

TXM Business methodology applied to the development of new businesses

Luiz Salomão Ribas Gomez 跑 ª | Priscila Zavadil Pereira 跑 ʰ | Naiane Cristina Salvi 跑 ¢ *

^a Federal University of Santa Catarina, Dean of Undergraduate Education, Florianópolis, Brazil.

^b Federal University of Rio Grande do Sul, Department of Design and Graphic Expression, Porto Alegre, Brazil.

* Corresponding author: nai.salvi@gmail.com

ABSTRACT

This article aims to present a methodology applied to new business development in the preincubation phase of Brazilian startups. The structure of this methodology has its origins in branding and design methods, with a hybrid, non-linear and co-creative approach. Based on this approach, the methodology was restructured, bringing the design process orientation for entrepreneurs to develop new businesses. Its application occurs through Cocreation laboratories, which apply pre-incubation processes for new classes of entrepreneurs every five months. In 2020, 19 units of pre-incubation laboratories were established - called Cocreation Labs - whose classes of entrepreneurs could evaluate their perception of the TXM (Think, eXperience, Management) Business methodology. The results of this analysis are presented in this article and show that there is a preference for the linear conduction of processes, that the methodological tools indicated were perceived as important contributors to business development, and that the methodology contributes to creativity especially in relation to the development of ideas and flexibility in exploring new possibilities.

Keywords: Business development, Design process, Innovation, Pre-incubation, TXM Business Methodology.

INTRODUCTION

The constant search for extraordinary profits, or as Schumpeter and Backhaus (2003) call them, monopoly profits encourage entrepreneurs to create innovative services, products, or processes. Operating within a structure similar to a monopoly, which guarantees extraordinary profits, is the arrival point envisioned by entrepreneurs. However, enjoying this advantage requires enormous effort since transforming ideas and inventions into commercially successful innovations is an arduous task. According to Schilling and Shankar (2019), a minimal number of ideas succeed as innovations. That is, countless ideas, endowed with commercial potential, arising from the human imagination. However, a short number of them succeed as a product, service, or process.

The innovation can be understood as a process that leads from invention to diffusion. In this sense, and aiming to increase the proportion of successful business ideas, several authors have created methodologies that facilitate the innovation process, thus assisting in establishing new products, services and processes. Several processes lead to entrepreneurship and innovation (Section 2.1 presents the primary references found in the literature), each one with its applicability characteristics and the achievement of results. These processes and methodologies-have been evolving incrementally over time. Within this context, the objective

^c Federal University of Santa Catarina, Center for Communication and Expression, Florianópolis, Brazil.

of this article is to present the TXM Business methodology used for the transformation of ideas into business models. The methodology is applied in the pre-incubation phase of Brazilian startups. Its origin is associated with the development of the Cocreation Lab, which is a laboratory focused on co-creation processes for entrepreneurship. Questionnaires were applied with entrepreneurs participating in the labs in 2020 to evaluate the contribution of the methodology. The results of this analysis will be discussed in item 3.3.

Thus, after the introduction, in item 1, Theoretical Background, essential aspects for understanding the proposed methodology will be presented. In this sense, in item 1.1, Methods and models for business pre-incubation, works related to the proposal will be presented, based on a systematic literature review. In item 1.2, Design and Co-creation Processes, the basic concepts on which the proposed methodology is based are presented. In item 2, The TXM Business Methodology Case, this methodology is presented, contemplating its origin (item 2.1), General Structure (item 2.2) and Main Results Obtained (item 2.3). Finally, the conclusions of the work are presented (item 3).

1. THEORETICAL BACKGROUND

In this section are presented the main concepts to support the analysis of this study: methods for business pre-incubation, design and cocreation process.

1.1. Methods and models for business pre-incubation

In recent years, the growth of innovation environments is remarkable, especially those motivated by interdisciplinary approaches. The emergence of these environments also determines the need to adapt processes and methods from different areas of knowledge to the specific demands of entrepreneurship and innovation. In this sense, mechanisms arise, such as technopolis, technology hubs, technology parks, accelerators, incubators, and pre-incubators. Each of these mechanisms has a role in the promotion of innovation.

An incubator aims to support entrepreneurs in turning their innovative ideas into a business. Many authors consider the incubation process as a unit divided into three stages, these being pre-incubation, the incubation (or intermediate incubation; midi-incubation), and post-incubation (Hirte et al., 2017; Skvortsova &, Nurulin, 2018; Famiola &, Hartati, 2018). In this perspective, the pre-incubation offers a set of tools and an infrastructure to assist the development of new businesses in a low-risk environment. The support offered by pre-incubators surrounds training, mentoring, and equipped physical spaces.

Thus, pre-incubation is the initial phase of the process that works on validating the problem, identifying the public and the market, and building the first foundations of the business. The businesses already have an initial format in incubation and begin to validate the business plan and prospect the first customers. The post-incubation, or acceleration, has businesses that have already been certified and validated in the previous phases and are ready to receive a boost to gain size and stability in their markets.

In order to identify the main pre-incubation models and observe how they are structured, related works were researched from a systematic literature review. As a search strategy, the following terms were used in Portuguese and English: TITLE-ABS-KEY (pre AND (incubation OR *incubação*) AND (business OR entrepreneurship OR *empresa* OR *negócio* OR

empreendedorismo). The search was conducted in the Scopus database, to ensure affinity with the study area and access to a wider and more relevant supply of indexed papers.

Based on these parameters, the review returned 306 results, which were then selected by reading the title, keywords, abstract, and finally reading the full text of those directly related, which resulted in fourteen articles (Moura et al., 2018; Amelia et al., 2018; Pallotta & Campisi, 2018; Marion et al., 2018; Skvortsova & Nurulin, 2018; Martínez et al., 2017; Hirte et al., 2017; Famiola & Hartati, 2018; Iacono & Nagano, 2017; Stevenson, 2017; Gerlach & Brem, 2015; Kusuma et al., 2015; Sanchez et al., 2014; Hackett & Dilts, 2008).

From the articles analysed in this review, it was found that in the different phases of incubation there are particular goals and processes. Each phase adds a degree of maturity to the projects and assists in their development as businesses. However, despite the differences between each phase, there is a difference in the very process offered by pre-incubators, incubators, and accelerators, making use of different strategies and tools to achieve the objectives.

Initially, it is possible to mention that the majority of pre-incubators are linked to or within universities, focusing on developing entrepreneurship among students. The literature review found that few cases had theoretical support or mentioned the use of design methods and tools in their processes.

In this sense, there is an opportunity to adapt and organize the design processes for entrepreneurship, especially by directing these processes in a more appropriate way to each business development stage. From this identified gap, the TXM Business methodology, to which this article refers, and the Cocreation Lab (its application environment) differ from the cited references. The methodology to be presented in this paper is from the Cocreation Lab's domain and is supported by design methods and tools. Moreover, it does not limit its application to university environments or students, complete and comprehensive for application in several fields. Finally, one of its main aspects, strengthened by the Cocreation Lab environment, is co-creation processes. This process is part of the evolution of design processes and applies to the business area.

1.2. Design and Cocreation Process

It is no longer news that Design has crossed the boundaries of the areas of industrial design and visual communication, not only because of the new fields of application, such as service design and digital design, but because it changed position, from operational to strategic. Design is no longer just the final result of a project but rather a process that involves idea creation and management, innovation, research, and integration of an organization's capabilities (Borja De Mozota, 2003).

This evolution of Design has also led to the development of new design approaches and methods, expanding the design field beyond its boundaries. One of the approaches that have become best known in this context is design thinking. The design thinking then began to be seen as a new paradigm for dealing with problems in other fields, such as technology, business, education, among others (Dorst, 2011). This methodological approach has gained strength in the business field in recent decades, bringing a more strategic perspective to design.

In 2015, the Design Council's assessment of the impact of Design on various sectors in the UK proposed that economic growth can be strengthened by integrating different perspectives and skills into design processes. Thus, innovation and business-oriented design processes should

establish creative alliances between designers, researchers, multidisciplinary specialists, entrepreneurs, users and the community (Broadley, 2016; Norman & Verganti, 2014).

In this context, user-centred, or people-centred design approaches emerged, which, in a way, evolved into collaborative design processes, applied not only to the development of products but also to the creation of processes, ideas and businesses in various fields of knowledge.

Since the 1970s, the user-centred design approach has come to influence design practice. From this, participatory design approaches have also emerged, which bring about the collaborative creation. The beginning of this movement is marked by the Design Participation conference, organized by the Design Research Society in Manchester in 1971. Later, this perspective also brings the co-design approach (Lee, 2008; Sanders & Stappers, 2008).

These design approaches occur due to the need to obtain new ways of designing become more recurrent, as the emerging design practices aimed at developing purposes, experiences, interactions, and processes. In this context, there is an evolution from user-centred approaches to participatory, co-design approaches. These changes modify the role of the actors in the process, including designers and non-designers in all phases of creation (Lee, 2008; Sanders & Stappers, 2008).

Co-design is a process that comprises project development involving designers in collaboration with different actors, with distinct areas of knowledge and experience. These actors can be users, suppliers, collaborators, partners, or other important people for the project, who participate in the projective process guided by the design team (Manzini, 2011; Sanders & Stappers, 2008).

Co-design, then, is a process that involves co-creation. In turn, co-creation is the development of ideas, of experiences, which involves collective creation. Thus, co-design is a collaborative process in which the designer is not the controller of the final result of a project but the trigger of a process that actively involves the public (Sanders & Stappers, 2008; Prahalad & Ramaswamy, 2004; Lupton, 2013).

In recent years, co-design has achieved growth both in the scope of applications and in the methods and tools it has available. In this sense, methods and tools that promote joint creating and making are an essential part of the co-design process. They offer people the ability to make things that describe future products, opportunities, ideas about future experiences, and ways of living (Sanders & Stappers, 2014).

In this collaborative process, it is also crucial to use tools that facilitate communication and interaction among participants, the visualization of information, the development of ideas, and the stimulation of creativity. The communication is another fundamental aspect of co-design (Alexiou, 2010; Cantú, 2012).

No matter which tools are adopted, they must support an inclusive, democratic and creative process. These tools combined with principles of co-design, participatory design and design thinking, in which groups of people from different areas of knowledge and relationships with the project, but with a common interest, direct a complex set of challenges collaborating mutually through phases of exploration, ideation and iteration (Broadley et al., 2016). Thus, more than a set of methods, co-design is a design approach, which can drive creation processes for products, services, and new businesses. It is from these approaches that the TXM Business methodology was then structured.

2. THE CASE OF THE TXM BUSINESS METHODOLOGY

In this section, the TXM Business methodology is presented, its evolution and origins, and its application in the pre-incubation process of the Cocreation Lab.

2.1. Origin: from visual identity to business pre-incubation

The foundations of the TXM Business methodology emerged from the idea of a non-linear design methodological proposal based on the linearization (or not) of human thought (Gomez, 2004). It suggests that the Design of a new product, service or business does not need to follow strongly structured sequences starting from the definition of a problem. The problem is essential for project development, but it cannot be the only way to start any activity. It often arises during the process and validates or invalidates an original idea.

In the following years, the continuity of this research gave rise to the DNA Process, a method for building brand essence applied in branding and identity design processes (Gomez et al., 2012). The DNA Process emerged effectively in 2009, in studies linked to the recently created Laboratory of Organizational Graphic Orientation (which later had its name redefined) at the Federal University of Santa Catarina, LOGO|UFSC. The laboratory was setting as a laboratory of teaching, research and extension activities in brand identity development and graphic pieces for actions inside and outside the University, along with studies at IADE Creative University (Lisbon, Portugal). The result created a tool for structuring the corporate DNA. Today, the DNA Process is one of the fundamental bases for the methodology applied to business development.

The first version of the methodology still focused on branding was born in 2010 to meet a university extension project to serve over 20 startups in supporting the construction of brand strategy. However, in the following year, with the expansion of projects related to entrepreneurship linked to the Laboratory of Organizational Genesis Orientation at the Federal University of Santa Catarina (LOGO UFSC), the methodology became the TXM Business. At this moment, the methodology expanded its action to brand experience and business management.

In 2019, the TXM Business methodology was approved as a Market Solution by SEBRAE-SC, leading the Cocreation Lab to expand its activities significantly in 2020. In addition to the projects in pre-incubation, by 2020 more than 700 training have been offered by the Cocreation Lab units. More than 1000 entrepreneurs were trained, with a completion rate estimated at 70%. It can be said that this number of ideas converted into businesses exceeds expectations and the average of other pre-incubators in operation in the country (Gomez et al., 2020).

The Cocreation Lab became a network dedicated to the pre-incubation of creative businesses. Its activities are based on applying the TXM Business methodology, which has its foundation in methods and tools used and validated by the design and business area and promotes cocreation between teams and projects. The Cocreation Lab's primary goal is to transform company ideas into structured organizations and into entrepreneurs capable of acting in the market, minimizing the risks that can compromise the business' survival.

Among the main differentials of Cocreation Lab are the collaborative infrastructure, access to a network of contacts and the support of the Cocreation Lab brand, which provides more credibility through other programs and partner institutions. Besides, there is the constant

contact with the entrepreneurial and innovative environment, the sharing of risks, the offering of training and lectures, as well as the continuous flow of knowledge encouraged by the TXM Business methodology and partnerships between the projects, support teams and other actors inserted during the pre-incubation process.

2.2. Structure of the Methodology

The TXM Business is one of the generations of the TXM methodology, which was initially developed for the branding area. There was a restructuring in its composition to adapt its application to the pre-incubation laboratories (Cocreation Labs). In this restructuring, the macrostructure of the TXM Methodology was preserved, which remained organized in the three stages (Think, Experience and Management). However, a new configuration was presented in its microstructure. New outputs were established to achieve the objectives of each stage in the development of business, and new methods and tools were added that were more appropriate for the new objectives.

The methodology was structured according to the diagram presented in Figure 1. Its design uses modular forms to represent the non-linear approach to its use: the methods and tools can be used in the order that best applies to each project. Although for a business in the initial phase, it may be more convenient to develop the project following steps T, X, and M, respectively, there are many cases of projects in which there are already some results or some developed stages. Thus, the methodology can be organized as needed.





Associated with each macro stage of the methodology are the desired outputs. The Think stage, represented by the brain icon, is the moment to think about the business, collecting information about the market, the competition and the business itself, working together with the stakeholders. The critical aspect of this stage is the construction of the business DNA. The Business DNA is the first desired output, and is obtained from the DNA Process method is recommended, which involves a co-creation process for defining the essence and identity of the business (Gomez et al, 2010; Lopes & Gomez, 2012).

Based on an analogy to the DNA of living beings, the DNA proposed in this methodology is defined by four fundamental elements: Emotional, Marketing, Technical and Resilient. Besides, there is a fifth element which is the Integrator. It is a characteristic that is related and present

in the other elements and synthesizes the essence of the brand and the business. Each concept that corresponds to these categories will compose the corporate DNA and be responsible for representing the characteristics that make up the business's identity. The crucial aspect in the process of identifying these elements is co-creation. For this, different stakeholders are involved in the process, sharing information and experiences (Gomez et al, 2010; Lopes & Gomez, 2012).

Besides the DNA, still in the Think (T) Stage, it is essential to obtain a clear vision about the competition and the referential cases for the business through Benchmarking. Based on these outputs, it is possible to get to the other outputs of the stage: the Purpose and Positioning of the business. The Purpose defines the reason for a brand or business to exist. It will define the committal of value to customers, engaging employees and stakeholders in a common goal (Reiman, 2018). The Positioning will be instrumental in differentiating the company and building a solid image before its customers (Iyer et al., 2019; Kotler, 2012).

Thus, the Think (T) stage will define, through co-creation processes, how the business should be perceived and which fundamental concepts should be highlighted as a strategy, validating the paths that will support future decision making.

With this, it is possible to start materializing the business, turning it into an experience. This is the goal of the Experience (X) stage, represented in Figure 1 by the test tube icon in the centre of the diagram. In this step, the interactions of people with the brand and the business being developed will be created. The outputs to be achieved starts from an adaptation of the classic 4P's of Marketing, transformed into 4P's of Design (Gomez, 2004). The 4P's of Design includes the definition of the Problem to be solved by the business, the Overview (Panorama, in portuguese) in which the company will be inserted, the Brand Value Proposition and the Pilot or Product that will be delivered.

The Problem aims to clarify what the company proposes to solve for its clients, verifying if they are willing to consume the product or service offered and if they recognize the value of the solution that will be delivered. The Overview (Panorama) analyzes the context for the insertion of the business and the factors that influence it. The Proposal refers to the brand's value proposition, defining the main benefit that will be delivered to customers. Finally, the result of this stage is the Product or Business Pilot, which does not refer to a physical object specifically, but to everything that will be offered to solve the customers' problem, to deliver the brand's value proposition, considering the scenario in which the business will be inserted. The goal is to arrive at a Minimally Viable Product (MVP), a simplified demonstration, applying few resources that can exemplify the composition of the solution delivered to the customer.

For each of these outputs, a set of tools can be used to facilitate the process. The primary tool that accompanies the entire Experience stage is the DPI Canvas - Innovative Product Development Canvas (Teixeira et al., 2012). This is a visual tool developed to expand innovative products based on other management and visualization tools such as the Business Model Canvas (Osterwalder et al., 2010) and the Value Proposition Canvas (Osterwalder et al., 2015).

Therefore, the Experience stage will help the team to elaborate an MVP. Also, it will be possible to discuss pricing, business strategies, marketing and sales, human resource training, funding and cash flow. The maturity aimed at this stage can also help understand the laws that determine the creation and maintenance of companies, such as registrations and patent. Those

are the objectives of the Manage (M) stage, represented by the green colour and the icon of a commercial establishment in the diagram of Figure 1. This stage comprises three outputs: (i) Planning, (ii) Laws and rules, and (iii) Capital.

The Planning output aims to obtain the final business plan, including marketing and staff planning and the strategies and actions needed for the future implementation of the business. In these processes, collaborative and information visualization tools are indicated, such as the Business Model Canvas (Osterwalder et al., 2015). In addition, the business communication should also be planned, which includes as a first step the construction of the brand identity of the new company and its first points of contact with the customer.

The output Laws and Rules aim to instruct the entrepreneur on registering a company and the procedures required for this. By the end of the program, the entrepreneur has a legal registration. Also, guidance is provided on trademark and patent registration so that the name, the graphic brand, and the products or processes generated by the new business are legally guaranteed.

Finally, the last output of the Manage stage corresponds to the Capital of the business. It includes tools to help the entrepreneur define his or her financial planning, specifying costs, investments, billing forecasts, and growth, thus enhancing its results. Besides, the methodology offers support in the search for funding and investors for the new ventures.

All this methodological structure is organized in a specific online platform, which works as a virtual learning environment and allows entrepreneurs to get to know and apply the proposed tools. In addition to the virtual environment, the physical spaces of the Cocreation Labs provide a series of face-to-face activities, offering flexibility and greater scope of the pre-incubation process.

The online platform is an exclusive access portal for participants of the Cocreation Lab. In this environment, users can visualize the entire methodology and the expected outputs for the development of their business, obtaining guidance for carrying out the necessary processes to transform an idea into a business. The platform provides videos, e-books, resources for download, and exercises for each tool proposed in the methodology. Also, participants have contact with their mentors and with the program's managers through this channel, who can comment on the tool's results and the project's progress as a whole.

Through the platform, the entrepreneurs also have access to other channels of the TXM Business methodology, such as a chat room for communication between teams and managers, and a video channel containing Webinars and Workshops with specific themes and videos on the tools used in the methodology.

Thus, TXM Business is not only a structured model for the development of projects in the business area. It is complete support to the entrepreneurs who participate in the Cocreation Lab, with a collaborative methodology, supported by a set of validated tools and a learning platform, communication channels, development of training materials, mentoring, and an extensive networking.

2.3. Main results obtained

Since the first pre-incubation classes started in the Cocreation Lab, more than 520 projects, of which about 450 have already graduated. Another 70 are still in the process.

In 2020, the pre-incubated participants in the program answered a questionnaire to evaluate the methodology. This questionnaire was conducted through the Google Forms platform and sent by email to the entrepreneurs. From a total sample of 339 participants, 63 valid answers were obtained. The form was structured in an initial block with questions about the participant's profile and a second block with questions about evaluating the methodology and its communication channels.

The first question of this second block sought to verify how the methodology is used, which proposes a non-linear structure for the use of methods and tools. Of the respondents, 47% said they use it in a non-linear way, choosing the tools that seem most appropriate to the moment of the project, regardless of the stage or order in which they are presented on the platform. On the other hand, this shows that approximately half of the respondents still prefer to follow a traditional approach, carrying out the steps in the order they are presented on the platform.

The intention of proposing non-linearity in the development of processes is to balance different profiles and experience levels of entrepreneurs. In other words, the creator of a new business in the pre-incubation process can be utterly inexperienced in the subject and possess several previous experiences that will meet some of the needs of his or her business.

Another critical question in the formulary was a qualitative evaluation scale for all the tools presented in the methodology. The entrepreneurs should mark a scale from 0 to 5 as to their preference concerning each of the tools, considering whether they liked using them and the results obtained with their application - considering the ease of use, the perceived contribution, and the provision of adequate resources such as videos and supporting e-books. The scale means 0 - I cannot give an opinion because I have not used the tool; 1 - very little; 2 – poor or not very good; 3 - regular; 4 - very good; 5 - extremely or excellent.

There were 31 tools evaluated, all those proposed in the steps of the TXM methodology. Of the total responses, 42.5% marked option 0, which could not give an opinion because they had not used the tool. This high index is due, in part, to the moment when the questionnaire was applied, which was launched approximately halfway through the program and, therefore, many entrepreneurs were still forwarding their projects. Only 0.7% marked option 1 and 4.4% marked option 2, the most negative evaluations. Most respondents who had applied the tools marked option 4, with 24.6% of answers, followed by option 5, with 18.1% of the results. This shows an excellent perception regarding the ease of use and the results provided by the tools that the methodology proposes.

When analysing the evaluation of the tools by stages, it can be seen that in the THINK stage, the indexes are similar, with most answers between option 4 (35.4%) and 5 (28.8%). However, the zero option obtained a lower percentage than in the total, with approximately 20% of the answers. This is justified because, for those who prefer to follow a linear order of methodology used, the Think stage corresponds to the beginning of the process and, thus, more tools had already been applied. In the Experience stage, 55% of the respondents said they have not an opinion because they had not applied the tools. Among those that had been evaluated, 12.3% scored 5, and 15.6% scored 4, representing the majority of the evaluations. The Manage stage, being the last in a linear order of the methodology, was the one that obtained the highest percentage of those who had no opinion, with 71% of the answers. Regarding the rest, option 4 was also the most marked, with 13.2% of the answers. These numbers can be seen in Table 2.

Table 2: Evaluation results on the tools of the TXM methodology.

	Think Stage: Number of answers	Think Stage %	Experience Stage: Number of answers	Experience Stage %	Manage Stage: Number of answers	Manage Stage %	Total	%
5 = Extremely or Excellent	273	28,8	62	12,3	19	3,7	354	18,1
4 = Highly or Good	335	35,4	79	15,6	67	13,2	481	24,6
3 = Regular	116	12,2	43	8,5	26	5,1	185	9,4
2 = Poor or not very good	26	2,7	30	5,9	31	6,1	87	4,4
1 = Very little	3	0,3	9	1,7	3	0,6	15	0,7
0 = I can't give an opinion, because I haven't used the tool.	192 9	20,3	281	55,7	358	71	831	42,5

These numbers confirm the significant portion of entrepreneurs who prefer to follow a linear structure for the use of the methodology, which was also noted in the previous question of the form. However, considering the evaluation of the effectively applied tools, the overall average was quite positive in the perception of the pre-incubation program participants.

In the same way, the virtual channels made available to entrepreneurs were evaluated. The main one, the platform's virtual environment, obtained the most favourable evaluation, with 46% of the respondents marking option 5, affirming that it contributed significantly to the learning and the development of the project, and 39.6% marking it 4. The e-books made available also had the majority of grades between 5 (44.4%) and 4 (36.5%) and the support videos, with 53.9% for grade 5 and 25.3% for grade 4.

Finally, it was also sought to evaluate the contribution of the TXM Business methodology to creativity, considering the main competencies for creativity, according to the main theories on the subject: fluency, flexibility, originality and capacity to elaborate ideas (Guilford, 1967; Kneller, 1978; Kowaltowski et al, 2010; Marín Ibañez & De La Torre, 1991). According to the perception of the entrepreneurs, on a scale of 01 to 05, with 05 being the maximum score, the main perceived contribution is to the elaboration of ideas, developing them and adding new details and information, with 60.3% of the answers for score 5 and 26.9% for score 4. In second place appeared the flexibility in exploring ideas related to the project, having more openness to change strategies, with 41.2% of the answers for grade 5 and 33.3% with grade 4. In the sequence, the fluency capacity, considering the exploration of many new ideas, even different from the ideas existing at the beginning of the project, obtained 41.2% for grade 5 and 33.3% for grade 4. Finally, the aspect considered with the lowest evaluation was originality, understood as the ability to generate new ideas and solutions appropriate to the context and innovative, unusual. This factor obtained 28.5% of the answers with grade 5, 33.3% of the answers with grade 4, and 28.5% with grade 3, totalling most of the results.

Thus, it is observed that, in general, the evaluation of the methodology by the participants obtained positive results, both concerning the resources offered, the virtual environment in which it is made available, and its contribution to stimulating creativity. Regarding this contribution, it is expected that a methodological structure will contribute more to developing ideas than to the originality of the solutions, given that several other factors will influence this

aspect, such as individual skills, teamwork and the external environment in which people are inserted. The results may lead to new reflections on the subject and possibly to improvements in the methodological structure, such as the inclusion of other creativity techniques that stimulate more intuitive thinking, for instance.

3. CONCLUSIONS

The TXM Business methodology applied to the pre-incubation process of the Cocreation Lab and presented in this article is the result of numerous cycles of experimentation and observation. It is considered validated in terms of applicability since it presents significant results in the consolidation of new businesses. However, its application has only been extended to a broader range of areas and types of businesses.

In this sense, the processes must be revisited and constantly evaluated to ascertain attention and improvements. Considering the results obtained by the evaluation form applied with the users, we can consider a high level of compliance with the objectives and satisfaction in achieving the results, presenting a positive impact on project development.

A tendency towards linearity is still perceived, often motivated by a lack of knowledge of preincubation or entrepreneurship processes. This factor is considered only in exploratory terms since it does not significantly interfere in achieving project results or success from what has been observed so far.

This article is part of a larger research project that seeks to validate and evaluate each factor involved in the pre-incubation process and in conducting the methodology.

REFERENCES

- Alexiou, K. (2009). Complexity and coordination in collaborative design. In: Alexiou, K., Johnson, J., Zamenopoulos, T. (Ed), *Embracing Complexity in design* (1st Ed., pp. 89-110). London: Routledge.
- Borja de Mozota, B. (2003). *Design management: using design to build brand value and corporate innovation.* New York: Allworth Press.
- Broadley, C., Champion, K., Johnson, M. P., & McHattie, L. S. (2016, June). From Participation to Collaboration: Reflections on the co-creation of innovative business ideas. In *DRS2016: Design Research Society 50th Anniversary Conference*, Brighton, UK (pp. 1739-1758). <u>https://doi.org/10.21606/drs.2016.191</u>.
- Cantú, D. (2012). *Ideas Sharing Lab: Community Centred Design for Multifuncional and Collaborative Food Services.* (Doctoral dissertation). Politécnico Di Milano, Milan, Italy.
- Dorst, K. (2011). The core of design thinking and its application. *Design Studies*,, 32 (6): 521-532. https://doi.org/10.1016/j.destud.2011.07.006.
- Du, J.; Jing, S.; Liu, J. (2012). Creating shared design thinking process for collaborative design. *Journal of Network and Computer Applications*, 35 (1): 111-120. <u>https://doi.org/10.1016/j.jnca.2011.02.014</u>.
- Famiola, M., & Hartati, S. (2018). Entrepreneurship learning system in business incubators: A case study in Indonesia. *International Journal of Engineering & Technology*, 7(4.28), 57-62 <u>10.14419/ijet.v7i4.28.22390</u>.
- Gomez, L. S. R. (2004). Os 4P's do design: uma proposta metodológica não linear de projeto [The 4P's of design: a non-linear methodological project proposal]. (Doctoral Thesis). Federal University of Santa Catarina, Florianópolis, SC, Brazil.
- Gomez, L. S. R.; Olhats, M.; Floriano, J. (2010) Fashion's Brand DNA: The Process. In: *Proceedings of International Conference Global Fashion: Creative and Innovative Contexts*, Porto, Portugal (131-156).
- Gomez, L. S. R., Mateus, A. C.; Cardoso, H. (2012). The Brand DNA Process applied to region of Alvito, Portugal. *Projecting Design–Cumulus*.
- Gomez, L. S. R.; Pereira, P. Z.; Salvi, N. C. (2020). Cocreation Lab: transformando ideias em negócios a partir da metodologia TXM Business [Cocreation Lab: transforming ideas into business from the TXM Business methodology]. In: Pacheco, A. S. V; Potrich, A. C. G; Salles, H. K; Bueno, J. R.; Vitarelli,

M. M. (Orgs.). Da teoria à ação: iniciativas empreendedoras da Universidade Federal de Santa Catarina [From theory to action: entrepreneurial initiatives of the Federal University of Santa Catarina]. Curitiba: CRV.

Guilford, J. P. (1967). The Nature of Human Intelligence. New York: McGraw-Hill.

- Hirte, R., Münch, J., & Drost, L. (2017, June). Incubators in multinational corporations development of a corporate incubator operator model. In: *Proceedings of 2017 International Conference on Engineering, Technology and Innovation (ICE/ITMC)*, Madeiro, Portugal, pp. 195-202.
- Iyer, P., Davari, A., Zolfagharian, M., & Paswan, A. (2019). Market orientation, positioning strategy and brand performance. *Industrial Marketing Management*, *81*, 16-29. <u>https://doi.org/10.1016/j.indmarman.2018.11.004</u>.
- Kneller, G. F. (1978). *Arte e Ciência da Criatividade* [Art and Science of Creativity]. 2 ed. São Paulo: IBRASA.
- Kotler, P. (2012). *Kotler on marketing*. New York: Simon and Schuster.
- Kowaltowski, D. C. C. K., BIANCHI, G., & PETRECHE, J. R. (2011). A criatividade no processo de projeto. O processo de projeto em arquitetura [Creativity in the design process. The design process in architecture]. São Paulo: Oficina de Textos, 21-56.
- Lee, Y. (2008). Design participation tactics: the challenges and new roles for designers in the co-design process. *Co-design*, *4*(1), 31-50. <u>https://doi.org/10.1080/15710880701875613</u>.
- LOPES, D. A., & GOMEZ, L. S. R. (2012). Os 4 elementos do DNA de marcas: emoção, resiliência, técnica e mercadologia [The 4 elements of brand DNA: emotion, resilience, technique and marketing]. In Conferência Internacional em Design e Artes Gráficas–Cidag, Lisboa, Portugal, (Vol. 2).
- Lupton, E. (Ed.). (2013). *Intuição, ação, criação: graphic design thinking* [Intuition, action, creation: graphic design thinking]. São Paulo: Gustavo Gili.
- Norman, D. A., & Verganti, R. (2014). Incremental and radical innovation: Design research vs. technology and meaning change. *Design issues*, *30*(1), 78-96. https://doi.org/10.1162/DESI a 00250.

Osterwalder, A., Pigneur, Y., & Smith, A. (2010). Business model canvas. Self published.

- Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2015). *Entwickeln Sie Produkte und Services, die Ihre Kunden wirklich wollen. Beginnen Sie mit Value proposition design*. Campus-Verl., Frankfurt am Main/New York.
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of interactive marketing*, 18(3), 5-14. <u>https://doi.org/10.1002/dir.20015</u>.
- Reiman, J. (2018). *Propósito: por que ele engaja colaboradores, constrói marcas fortes e empresas poderosas* [Purpose: Why it engages employees, builds strong brands and powerful companies]. Rio de Janeiro: Alta Books Editora.
- Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-design*, 4(1), 5-18. <u>https://doi.org/10.1080/15710880701875068p</u>.
- Sanders, E. B. N., & Stappers, P. J. (2014). Probes, toolkits and prototypes: three approaches to making in codesigning. *CoDesign*, *10*(1), 5-14. <u>https://doi.org/10.1080/15710882.2014.888183</u>.
- Schilling, M. A., & Shankar, R. (2019). *Strategic management of technological innovation*. New York: McGraw-Hill Education.
- Schumpeter, J., Backhaus, U. (2003). The Theory of Economic Development. In: Backhaus, J. (eds) Joseph Alois Schumpeter. The European Heritage in Economics and the Social Sciences, vol 1. Springer, Boston, MA. <u>https://doi.org/10.1007/0-306-48082-4_3</u>.
- Skvortsova, I., & Nurulin, Y. (2018). Accelerator of innovations for pre-incubation stage of project lifecycle. In *MATEC Web of Conferences* (Vol. 170, p. 01004). EDP Sciences. https://doi.org/10.1051/matecconf/201817001004.
- Teixeira, J., Schoenardie, R., Garcia, L., Merino, E., & Paladini, E. (2012). Gestão visual: uma proposta de modelo para facilitar o processo de desenvolvimento de produtos [Visual management: a proposed model to facilitate the product development process]. In *Conferência Nacional de Integração do Design, Engenharia e Gestão para Inovação,* Florianópolis, SC, Vol. 2, pp. 1-9.