

Creativity and Design Process to Raise New Business Models: Analysis of a Co-Creative Framework

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Abstract

The current frantic changes in the technological and social scope require that skills such as creativity has been researched, since it acquires great importance in a context in which the market differentiation will depend on creative minds. Thus, this research aimed to analyze the creativity as a design and innovation tool, seeking to maximize its use through a creative framework to understand, script and evaluate the creative process, enhancing new ideas and stimulating creativity in different companies. Understanding the important role that creativity plays in business models, promoting innovative decisions in a competitive market. A descriptive scientific methodological process was performed through a bibliographic research. After that, a creative framework was developed and carried out with 48 different startups, in order to test and analyze the developed framework, allowing suggestions to improve future updates of the framework. Finally, the results point out how the Creative Framework, as a systemic process, is important to generate new and significant ideas. In this sense, the Creative Framework collaborates both with the design process by a ideation phase script and boosting different business models, delivering possible operational improvements and new approaches for the evolution of products and/or services addressed in startup's projects.

Keywords

Design and Creativity, Strategic Co-Design, Innovation, Creative Framework.

Introduction

The current scenario of deep transformations in commercial relationships has begun to affect companies and the way how they have been produced. Globalization, competition, the technology advance and the accelerated changes put pressure on companies to seek new management methods, demanding new behaviours from their employees (Alencar, 1998). Regarding to these techno-social changes, Bilich (2004) warns that, progressively, machines and algorithms tend to replace professions, both for physical work and for tasks that involve mental processes.

In this worrying context, added to the technologic advances, it is essential that companies become flexible to remain and improve their market share (Andrade, 2009). Thus, companies tend to looking for professionals beyond technical knowledges, the focus is on find out qualified people to achieve their strategic objectives which add essential skills to gain competitiveness (Dias, 2015). The employees become the most important input of a company, people as a competitiveness capital (Chiavenato, 2008; Almeida, 2004).

Thus, the magnitude and speed of transformations require quick decisions for new facts, in which pre-established standards cannot be used, raising the necessity to create different solutions by encouraging creativity (Alencar, 1995). In face of constant and frantic changes, some factors such as administrative centralization, predictability and stability no longer meet market expectations, thus raising creativity as a significant requirement for companies (Valladares & Filho, 2003).

In this sense, it is understood that for companies, creativity was transformed into economic value, that is, creativity contributes to productivity, competitiveness and company survival (Bendassolli et al., 2009). Furthermore, according to Coelho (2013), creativity is a skill that determines the success or failure of a company, therefore, identifying and developing creativity into businesses can mean the biggest difference that highlights companies in the competitive market.

It is clear that this scenario requires a better understanding of the creativity phenomenon, as there is a strong relationship between innovation and creativity, in which it is the competence that will grant the success and will promote financial gains. Therefore, this work aims to analyze creativity as a driving source of innovation, seeking to maximize its effectiveness through the development of a Creative Framework. Bertella et al. (2021) shows examples of which frameworks were applied as a useful approach to promote innovation by a critical systemic thinking. Furthermore, this work sought to understand the following issue: Can a systemic approach guide creativity to play a prominent role to promote business, raising innovative and supporting reliable decisions?

Innovation and Creativity

Nowadays, despite creativity has become a usually word by people, it has been identified in specialized literature by many definitions, that is, it seems to be a lack of scientific clarity regarding its conceptualization. This highlights its multifaceted and complex nature, which is conditioned according to the scope of application and which can be approached from different perspectives (Sharma & Teper, 2008; Costa, 2006; Saleh & Brem, 2023).

For a long time, creativity was understood from a subjective perspective, and then, it was not able to be investigated as a subject. In this sense, until the 17th century, this subjective perspective gave explanations of genius, inspiration and even luck to creativity (Pinheiro & Cruz, 2009). After that, creativity was assigned as genius, in which ideas were obtained by gift, and even genetics, influenced by Darwin's evolutionary theory (Pelaes, 2010; Wechsler, 2008). It was only after Guilford's contributions to creativity that the explanation of creation was supported by a scientific approach and treated as something that can be stimulated and learned. Current studies about creativity encompass different components considered necessary to raise it (Mkhize & Ellis, 2020; Arslan et al., 2022).

As a result, several studies have been carried out aiming to investigate the social, historical and cultural context that infer on creative production and that improve the creative behavior. Finally, an individual approach was replaced by a systemic view of the creativity phenomenon (Feldman et al., 1994).

Due to the multifaceted nature of creativity, definitions are obtained through different approaches for instance, from neuroscience it is a response to the human need to solve problems (Kandel et al., 2014; Sprugnoli et al., 2017). According to Newbiggin (2010), creativity is a process that contributes to questioning existing paradigms and assumptions. Gurteen (1998) and Lubart (2007) state that creativity is based on divergent thinking to provide new knowledge. Furthermore, creativity denotes a person's ability to develop new ideas, conceptions, inventions, or artistic products. This ability involves an interaction between personal characteristics, such as thinking and reasoning abilities, and environmental characteristics, such as cultural and social values and also opportunities for expressing new ideas (Alencar, 1996).

Besides the ability to create new ideas, according to Runco and Jaeger (2012) creativity requires effectiveness, for the creative process creating new ideas is not enough, the ideas need to be useful. Therefore, creativity is not just a human expression, it has been also understood as a fundamental aspect of the development and growth of society. In the same context, Sternberg (2000) considers that creativity involves the production of something that have to be both original and valuable, and that in addition it must be executable. Thus, creativity does not result from improvements or modifications that do not change the core of the process, rather than creativity presupposes rupture, and innovation.

Therefore, we can say creativity is assigned with the generation of new and useful ideas, related to the emergence of something new, which breaks the current patterns and are capable of produce pragmatic results through innovation (Anderson et al., 2014; Martens, 2011). All innovation begins by creative ideas, since the successful implementation of new programs, new products, or services depends on good ideas from people (Amabile, 1996). Thus, innovation arises from the implementation of creative ideas therefore it would be the production of actions to make use of new ideas (Bruno-Faria, 2003; Petrini, 1998). It is therefore clear that creativity is a necessary condition for a successful innovation (Marks & Huzzard, 2008).

Therefore, even with so many concepts, there is a consensus that the fundamental structure of the creative phenomenon is the creative ideas, and when applied, they can promote innovation in organizational structures, strategies, and processes (Bedani, 2012). It is clear that creativity and innovation are complementary skills since it is understood that innovation is characterized by the effective implementation of ideas that come from creativity.

1. Creativity and Innovation Applied to Design

As seen previously, creativity is a capacity that any system have to create complexities, reorder and structure situations, producing new thoughts, processes, products, ideas or solutions (Tschimmel, 2010). Adding to this definition, Sarkar and Chakrabarti (2008) assign that this ability involves a process, concerning creativity in design. Furthermore, creativity manifests itself based on the social and cultural environment as well as on the characteristics of individuals, which also includes groups and teams and, therefore, requires an interdisciplinary and systemic approach (Alencar & Fleith, 2003; Tschimmel, 2010). In this sense, it is noted that creativity and innovation for a company justify the action of design management.

The importance of design as a tool to coordinate the innovation process is highlighted by Mozota (2003), through the identification of skills. Interfunctional links tend to change the innovation structure, such as project management with multidisciplinary teams. Design participates in a management process structuring, by the definition of processes, as well as identifying the company's potential.

Currently, design has been characterized as a strategic innovation tool for the development and creation of products and services, being a powerful catalyst for change (Moraes, 2010). Thus, it is clear that the use of creativity and innovation to design is achieved through the development of ideation methods and tools, that is, generating ideas in a systemic environment.

From this perspective, [Lee et al., \(2015\)](#) state that ideation methods provide effective ways to identify problems and solving them, generating creative ideas. It can be seen that ideation techniques and tools are useful for moderating and giving order to creative processes and are, therefore, capable of reproduction.

Idea-generation techniques are useful for creative problem-solving processes ([Santo, 2011](#)). That said, it is possible to categorize ideation methods into two large groups: intuitive such as Brainstorming, Roleplaying, Metaphors and Synectics method and, logical such as TRIZ. Intuitive methods use mechanisms to break what are well-known as *mental blocks* and logical methods involve systematic decomposition and analysis of problems, based on technical databases and the use of procedures. Usually, effectiveness is the main criterion for using a given method by a company ([Drejeris & Tuncikiene, 2010](#)).

In this sense, [Shah and Vargas-Hernandez \(2003\)](#) agree that ideation methods are considered effective when they produce good ideas. To measure an ideation method, researchers take into account two criteria: 1st, how well the method can expand, and 2nd, how well the method can explore the space. Based on these two criteria, four indicators of the effectiveness of ideation methods were proposed by comparing the generated ideas regarding their novelty, variety, quality and quantity.

Another well-known method that generates many ideas is Design Thinking, it is focused on the needs of people and works collaboratively, seeking to work on creativity and experimentation, through an empathetic approach, during the search for solutions. Furthermore, Design Thinking allows a deep immersion in the problems or even parallel subjects, after that converging, making connections and analysis focused on solving a problem ([Brown & Wyatt, 2010](#)).

According to [Thompson \(2003\)](#), collective ideation tools are based on some general precepts that enhance and stimulate the creative process, such as Team diversification: diverse teams are less likely to have group norms; Analogical reasoning: can lead teams to think about different and non-traditional ideas; Brainwriting: writing ideas instead of speaking them eliminates the problem of blocking production; Creating company's memory: team members are less likely to repeat ideas; Prepared facilitators: activity guides must promote strategies for the flow of ideas; Strong benchmarks: giving participants high standards of performance significantly increases the number of ideas.

Finally, it is essential to understand that the techniques must be combined depending on the target audience, the desired objectives, the time available, the number of professionals and the corporation's strategy, that is, the tools must be chosen according to each purpose since each case is different and must be chosen taking into account the moment singularities.

Therefore, these methods and tools are contributions from strategic design thinking in the creativity and innovation processes and contribute to the generation of new ideas by scripting the ideation process to reproduce it. In this sense, this article aims to present and analyze the feasibility of a Creative Framework in improving the generation of ideas for different problems and business models. This creative framework is mainly structured around creative techniques and tools of Design Thinking, besides knowledge about creativity and the emergence of innovative ideas.

Methodology

This work was based on a wide theoretical research about the following themes: Creativity, Innovation and Creativity, and Ideation and Design Tools. This survey was carried out through online searches on the following platforms: Google Scholar, Scielo, CAPES Platform and Microsoft Academic from 07/25/2020 to 12/16/2022.

The developed Creative Framework was performed over a period of 20 years with 48 participants who were selected as participants of the Science, Technology and Innovation Master Degree at the Federal University of Rio Grande do Norte (Brazil) and, they should be entrepreneurs from different startups and/or business models.

The Creative Framework activities selected for analysis were those that are directly related to the Brainwriting tool, such as Core activities (Company Stage); Support Actions (Company Stage); and Ideas generation (Company and Customer Stages). The Creative Framework was performed through the MIRO online platform, a collaborative digital whiteboard for teamwork in which participants can interact remotely, adding notes and collaborating with each other. The video communication service Google Meet was also used, which allowed synchronous dialogue among all participants. Result analysis were based on creative abilities criteria (Fluency, Flexibility and Originality) established by [Guilford \(1967\)](#) by comparing the results at each idea generation activity of the creative framework. According to Guilford, creative people are characterized by thinking more fluently, greater flexibility and greater originality.

In this sense, in this work the criteria are understood as:

1. Fluency: the total number of generated ideas.
2. Flexibility: diversity in the category of generated ideas, total number of generated idea categories.
3. Originality: unusual ideas.

To analyze Originality, 5% of the total generated ideas was used as the maximum limit for original and unusual responses.

The Creative Framework

Creativity is a systemic capacity that involves a creation process supported by the individual's cognitive process and processes of design, communication and knowledge sharing, also influenced by contextual factors. Besides the cognitive capacity of people, the systemic relationships are decisive for creativity ([Tschimmel, 2010](#)). Thus, the presented framework is a construct related to the main theories about creativity in the person and its context.

Since as previously highlighted, creative thinking does not only use abstract or imaginative thinking to create, and then the framework is organized to strongly explore both divergent and convergent thinking, contained within the creative process. Divergent thinking has the purpose of create options, and opening and exploring new paths to provide a huge number and diversity of ideas. On the other hand, convergent thinking has the purpose of evaluating and selecting the most promising ideas or concepts. In this sense, [Runco and Acar \(2012\)](#) state that divergent thinking has an important role in the creation of new ideas, but judgment and evaluation, regarding to the convergent thinking, are extremely necessary. This approach demonstrates the complementary core of these two thoughts, justifying the use of their relationship in the developed framework.

Another crucial point in the developed framework was a defined time limit when carrying out each activity, this is based on the assumption n which greater freedom does not always result in more creative solutions. Some research has shown that restrictions can focus thinking in specific directions, leading to more creative ideas. Restrictions, such as time, create challenges and thus stimulate better creative solutions ([Goldenberg et al., 1999](#); [Kowaltowski et al., 2007](#)). It is essential to understand that restriction generates tension, an essential input for the creative process, but it must be balanced so as not to generate boredom or anxiety. [Csikszentmihalyi \(2000\)](#) describes this balance as the flow experience, a state in which everything seems to be going well for the individual, causing total involvement without boredom or anxiety. This allows the individual's skills to be perfectly adjusted to challenges as an immersive process, which makes it easy the generate creative ideas processes.

In this context, the Creative Framework ([Figure 1](#)) consists of three stages:

1. Company Stage: analysis from an internal approach of the company, understanding its segment, expertise and business values.
2. Customers Stage: analysis of an external point of view of the company, understanding customers by a systemic user approach.
3. Activation Stage: management of the generated ideas in order to apply those ideas with greater potential for innovation.

Below, details about each creative process stage will be presented. It is important to note that the stages can be performed in a non-linear track.



Figure 1: Creative Framework stages (Authors, 2023).

1. Company Stage

Since creativity presents itself based on the individual characteristics and, the social and cultural environment (Alencar & Fleith, 2003; Tschimmel, 2010), the main objective of the first stage (Company Stage) is regarding the person, to look internally, aiming mainly to perceive and understand the internal needs and problems, which is mainly related to intrinsic motivation, an essential characteristic in the creative process. This concept refers to personal satisfaction in carrying out a task, which must be engaging and challenging (Amabile, 1997). Still, according to Amabile (1989), intrinsic motivation is composed of the following elements: self-determination; the feeling that individual skills have been used and developed; and positive feelings about work. Replacing these concepts with the design and company's scope, this first stage, based on divergent thinking, includes activities (Figure 2) that make it possible to identify concepts, motivations and internal problems of a given business model or company.

- **Question Storm:** it aims to create (at least) three questions to get better the understanding about the company or business problems. Through Brainwriting, people create questions and then, as a team, select those three that have different problem approaches.
- **Core Activities:** it aims to think about the conceptual core of the company, in which each participant can point out the main activities carried out by the company, those that add essential value to the business. This activity is also performed through Brainwriting because it is more anonymous than brainstorming, so the participants do not influence each other, and anyone can be productive at the same time. Writing ideas instead of speaking them eliminates the problem of block productivity the participants do not need to wait their turn to produce ideas (Thompson, 2003). In this activity, convergent thinking emerges in the analysis and definition of the best obtained concept. Each participant lists at least 20 essential activities/concepts of the company in 20 minutes. After that, in 30 minutes, the group must select six activities from the total obtained and, finally, from those six, choose only four activities, taking into account what is essential to create the essential customer value and what really contributes to the company's competitive advantage.
- **Support Actions:** also, through Brainwriting, this activity aims to guide participants to think about actions that support the 4 defined core activities, pointing actions that the company carries out and/or can carry out. In this sense, each participant must suggest at least 20 support actions in 20 minutes. Afterwards, in about 15 minutes, a mental map is created based on the four defined core activities, and from them, radiates the suggested support actions, correlating these actions with the defined core activities.

- **Value Benchmarking (Divergent Thinking):** here, the participants carry out a web search to find and understand how the 4 core activities have already been presented by different market sectors, whether through products and/or services. In this sense, based on an analogical process, participants expand their perspective about the core activities, discussing how they can be delivered to customers and how the group could bring such market solutions to the company's context.
- **Ideas Generation (Divergent Thinking):** in this activity, a co-creative process is performed, the Method 635 – six people, three ideas, five minutes. Its objective is to obtain a huge quantity and diversity of ideas based on all repertoire achieved from previous activities, about the problem, company etc, and based on ideas from other people. This method takes a total time of 30 minutes and once 635 is complete, all ideas have to be analyzed and discussed among the participants, in which three ideas that present the most potential to add value to the business, must be selected (convergent thinking).



Figure 2: Company Stage activities (Authors, 2023).

2. Customer Stage

Csikszentmihalyi (1996) claims that, to understand why, when and how new ideas are created, it is necessary to consider both internal and external variables about a given person. Therefore, while the first stage focus on company needs, the second stage of the Framework is regarding to understand the external context in which the company or business is inserted. It aims to thinking about customers and the company-client relationship, in order to identify problems, needs and pains of customers and, subsequently, create ideas to solve them.

This stage is performed entirely as a team, based on the inseparable relationship between the given person and their group to get stronger in the creation process. In the context of organizational creativity, sharing ideas and the requirement to use differentiated expertises provide the scenario for the individual's action in a collective context of creativity, that is, taking advantage of each participant to achieve as a team more promising solutions and better ideas. This mindset is also based on the collective intelligence approach, which states that large groups can be wiser than specialists (Surowiecki, 2005). It points out how important the collective can be, if the incorrect parts of a group were added together and integrated into an average denominator, a wisdom of crowds could be created (Morozini, 2013). Figure 3 presents the tools and activities defined for the second stage.

- **Personas:** to create an emotional connection with customers, at least two personas are described, it is suggested that one of them must be the company's customer profile and another one the company's non-customer profile. This restriction can be adjusted according to the objective of the project to be solved and the time to create each persona is about 20 minutes. The description can be guided by an empathy map, which helps direct questions related to the customer's life, providing an immersion into the lives of each persona in order to really understand what this client needs and, subsequently, identify business opportunities.

- **Customer Journey:** this activity aims to identify the moment in which the company, through its products or services, touch the customer’s daily life. Like a timeline the customer journey describes the personas’ daily activities and their emotional aspects, identifying the customer’s pains and successes throughout this journey, and then generating ideas to solve them. A journey for each persona must be performed for about 20 minutes each one.
- **STEMP Matrix:** it aims to map and analyze trends which may impact personas in anyway. The trends are classified into the following dimensions: Society, Technology, Economy, Environment and Politics. This activity lasts about 30 minutes.
- **Ideas Generation (Divergent Thinking):** like the first stage, it is also performed through Method 635, however, the ideas and/or solutions are customer-oriented, in order to highlight how the company can solve the customer’s pains and needs. This activity has a total time of 30 minutes and once it is finished, all ideas have to be analyzed and discussed among the participants, in which three ideas that present the most potential to add value to the customer, must be selected (convergent thinking).



Figure 3: Customer Stage activities (Authors, 2023).

3. Activation Stage

Since the creative process also consists of the ability to judge which ideas are useful or not, this stage aims, based on convergence thinking, to evaluate and manage the generated ideas. Sternberg (1991) highlights that evaluation/judgment procedures are essential attributes for creation processes. Also, Amabile (1997) highlighted how important is the ability to give up unproductive ideas, improving the emergence of creative and effectively useful ideas. Figure 4 shows the activities of this stage.



Figure 4: Activation Stage activities (Authors, 2023).

- **Discard:** it is an activity in which, after at about 40 minutes of analysis and discussion, any idea that do not make any sense or coherence to the evaluators are discarded. It was noted that an average of 50% of all generated ideas are discarded.
- **Ideas x Pain Points:** the selection of ideas that better meet the needs and pain points of customers takes place, based on a matrix which relates the selected ideas to the pains detected from the users' daily journey. Therefore, the chosen ideas must be analyzed based on the user's pain it can solve. In the end, the ideas are ranked according to the number of pains resolved, it is possible to identify which ideas most address and help the customer today. This activity takes a total time of 40 minutes.
- **Facilities x Difficulties:** even an idea has a large number of pain points solved, it may be unfeasible to be activated quickly. In this activity, the ranked ideas are analyzed and classified in the short, médium or long term, based on difficulties and facilities to activate them. Thus, the new ranking contributes to choosing those generated ideas that should be activated first. It is suggested at about 40 minutes to perform this activity.

Results and Discussions

The objective of the study is to investigate the structure of the Creative Framework, seeking to highlight its validity of it in order to better understand the constructs that its items represent. In this sense, by the analysis of all ideas and propositions generated through the framework and the compilation of the obtained data, it was possible to analyze and compare the obtained information by each activity. Thus, it was possible to have a clearer relationship between the analyzed activities and their performances based on the defined criteria as analysis parameters: Fluency, Flexibility and Originality (Guilford, 1967). Finally, it was possible to identify which framework activities had the highest and lowest yield in the creative process of generating ideas, correlating the framework activities to compare the Company and Customer stages (Figure 5).

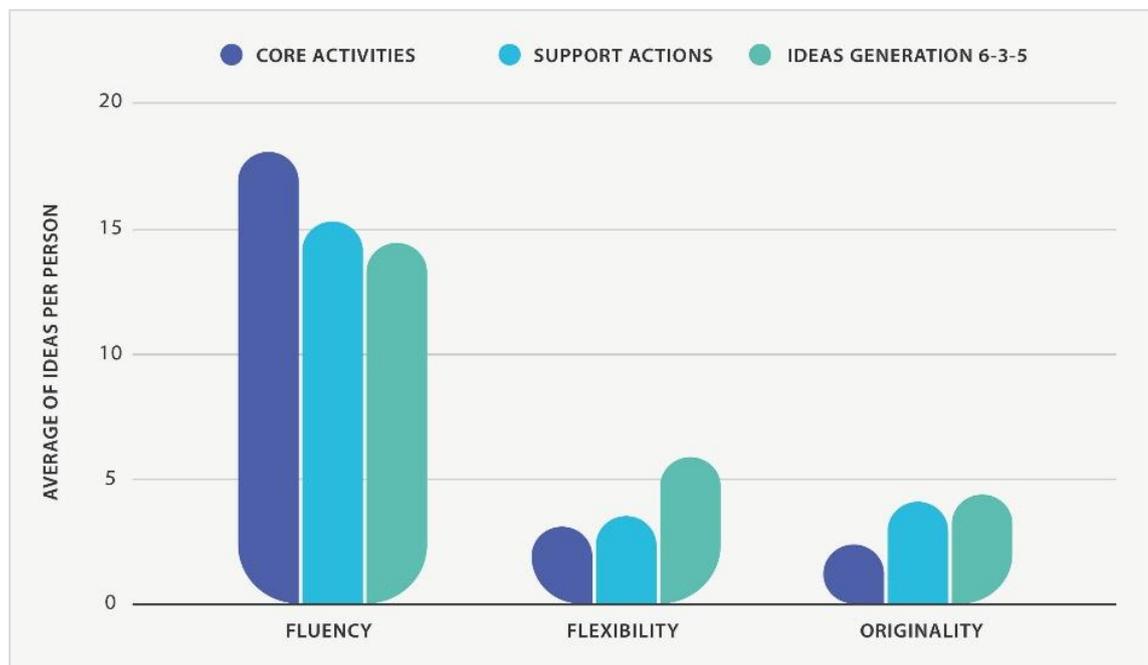


Figure 5: Generated ideas from the Company Stage (Authors, 2023).

The Company Stage contains three main activities that cover a divergent process of generating ideas, such as: Core Activities, Support Actions and Ideas Generation. It is possible to verify that for all analyzed activities the average of the Fluency, at about 15.9 ideas per person, is significantly higher than the averages for Flexibility (about 4.1) and Originality (about 3.6).

This result can be explained by the Framework approach in which the activities are oriented to the volume of ideas and not to their quality and participants are encouraged to do not make judgments about the generated ideas. Thus, participants can generate many different ideas from the same concept. Regarding the performed activities, it is possible to note that the Core Activities activity, despite presenting a significant number for Fluency, an average of about 18.1 ideas per person, related to Flexibility and Originality it is the activity that presents the lowest results (about 3.1 and 2.4) respectively compared to the Support Actions (about 3.5 and 4.1) and Ideas Generation (about 5.9 and 4.4).

The results can be related to the purpose of the activity which consists, of the generation of different ideas, to define the essence/concept of the company. This approach makes it easier for participants to generate propositions based on the acquired repertoire about the company, hindering the possibility of flexibility to create ideas that go beyond the boundaries of the conceived repertoire. The significant reduction in Flexibility in Core Activities and Support Actions indicates that when the participants are guided and asked to think about aspects carried out by the organization and its business model, they converge on ready and objective ideas and conclusions about the company or business, generating less distinct ideas.

Regarding the Support Actions activity, the results show that Flexibility and Originality are superior to Fluency. Such results may also be due to the dynamics of this activity which it is suggested that the participants create proposals and solutions that can reach the defined concepts. This dynamic allows the emergence of ideas about a given problem, which requires more analogical and divergent thinking, contributing to the generation of unusual ideas and less similar thoughts among the participants.

Taking into account the Ideas Generation activity, the results point out that it has a greater capacity to promote more Flexibility and Originality of ideas, by comparing to Core Activities and Support Actions. This result can be assigned to the co-creative Method 635 process, which positively enables the collision of ideas as support to generate creative and unusual ideas that can be complementary or opposite.

To better understand the Ideas Generation activities in the Company and Customer stages, were compared to each other (Figure 6). Also, the averages of the generated ideas were analyzed based on the Fluency, Flexibility and Originality criteria, in order to compare their performances and identify relevant points to the evaluation and understanding of the framework regarding to its capacity to generate ideas.

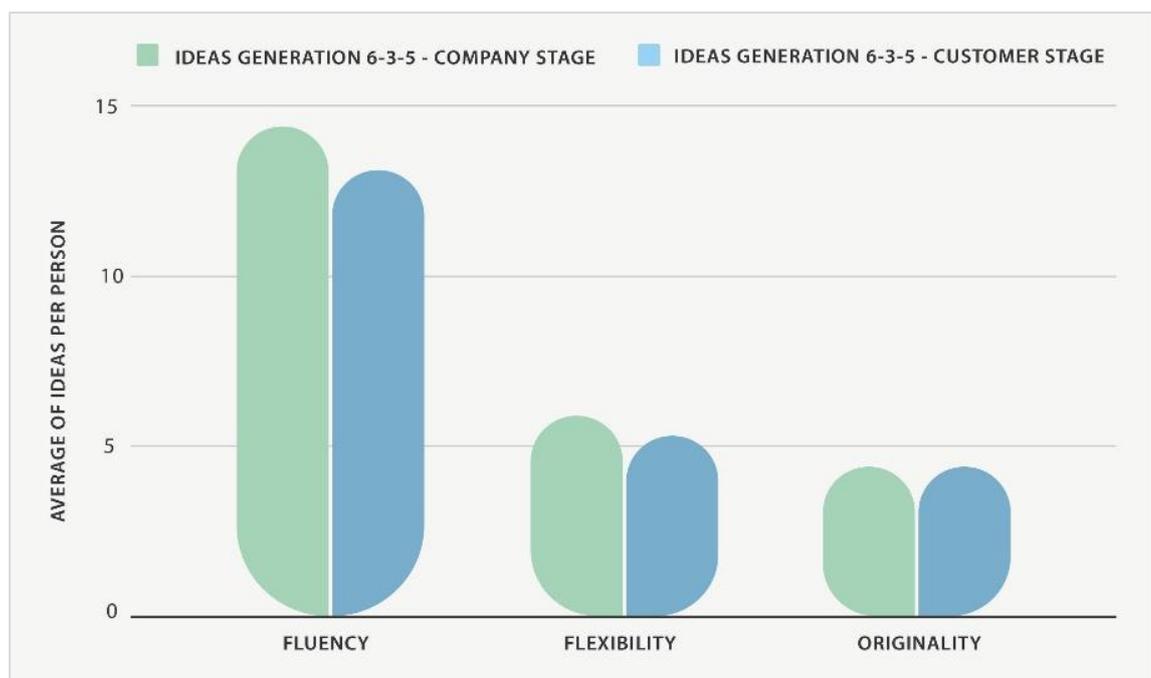


Figure 6: Generated ideas from Ideas Generation activities (Authors, 2023).

The results show that Fluency and Flexibility of Ideas Generation activity in the Company stage is subtly higher (about 10%) than in the Customer stage, while Originality presents the same results. Company Stage has two previous activities (Core Activities and Support Actions) that promote divergent thinking, encouraging and boosting the participants' analogical, systemic and imaginative thinking. Thus, such previous activities provide the participant with a more creative repertoire and, therefore, enhance their willingness to receive and deliver more disruptive ideas. Likewise, the Customers stage has previous activities (Personas, User Journey and STEMP Matrix) that promote divergent thinking, however with a focus on the customer, it is possible to explain the non-significant difference in results for both stages.

It is possible to assign that for Ideas Generation activities the execution of previous activities that promote divergent thinking and increase the participants' repertoire regarding concepts and clients of a given issue, favors the creation of more original and unusual ideas, therefore more creative, as the results indicate an increase to Originality criterion (Figure 6).

Finally, in order to evaluate the feasibility of the Creative Framework in generating new and useful ideas for many different contexts and market sectors, all participants were invited to apply it in their respective business models. Thus, as a way of evaluating the framework performance in the creative process of projects, an analysis was carried out based on feedback from participants, taking into account the results achieved by them in their respective business models and their experiences as moderators of the Creative Framework (Figure 7).

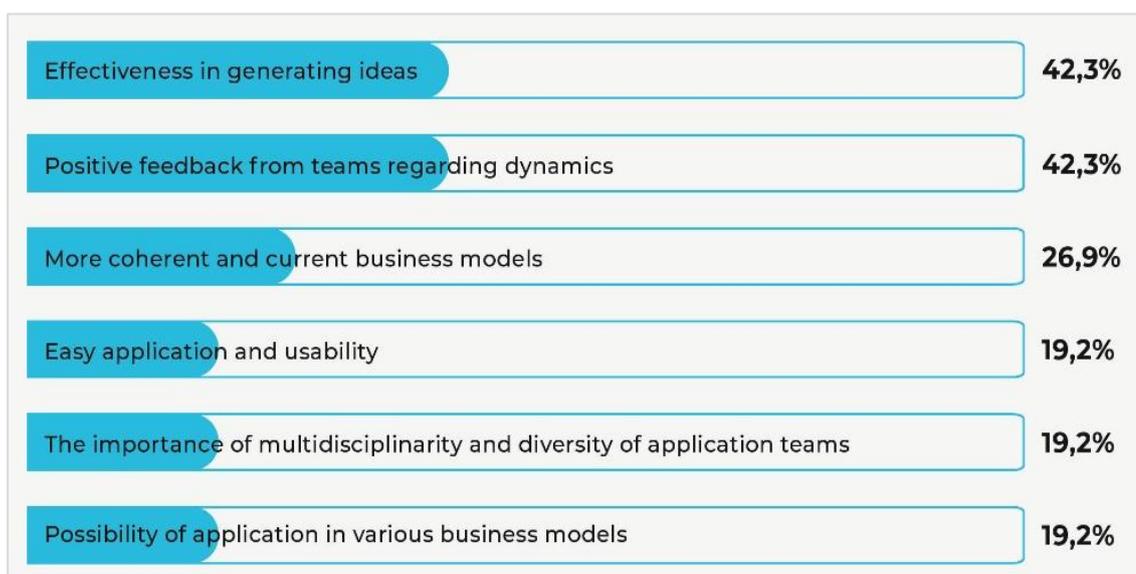


Figure 7: Participant's feedback about the use of the Creative Framework (Authors, 2023).

Regarding the effectiveness of the framework in providing new ideas and the feeling generated by its application, about 42.3% of participants pointed out the Creative Framework as an excellent tool, that is, they assigned a gain in efficiency and effectiveness in proposing improvements to the business, besides to arise a greater number of disruptive and even unimaginable ideas, with a high innovative potential. Furthermore, it provided a satisfactory quality of ideas, likely to be applied and generate strong results, identifying aspects that need attention such as possible operational improvements and new possibilities to get better products and/or services. Related to the feedback they received from their respective participants, about 42.3% pointed out the validity of the framework and its innovative process, assigning great satisfaction about the experience and evaluating the use of creative techniques to solve problems as positive. They even highlighted that the dynamism promoted by the Framework and the break with a traditional way through a soft environment with music and informal language, contributed to the natural flow of the thought, becoming a pleasurable and fun activity and allowing people to break down barriers and fears of being creative.

Regarding the framework's ability to increase the business models to which it is being applied, about 26.9% of the participants assigned its value to provide a more coherent business model, proposing ideas which are more aligned with the company's strategic planning, thus increasing adherence to the purpose of the business. The Creative Framework was considered efficient in promoting more consistency and robustness to the company's value proposition, motivating a new evaluation of the given problem and whether the value proposition is aligned with the needs of the company's customers. In this way, the Creative Framework proved to be able to generate value for different business models, due to its ideation dynamics.



Figure 8: Suggested improvements for the Creative Framework (Authors, 2023).

The multidisciplinary and diversity in ideation teams were also assigned as significant for about 19.2% of the participants in which the different contexts and expertise of involved people provided different ideas than those already explored since a person's knowledge and experience imply the responses and ideas of each other. They also highlighted how important was to learn from new people and new viewpoints to change their own business.

The results also point to that for about 19.2% of the participants the framework is a tool very easy to be applied especially due to its versatile approach, low use cost and short time consuming. It guarantees friendly and dynamic interaction and management, allowing a better use of the time. Given its feasibility and flexibility of application, about 19.2% of participants state that the framework is able to be used in different business models. In this sense, it proved to be a flexible tool that through adaptations can be implemented to the huge realities of entrepreneurs and/or projects, helping in moments that require creative solutions.

Other results were assigned to the participants, as the following: Mapping personas which are not previously identified by the company; Updates to the company's business model after a long period without review; Innovative ideas for customer relationships; Better identification of the company's key points; Performing the framework repeatedly and with different work teams as a routine ideation practice of the company; The deconstruction of the creative myth and mainly, understanding the need to focus change to discard ideas that for a long time were treated as essential by company, that is, identifying failures.

Despite its being evaluated as positive and satisfactory, about 46.1% of participants proposed improvements to the Creative Framework, identifying difficulties during its application in their business models. In this way, enabling new approaches in the next version of the framework (Figure 8).

Despite the significant approval of the participants, the Creative Framework presents points of instability, assigned by the mentioned suggestions (Figure 8). In this sense, the results show that about 7.6% of participants point out some difficulty to the convergent thought process, that is, summarizing and defining priorities in the generated ideas. About 11.5% of participants assign that the difficulty to become people up to new ideas, without self-judgment and fear of making mistakes constitutes the main problem, which is related to divergent thinking. Finally, regarding to the dynamic's organization, about 19.2% assigned the difficulty to find available people to apply the Framework and 11.5% reported problems regarding to the use of the MIRO platform, since the Framework was applied online.

Conclusions

As seen throughout this work, creativity is fundamental for human evolution and to develop solutions oriented to different problems raised by society. Currently, creativity has proven to be essential for innovation process and generation of new business models as a growing need in the modern corporate world, which is constantly changing. Thus, creativity needs to be not only recognized but also encouraged, in order to expand a multilateral view point of companies and ensure prominence in their products and services, since the competition is maximized by frantic changes in technological, social and economic approach. Exploring the use of tools that contribute for the management of the creative process is really important for companies in any market sector. Therefore, analyzing creativity as a core subject and understanding its process became essential measures to develop methods that encourage the generation of ideas and innovation. In this context, this work identified the feasibility of the Creative Framework to generate ideas for different business models. The results highlighted its validation and effectiveness in the creative and innovation process.

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