must complete Level 1 practices before implementing Level 2; as the incubator evolves into more mature levels proposed by the CERNE Model, its ability to systematically create successful ventures with visible results for the region increases.

Since the evolution of the incubator takes the form of a maturity model, the practices of one level are consistent with the maturity of the incubator.

When incubators are organized according to the structure of the CERNE Maturity Model, the level practices are compatible with the maturity of the incubator. To do this, throughout the process of collective construction, the

CERNE model defines "Guiding Axes" for each maturity level. As a result, the four "Guiding Axes" are entrepreneur, incubator, partner network, and global positioning, as shown in Figure 4.



**Figure 4. Maturity levels of a CERNE model incubator**

Source: CERNE (2018)

- **Level 1 - Entrepreneur:** at this first level, all processes and practices relate directly to entrepreneurship development. Therefore, the implemented methods range from awareness raising, prospecting in an incubator of this maturity level, and project selection to graduation and graduate relations. In addition, the incubator must establish a minimum management structure so that the practices related to the ventures can be monitored and evaluated, thus measuring their effectiveness. By implementing this level of maturity, the incubator demonstrates that it can systematically and repeatedly screen and select good ideas and transform them into successful innovative businesses.
- **Level 2 - Incubator:** the focus of this level is to implement practices that focus on structuring the incubator governance, implementing processes that allow its strategic management, the expansion of the services offered, the target audience, and the evaluation of its results and impact.
- **Level 3 –Partners Network:** the objective of this level is to implement practices that formalize a partner network, expand the incubator performance, and create capable and effective instruments to carry out remote incubation. Thus, at this level, the incubator strengthens its role as one of the "nodes" of the network of actors involved in promoting innovation by creating innovative ventures.
- **Level 4 – Global Positioning:** This level is about implementing practices focused on the globalization of the incubator and the supported companies to operate effectively in the global market.

Consequently, each level of maturity represents a step in which the incubator positions itself as a creative and innovative player that operates professionally and achieves significant results for the development of its region and country.

#### **E. Proposed model for the creative incubator**

This article proposes a model to develop a creative incubator to promote entrepreneurship and the incubation of creative companies within a cultural city. The model development and roles of different actors in the creative incubator were considered and illustrated in Figure 5.



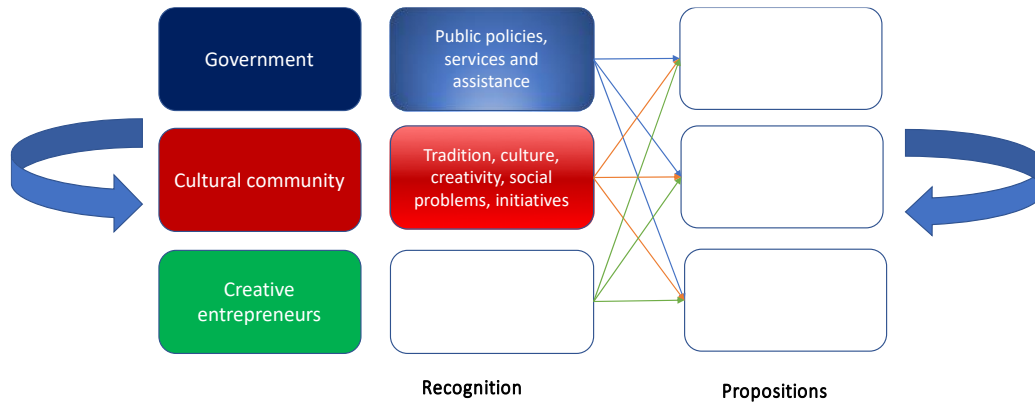


Figure 5. Roles of the different actors in the creative incubator

Source: Adapted from Junior, T. B., & Andrade, M. D. (2017).

It is necessary to consider the initial conditions at the moment of building the creative incubator based on the studies carried out by Kantis (2017), with two major critical factors conditioning them at the time of its birth. On the one hand, there is usually a "mother organization" (in our case, a university) that plays a key role, at least in the initial phase. The institution often determines the strategic and functional direction, aligns with its mission, and defines degrees of commitment to the incubator, which tend to be variable over time. However, on the other hand, this affects its behavior and can reflect in different areas, e.g., the incubator's Board of Directors, administration instances, budget, internal regulations, and central management areas. It can sometimes affect the agility of administrative processes in the execution of projects (Kantis et al., 2017). On the other hand, the State usually allocates resources that generate incentives and define opportunities through programs and projects. The articulation of the different instruments is, in itself, a relevant issue that can influence the behavior of the incubator (Kantis et al., 2017).

For Kantis (2017), other critical conditioning factors of an endogenous nature are the following (see figure 6): the manager and his team, human resource management and knowledge management, the business model, and finally, the state of maturity of the ecosystem, and in our case, the creative ecosystem. It is also essential to understand the system of incentives and motivations that guides the management group.

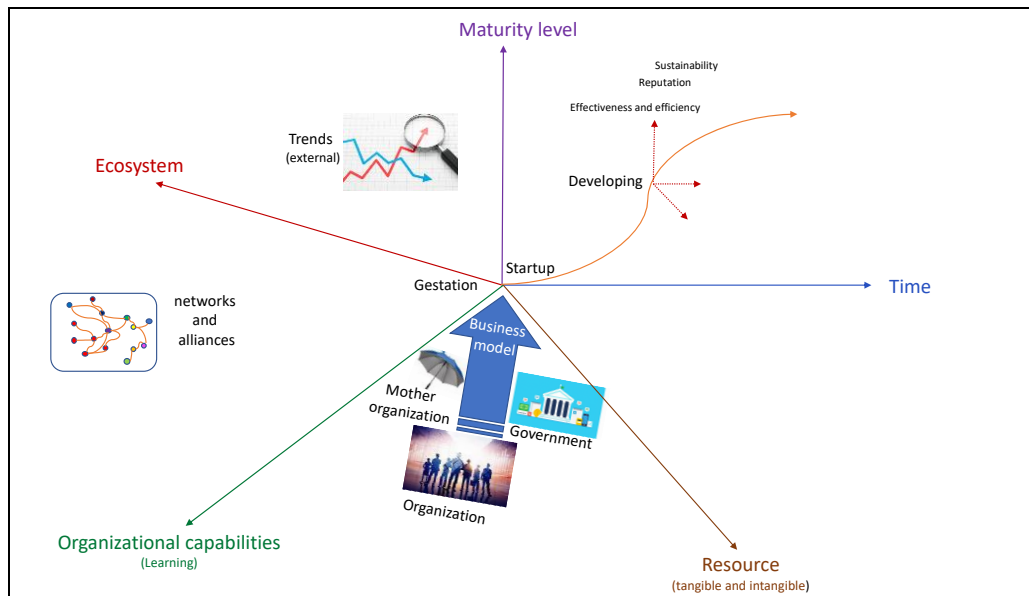
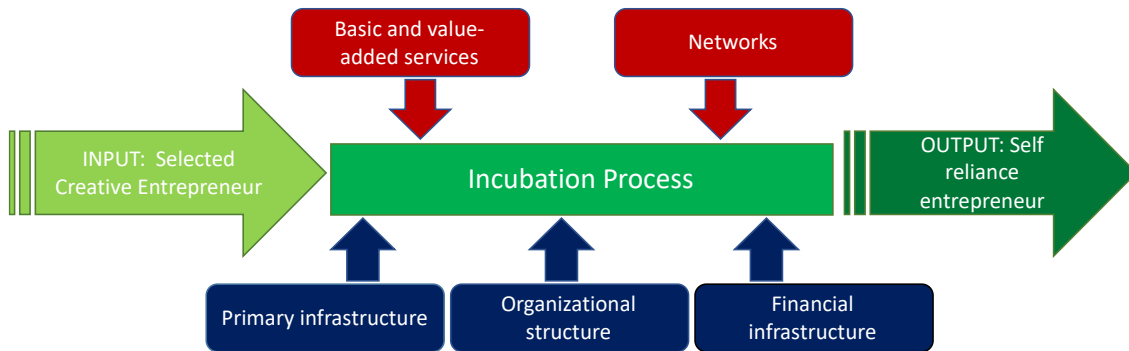


Figure 6 Factors determining the behavior of incubators: Systemic-organizational approach. Source: Kantis (2017).

Internally, the incubator management needs clarity and consistency in the definitions of the different dimensions of the incubator's business model. These dimensions include customers, value propositions, customer relationships and channels, key activities such as application and administration of instruments, primary resources, institutional alliances, and costs associated with activities and revenues (Kantis et al., 2017). These are critical factors that affect the conduct and performance of the incubator.

According to studies performed by González (2017), implementing an incubator in a public institution (in our case, a university) must first be analyzed as a system with processes that include a set of elements that require a holistic treatment for success. Previous studies on incubators (ANPROTEC, 2012; EBN, 2013; NODRIZA, 2005) highlighted this approach and showed that incubators require the following elements outlined in Figure 7.



**Figure 7. The elements of business incubators.**

Source: González (2017)

Also, González (2017) provides us with a synthesis of the barriers and facilitators faced by incubators, detailed in Table 2, where it is necessary to mitigate the obstacles and for facilitators to enable the path to success. In addition, the study found that the barriers to the development of incubators in Peruvian universities are similar for public and private universities, although with some different nuances.

**Table 2. Barriers and facilitators for the development of incubators**

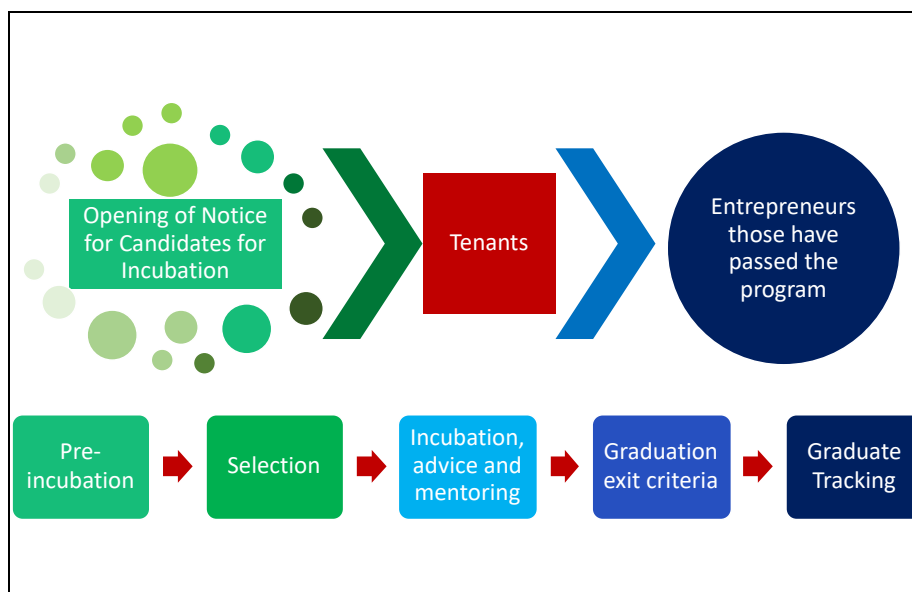
Dimensions	Impediment	Facilitator
Entrepreneurship promotion	Lack of internal organization, mainly in public universities	Disposition of students to entrepreneurship
Organizational infrastructure	Difficulty in private universities	Availability in public universities
Financial infrastructure	Funds to start the incubator, sustainability in the medium and long term, mainly in public universities	Startup program to support the incubator and entrepreneurship. Advances in investor networks
Organizational structure	Absence of guidance on the organization of incubators for public universities. Funds to start the incubator, sustainability in the medium and long term, mainly in public universities. Economic difficulties to hire staff for incubators in a private university. Ignorance of the characteristics of the organization of an incubator	Startup program to support the incubator that allows the immediate hiring of the incubator's management and staff. Possibilities of hiring personnel in public universities for an activity to be developed in accordance with the University Law
Services	Value-added service: Having specialized advice on incubation requires economic resources and specialized knowledge not available in large quantities. Lack of know-how in technological entrepreneurship consulting. Lack of internal coordination in universities. General services: Limited incubation spaces.	Value-added services: availability of faculties of administration and/or industrial engineering or related careers. Internet and intranet services platform. Availability for mentoring by college graduates who are successful entrepreneurs. Startup Peru Program to facilitate advice and support. General services: service platform on the internet and intranet
Networks	Internal disputes in public universities. Limited number of events and communication spaces of the entrepreneurial ecosystem. Weakness of research and development in universities	Greater interaction of the entrepreneurial ecosystem in the past. Participation of more state actors in the issue such as: CONCYTEC, PRODUCE and municipalities.

Source: González (2017)

Another critical point to be considered, proposed in the studies of Lobosco et al. (2015), states that a general content of a business incubation program should be part of the creating process of entrepreneurs through an incubator. For ReINC (2001) and Jurkowitsch (2007), a series of factors need to be considered in the creation and development process: finance, technologies, management, business planning, laws, infrastructure, market/products, and business development. In addition to the aspects mentioned, Negrão (2003) points out that incubators would benefit from alliances and support from private and public institutions to foster their development. In this context, the organized and coherent development planning that shows the ideas and considerations of the promoters, with studies and analysis accompanied by quantitative data, will contribute significantly to increasing the credibility of the project developed. The type of support is fundamental to the construction and implementation of the following steps that, according to the studies of MCT (2000), imply the creation and consolidation of a business incubator. These steps are the following:

1. Preparation of the technical and economic feasibility study;
2. Preparation of the business plan;
3. Incubator infrastructure. Concession of land or buildings, reforms, and adaptations of buildings and constructions;
4. Incubator equipment;
5. Services and facilities offered to incubators;
6. Interaction with technological institutions;
7. Access to credit;
8. Access to risk capital;
9. Preparation of policies to support innovation in micro and small businesses.

Finally, a business incubation process has the following sequence, presented in Figure 8 (Lalkaka, 2000; MCT, 2000; SEBRAE–SP, 2010):

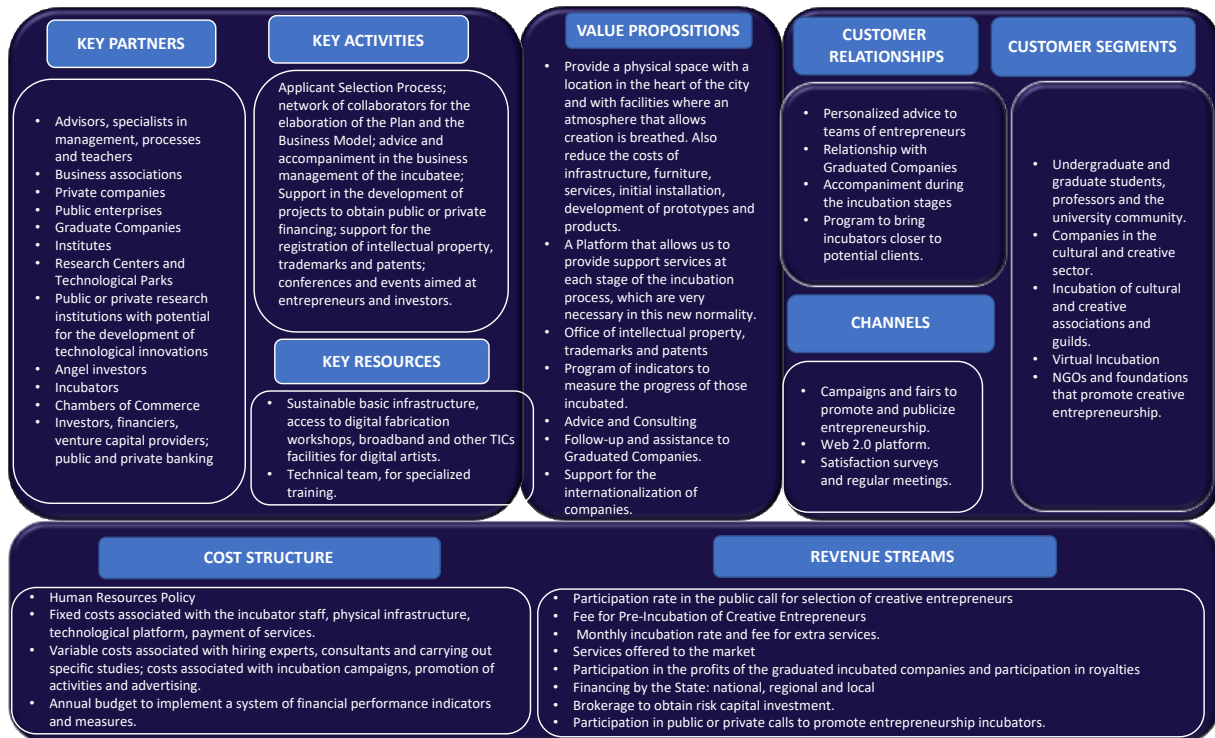


**Figure 8 - Business Incubation Process - Logical Sequence**

Source: Adapted from Aranha et al. (2002, p. 76)

For this research, the incubation sequence shown in Figure 7 was the adopted one to define the Business Model of Creative Incubators with the purpose of self-sustainability of this organization.

Based on this, we elaborated a model using the Canvas tool to represent it (see Figure 9). The reason is that the Canvas methodology uses a technique that makes it easier for entrepreneurs to understand the different aspects of a business (Rodríguez & Ojeda, 2013). In addition, the Canvas business model is becoming a pedagogical tool in entrepreneurship (Jackson et al., 2015).



**Figure 9: Business Model for Creative Incubators**

**Based on the Canvas Business Model Oriented for the Creative Entrepreneur**

**Source: Adapted from Lobosco (2015)**

We can observe that within the "value proposition," the critical success factors (CSF) of installation, location, platform, and mentoring service are considered by providing a physical space located in the heart of a city and facilities which provide an atmosphere that allows creativity. This should also reduce the cost of infrastructure, furniture, services, initial installation, and the development of prototypes and products.

It is also essential to implement a platform that provides support services for each stage of the incubation process, which is necessary for this new normality. In addition, counseling, consultations, and follow-up provide help to graduates.

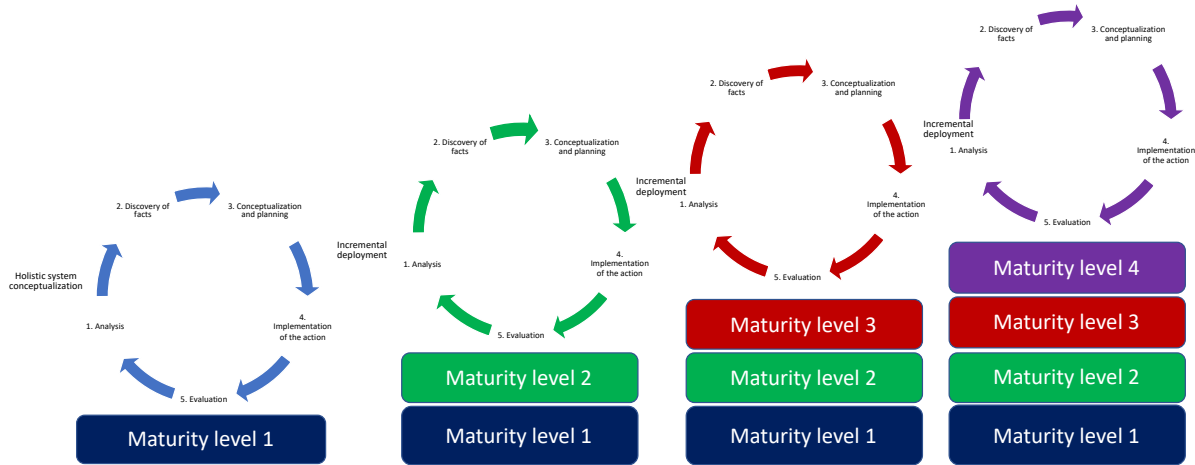
We can also see that the CSF of mentoring services and the selection process are considered "key activities" as a network of collaborators is proposed for plan elaboration and the business model of the creative entrepreneur. Advice and support in the business management of the incubated, as well as in the development of projects to obtain public or private financing; finally, an accompaniment in the registration of intellectual property, trademarks, and patents.

The CSFs of governance structures considered the selection of the "client segment," the "cost structure," the "revenues," and the "distribution and communication channels."

Finally, the CSFs of financing and support are "key partners," and the CSFs of shared services are "key resources."

**F. Adaptive planning for the implementation of an incubator**

The adaptative planning approach, selected for the implementation of the creative incubator, is a process-oriented approach that involves constant feedback and continuous learning. We chose the maturity model proposed by CERNE to measure the intervention progress. Figure 10 shows this model schematically.



**Figure 10. Adapted from Adaptive Planning and the Maturity Levels of an incubator from the CERNE model**

Source: Adapted from González (1997) and CERNE (2018)

Within adaptive planning, several approaches exist, and Table 3 displays them. We can also notice a corresponding relationship in all the adaptative planning tendencies.

**Table 3. Trends in Adaptive Planning, planning principles, and methods**

Adaptive Planning Trends	Principles	Planning methods
Normative design of the system	Normative focus: system as a whole.	Iterative planning (Ackoff, 1974)
	Strategic planning. Synoptic process.	Normative planning (Ozbekhan, 1973)
Non-synoptic change of systems	Normative focus: parts of the system.	innovative planning (Melo y Magacho, 2013)
	Incremental changes cause radical changes in the system, with less emphasis on synoptic processes.	Articulated incrementalism (Melo, 1986)
		Interorganizational planning (Melo, 1987)

Source: Díaz (2019)

For the study, we selected the "Interactive Planning" method, which according to González (1997), corresponds to an approach that belongs to the Normative Redesign of the System, proposed by (Ackoff, 1974), based on three principles: participation of representatives from all parts of the system, continuity in the revision, and implementation of plans, and the holistic perspective, that involves the integration and coordination from all parts of the system. Also, according to González (1997), these principles are also reflected in the phases proposed in this approach: 1) formulation of the problem (conceive a creative incubator); 2) definition of objectives (reach incubator maturity level 1 according to the CERNE model), goals and organizational ideas, and selection of the means to achieve them (strategies, programs, policies, procedures); 3) generation of necessary resources; 4) projecting the organization and administration system and 5) execution and control of the plan.

## 4 Implementation of the model in a case study

The study has proven the existence of standard dimensions and common factors that contribute to the incubator's success; however, there is no single model for an incubator since the incubation of new companies is a highly flexible process that follows different objectives. In our case, to dynamize the creative ecosystem through entrepreneurship in the cultural and creative sectors. This study has also considered the critical success factors of an incubator as the basis for building a model, measuring its maturity over time and dimensioning the effectiveness of interventions, using a methodology for its implementation. Besides, it is necessary to reinforce that incubators benefit from a favorable location and should have a platform. This aspect is essential and relevant to the new normality and should be part of the local development strategy to generate a group of creative industries in the region. The university has proven to be the most stable entity for startup, development, and sustainability.

It is worth mentioning that the Peruvian Government, through the Ministry of Production, promotes programs, projects, and actions to support micro and small enterprises (MYPE) nationwide. It also orients and promotes productive activities, innovation, technology transfer, productivity, and quality improvement in the fields of competency. Likewise, the Ministry's objectives include articulating the agents of the innovation ecosystem, such as MYPE, and supporting entities with co-financing sources, such as the one offered by the Innovation Peru program, to contribute to the development of innovation in the business sector. This program has different funding lines of support, including the Incubator Strengthening Contest.

In order to promote actions in favor of innovation and entrepreneurship in Peruvian universities, Congress enacted University Law 30220, which emphasizes the creation of business incubators in its research chapter in Article 52. These governmental policies have prompted many universities in Peru to create business incubators, offer activities to improve entrepreneurship, and facilitate the development of research and innovation among students with entrepreneurial potential who can create a startup.

The case study implementation of the Creative Incubator model took place at the Autonomous Higher School of Fine Arts "Diego Quispe Tito" in Cusco, currently named Diego Quispe Tito National University (DQTNU). In February 2021, we submitted a proposal to the governing board of DQTNU to create an action plan for implementing the creative incubator and reach the first level of maturity defined by CERNE. The general objectives were to promote entrepreneurship and incubate creative companies within the university through creative ventures developed by students, professors, and the entire university community. Finally, in the Ordinary Virtual Session of Diego Quispe Tito National University Organizing Commission on January 13, 2022, the action plan for the Creative Incubator implementation in the DQTNU for the development of cultural and creative industries in Cusco was unanimously approved.

## 5 Conclusions

This article presented a proposal to intervene in the creative ecosystem by implementing a creative incubator as a crucial catalytic agent to dynamize and revitalize the creative ecosystem in the city of Cusco. For this reason, we developed a creative incubator model that permitted instrumenting the power of academia using the triple helix model, which allowed us to identify more effective, creative, and entrepreneurial projects appropriate to the local reality. Our goal was to improve the life quality of citizens in a cultural city. This study was based on a literature review that included recommendations from experts on practical applications, the conception of successful creative incubator models, and the selection of the adaptive planning approach for implementation.

Besides, the model application will enable the participation and training of creative entrepreneurs, the expression of their creativity in the design of new solutions and products, and the reduction of the risk of failure while launching their ventures. The proposed "creative incubator" model is currently in the implementation phase (phase 4), configured in a privileged environment for knowledge construction as an artistic, cultural, social, and economic asset. The model, anchored with a magnetic perspective, attracts talent and innovative activities in a cultural city; where the entrepreneurs can work, create, innovate, interact, and learn in the same space. Proper implementation of the "creative incubator" could provide more significant business opportunities, create a link between the private and public sectors, and seek integration with other public policies that drive development, for example, through the Agency for Innovation and Entrepreneurship in the region. Integrating these actors will

make it possible to value the cultural diversity of citizens, knowledge, and practices, thus enabling sustainable development. In this way, academia can contribute to improving the lives of citizens, promoting projects and initiatives that improve living conditions, and integrating creative entrepreneurs.

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