CREATIVITY, INNOVATION, AND ENTREPRENEURSHIP AT WORK: PREDICTIVE RESEARCH

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I hereby certify that the present work titled "Creativity, Innovation, and Entrepreneurship at Work: A Predictive Research," submitted by Rojin Ghasemijalal for the degree of International Doctor, has been carried out under our supervision in the Department of Psychology of this university.

Tarragona, 30 of July 2023

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Preface

After relocating from Iran to Spain to pursue my lifelong dream of earning a Ph.D., I was motivated to expand my knowledge and apply for a doctoral position. I chose to apply to the Doctorate in Health, Psychology, and Psychiatry program at University Rovira and Virgili, specifically within the Health and Psychosocial Risks research line. This program boasts an exceptional faculty, including Dr. Joan Boada Grau, who became my thesis supervisor.

The program itself, as well as the expertise and vision of Dr. Grau, were perfectly aligned with my interests and professional background in the facies. After careful consideration, we agreed that my research should focus on creativity, innovation, and entrepreneurship in the Spanish workplace. I am thrilled to have the opportunity to pursue this topic in my Ph.D. thesis.

The doctoral thesis I have completed consists of four empirical chapters, with three chapters dedicated to exploring various aspects of Creativity, Innovation, and Entrepreneurship, each with significant variables.

Chapter 1 serves as a comprehensive introduction to the overall framework of the concepts, incorporating all necessary details, subtitles, and crucial study points. In Chapter 2, I outline the objectives, both general and specific, of the three studies. Chapter 3 summarizes the methods employed in each study, including an explanation of the participants and instruments used in all three articles and data analysis. Chapter 4 presents a detailed account of all three studies, while Chapter 5 offers a general thesis discussion. In Chapter 6, I provide general conclusions from three studies and the thesis. Chapter 7 includes a discussion of limitations and directions for future research, followed by implications. The thesis concludes with Chapter 8, which contains references, and Chapter 9, which includes appendices for the three articles. By following this well-structured format, I have presented a thorough examination of the topic and made significant contributions to Creativity, Innovation, and Entrepreneurship.

The thesis is primarily based on three studies conducted in 2019, 2021, and 2022. The first study, "Investigation of Predictors of Employee Creativity," examined the relationship between innovation and employee creativity in Spanish workers. This study aimed to measure the impact of numerous factors on employee creativity.

The second study, "Creativity and Motivation as Predictors of Entrepreneurial Orientation in Spanish Workers," explored the manifestation of creativity and motivation as predictors of entrepreneurial orientation among Spanish workers. This study, conducted in 2021, aimed to examine the impact of creativity and motivation on entrepreneurial orientation.

The third study, "Workaholism, Personality, and Obsessive Beliefs as Predictors of Entrepreneurial Motivation," was conducted in 2022 and focused on measuring the manifestation of entrepreneurial motivation among Spanish workers. This study examined the impact of workaholism, personality traits, and obsessive beliefs on entrepreneurial motivation.

The three studies conducted in this thesis have contributed to the overall framework by investigating various aspects of creativity, innovation, and entrepreneurship within the Spanish workplace. Using multiple research methods and analysis techniques, these studies have provided valuable insights into employee creativity, entrepreneurial orientation, and motivation predictors.

The primary focus of this thesis has been to assess the extent to which workers in the Spanish workplace exhibit manifestations of creativity and to identify the factors that condition or mitigate these manifestations. As an academic in the field of ergonomics, which seeks to optimize work conditions to align with human abilities, needs, and limitations, it is crucial to contribute to the knowledge base regarding measures that can eliminate or reduce exposure to risk factors that can affect people's health and quality of life.

Through these studies, we have gained a deeper understanding of the factors influencing creativity and innovation within the Spanish workplace. This knowledge can be from practical interventions that optimize work conditions and promote employee well-being. Overall, this thesis has made a significant contribution to the field of ergonomics and has the potential to improve workplace practices and encourage healthier, more productive work environments.

Presentation

This thesis investigates the connection between creativity, innovation, and entrepreneurship among Spanish workers. It explores their unique characteristics and experiences and understands how these factors contribute to Spain's economic growth, business development, and overall workforce well-being. Several vital points make this topic particularly interesting.

Firstly, Spain's rich cultural heritage and artistic traditions play a significant role in shaping the mindset of its workers, influencing their approach to creativity and innovation. The country's vibrant cultural background fosters a fertile ground for cultivating creative thinking and generating innovative ideas.

Secondly, the economic landscape of Spain and its global competitiveness underscore the importance of fostering creativity, innovation, and entrepreneurship for sustained growth. Spain must leverage and harness its workforce's creative and innovative potential to remain competitive in the global market.

Thirdly, the emergence of entrepreneurial ecosystems and support structures in Spain allows one to examine their impact on workers' creative and innovative capabilities. By studying these ecosystems and their influence on the Spanish workforce, valuable insights can be gained into how such support systems contribute to developing entrepreneurial skills and realizing innovative ideas.

Lastly, understanding how Spanish workers embrace and adapt to technological advancements in creativity, innovation, and entrepreneurship can shed light on future skills and workforce dynamics. This knowledge is vital for anticipating and preparing for the evolving demands of the labor market in an increasingly technology-driven world. By exploring these aspects, this research seeks to provide valuable insights that can inform decision-making, policy formulation, and interventions aimed at nurturing and harnessing the potential of the Spanish workforce. This promotes entrepreneurship, economic growth, and well-being in Spain.

This thesis underscores the paramount importance of creativity as a driving force behind innovation and entrepreneurship, emphasizing its significance within contemporary society. *Creativity* is a foundational element that is fundamental in generating original ideas, fostering critical thinking, and cultivating fresh perspectives.

It acts as a catalyst for innovation, where creative ideas are practically implemented to create value, and for entrepreneurship, which involves identifying opportunities, undertaking calculated risks, and mobilizing resources for new ventures. The multifaceted importance of creativity, innovation, and entrepreneurship in the present context is evident.

These elements are critical drivers of economic growth, facilitating the development of new industries, enhancing productivity, and stimulating job creation. Moreover, they are vital for maintaining competitiveness in an era of rapid technological advancements. Furthermore, creativity, innovation, and entrepreneurship contribute to social progress by addressing societal challenges and improving overall well-being. They also enable adaptability and resilience in an ever-changing world. Thus, encouraging and nurturing creativity, innovation, and entrepreneurship are indispensable for shaping a prosperous and dynamic society capable of effectively addressing present and future challenges and opportunities.

Creativity, innovation, and entrepreneurship influence the well-being and health of individuals in the workforce. Engaging in creative activities instills a sense of purpose and autonomy and fosters a profound sense of fulfillment, resulting in heightened job satisfaction and engagement. Innovation fosters a positive work environment by reducing stress levels and empowering employees through their involvement in decision-making processes. Furthermore, entrepreneurship provides individuals autonomy, personal growth opportunities, and financial security, enhancing overall well-being. Recognizing and nurturing these factors within the workplace significantly contributes to the well-being of individuals, leading to increased job satisfaction, engagement, and improved overall quality of life.

Abstract

Background: This study examines how creativity and motivation influence entrepreneurial behavior among Spanish workers, emphasizing the significance of cultivating these attributes in the workplace to foster organizational success. It also considers specific individual traits such as work enjoyment, professional efficacy, and emotional stability, which are hypothesized to be associated with creativity and motivation. Furthermore, this thesis investigates the correlation between creativity and workaholism, burnout, personality, obsessive beliefs, impulsivity, and irritation. It identifies the variables that significantly contribute to the substantial variation in predicting creativity. The primary objectives of this research are to assess the impact of these factors on enhancing creative aptitude, explore the predictors of entrepreneurial motivation, and examine the relationship between innovation and employee creativity.

Method: Three studies were conducted with a sample of 1,106 workers from Spain, obtained through non-probability sampling. To meet these objectives, instruments were applied to validate the results. **Results:** Study one found a positive relationship between creativity and work enjoyment, professional efficacy, functional impulsivity, and responsibility, with work enjoyment being the strongest predictor. The second study showed that promoting creativity and motivation can enhance employees' entrepreneurial behavior. Therefore, training programs should be aligned with organizational goals. The third study found that perfectionism, intolerance of uncertainty, and enjoyment of work were significant predictors of entrepreneurial motivation. **Conclusions:** The findings emphasize the significance of fostering creativity and motivation in the workplace to encourage entrepreneurial behavior and promote innovation and flexibility. The study suggests that the potential moderating role of these individual characteristics in the relationship between creativity and motivation and entrepreneurial orientation could be explored in future research.

Keywords: Creativity; Entrepreneurship; Personality; Impulsivity; Workaholism; Motivation

Resumen

Antecedentes: La presente investigación analiza el papel de la creatividad y la motivación como predictores del comportamiento emprendedor en trabajadores españoles, destacando la importancia de fomentar estos rasgos en el lugar de trabajo para impulsar el éxito organizacional. Se postuló que ciertas características individuales específicas, como el disfrute en el trabajo, la eficacia profesional y la estabilidad emocional estaban relacionadas con la creatividad y la motivación. Además, se explora la relación entre la creatividad y adicción al trabajo, agotamiento y otras variables de personalidad, identificando las variables que explican una mayor varianza a la hora de predecir la creatividad. El objetivo principal pretendía investigar el impacto de estos factores en el aumento de la actitud creativa, explorar los predictores de la motivación empresarial y examinar la relación entre la innovación y la creatividad de los empleados. **Método:** Se realizaron tres estudios con una muestra de 1.106 trabajadores españoles obtenido mediante muestreo no probabilístico y se utilizaron diversos instrumentos validados. **Resultados:** El primer estudio encontró una relación positiva entre creatividad y disfrute del trabajo, eficacia profesional, impulsividad funcional y responsabilidad, siendo el disfrute del trabajo el predictor más fuerte. El segundo estudio mostró que fomentar la creatividad y la motivación pueden mejorar el comportamiento emprendedor de los empleados, por lo tanto, los programas de capacitación deberían estar alineados con los objetivos organizacionales y en el tercer estudio encontró que el perfeccionismo, la intolerancia a la incertidumbre y el disfrute del trabajo fueron predictores significativos de la motivación emprendedora. **Conclusiones:** Los hallazgos subrayan la importancia de fomentar la creatividad y la motivación en el lugar de trabajo para fomentar el comportamiento emprendedor y promover la innovación y la flexibilidad. El estudio sugiere la exploración del posible papel moderador de estas características individuales en la relación entre creatividad, motivación y orientación emprendedora.

Palabras clave: Creatividad; Emprendimiento; Personalidad; Impulsividad; Adicción al trabajo; Motivación.

Resum

Antecedents: La present investigació analitza el paper de la creativitat i la motivació com a predictors del comportament emprenedor entre els treballadors espanyols, posant de relleu la importància de fomentar aquests trets a l'àmbit laboral per aconseguir l'èxit organitzatiu. També s'ha postulat que certes característiques individuals específiques, com gaudir del treball, l'eficàcia professional i l'estabilitat emocional, estan relacionades amb la creativitat i la motivació. A més, s'explora la relació entre la creativitat i addicció al treball, esgotament i altres variables de personalitat, identificant les variables que expliquen una major variància en la predicció de la creativitat. L'objectiu principal pretenia mesurar l'impacte d'aquests factors en el desenvolupament de l'actitud creativa, analitzar els predictors de la motivació emprenedora i examinar la relació entre la innovació i la creativitat dels empleats. **Mètode:** Es porten a terme tres estudis amb una mostra de 1.106 treballadors espanyols obtingut mitjançant mostreig no probabilístic i s'han aplicat diversos instruments validats. **Resultats:** El primer estudi, va revelar una relació positiva entre la creativitat i gaudir de la feina, l'eficàcia professional, la impulsivitat funcional i la responsabilitat, gaudir de la feina es va mostrar com el predictor més fort. L'estudi dos, va demostrar que fomentar la creativitat pot millorar el comportament emprenedor dels empleats, pel que els programes de capacitació haurien d'estar alineats amb els objectius de l'organització. L'estudi tres, va trobar que el perfeccionisme, la intolerància a la incertesa i gaudir de la feina eren predictors significatius de motivació emprenedora. **Conclusions:** Els resultats subratllen la importància de fomentar la creativitat i la motivació en l'àmbit laboral per fomentar el comportament emprenedori impulsar la innovació i la flexibilitat. L'estudi suggereix l'exploració del possible paper moderador d'aquestes característiques individuals en la relació entre la creativitat, la motivació i l'orientació emprenedora.

Paraules clau: Creativitat; Emprenedoria; Personalitat; Impulsivitat; Addicció a la feina; Motivació.

Chapter 1
Theoretical framework

1.1.- Creativity, Innovation, and Entrepreneurship (overall framework)

The heart and soul of business are described as creativity and innovation. It comprises aiming to do duties in a particular manner or engaging in many ways to give the entrepreneurs a unique combination of values. The advantage of creativity and innovation is that it enables state entrepreneurship to actively seek out possibilities to try new things or accomplish old things in new ways.

Consequently, whatever new pathways are forced by market conditions and consumer preferences, creativity and innovation empower and drive exceptional entrepreneurship in managing organizational operations, delighting consumers, and maximizing the value of all stakeholders (Adomako & Nguyen, 2023). Innovation is the process of putting creative ideas into action.

As a result, innovation provides a competitive edge for all organizations to survive, a way of predicting and addressing customer requirements, and a ma analogy. New connections, experiences obtained through excursions to various fields or locales, and active and collegial networks stimulate, according to Schumpeter (1934), the ideology of innovation is the driving force behind new demand and, as a result, new income. Established markets will be disturbed, and new ones will be formed, which will be replaced by even fresher products; as entrepreneurs ensure bring novel items to market and inventiveness produces new demand, it is generally; at work with innovation, creativity, and entrepreneurship in most of the world (Nwokebuife Onyinyechi et al., 2021).

There are three essential features of entrepreneurs in terms of economics and structure. This entails taking chances, inventing, and developing profitable new company initiatives. Entrepreneurship is a multifaceted concept that encompasses many distinct aspects. Due to its multi-dimensional character, scholars have been obliged to think about entrepreneurship differently and from diverse angles.

In the 18th century, entrepreneurs were seen as venture capitalists. In the nineteenth and twentieth centuries, entrepreneurship was seen primarily through the prism of economics and was not distinguished from management. As a result, an entrepreneur is defined as a person who conducts and controls a business for personal

gain and pays prices for goods used by the firm, such as assets, resources, and personal services.

This person is willing to risk generating a profit or losing money due tole and unforeseeable situations (Ringo et al., 2023). Throughout the 20th and 21st centuries, the definition of entrepreneurship has incorporated the concept of innovation.

Entrepreneurs are now seen as persons able to use innovation to disrupt industrial systems around the globe (Antonites & Van Vuuren, 2005). A businessperson who creates (builds), develops, and manages a business operation to earn or benefit from it is known as an entrepreneur. Singhal and Wiesenthal (2021) describe entrepreneurship as a person who employs risk-taking, creativity, invention, and the capacity to plan and schedule activities to put ideas into action to accomplish a specified objective (Knox, 2022).

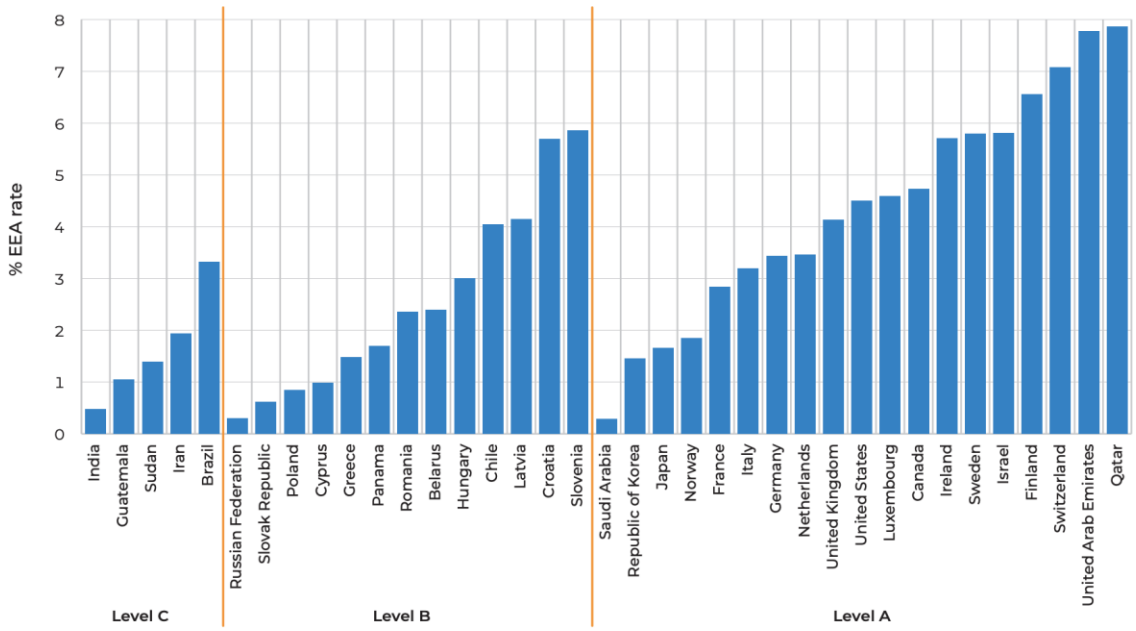
The critical question is, canning employees be entrepreneurial, and in a general phrase, how is the entrepreneurial situation in the world? The proportion of adults employed by others, such as significant firms and government agencies, can be considerable in some economies, particularly more developed ones.

Can these employees be called entrepreneurs even if they work for someone else? According to the Global Entrepreneurship Monitor report 2021-2022 (GEM 2021-2022), the answer is Yes by altering what it means to be an entrepreneur. GEM inquires of people who identify as employees if they participate in developing new goods, establishing a new business unit, and so on.

In other words, these workers are asked if they engage in the same activities as people who start or operate new enterprises as part of their employment. GEM classifies them as entrepreneurial employees if they confirm that they are. Employee Entrepreneurial Activity (EEA) is depicted in Figure 1 for the thirty-seven economies for which data is available for 2021 (GEM 2021-2022).

Figure 1

Employee Entrepreneurial Activity (EEA) (%adults); GEM 2021-2022



In Level A economies, EEA rates are often higher because well-paid workers may have a lot to lose if they start their firm and thus express their entrepreneurial tendencies in someone else's enterprise (GEM 2021-2022). Another factor is that these economies have a high concentration of fast-changing, technology-oriented enterprises, which provide plentiful and exciting chances for entrepreneurial personnel. The statistics must, however, be treated with caution.

This is because employment as a percentage of the adult population is more significant in those economies. According to a 2020 GEM APS data review, employment rates ranged from barely 12% of people in Togo and 20% in Angola to 70% of adults in Germany and 75% in Norway (Hill et al., 2021). As a result, EEA levels represent both the percentage of individuals employed and the likelihood of employees engaging in entrepreneurial activity. When comparing age groups, gender, and educational achievement, entrepreneurial engagement levels vary (graduates and non-graduates). These distinctions are significant because the lack of representation of some groups deprives the economy of prospective new firms and the trade and jobs y provide (Terjesen et al., 2013).

Supporting and encouraging under-represented groups to pursue entrepreneurship can boost the number of new jobs and wages while allowing manuals to achieve their entrepreneurial potential. As countries recover from the pandemic, inclusive entrepreneurship policies will guarantee that economies receive the benefits of maximizing entrepreneurial potential (GEM 2021-2022).

Differences in entrepreneurial activity rates across groups within an economy, on the other hand, are often far lower than those between economies. The national context, or entrepreneurship environment, appears to be a more critical factor in entrepreneurial activity than age, gender, or educational attainment (Terjesen et al., 2013). For the time being, it is sufficient to say that governments play a significant role in shaping and fostering that national context and that steps to improve the entrepreneurial climate may favor levels of entrepreneurial activity across all groups within that context.

Entrepreneurial activity is more significant in the younger (18–35) age group than in the older individuals in most of the 47 GEM-participating nations in 2021, while the differences are often slight. However, in five economies, the younger group had rates of entrepreneurial activity that were more than twice as high as the older group. While it is critical to assist young people in developing an entrepreneurial future for themselves and their economies, better support for older people starting new businesses could help to redress the balance by keeping more senior people in gainful and productive activities in society for more extended periods while also adding to the stock of new businesses (GEM 2021-2022).

In a tiny percentage of GEM economies in 2021, non-graduates had more excellent rates of entrepreneurial engagement than graduates. This shows that, in most countries, promoting and assisting individuals in pursuing higher education might be a practical approach to enhance the flow of new enterprises while also building human capital.

Employee entrepreneurial activity is often higher in Level A economies, not least because those countries have more significant percentage percentages of working-age persons. EEA levels have tended to diminish throughout the pandemic. However, more than half of the entrepreneurial personnel in two-thirds of the participating nations perceived new pandemic-led business prospects that were being

sought (GEM 2021-2022). Entrepreneurs' psychological capital, creativity, inventive behavior, and company performance were all improved by the first two elements; according to Gao et al. (2020), Entrepreneurs' creativity is the source of entrepreneurial activity in the creative industries.

Entrepreneurial creativity influenced people's tendency to start businesses favorably, but the association between neurotic and extroverted personalities and creativity was negative and U-shaped, according to their findings. In research on the relationship between the two, Henker et al. (2015) discovered that workplace stress and employee creativity are adversely associated, and creative self-efficacy is mediated. Shen et al. (2020) investigated how and when abusive supervision might harm employee creativity, concluding that the former has a detrimental impact on the latter. Furthermore, the creative role identity mediated the association between employee creativity and abusive supervision.

Gao et al. (2020) conducted a study to examine the relationship between entrepreneurial psychological capital and inventive deviant behaviors among employees. The study's results demonstrated a robust association between entrepreneurial psychological wealth and entrepreneurial success. Additionally, the findings indicated that imaginative abnormal behaviors were related to employees' work values and psychological empowerment.

Huang et al. (2020) discovered that during organizational learning of flexibility, startups should help raise their senior managers' environmental awareness to improve overall performance in ecological innovations, based on an analysis of the effect of ambidextrous learning on the performance of startups in environmental innovations.

The relationship between entrepreneurial psychological capital and deviant creative activities among employees was explored by Gao et al. (2020), with the findings revealing a solid correlation between entrepreneurial psychological wealth and entrepreneurial success. Additionally, the study found that deviant creative activities were linked to employees' work ideals and psychological empowerment.

Li et al. (2022) investigated the potential utilization of leaders' psychological capital to enhance employees' innovative behaviors. Their findings indicate a significant and favorable influence of relationship exchanges between leaders and members and the leaders' psychological capital on workers' innovative behaviors.

Similarly, Wilderom et al. (2023) found that entrepreneurs' psychological capital was crucial to aging work values and deviant creative behaviors. Chen et al. (2020) studied the impact of coping strategies on inventive talents in the aftermath of a company loss.

Their results suggest that coping combinations may improve creativity flexibility by modifying entrepreneurs' cognitive structures. De Dreu et al., 2011 investigated the relationship between dynamic team environments and entrepreneurial team inventions with their findings. Their findings indicate they can spur innovation by activating team members' agreement-seeking behavior and enabling knowledge integration within teams.

The relationship between compensation inequalities and company innovation efficiency was the focus of Gajdzik and Wolniak (2022), with their results showing that internal compensation discrepancies within the top management team had a significant and positive influence on corporate innovation efficiency. Aldabbas et al. (2023) explored the effect of entrepreneurial self-efficacy (ESE) on creative behavior, with their findings indicating a significant and favorable impact of ESE on entrepreneurs' innovative behaviors, with work satisfaction serving as a mediating factor between ESE and innovative behaviors across diverse cultural values (Nguyen et al., 2023).

1.2.- Innovation

1.2.1.- Innovation Definition and Existing Models

The conception and execution of ideas are both parts of the innovation process. As a result, creativity plays a role in the innovation process. Selling ideas, organizing sponsorship, acquiring the necessary resources, producing the invention, and exposing the innovation to the markets are all examples of idea execution (Axtell et al., 2010). Furthermore, in the study in 2018, Fetrati and Nielsen conducted detailed research on this topic, concentrating on distinct forms of innovation, as shown in Table 1, which summarizes the characteristics of the two types of innovation (radical and incremental) and their scales.

Table 1

Innovation types and scale (Fetrati & Nielsen, 2018)

Innovation types and scales	Description
Product Innovation	The concept of creativity in product innovation pertains to an innovative approach to augmenting the creative process in product design. Product innovations are oriented toward the market and heavily driven by client demand, encompassing the introduction of unique products or services introduced into the market to cater to customer needs (Cooper, 2008). Additionally, the commercial introduction of novel technologies or combinations of technologies aimed at fulfilling the requirements of a specific user or market can also be considered a product innovation (Utterback & Abernathy, 1975; Renzulli et al., 2021).
Process Innovation	Process innovation incorporates new elements into a firm's production or service operations to produce goods or deliver a service (Damanpour & Gopalakrishnan, 2002). The practical implementation of internally sourced process innovations requires establishing a robust flow of information to generate and integrate knowledge throughout the process, including concept formulation and implementation (Gopalakrishnan & Bierly, 2006).
Radical Innovation	Radical innovations embody modern technology, resulting in a new market architecture and introductions that cause discontinuity. An invention that produces disruption at the global, industry, or market level will inevitably result in trouble at the business and consumer levels. Radical innovations frequently do not respond to a known demand but instead, generate a want previously unidentified by the customer. This increased demand gives rise to new sectors, which include new rivals, businesses, distribution methods, and marketing strategies (Calantone & Garcia, 2002).
Incremental Innovation	The concept of incremental innovation refers to introducing new features, benefits, or improvements to existing technology in the market. This type of innovation can be achieved by adapting, refining, and improving current products and manufacturing and accesses (Dewar & Dutton, 1986). Incremental innovations are characterized by their minimal nature and low development risk, resulting in minor modifications or adjustments to existing technology.

When we look at the evolution of innovation paradigms, we may categorize them into three groups. The first is based on partial aspects such as user innovation (Hippel, 1994) and disruptive innovation (Christensen, 1997) advanced by American scholars; design-driven innovation (Verganti, 2009) and public innovation (Swann, 2014) submitted by European scholars; knowledge innovation run by Japanese scholars (Nonaka & Takeuchi, 1995); and imitation-based innovation introduced by Korean scholars (Lee & Kim, 2011) and secondary innovation by Nguyen et al. (2023).

Paradigms concentrating on the horizontal interaction and integration of components like knowledge, resources, and so on fall into the second group. The second group of paradigms, which includes OI by American scholars (Chesbrough, 2003), incremental innovation by Chinese scholars (Wilderom et al., 2023), and convergence innovation by Korean scholars (Lee & Kim, 2011), does not consider vertical integration and thus risks being overly open and lacking a core competence.

The third category includes European scholars' responsible innovation and public innovation (Nicholls & Murdock, 2012; Owens et al., 2004; Stilgoe et al., 2013), Indian scholars' Jugaad innovation (Radjou et al., 2012), and Chinese scholars' embracing innovation (Bresciani et al., 2021). These scholars focus solely on innovation's conceptual, cultural, or societal aspects, ignoring the importance of technological factors.

Existing innovation paradigms seek to explain the innovation process from the viewpoints of distinct innovation behaviors, approaches, or different facets of innovation, among other things. However, they must maintain an atomistic inventive thinking mindset. New goods, new elements, new techniques, new processes, and new ways of organizing are not dependent on individual improvements or upgrades, nor are they spontaneous, but rather are the outcome of organized innovation (Cope, 2011).

In the book, The Big Future of Management, Hamel (2008), the modern management guru, developed an original four-level model that includes technology innovation, operational innovation, strategic and business model innovation, and management innovation, which calls for a greater emphasis on strategic design for innovation in terms of critical leadership and creating value. From a consultancy viewpoint, Dodgson et al. (2014) state that holistic thinking is essential for knowledge workers to properly harness both sides of the brain properly, predicting the necessity

of strategic integration for businesses.

Furthermore, these three conventional innovation paradigms lack Eastern philosophy's long-standing global concept of general thinking, unity of opposites, organic integration, and dynamic evolution (Chinese traditional culture, Buddhist wisdom, etc.) (Aquilani et al., 2020). They fail to embody the Yin-Yang evolution's active integration, Taoism's advocated harmony between man and nature, Confucianism's advocated middle course (Zhong Dao) philosophy, the concept of harmonious but different (He Er Bu Tong), and the overall strategic concept introduced by the ancient Chinese book Art of War (Tzu, 2005).

Additionally, considering the shortcomings of existing innovation paradigms in the Chinese setting and drawing on the benefits of Eastern philosophy and traditional Chinese culture suggested (Christensen, 1997) a new paradigm of innovation, Holistic Innovation (HI), which is holistic and collaborative innovation driven by a strategic vision in an era of strategic innovation, to achieve a durable and competitive advantage (Lee & Kim, 2011). Holistic Innovation Management is an innovative management concept based on HI (HIM) (Chen et al., 2020).

1.2.2.- Different fundamental innovation paradigms in the world

1.2.2.1.- User-driven Innovation Paradigm.

There is no one-size-fits-all strategy for summarizing user-driven innovation techniques (Hippel, 2005; Buur & Matthews, 2008). The Danish Enterprise and Construction Authority's division (Nordic Innovation Centre, 2010) gave an example of a summary for research and analysis concentrating on formulating business and innovation policy suggestions.

It established a four-part user-driven innovation framework: customer tests, user exploration, user involvement, and user invention (Aquilani et al., 2020). User innovation occurs when businesses actively include specialists or advanced users in essential stages of the innovation process. Users are often better educated about certain aspects of products or services (Hippel, 2005; Nordic Innovation Centre, 2010). As proposed by Hippel (2005), user innovation suggests that individuals can develop products and solutions independently rather than simply providing feedback to

specialized producers. As introduced by Hippel (2001), the lead user method is a specific approach within the user innovation category that involves identifying users ahead of the curve in their investment of time and resources to create eventually commercialized solutions.

Companies can benefit from lead users by obtaining valuable insights, which can assist in overcoming the challenge of accessing and utilizing sticky information (Hippel, 1994). The use of innovation toolkits is another aspect of user innovation strategy, as discussed by Hippel (2001), Jeppesen (2005) and Piller and Walcher (2006). These toolkits allow users to design products with desired features and characteristics. In industries where user demands are rapidly changing (Hippel, 2001), innovation toolkits can be a valuable resource for users and manufacturers, as it may be difficult for manufacturers to keep up with changing user needs.

Moving forward, the field of user-driven innovation must encompass a more comprehensive understanding of user heterogeneity and a more systematic approach to utilizing technology as a facilitator for innovation rather than just a market offering. Technology should be viewed as a driver of innovation, offering real-time analytical capabilities for processing larger volumes of data and providing platforms for participatory and interactive aspects of the innovation process. There are various forms of innovation, each with advantages and drawbacks for businesses and companies. Effective implementation of these innovations requires different management approaches (Le & Ikram, 2022).

1.2.2.2.- Open Innovation and Value Co-creation Paradigms.

The contemporary perspectives on the Open Innovation paradigm call for integrating a more diverse range of entities, including businesses, universities, and public and private research and technology organizations. This paradigm has garnered attention from corporate leaders and scholars, who have raised relevant questions and sought solutions (Aquilani et al., 2020). The Open Innovation approach is adopted by companies that commercialize external and internal ideas by utilizing internal and external channels to reach the market (Chesbrough, 2003).

Chesbrough and Crowther (2006) elaborate on the concept of openness by asserting that Open Innovation involves two-way flows; the first is inbound Open Innovation, which consists in leveraging other people's innovations, and the second is outbound Open Innovation, where companies seek external organizations with business models that are more appropriate for commercializing a given technology than the company's current business strategy.

Batool et al. (2023) indicate that in the context of Open Innovation, some organizations require external information and incorporate it into their operations, while others need external markets for their existing ideas. At its core, Open Innovation involves enhancing internal capabilities by supplementing them with external inputs and identifying potential new sources of revenue from initiatives that no longer align with the company's strategy.

Pisano and Verganti (2008) distinguish between completely open collaboration, in which anybody may join (as seen, for example, in crowdsourcing), and closed networks, in which (typically) a corporation or established consortia selects and includes participants in the inventive activity. The first network innovation involving firms, university researchers, and others has grown in popularity, and many corporate laboratories have become more open to other types of collaboration Pisano and Verganti (2008). Nonetheless, the latter method is still widely regarded as the primary source of evidence supporting open innovation approaches.

Customers and end users may actively design and develop bespoke goods, services, and experiences through value co-creation, a growing business, marketing, and innovation paradigm (Prahalad & Ramaswamy, 2004; Etgar, 2008; Payne et al., 2008). It is built on the design and development of consumer involvement platforms, which provide businesses with the technology and human resources, tools, and procedures to profit from individuals' and communities' engagement experiences as a new source of value generation. Customers and end users can actively participate through various engagement channels, which are technical platforms accessible via the Internet (Sawhney et al., 2005; Nambisan & Nambisan, 2008; Nambisan & Baron, 2009).

Customers have become more engaged, informed, internationally aware, and

eager to employ interactive virtual environments to customize current and design new products and services as information and communications technologies (ICT) have advanced. A vital aspect of the value co-creation concept is the multiple channels of open engagement and discussion between the company and its customers, the firm and its suppliers and partners, the different consumers, and the customers and the firms' suppliers and partners (Aquilani et al., 2020).

The introduction of the value co-creation paradigm provides businesses with unprecedented potential to deal with the effects of ongoing globalization processes, such as a considerably quicker rate of technology change, the need to be more inventive and, therefore, more competitive by accessing and managing internationally distributed resources; and the need to improve their worldwide competitiveness by addressing diverse markets and diversified consumer wants (Prahalad & Krishnan, 2008).

Value co-creation platforms' capacity to personalize new products and services threatens traditional marketing's operational regime by shifting it to a new service-dominant rationale (Vargo & Lusch, 2004); this redefines the parameters of conventional market segmentation strategies and allows businesses to serve a larger market with a greater level of customer satisfaction (Hippel, 2005). Finding answers to the company's challenges and gaining the latest information and skills are the primary benefits of communities in co-creating innovations. This is made possible by the open innovation project participants sharing their ideas (Martin & Moodysson, 2013).

The new prevailing marketing logic necessitates a fresh look at the structure and dynamics of the whole value generation system (Hearn & Pace, 2006). Such a perspective encourages a new understanding of conventional value networks' customer centricity, which are now viewed dynamically as people-driven webs of prospective value configurations that might be actualized in response to unique consumer requests (Normann & Ramirez, 1994; Flint et al., 2001; Gattorna, 2009).

Developing appropriate technological infrastructures capable of seamlessly integrating contributions from globally distributed resources to real-time analytics information and flexible business processes is required for dynamic recognition and alignment with highly heterogeneous customers and customer groups (Prahalad & Krishnan, 2008).

As a result, technology has a dual purpose in value co-creation: it can be a component of specific goods and services. It also serves as a crucial enabler of co-creation experiences regardless of the industrial sector or the nature of the products and services (Martin & Moodysson, 2013). To put it another way, it is becoming even more prevalent than before, but in a hugely different setting.

The concept of value co-creation extends the scope of interactions to encompass a broader ecosystem of capabilities, positively impacting the overall society in which individuals reside and operate (Ramaswamy & Ozcan, 2014). The traditional approach to value creation, characterized by independence and a closed-door mentality, has evolved into an interactive and dynamic one (El-Kassar et al., 2022).

This shift has transformed the science, technology, and innovation ecosystem from a push-based to a pull-based system, which allows for integrating value sources from both internal and external sources. The active participation of individuals in forming informal relationships that eventually develop into interactions is a prominent characteristic of this sector. This can be observed in the proliferation of engagement platforms where individuals actively share, enhance, and create added resources and knowledge (Aquilani et al., 2020).

1.2.3.- Innovation Performance

1.2.3.1.- Open, Economic, and Sustainable Innovation Performance.

The practical implementation of innovative ideas from organizational processes involving the combination of various resources is characterized as innovation (Dodgson et al., 2014). This blending of resources is a multi-stage process that results in better or innovative goods, services, or procedures that allow businesses to stand out from the rest (Baregheh et al., 2009). This multi-stage approach in the context of open innovation involves engagement with external stakeholders (Chesbrough, 2003; Gassmann et al., 2010), who represent sources of knowledge that may contribute to corporate innovation initiatives.

Finally, such alliances sound familiar if they pay off and serve as catalysts for enterprise innovation performance. Traditionally, success has been judged in revenue and margin increase, market share, or customer happiness, emphasizing the economic

performance aspects of innovation initiatives (Adams et al., 2006; Griffin & Page, 1993; Manion & Cherion, 2009). However, the impact of innovation activities on the economic success of the innovation program fails to account for other performance aspects, such as reductions in environmental pollution or resource efficiency, even though these sustainability aspects are becoming increasingly important because of the growing demand for sustainable products and changing legal requirements (Rauter et al., 2017).

Such sustainability innovations are described as the development of products, services, and processes that have a lower negative environmental and higher social effect across their whole life cycle compared to similar alternatives and consider the demands of future generations (Hall & Vredenburg, 2003; Kemp & Pearson, 2008). As a result, evaluating innovation success must also consider the environmental and social aspects of creative outputs.

The geographical borders of collaboration are blurring as economies increasingly develop their digital infrastructure. More global knowledge can be made available fast via digital technology (Audretsch & Belitski, 2016). Since corporations are restricted in their ability to absorb essential information and capabilities, it has been suggested that open innovation activities involving various cooperation partners favorably affect a company's innovation performance (Chesbrough, 2003; Michelino et al., 2014). External information aids in maintaining a company's competitiveness (Brettel & Cleven, 2011).

According to empirical studies, collaboration with consumers, universities, and suppliers has previously been linked to improved new product development success (Brettel & Cleven, 2011; Inauen & Schenker-Wicki, 2011). Stefan and Bengtsson (2017) worked with eight partners to study the impact of appropriability mechanisms and openness depth on two categories of innovation performance (efficiency and novelty) at various phases of the innovation process.

In addition to the dominant set of open innovation partners (customers, suppliers, competitors, universities, experts) proven in previous research (Brettel & Cleven, 2011; Chesbrough, 2003), it has used the stakeholder approach (Freeman,

1984; Gould, 2012) to identify additional potential collaboration stakeholders in the firm's environment (intermediaries, NGOs, communes, public institutions) and suggest that their integration has a positive economic performance impact. In innovation, collaboration with external partners appears crucial regarding social, organizational, and ethical challenges (Fitri et al., 2023; Hindi & Frenkel, 2022; Hossain, 2010).

The most critical skills enabling enterprises to execute sustainability innovations are high degrees of external integration of consumers, suppliers, and research institutions, among others (Carrillo-Hermosilla et al., 2010; Fitri et al., 2023; Lee & Kim, 2011; Lozano, 2007), while partners like local communes, intermediaries, and non-profits may also assist in promoting market acceptance of innovation outcomes (Achterkamp & Vos, 2006; Bommel, 2011; Niinimäki & Hassi, 2011). Sustainability innovations may require diverse skills, input, and public acceptability, in addition to the previously well-known collaborating partners, such as universities or clients.

As a result, it is appropriate to seek additional partners from a company's ecosystem (Rauter et al., 2017). According to prior open innovation research, customers, suppliers, competitors, experts, universities, intermediaries, communes, public institutions, and NGOs qualify as potential collaboration partners to achieve SIP (Brettel & Cleven, 2011; Chesbrough, 2003) and the stakeholder approach (Freeman, 1984). However, the importance of additional collaboration partners to SIP has yet to be addressed entirely (Hossain, 2010; Muammara & Maker, 2022).

Apart from the strategic choice to actively seek out and engage with innovation partners in response to mounting demands, it is unclear if such partnerships pay off or whether the function of innovations in encouraging better levels of sustainability is critical (Crossan & Apaydin, 2010; Dangelico & Pujari, 2010; Horn & Brem, 2013; Snider et al., 2003). While many businesses may have gained expertise with open innovation, managing sustainability innovations may be a new but distinct difficulty.

According to previous research, collaboration with external partners is helpful in terms of sustainable product and service innovations (Hindi & Frenkel, 2022). However, the necessary financial and time commitments and the hazards of imbalanced innovation portfolios must be considered. Economic and sustainability-related results, as previously stated, are distinct performance characteristics of a firm's

innovative operations. Prior study into the financial and sustainability performance relationship has shown mixed results. Some scholars, for example, have suggested a neutral or positive link, underlining the importance of companies including social and environmental performance measures in their profit targets (Ekvall,1996; Suherman & Vidákovich, 2022).

Others have claimed that to achieve sustainability goals, businesses must make trade-offs by accepting reduced earnings and margins (Divito & Bohnsack, 2017; Kuckertz & Wagner, 2010). Notably, the researchers looked at this association at the operational business level rather than at the level of the firm's innovation efforts.

As a result, modifications in current goods and processes to improve sustainability outcomes are likely to need extra expenditures without yielding significant new revenues or cost savings, leading to a neutral or negative connection between the firm's economic and sustainability performance as well as traditionalists and revisionists addressed sustainability improvements from opposing perspectives (Le & Ikram, 2022).

However, because new products, services, and processes are still in development during the innovation process, they can (a) incorporate the ideas, concerns, and knowledge of multiple stakeholders with lower or no adaptation costs because no prior investments are cannibalized, and (b) incorporate the ideas, concerns, and knowledge of multiple stakeholders with lower or no adaptation costs because no prior investments are cannibalized. Suppose similar open innovation approaches and cooperation partners may be used to achieve economic and sustainability innovation goals. As a result, rather than a trade-off, it is plausible to anticipate a synergy between the two innovation performance characteristics (Rauter et al., 2017).

1.2.4.- Evolution of Regional Innovation System (RIS)

1.2.4.1.- Regional Innovation System (RIS) Approaches.

While innovation rhetoric may appear omnipresent, innovation patterns remain concentrated in specific locales and localities, typically epitomized by Silicon Valley's epicenter of technological upheaval (Saxenian, 1996; Deku et al., 2023; Pfotenhauer et

al., 2019). Creative sectors are typically concentrated in small metropolitan regions and play a key role in city dynamics (Antonczak & Burger-Helmchen, 2022). Although it is widely understood that agglomeration and physical closeness are essential for creativity, it is also well acknowledged that these linkages are not always beneficial and are more subtle and multidimensional than often imagined (Morgan, 2004; Boschma, 2010).

The significance of agglomeration and proximity in the geography of innovation has been widely acknowledged in academic literature. This recognition can be traced back to the early 1920s when Alfred Marshall first discussed the agglomeration benefits of industrial districts (Asheim, 1995). The concept was later rediscovered by Italian theorists of the 'Third Italy' (Hadjimichalis, 2006), popularized by Michael Porter's work on clusters (Porter, 2000), and translated into tactics of place-making for the creative class (Florida, 2004).

Spatial environments that foster the development of new products and services, as well as new methods for organizing the production and distribution of goods and services, are characterized by dense knowledge pools, extensive networks and linkages, and supportive institutional environments for risk-taking and entrepreneurship (Asheim & Gertler, 2005).

The Regional Innovation System (RIS) approach constitutes a culmination of numerous studies conducted over the years on the topic (Cooke et al., 2007; Doloreux, 2002; Asheim & Coenen, 2005; Isaksen et al., 2017; Asheim et al., 2020). The RIS method perceives innovation as a relational, social, and networked phenomenon encompassing the participation of significant players such as businesses, their supply chains, governments, and universities, with institutions exerting a considerable influence on their actions.

As an organizing framework, the RIS approach helps to outline and map the place-based structures that shape innovation in a particular location and facilitates the identification of proximity benefits. However, in the early 2000s, the original RIS viewpoint was criticized for being overly limited in its spatial perspective (Bunnell & Coe, 2001; Bathelt et al., 2004) and increasingly provincial in its analytical scope

because of globalization processes. As a result, the role of non-local network linkages and the involvement of extra-regional institutions has gained prominence in regional innovation system research (Cooke, 2007; Moodysson et al., 2010; Martin & Moodysson, 2013).

The robust critique of the one-size-fits-all models in the RIS approach (Tödtling & Trippl, 2005; Coenen et al., 2017) has been a significant strength, as it proposes a paradigm that reflects the contextual, place-based aspect of innovation processes that often manifest as distinct typologies (Cooke, 2007; Asheim & Grillitsch., 2015).

The EU'sintelligentt specialization strategy (Camagni & Capello, 2013; Coenen et al., 2017; Morgan, 2004) has increased the RIS method in policy circles (Camagni & Capello, 2013).

To be eligible for EU cohesion policy funds, all regional authorities are required to have regional development policies in place that are customized to the unique circumstances for innovation-based growth in their region. The smart specialization strategy is consciously designed to avoid the general, place-blind policy mobility that can sometimes result in misguided attempts to establish high-tech facilities in areas where they are not suited (Barca et al., 2012).

The Regional Innovation System (RIS) approach has emerged as a crucial tool in comprehending the unique conditions for innovation in each region and coning place-sensitive strategies for developing innovative specialization plans. The RIS approach has proven to be an invaluable tool in understanding the dynamics of regional innovation. Its development is a testament to the evolution of conceptualizing the geography of innovation and how it has adapted to the changing information flow patterns brought about by globalization (Coenen & Morgan, 2020).

There are still disagreements and debates in the field of innovation geography. As highlighted by Shearmur et al. (2016) recently published a handbook on the geographies of innovation, various points of contention keep the field from becoming a unified, homogeneous body of knowledge but one that highlights its pluralism and heterogeneity. Six issues of view are identified in his handbook:

1. What is the best appropriate research topic or unit of analysis for innovation geographies? Is it a geographical unit like a region or a cluster, or is it the inventive agent, usually a firm?
2. What are the benefits of studying innovation geographies? Is it to learn about and inform individual agents' locational innovation strategies, as economic geographers at business schools are increasingly doing, or is it to learn about and inform innovation-based local and regional development?
3. What kind of innovations should be investigated? Is it large-scale incremental innovation that decides business adaptability and survival, or is it a new-to-the-world invention that is frequently extremely visible and impactful?
4. Can the theory of 'successful' inventive regions be expanded to the non- successful areas?
5. Should we prioritize the production of innovative ideas or the spread of creative ideas? What does this say about the link between creative value generation and capture?
6. How much are our beliefs about innovation geographies influenced by their geographical and temporal context? Is there a preference for the Global North? Why are we preoccupied with innovation in the cities while neglecting innovation in the peripheries?

While answering these questions would undoubtedly result in highly insightful and resourceful findings on the geography of innovation that would be of interest far beyond the disciplinary realms of geographers and the academic concerns of researchers alone, a fundamental question that needs to be addressed is Why innovation?

The edited articles by Shearmur et al. (2016) primarily center around the mainstream economistic argument for innovation, which posits that it fosters growth, creates jobs, and enhances competitiveness. However, with few notable exceptions, the volume needs an in-depth exploration of the beneficiaries of innovation. By using Shearmur et al. (2016) as a case study, it becomes evident that the literature on the geography of innovation has been limited by its focus on the circumstances for innovation, and its inclination towards a specific type of innovation, namely market-

based, technology-driven innovation, as representative of the broader body of research in this field (Coenen & Morgan, 2020). This bias urges us to reexamine how this restricted scope has shaped our understanding of the geography of innovation. Moreover, broadening our comprehension of the concept of innovation and its significance enables us to consider where it occurs and transpires in certain places rather than others (Coenen & Morgan, 2020).

1.2.5.- Innovation Compass and Innovation Spaces

1.2.5.1.- Incremental and Radical Innovation.

The field of innovation research continues to grow. As a result, the innovation compass has become a popular self-audit tool for firms looking to detect unanticipated issues and create a strategy to enhance their new product development (NPD) process (Radnor & Noke, 2009; Tidd & Bessant, 2018). Tidd and Bessant (2018) introduced the 4Ps Innovation Compass, which guides exploring essential themes, tools, and innovation-related activities. The model classifies innovations based on their level of originality, including product, process, paradigm, or position, on a spectrum ranging from incremental to radical innovation.

Incremental innovation refers to improving existing products, processes, paradigms, or positions, whereas radical innovation involves introducing new products, methods, paradigms, or situations (Tidd & Bessant, 2018). The 4Ps Innovation Compass highlights that innovation can occur at any point between incremental and radical innovation. The spectrum of novelty is the most important criterion for differentiating between diverse types of innovation (Tidd & Bessant, 2018).

Irrespective of whether innovation is incremental or radical, it serves as a means of obtaining a competitive advantage for a company (Soltanifar et al., 2020). Additionally, the innovation compass assesses the firm's capacity to implement strategies and the speed at which they can be adapted, examining the new product development process, resource allocation, internal and external communication, and leadership. Radnor and Noke (2009) have presented a framework for nurturing innovation through development.

Inner and outer rings make up the structure. The compass's inner circle depicts

the company's structure, teams, output, and leadership. The inner circle allows the firm to compare itself to its competitors on a quantifiable basis. The social, economic, political, and competitive context in which the firm works' is envisioned in the compass's outer circle (Radnor & Noke, 2009).

The literature on innovation is extensive, resulting in several definitions and forms of innovation. For the sake of this chapter, we will describe the two most prevalent conditions of innovation based on their novelty and size, such as incremental and radical innovation, which may be considered opposing extremes of a novelty spectrum (Nambisa & Baron, 2009). We use the term magnitude to describe the degree of originality that innovation provides. In general, incremental innovation involves minor adjustments to current routines and practices whereas radical innovation involves significant changes to the organization's existing processes (Duan et al., 2020).

The concept of incremental innovation is the subject of various definitions. One such definition describes incremental innovation as a level of originality that is less radical and represents the gradual improvement of existing knowledge, abilities, or technologies (Chan & Parhankangas, 2017). As a result, incremental innovation can be perceived as a source of competitive advantage in the business world. It enables partners to comprehend the underlying mechanisms more easily, facilitates greater job specialization, and reduces the risk of information leaking and opportunistic behavior (Bouncken et al., 2017). Another definition views incremental innovation as a modification that involves gradual modifications to the established norms (Cammarano et al., 2019) and is sometimes referred to as a gradual or step-by-step approach.

Similarly, the concept of radical innovation, or discontinuous or breakthrough innovation (Crossan & Apaydin, 2010), has been depicted through various definitions over the years. According to Nabi et al. (2018), radical innovations are characterized by innovations that introduce new functionality, new materials, or materials methods, significantly altering or disrupting the existing organizational structure, strategy, context, and usage.

Chan and Parhankangas (2017) also note that radical innovations differ from what is typically observed in the product market or a new product category. Despite

the various definitions, the effect of change on an organization's resources or technology is a standard feature. As a result, when a new product, service, process, or strategy is introduced into the market, it completely replaces the prior technology and techniques, leading to a substantial impact (Naranjo-Valencia et al., 2016).

As a result, when a new product, service, process, or strategy is launched into a market, it entirely replaces previous technology and techniques, resulting in a significant impact (Tidd & Bessant, 2018).

1.3.- Creativity

1.3.1.- Definition and Concept

Creativity is a complex and captivating phenomenon that is challenging to articulate due to the obscurity surrounding its meaning and the absence of a universally accepted definition (Andriopoulos, 2001). Guilford (1950) was one of the early pioneers to define creativity as the abilities emblematic of individuals with creative tendencies. This definition became prevalent during the 1950s and continues to be utilized by contemporary experts in the field of creativity (Amabile et al., 1996). Despite the uniqueness of an individual's creativity, the full potential is realized when the creative process is effectively utilized within organizations (Cook & Yanow, 1993).

The concept of creativity has been widely theorized and interpreted in diverse ways. Amabile (1997) defines creativity as generating novel and appropriate relevance within any realm of human pursuit, ranging from the arts, science, education, business, and daily life. The produced ideas must possess origin and practicality in response to the opportunity or challenge.

According to Ford (1996), creativity is perceived as a domain-specific, subjective evaluation of the originality and value of an outcome resulting from a specific activity. In addition, Amabile et al. (1996) described creativity as the formation of unique and valuable concepts across all domains. On the other hand, Cook and Yanow (1993) posits that creativity encompasses developing innovative methods with little emphasis on practical application (Amabile et al., 1996).

Drazin and Kazanjian (1999) conceptualized creativity as a process involving participation in creative activities, regardless of the degree of originality, uniqueness,

or utility of the produced results. Dewett (2007) defined creativity as individuals' or groups' generation of innovative and advantageous concepts, techniques, or products. As such, academic consensus holds that creativity encompasses creating something that embodies originality and practicality. Developing novel and valuable ideas or problem solutions is widely regarded as an expression of creativity (Sternberg & Lubart, 1998; Dewett, 2004; Nguyen et al., 2023).

Some definitions place a premium on intellectual effort and mental processes that result in creative solutions to issues. A set of reports focuses on people's academic ability and personality attributes (Huang et al., 2020), while others focus on the goods regarding creative outputs and features (Martins & Terblanche, 2003). On the other hand, creativity has been viewed as a mental capacity, a process, and human behavior in many ways (Andriopoulos, 2001).

There are two aspects to creativity. The first dimension is the concept of novelty, a phenomenon in everyday life; therefore, anybody may be creative as an essential component of contributing to the corporate environment, and everyone must be active in creative processes. The second level is the usefulness concept, which refers to actual or practical techniques for evaluating the utility of the latest ideas (Shalley et al., 2004).

Although there is no consensus on where creativity belongs in a process, a product, or a person, there is consensus on creative activity containing novel and valuable notions (Hindi & Frenkel, 2022). It must be understood that the range and scope of human creative output from Picasso to Frank Lloyd Wright – is unparalleled among animal species. Even commonplace human behaviors like the creation of representational art may be recent evolutionary breakthroughs (Aldabbas et al., 2021).

Creativity is believing in fresh ideas and turning them into reality through new products or services businesses offer (El-Kassar et al., 2022). It is founded on unique and beneficial ideas, independent of the sort of ideas, the motivations for their creation, or the moment at which the process begins (Unsworth, 2001). Creativity may be defined as a mental process that generates new and beneficial thoughts or ideas, or it can be defined as creative connections between existing concepts or ideas (Houran et al., 2002).

The value of creativity in problem-solving and increasing efficiency has been well-documented in the literature (Diliello & Houghton, 2008). The foundations of creativity lie in problem-solving and problem-finding, requiring diverse skills and abilities (Barnett, 2017). Creative thinking also differs from traditional thinking, which involves altering or abandoning ingeniously established beliefs (Westwood & Low, 2003). According to Dewett (2004), individual creativity can be divided into creative attempts and outputs.

There are three different sorts of creativity: making something new, merging things, and enhancing or modifying things (Al-Ababneh, 2020). It is a critical phrase in many areas, including fine arts and architecture, psychology, sociology, economics, science, engineering, and management. In addition to the tangible qualities or evident characteristics of these items or services, the application in marketing may give value to them (Sadi & Al-Dubaisi, 2008).

1.3.2.- Creativity Theory and Creative Thinking

According to (Amabile, 1997), the componential theory of creativity states that every individual can do at least little creative work and that several elements like working environment and time may influence the amount and frequency of creative activity. According to this idea, individual creativity consists of three fundamental components, each required for originality in every setting.

The three are specialization or domain capabilities, creative thinking capabilities, and intrinsic task incentives (Li et al., 2022). Creativity happens when an individual's talents combine with a solid intrinsic drive, resulting in more creativity when each of the three parts is at a higher level. Individuals also range in their levels of creativity components (Amabile et al., 1996). While personality plays a significant part in intrinsically motivated, the social environment can influence an individual's innate drive at any moment (Amabile, 1997).

As a result, creative people produce unique ideas or new processes to carry out their tasks, and those who reconfigure old techniques into new alternative approaches (Perry-Smith & Shalley, 2003). If you have the personality features of a creative person, you may have a superior level of creativity. Curiosity, enjoyment, personal challenges, self-expression, and interest are examples of intrinsic motivation in individuals

(Amabile, 1997).

Intrinsic motivation is the primary characteristic of creative people, and as a result, creative people are more likely to pursue intrinsic motivation, whereas extrinsic incentive tends to stifle creativity (Runco, 2004). Expertise is a combination of intellectual, procedural, and technological expertise. Furthermore, because expertise is considered the foundation of creative work, creative individuals do not generate fresh ideas out of thin air but rather from domain-relevant knowledge and established abilities (Simonton, 2000).

Proficiency in any profession is required to generate existing ideas instead of present concepts, thus necessitating a prior understanding of that activity. Individuals' cognitive styles refer to identifying issues and proposing solutions for those difficulties and their capacity to combine existing concepts to create new amalgamations (Taylor, 1989). As a result, cognitive style reveals an individual's inventiveness and flexibility in dealing with challenges (Yesuf et al., 2023).

To summarize, the relevant research suggests there needs to be a consensus on where creativity is found in a process, a product, or a person. Creativity might range from a minor tweak to a complete overhaul. It is typically defined as generating helpful ideas or solutions to problems. Individuals with creative personality qualities may have elevated levels of creativity, so creativity has been viewed as a mental skill, a process, and human behavior in many ways (Li et al., 2022). Recognizing creativity as a functioning unit of notions needs to resolve the issue of appropriateness.

Each thought revolving surrounding creativity can have its own contextual and argumentative setting. 'Innovation' has lately been a famous phrase in the worldwide expansion of the intellectual economy (Peters & Araya, 2010) and cognitive capitalism (Boutang, 2007). The act of creating something new from the outcomes of ideas, descriptions, concepts, experiences, and information is known as creative thinking. Students require not only the ability to generate and create ideas but also the ability to think creatively (Suherman & Vidákovich, 2022). The Role of Universities in Local Innovation Processes (Le & Ikram, 2022), a recent report, bears witness to this fact in its content and reference list, with the term innovation appearing in the names of one-third of the sixty items.

Creativity has peculiarities, which are especially apparent today that the creative arts are receiving more notice. Furthermore, creativity is progressively being dragged from the domains of culture and sociality into the mechanical and financial worlds (Peters & Araya, 2010; Florida et al., 2008), with the subversive notion of the creative economy lately appearing. As a result, the creative arts (as a symbol) are now recognized as a powerful influence in the global economy (with many sectors in the arts having a worldwide economic footprint). In summary, we deal with dialectical structures fighting for position and stomping on one other's metaphorical toes (Escobar et al., 2023). Various forms of life and networks of unequal power in an uneven world have found a home in creativity and invention.

1.3.3.- The Idea of the Creative University

Considering the preceding debate, the creative university concept is still being determined and controversial. In the modern world, the other discourse—finance, economics, global cognitive capitalism, and the digital environment—certainly weigh more strongly than human well-being and cultural thriving (Peters & Araya, 2010). We may explain how the motif of innovation is colonizing that of creativity in this way: creativity is not defeated, but it is hijacked by innovation for the latter's instrumental aims, and therefore the idea of creativity as having intrinsic worth is reversed (Li et al., 2022).

However, there is a preparatory problem that must be managed here. Is creativity a trait that may be stated to be associated with a social institution? As far as Wilderom et al. (2023) are concerned, the fundamental question of whether a psychological category can be raised to a collective and institutional level needs to be revised. However, it is still a problem that must be addressed. Individuals, activities, and methods can all be considered creative, but a university. Creativity refers to human beings developing new conceptions of their capabilities in certain circumstances; therefore, witnessing creativity in activities and processes in which humans are involved is not unusual (Barnett, 2017).

On the other hand, a university is characterized by its size, thousands of individuals, and involvement in so many divergent activities that words like multiversity and mega university have been proposed to convey some of its loosely

connected nature. The elusiveness of the creative university is true. When we speak or think about the university, it is sometimes difficult to tell whether we are discussing the university as an entity or a concept (Barnett, 2017). Moreover, these two aspects of the university may be at odds with one another: a university as an institution may lag or even outperform, say, the university's dominant set of modern ideas (Suherman & Vidákovich, 2022).

In this case, university ideas may be creative even if the university as an institution is dormant; or formally expressed university ideas are static even if there is much practical innovation in universities. The idea that the creative university is immersed in multiplicities (Dewar & Dutton, 1986) is a modern method of commenting on these issues. In social principles and concepts, the term multiplicity has become popular. The creative university, moreover, has limitless possibilities. The university may be creative in many ways, on various levels, and in pursuit of or fulfilling multiple values.

As a result, creativity may be plotted and comprehended at various levels of the university as an institution (Montuori & Donnelly, 2018), as well as analyzed against the university's blueprint of ideas, which can be viewed as providing critical criteria against which any patterns of creativity can be assessed. In what follows, it is suggested that the notion of creativity operates on five levels of the university (Bhaskar,2008), with these socio-theoretical and conceptual issues simmering, as well as a sense of its blended, procedural, organizational, and value elements (and so is fully realized only when creativity is present on all five levels).

1.3.3.1.- Intellectual and Pedagogical Creativity.

Academic innovation is most visible in the intellectual and professional realms. The research activities of a university would reflect this innovation. Its academics would not only secure and manage research studies (not just empirical studies, but also more intellectual inquiries) as scientists, but they would also show many levels of creativity in those tasks (Barnett, 2017). In developing new types of perception from fieldwork or lab work, fundamental breakthroughs in research procedures, instruments, and technologies, or the establishment of new kinds of insight from fieldwork or laboratory work. This inventiveness offers entirely new realms (Corazza &

Glăveanu, 2020). There are several levels of creativity, ranging from going beyond an existing structure to a full-fledged intellectual revolution (Kuhn, 2012). It would be fun to figure out how inventive current work in a sector is.

The construction of well-regarded research centers, the engagement of visiting researchers and scholars from all over the globe, and the organization of well-regarded seminar series and conferences, all of which drew academics from all over the world, are examples of innovation (Kuhn, 2012). Such indicators, however, must be managed with caution: they are, at best, signifiers rather than signified, and putative signs can be deceptive. References in the literature, for instance, and ranks in global rankings might have no bearing on originality. Academic activity and academic networks are not indicators of creativity.

This environment has both agency and structure. The intelligence agency of a department is expressed through epistemological and state systems (Barnett, 2017). Rules bind this agency, and departments have varying access to resources that allow them to unleash their creativity. An example of an invigorated university is an institution prioritizing intellectual creation (Fey & Denison, 2003). This would be a university that consciously devised knowledge policies and initiatives to foster an atmosphere of epistemic abundance on campus.

The teaching role of an institution demonstrates pedagogical inventiveness. As a result, pedagogical is a catch-all phrase for all aspects of university instruction. The pedagogical interaction, the medium through which teaching is performed, the use of technology, the learning experiences made accessible to students, the nature of the academic courses and curricula made available (Muammara & Maker, 2022), and the institutional methods that have an impact on students, teaching, learning, and assessment: all these issues are addressed here.

Briefly, educational creativity is an umbrella term encompassing many options. There are underlying mechanisms at work that produce a change in the educational function of a university. Four major global movements (Barnett, 2017) e particularly relevant here. For starters, the teaching function is one area where the financialization of higher education is visible. This shift may be seen in the change from student to the client of the university's teaching services and the growth of private institutions in various countries worldwide, where computer-based technology is allowed to take a

more active role in their learning (Corazza & Glăveanu, 2020).

These two phenomena are intertwined in that dictated learning experiences may now be expanded to students in various circumstances outside the classroom. Work-based acquisition or practice-based learning as it is now known (Higgs et al., 2012) and the advent of the digital classroom are only two possibilities for the environment.

Third, there have been movements worldwide to devote more significant resources to the university's teaching role, exemplified by the Scholarship of Teaching and Learning (SoTL) movement (Knox, 2022) manifested in various other ways. Journals, worldwide and institutional-specific learning and teaching events, and special interest teams, for example, around problem-based learning, gaming, curriculum co-creation (between academics and students), and evaluation, are evidence of pedagogical inventiveness inside academia.

Fourth, ecological movements demonstrate educational inventiveness. The term 'ecology' must be interpreted broadly here (Barnett, 2018; Davids & Waghid, 2018; Batool et al., 2023), encompassing the natural environment disciplines related to it. The ecological university recognizes its entanglements with some main ecosystems—at least seven—but also acknowledges that each of these universities has its unique environmental imprint in its arrangement across those ecosystems.

There have been observable shifts in the educational landscape globally. However, upon closer examination, these changes may be perceived as indicators of restriction (Barnett, 2007). The emphasis on acquiring skills has taken precedence over fostering deep understanding and meaningful engagement with forms of knowledge. Pedagogical methods are now geared towards specifying the implicit aspects of knowledge acquisition; predetermined learning outcomes define curricula, and technology-based learning has emphasized screen-based experiences (Barnett, 2007). Such an outcome could be attributed to the diminished regard for careful, deliberate, analogical thought and genuine student engagement. Consequently, pedagogical advancements may decrease educational imagination (Huang et al., 2020).

1.3.3.2.- Instructional Creativity, Learning, and Environmental Innovation.

A university must make up instructional creativity as an institutionalized educational mission if it is not to devolve into systems innovation. A pedagogical university with this attitude would be defined by a pedagogical connection that stimulates students' learning creativity. University College London, for example, has the Connected Curriculum initiative for the whole university (Carnell & Fung, 2017). As previously said, pedagogical improvement may be targeted at encouraging student creativity. However, learning creativity merits consideration. The connections between instructional creativity (on the part of institutions) and cognitive creativity (on the part of students) (Barnett, 2017) are complex. Although it may appear to be a truism, it is worth noting that while pedagogical creativity may promote learning creativity, it may also limit the latter's potential.

Learning creativity necessitates specific dispositions, such as a desire to be open to strangeness, take chances, go forward, expose oneself, put forth the effort to win through to one's position, and drive towards one's actual viewpoints as a learner. Some learners are born with such inclinations—those from specific social backgrounds—but, in general, cultivating necessitates a supportive and affirming pedagogy (Bakhurst, 2011). In response, it is accepted that developing such dispositions—this ontological challenge, as it were—is part of higher education instruction. Therefore, teaching is more than an epistemological transaction, as essential as that may be. Learning creativity necessitates the development of individuals who are capable and willing to build reasoned accounts of the world—in whatever form of representation—and then to put their imprint on those accounts, ready to be held accountable for their perceptions and acts. This is a massive group of educational and learning successes.

Environmental creativity involves reaching out to and engaging with the surrounding community. This is a complex situation. In the very first sense, a university must, in a sense, declare its existence. It needs to showcase itself and make an excellent first impression. This environmental creativity may be manifested in a variety of contexts, including international spaces (Barnett, 2018), a university's relationships with the corporate and professional sectors, reaching out to local communities (here, 'local' includes specific populations in impoverished nations where the potential for

joint ventures exist), and interacting with the political sphere. As a result, the university's environment is not supplied in any absolute sense but rather is generated to consider the institution.

Not only are efforts being made to map the spectrum of several types of institutional innovation, such as Dada and Watson (2012) work for the worldwide network of civically oriented institutions. These trends are spawning theories that aim to account for how colleges are now integrating themselves into their local and regional surroundings worldwide (Paladino, 2022). Even so, there are universities unafraid to exist in the world. Given that the world is liquid, it may appear that this institution, in all its environmental innovation, is destined to be liquified as well (Gane, 2001).

A university brings itself up to date in demonstrating reflexive inventiveness. It examines its options worldwide, making the most of them. It even strives to progress, projecting into the future and living there. This is a type of operational up to datedness: it seeks new activities that it can start, operations that will connect it to the entire world in novel methods.

A quick summary is that things are more fluid, messier, and less constrained by fixed limits and norms. The world's pools of interpretations and intellectual practices flow in and out of each other, resulting in ethno-epistemic assemblages (Irwin & Michael, 2003). Furthermore, the university now needs to sing for its supper and earn its keep in the world. Thus, it is undergoing socioeconomic weakening in addition to epistemological undermining. As a result, the university's bedrock, epistemological foundation, and superstructure of the life of reason are beginning to break (Huang et al., 2020). As a result, the university finds it challenging to account for itself since it suspects its underpinnings are under threat. Even now, it is only sometimes trusted, at least in some parts of the world (Gibbs, 2007).

As it has been seen, this tale must, nevertheless, be multiplied. The creative university may and must be realized in various locations because the modern university is a collection of multiplicities. Some creativity, however, is more creative than others; to be more precise, one creativity is more creative than the others (Barnett, 2012). The ability of the modern university to become a corporate agency capable of reflecting on itself and creatively and collaboratively imagining new

possibilities that it could just, with a favorable wind, realize has been dubbed spontaneous creativity. Spaces for agentic creation are available at the university. If this ability exists, there is a strong possibility that additional creativities, or venues for creativity, will grow at the institution. This has been a narrative about a glass that is only half filled, but it is a story. Many people believe that the university is doomed, that its autonomy is being lost, and that it is being forced to serve entrepreneurial and competitive philosophies that confine it (Barnett, 2017).

1.3.4.- Creative Environment Perceptions (CEP)

1.3.4.1.- Environmental Elements, Behavioral Invitation, Organizational Obstacle.

The prevalent creativity concepts and paradigms in the literature emphasize the creative individual, portraying the environment as a secondary factor that either supports or hinders the creative process (Corazza & Glăveanu, 2020). This approach oversimplifies the role of the environment as a mere conditioning element. However, recent research has revealed that fear can positively impact creative assessments, increasing advertising effectiveness. This effect has been linked to the positive impact of anxiety on engagement (Benoit & Miller, 2022). On the other hand, the tetradic cultural framework of creativity adopts a more nuanced perspective, positing that social variables do not solely determine creativity but is a relational phenomenon that cannot exist without cultural resources and dialectic interactions (Glăveanu, 2010).

The concept of affordances is crucial in the design of creative development interventions due to this relational approach. Affordances determine how the environment guides, facilitates, and constrains human behavior, as they represent opportunities for action that arise when an individual's perceptual abilities collide with the specific features of the environment (Chemero, 2003). Action possibilities are the primary objects of perception, and affordances, while not causing the behavior, can encourage it (Gibson, 1979). The idea of behavioral invitation is central to creative intervention. Affordances play a crucial role in the creative success (Glăveanu, 2013) as they can both attract and repel actions. For example, objects and locations channel our activities by constraining what we can achieve with available tools and where and how we can move in different environments. As a result, environmental manipulation influences behavior in each situation (Benoit & Miller, 2022).

Affordances are more than just opportunities the physical world provides (Rietveld & Kiverstein, 2014). Cultural norms and social interactions shape our understanding of what objects and locations are for. As a result, affordances depend on the skills available in a particular ecological niche, shaped by sociocultural activities (Rietveld & Kiverstein, 2014). This means that an affordance may be perceived differently by individuals from different sociocultural backgrounds and with different skill sets, leading to diverse activations that impact the likelihood of creative outcomes.

Regarding the positive, creative work environment, organizational and supervisory support are significant predictors of employee participation in innovation contests within a firm (Corazza & Glăveanu, 2020). As a form of corporate culture, administrative support promotes the generation of novel ideas, active thought processes, and fair evaluation of concepts, among other things. Research has shown that perceived organizational support is linked to constructive innovation on behalf of the organization (Eisenberger et al., 2001) and that employees are motivated to participate in innovation contests if they feel that their organization supports them (Eisenberger et al., 2001).

Supervisory support is also essential for creating a positive work environment. A direct supervisor provides this support function and includes promoting open communication, timely assistance, and goal clarity (Amabile et al., 1996). On the other hand, factors such as organizational obstacles (OI) and workload pressure (WP) are crucial variables in unfavorable creative work environments (Benoit & Miller, 2022). These factors can explain why employees are hesitant to participate in innovation contests and are constrained in their engagement in creative and innovative work (Amabile et al., 1996).

1.3.5.- Creative Potential and Practiced Creativity (CPPC)

Since innovation depends on creativity, businesses should focus on their workers' creative potential and encourage it at work. The current study's premise holds that everyone has creative potential (Runco, 2004) but that it is most likely to be exhibited in environments that encourage it. Many environments, including schools and the workplace, appear to impede the manifestation of creative activity (Basadur,

1997; Beghetto & Kaufman, 2014). Fortunately, there are a variety of methodologies for determining the quantity and creative potential of employees (Runco, 2015), as well as a variety of strategies for fostering it (Basadur, 1994; Hunter et al., 2007).

According to Hunter et al. (2007) meta-analysis, organizations should explicitly promote autonomy, stimulate unique thinking, and have a dynamic intellectual atmosphere that encourages ideation. Employees' innovation should be recognized, and there should be obvious signs that it is expected of them. Employees should have the regular opportunity to express themselves creatively.

Given the widespread acceptance that creativity is excellent for business, it is surprising that some companies need to provide appropriate support for employee innovation. Following Gallup Poll (2017), only 18 percent of employees surveyed believed they could take risks at work to be more creative, and only 30% felt they had time per day to think creatively or start debating the latest ideas at work.

Although more than half of the employees polled believe they are required to be creative at work, this is not the case. When companies do not foster creativity, they are not doing it on purpose. Instead, it might result from efforts to simplify procedures, improve efficiency, or minimize risk (Benner & Tushman, 2015; Hessels et al., 2005). Some individuals appear to assume that creativity is incompatible with workplace productivity (Edwards, 2001), and as a result, it may be rejected as useless or even harmful. It would be a pity if employees' creativity went untapped and were not encouraged at work. It would be a waste of resources to do so. In investment and economic theories of creativity, the concept that creativity is a resource, or a type of human capital, is evident (Rubenson & Runco, 2006; Sternberg & Lubart, 1991).

DiLiello and Houghton (2008) contend that uncovering hidden resources may hold significant advantages for businesses, where individuals are increasingly required to accomplish more with fewer resources. This viewpoint is supported by a Gallup study (2017), which highlights that creative potential needs to be more utilized in even the most progressive organizations, leading to the potential for wasted human resources. Recently, there has been a growing interest in exploring the expression of creative potential in the workplace, focusing on the time people spend engaging in creative activities. For instance, Runco and Acar (2021) examined the differences

between the time individuals spent on creative activities at work and the side of work. Additionally, several studies have investigated the manifestation of creative potential in educational settings. Runco and Acar (2021) explored the differences between students' creative activity in and out of school. The results of this study revealed that students were more creative outside of the classroom, as indicated by their engagement in daily scientific, technical, and artistic creativity.

These findings suggest that the educational setting may only partially encourage students' creative potential. Similar conclusions were reached in a more extensive study conducted by Runco (2016) using Amazon's Mechanical Turk, which found that individuals participated in more creative activities outside of school than within the educational setting across all categories of creative expression.

The creative activities of participants were assessed using the Creative Activity and Accomplishment Checklists (CAAC), which have a proven reliability and validity history (Hocevar, 1981; Paek & Runco, 2018). These findings highlight the importance of further investigating ways to fully encourage and harness the creative potential of individuals in both educational and workplace settings. Numerous studies back up the idea that individual and organizational traits may either help or hinder creativity and innovation in the workplace. Employee workload, supervisor conduct, employee-specific qualities (knowledge, personality, and attitudes toward creativity), and idiosyncratic susceptibility to environmental deterrents have all been investigated in the research. Other studies have looked at the disparities between creative potential and the amount to which it is realized in the job vs. that which is used outside of work or nurtured as part of professional education (DiLiello & Houghton, 2008; Riesener et al., 2019; Richards et al., 1988). The report claims that there are benefits to transferring creative potential across contexts; that is, those who are creative in their personal life may be able to convert this to professional creative achievement, which is of some interest. The studies show that creative talent may be transferred to the job, but they also show that this does not always happen (Runco & Acar, 2021).

Meanwhile, Hinton (1968) claimed that creative potential and creativity leading to practice are not the same things, and a study by Neck and Houghton (2006) confirmed that this concept represents the distinction between an individual's creative potential and practical creativity and that leading creativity to practice is not the same

as having creative potential. Furthermore, Pfeffer et al. (2005) said that creative potential is the key to corporate success. They contended that creative potential is essential or creative management among human-centered management techniques. Based on the instance of Adobe Systems, an IT solution firm, Kelley and Kelly (2013) they discussed the necessity for creative potential. According to the associated case study's poll of 5,000 CEOs from three continents, 80 percent of respondents believed the manifestation of potential innovative aids economic progress.

As Hinton (1968) defined, creative potential encompasses an individual's innate creative abilities, talents, and capacities. On the other hand, DiLiello and Houghton (2006) describe practiced creativity as manifesting an individual's creative skills and talents in the workplace. On the other hand, creative performance can be objectively evaluated by examining tangible outputs or accomplishments (DiLiello & Houghton, 2008; Amabile et al., 1996).

Organizational support for creativity has been conceptualized as a supportive corporate culture that promotes creativity through fair evaluation of innovative ideas, recognition and rewards for creative work, mechanisms for idea generation, and the flow of creative ideas, as well as a shared vision of the organization's goals (DiLiello & Houghton, 2006). Research has demonstrated that employees with high creative potential are more likely to engage in creative activities when they perceive significant organizational support (DiLiello & Houghton, 2006). To foster a supportive work environment that encourages individual creativity, several crucial factors must be present in the corporate culture (Amabile, 1988; Mumford & Gustafson, 1988; Ford, 1996). Failure to tap into the creative potential of employees may result in significant unused organizational resources and negatively affect job satisfaction and employee retention (Shalley & Venkataraman, 2000).

In conclusion, the business can reap numerous benefits from employees' innovative ideas, making the workplace a healthy and dynamic environment for personal and professional growth. In organizations requiring individuals to perform more with fewer resources, recognizing and harnessing latent creative potential can be of excellent value.

1.3.6.- Individual Creativity: How do novelty and usefulness work together?

Creativity is a central theme in organizational studies and has been consistently explored by creativity researchers. However, academics must disagree with a methodology for conducting robust studies on individual creativity. The conventional definition of creativity is the generation of novel and beneficial ideas. Upon closer examination, it is a dual definition interpreted in several ways, both in theory and measurement.

While some interpretations consider novelty and usefulness as equal components of creativity, others argue that novelty is the primary measure, with utility playing a secondary role (Diedrich et al., 2015). Previous studies have defined creativity as new and acknowledged work that is tenable or useful (Stein, 1953) or as novel and unique ideas accepted as worthy in science, art, society, or technology (Vernon, 1989). This has led to an examination of how the components of novelty and utility have been assessed in recent management creativity research and how this theoretical debate has influenced the measurement of creativity (Shalley & Breidenthal, 2021).

In recent literature reviews, a few researchers have defined creativity as generating new and valuable ideas (Harris et al., 2013; Soda et al., 2021). However, these definitions are like those that use less than the word possible and hold for external and field investigations. The commonly used Creativity Assessment Tool (CAT) in experimental research involves individuals generating ideas and raters evaluating the creativity of these ideas. In some studies, raters score concept novelty and idea utility separately, then combine them using a product function or the square root of the product (Smith, 2014). Other studies ask raters to evaluate ideas on dimensions such as novelty, originality, usefulness, and feasibility, then average the results. In some cases, raters are asked to evaluate overall creativity (Fischer et al., 2019) or a composite measure that includes overall creativity, novelty, and usefulness (Baghel et al., 2023).

However, the instruction given to the raters may vary, and they may use their definition of creativity to assess the creativity of the ideas offered. In one study, for were asked to evaluate how innovative, unusual, unorthodox, and creative the ideas were (Chua, 2015). This study emphasized the importance of novelty over usefulness

or value in its definition of creativity as producing concepts that meet certain value functions. In field research, creativity is often measured in wonder rather than utility, and innovation is assessed regarding its helpfulness or acceptability. In archival studies, where creativity is usually evaluated by the success of outcomes such as patents, ratings, or box office success, the usefulness component may be given more weight.

Overall, the understanding of creativity as a potentially beneficial novelty or properly utilized innovation is more aligned with how creativity is rated in management literature, particularly in field studies, which are the most used form of research. Studies that examine novelty and usefulness individually, as reviewed by Shalley and Breidenthal (2021), support this approach.

1.3.6.1.- Creativity: Who is the best person to assess it?

Creativity is a highly subjective concept, with evaluations of originality and value dependent on the evaluator's domain-specific perspectives (Ford, 1996). This subjectivity is further compounded by the influence of rater and ambient variables, as demonstrated by recent study by Shalley and Breidenthal (2021). Considering this, creativity studies must pay close attention to the individuals evaluating creativity.

In examining employee creativity ratings, survey measures were the most used assessment method, with twenty-six studies relying on this method (Hirst et al., 2015; Roy & Mohapatra, 2023). Only a small proportion of studies used self-reports (Harrison & Wagner, 2016; Rosen et al., 2016) or multiple co-worker reports (Harris et al., 2013; Marinova et al., 2013). The use of CAT raters, consisting of creativity specialists, experienced managers, and independent coders, as found in our selection of top management journals over the previous five years (Farmer et al., 2003; Jung & Sohn, 2010), offers some mitigation against common method bias (Podsakoff et al., 2003). However, this approach may expose individual evaluations to other preferences, such as liking and halo effects (Kitsios & Kamariotou, 2023).

Given the subjectivity and potential biases associated with human evaluations of creativity, academics have attempted to develop more objective measures of creativity. These objective metrics encompass a wide range of factors, such as citations (Seibert et al., 1999), bonuses paid by senior leadership (Liu et al., 2012), and

performance on associative thinking tasks (Jung & Sohn, 2010). The growing body of research on the numerous factors that can influence assessments of creativity (Kay et al., 2004; Mueller et al., 2011) highlights the importance of considering the type of creativity rater used in evaluations, as this can have a significant impact on the results.

1.3.6.2.- Creativity: Is it a person, process, or product?

The usage of the term creativity in psychology literature has been shown to encompass multiple aspects of the phenomenon, including individual differences (creativity as a person), cognitive processes (creativity as a process), novel and valuable outcomes (creativity as a product), and environmental influences (creativity as press or climate). This has been documented by several authors, such as Batey (2012), Barbot et al. (2019), and Rhodes (1961). A similar issue was observed in the contemporary management literature, albeit with some differences. Within the management field, environmental influences are differentiated from individual creativity, with studies focusing on the impact of creative atmospheres (Amabile et al., 1996) and team contexts (Yuan, 2019) on individual creativity. However, the term creativity is still utilized in the management literature to encompass individual differences, processes, and outcomes in theoretical models. Person-level phenomena have been separately studied from the overall concept of creativity.

For instance, the literature has investigated creative identity (Farmer et al., 2003; Vincent & Kouchaki, 2015), dispositional creativity (Gough, 1979), and creativity-related talents (Amabile et al., 1996; Eysenck, 1996) as separate concepts from creative processes and outcomes. However, there is an ongoing debate over their correlation with actual creativity in creative thinking activities. Studies have assessed individual creativity through creative thinking tasks such as divergent thinking and remote association thinking (Huang et al., 2020; Jung & Sohn, 2010), yet the extent to which these activities indicate potential or actual creativity remains a contention. In organizational studies, creative tendencies have been distinguished from developing novel and valuable ideas (Shalley & Breidenthal, 2021). Evaluation metrics for the creative process have been developed, such as the concept of creative process participation proposed by Zhang and Bartol (2010). This self-reported measure,

commonly utilized in field research, assesses the frequency of engagement in behaviors related to issue identification, information seeking and encoding, and idea production.

Creativity assessment can take many forms, and some measures are more explicitly linked to the uniqueness and usefulness of an idea or product produced through the creative process. Archival research, for instance, examines evidence of innovative results such as citations and audience reactions to art forms (Crescenzi & Gagliardi, 2018; Soda et al., 2021; Mannucci & Yong, 2018). In field surveys, measures such as the three-item measure proposed by Oldham and Cummings (1996) ask a person's manager to evaluate their creative output at work. This evaluation considers the originality and practicality of the individual's career. Developing unique and valuable ideas, processes, or products is the hallmark of original and practical work (Oldham & Cummings, 1996).

Some researchers have moved away from using the broad term creativity and instead focus on specific aspects of creativity that can be measured, such as the number of publications or citations (Seibert et al., 1999), the quantity and quality of ideas (Kier & McMullen, 2018), and creative responses (Kier & McMullen, 2018). In experimental research, the Creativity Assessment Test (CAT) asks judges unaware of any experimental manipulations to rate the overall originality of the ideas or items created.

This could be seen as a review of the innovative product, as the assessors evaluate the uniqueness and utility of the creative work. However, some academics view this as a test of idea creation, which is one phase in the creative process (Montag et al., 2017). Field research typically employs the Creativity Assessment Scale (Zhou & George, 2001), which includes behavioral questions, such as searches for innovative technologies, processes, techniques, and product ideas, and outcome items, such as the frequency of having new and creative ideas. Farmer et al. (2003) also include both seeking behaviors (i.e., seeking the latest ideas and approaches) and unique outcomes (i.e., generating groundbreaking ideas) in their four-item creativity scale.Behavior refers to any observable variable (Shalley & Breidenthal, 2021). Job performance, for example, can be described as a behavior, even if it is a consequence of one's actions,

such as the amount or quality of output. The component of creativity under research could be creative behavior or participation in the creative process (Rosen et al., 2016).

1.3.6.3.- Creativity vs. individual innovation.

The distinction between creativity and innovation at the individual level has been subject to extensive theoretical and empirical examination, with considerable conceptual overlap between the two constructs. Creativity experts study these constructs independently, reflecting the early and later stages of implementing novel ideas or solutions within organizations (Amabile et al., 1996; Anderson et al., 2014). Creativity pertains to the initial stages of idea generation and selection, whereas innovation encompasses the stages of idea advocacy and adoption within the broader organizational context (Anderson et al., 2014). However, this distinction is only sometimes acknowledged in management literature, with many researchers equating individual innovation with the whole idea-creation process (Hammond et al., 2011; Scott & Bruce, 1994; Yuan & Woodman, 2010).

The six-item scale developed by Scott and Bruce (1994) is widely used in research on individual innovation. It assesses creative behaviors such as information searching and idea generation and implementation-related behaviors such as promoting ideas, securing funds, and planning implementation schedules. Surprisingly, the most used scale for assessing individual creativity overlaps with this innovation measure. Zhou and George (2001) adopted three items from the Scott and Bruce (1994) scale, two of which relate to promoting ideas and developing implementation plans and schedules, while the third item relates to gathering information, which is like information-gathering behaviors in creative process models (Zhang & Bartol, 2010). In addition, archival studies examining the effectiveness of implemented creative ideas are sometimes quantified as creativity, which naturally includes the implementation phase within the notion of creativity (Shalley & Breidenthal, 2021; Soda et al., 2021).

Moreover, a considerable number of creativity meta-analyses in recent decades have included both creativity and innovation in their literature review search terms (Byron & Khazanchi, 2012; Byron et al., 2010; Davis, 2009), with meta-analyses of individual innovation, including creativity in their search terms (Hammond et al., 2011)

and recent reviews of creativity incorporating both constructs into their definition statement (Anderson et al., 2014). A recent evaluation of individual creativity in organizational research, specifically empirical studies published in top management journals in the previous five years, revealed that experimental and field research worldwide adopts a similar unidimensional definition of creativity (Shalley & Breidenthal, 2021). Furthermore, only a limited number of measures are employed to assess creativity, with one scale (Zhou & George, 2001) dominating the field.

1.4.- Entrepreneurship

1.4.1.- Modern Definitions of Entrepreneurship

The concept of entrepreneurship has been the subject of much debate among scholars, with a need for more consensus on its definition. Despite this, recent studies have focused on distinguishing entrepreneurship from business (Amabile & Khaire, 2020). Different definitions of entrepreneurship have been proposed based on diverse disciplinary perspectives, including entrepreneurship as a market function, the entrepreneur as an individual, and entrepreneurship as a process (Landström, 2020). The works of scholars such as Kirzner (1997) have presented arguments on the nature of entrepreneurship and the differences between his views and those of Schumpeter. Kirzner's later work revised his initial reasoning and focused on entrepreneurs' creative potential.

Although some have criticized the distinction between Kirzner (1997) and Schumpeter (1934) as being minor and a matter of perspective, their works have been seen as complementing each other, with Schumpeter's entrepreneur causing market instability and Kirzner's entrepreneur recognizing and correcting imbalances (Landström, 2020).

1.4.1.1.- The Entrepreneur as an Individual and Process.

Scholars with a background in behavioral sciences would, understandably, concentrate less on the market's purpose of entrepreneurship and more on the entrepreneur as a person, which is reflected in their descriptions. The focus will be on topics such as: Who is the entrepreneur? as Stevenson and Jarillo (1990) put it. Why do

they act the way they do? Even behavioral experts have given the term entrepreneur a variety of interpretations. Some of the most important concepts were presented (Table 2) by Cunningham and Lischeron (1991).

Table 2

Various definitions of the individual entrepreneur (Cunningham & Lischeron, 1991)

Entrepreneurialdefinitions	**Characteristics**
Great person school	The entrepreneur has an intuitive ability –a sixth sense – and inborn traits and instincts.
Psychological characteristics school	Unique values, attitudes, and needs drive entrepreneurs.
Classical school	Innovation is the central characteristic of entrepreneurial behavior; therefore, entrepreneurs are creative and discover new opportunities.
Management School	Entrepreneurs are the organizer of an economic venture; thus, entrepreneurs are individuals who organize, own, manage, and assume risk.
Leadership School	Entrepreneurs are leaders of people; thus, entrepreneurs can adapt their style to the needs of the people.
Intrapreneurship school	Entrepreneurial skills can be helpful in complex organizations; thus, intrapreneurs develop independent units to create markets and expand services.

The subject of how entrepreneurship develops has been debated for decades. (Stevenson & Jarillo, 1990) Has piqued entrepreneurship researchers' interest. The problem necessitates a more systematic and behavioral approach to entrepreneurship. Many researchers have followed this approach. However, there are differing viewpoints on what aspect of the process should be prioritized and how to distinguish between focusing on creating new organizations and the emergence of possibilities (Landström, 2020).

Recent findings demonstrate the importance of diversity in entrepreneurship and context (Guerrero et al., 2021). Professional assistance, incubators/accelerators, networking with multiple agents, and R and D investments are all advantageous conditions. A lack of funding sources, labor market conditions, and social norms are among the less favorable conditions (Guerrero et al., 2021).

1.4.1.2.- The Appearance of New Organizations and Chances.

The definition of entrepreneurship has been debated among researchers for several years, with no clear consensus emerging. William Gartner (1989), one of the early proponents of entrepreneurship, proposed in his seminal paper Who is an entrepreneur? that entrepreneurship encompasses forming organizations. This perspective was later adopted by studies such as the Panel Study of Entrepreneurial Dynamics (PSED) and the Global Entrepreneurship Monitor (GEM 2020-2021), both of which focus on the formation of firms as a defining characteristic of entrepreneurship (Subsection 6.2).

In contrast, Bygrave and Hofer (1991) define entrepreneurship as encompassing all the functions, activities, and actions related to perceiving possibilities and establishing organizations to pursue them. On the other hand, Shane and Venkataraman (2000) are leading proponents of a concept that emphasizes developing opportunities rather than forming organizations (like Stevenson's definition in 1983 and 1990).

Venkataraman's book chapter (1997) shifts the argument away from definitional concerns and into a discussion of the academic domain of entrepreneurship. He asserts that entrepreneurship as an academic area seeks to understand how new products and services are identified, developed, and exploited, by whom, and with what consequences, drawing on the Austrian School of Economics.

Rather than defining entrepreneurship in terms of the object of study, Venkataraman proposes that crucial and distinctive research questions should define the domain. According to this line of reasoning, entrepreneurship is not a fixed set of attributes that distinguishes certain people from others, nor does it need the establishment of new organizations. However, it can occur in various circumstances,

including existing businesses. As a result, Shane and Venkataraman's (2000) paradigm is broader than Gartner's definition of organizational emergence.

1.4.2.- Extrinsic Motivation in Entrepreneurial Context, Self Determination Theory

The relationship between social support and the entrepreneurial environment has been explored in previous literature (Huang et al., 2020). This study examines how motivation and creativity intersect with an entrepreneurial mindset and the resulting impact on employee creativity among Spanish workers. The theories of motivation, including creativity and invention, present overlapping and conflicting ideas (Amabile & Pratt, 2016; Herzberg, 1966; Maslow, 1943; McClelland, 1985; Ryan & Deci, 2017). These theories differentiate between internal and external motivation as separate processes. However, the effect of these components on creativity, innovation, and each other, varies depending on the theory.

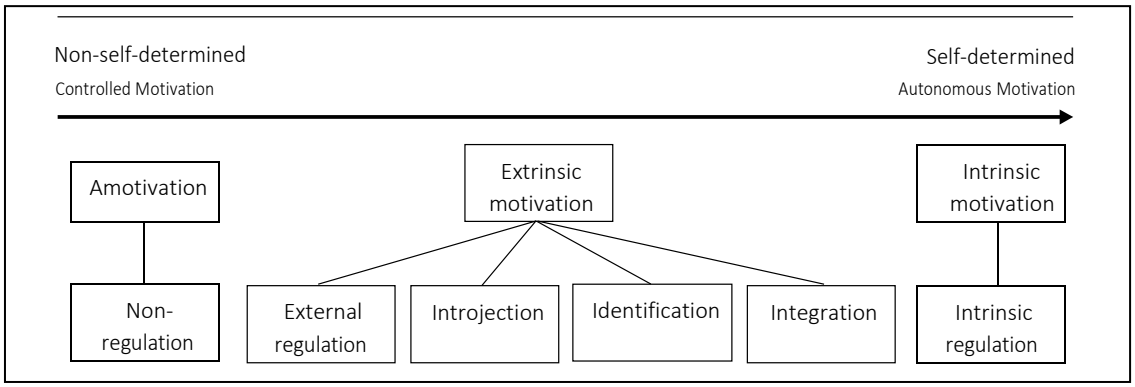
Herzberg (1966) posits that internal motivators and extrinsic hygiene elements are orthogonal, meaning they are independent, while Amabile (1997) believes that intrinsic and extrinsic motivation may interact synergistically. The Self-Determination Theory (SDT) further explores the various internal and external motivations and their interrelationships (Ryan & Deci, 2000). According to the SDT, creativity, and innovation are influenced by the underlying drive and activated by individual goals and demands. The theory divides motivation into two categories: regulated and autonomous. Autonomous motivation is formed by employees' intrinsic motivation and absorbed extrinsic incentives. Internalization refers to incorporating external ideals, beliefs, or behavioral standards into one's own (Huang et al., 2020).

Human resource management strategies, such as rewards, are commonly used to increase motivation in the workplace (Cerasoli et al., 2014). Rewards are the most widely used extrinsic motivator in the workplace and are often given because of the desired behavior (Rose, 2014). Transactional and relational incentives are the most prominent distinction in rewards (Gagné & Forest, 2008; Armstrong, 2012). The Self Determination Theory (SDT) is presented in a diagrammatic representation in Figure 2.

The central focus of SDT lies in examining extrinsic motivation and the satisfaction of psychological needs. Comprising six sub-theories, SDT has been extensively scrutinized through workplace research over numerous decades. One of these sub-theories is the Basic Psychological Need Theory (BPNT). According to BPNT, when employees' fundamental needs are adequately fulfilled in the workplace, they are more likely to exhibit autonomous motivation. Conversely, failure to meet these fundamental needs leads to a decline in autonomous motivation and increased controlled motivation (Ryan & Deci, 2017).

Figure 2

Self-determination theory (Ryan & Deci, 2000)



(McClelland, 1985) referred to this requirement as the urge for connection. Autonomy is the freedom to engage in a personal interest activity connected with one's ideals. As a result, the demand for autonomy refers to a desire for control over one's actions and the ability to choose activities that would allow one to achieve self-fulfillment. On the other hand, the need for power can be characterized in several ways. For example, McClelland (1985) defined power as the desire to control others.

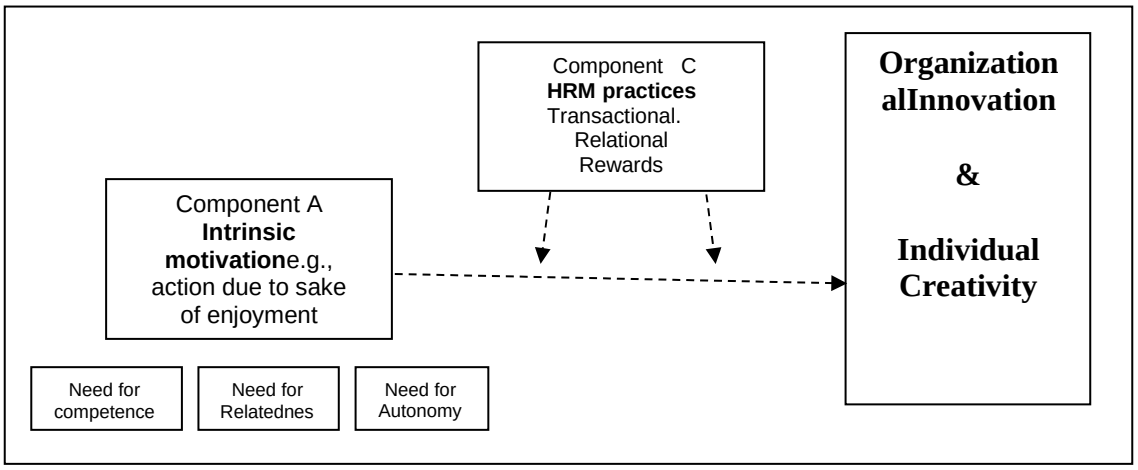
1.4.2.1.- Intrinsic Motivation, Innovative Performance, Entrepreneurial Motivation.

High regard marks intrinsic motivation for personal participation and involvement. Several meta-analyses have found a substantial positive relationship between intrinsic motivation and creative performance (Cerasoli et al., 2014; De Stobbeleir et al., 2018; Liu et al., 2012). Amabile and Pratt's (2016) dynamic componential model of creativity and innovation in companies also emphasizes this significant link conceptually.

Furthermore, Grant and Berry (2011) discovered that when the job involves service to others, this favorable effect rises (Fischer et al., 2019). This research aims to reproduce intrinsic motivations commonly reported good impacts on creative and inventive performance, particularly among knowledge workers (Figure 3).

Figure 3

Motivation and Incentives' Impact on Creative and Innovation Performance (Fischer et al.,2019)



Earlier studies on extrinsic motivation frequently suggested that it had a detrimental influence on intrinsic drive and performance, a phenomenon known as the crowding-out effect (Hammond et al., 2011). As extrinsic motivators receive more detailed assessments, crowding-out effects become less prominent (Condly et al., 2008; Huang et al., 2020; Ryan & Deci, 2017). Despite this, decades of study still need to produce accurate standards and a shared understanding of the effects of incentives on motivation, creativity, and innovation. As a result, academics have advocated for

more research (Byron & Khazanchi, 2012; Cerasoli et al., 2014).

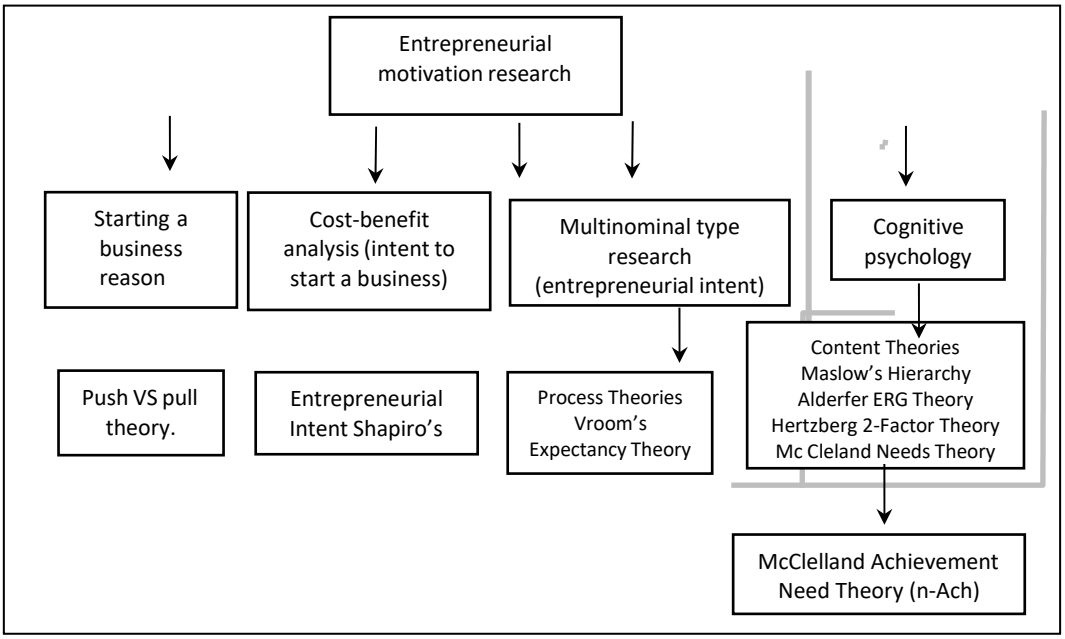
Four sorts of research categories were found in the investigation research of entrepreneurial behavior (Hessels et al., 2008). They are:

1- Investigation of the motives for starting a business, classified as opportunities or necessities.
2- Two sorts of cost-benefit analyses may be used to explain why someone wants to establish a business.
3- Multinomial studies compare the chances of being at a specific stage of the entrepreneurial process against not considering it (this includes and corresponds with entrepreneurial purpose).
4- Psychological incentives that are more in-depth, such as research on the urge for accomplishment.

The construct provides an example route across the relevant literature and ideas addressed in this stage, presenting the fittest theory to determine the 'who' is driven to become an entrepreneur, the most crucial variable for entrepreneurial motivation analysis (Figure 4).

Figure 4

Individuals' "How" and "Why" They Become Entrepreneurs (Lloyd, 2019).



The drivers of self-employment can be classified into three dimensions: the individual, reflecting behavior influenced by personality; the ethnocultural context, focusing on culturally shaped behavior; and the host society, discussed as compensatory marginality behavior, under the first category, and exploring the motives for starting a business (Dana et al., 2019).

The ethnicity-enhanced adaptive behavior theory represents the fourth school of thought that examines the connection between the ethnocultural environment and the host culture. Dana's research (Dana et al., 2019) suggests that the 'enterprising spirit' can be either orthodox (cultural) or conservative (circumstantial), indicating that explaining ethnic business solely through one causal factor may not be sufficient (Lloyd, 2019).

The concept of entrepreneurial motivation is relevant to these dynamics and is divided into two forms: necessity (push) and opportunity (pull) entrepreneurship (Stephan et al., 2015). Necessity entrepreneurship refers to the view that starting a business or seizing an opportunity offers the best alternative to job options or the absence thereof. In contrast, opportunity entrepreneurship refers to identifying and pursuing a novel idea or opportunity (Suherman & Vidákovich, 2022).

To establish a new venture, the entrepreneur must detect and act upon an opportunity, regardless of whether it is driven by push or pull forces (Solymossy, 2005). To compare the level of entrepreneurial activity across nations, a distinction was made between the two forms in a report that evaluates the engagement levels of opportunity and necessity entrepreneurs (Bosma & Harding, 2006). While these theories help explain the occurrence of entrepreneurship, they need to be more apparent in measuring individual entrepreneurs' motivation, with (Krueger et al., 2000) suggesting that modeling extrinsic factors to predict entrepreneurial activity often needs more explanatory power. Additionally, Stephan et al. (2015) have noted that both approach and avoidance motivation play a role simultaneously, as no objective has solely positive elements. This explains the presence of opportunity and necessity entrepreneurship in practice, as evident in several studies discussed in this paper. An example is provided in a paper on Finnish reindeer herders (Dana et al., 2019), where non-Sami businesses bred reindeer for commercial purposes, while Sami herders were

motivated by their cultural ties to community-based reindeer herding and the need to pursue individualistic companies.

Material and intangible risks and rewards are incorporated into the decision-making process, influencing the decision or intention to start a business, aligning closely with the third dimension in which entrepreneurial intention is defined as an individual's acknowledged plan and conviction to seize an opportunity (Byron et al., 2022).

Furthermore, Carsrud and Brännback (2010) proposed that scholars may have resorted to exploring the relationship between ideas and behavior through entrepreneurial aspirations in the debate surrounding the death of the search for unique entrepreneurial characteristics. Shapero's model of the entrepreneurial event is frequently employed as a foundational framework for comprehending entrepreneurial intent (Krueger et al., 2000). According to this model, the most crucial determinants of an individual's intention are desirability, feasibility, and propensity to act (Lloyd, 2019).

This perspective suggests that the personal attributes, disposition, and attitude that drive individuals to embark on entrepreneurship are not inherent but rather adaptable and subject to change based on situational factors. While it is widely recognized that the deliberate aspect of entrepreneurial action is crucial, intentional models posit that entrepreneurs are created rather than born.

However, Gajdzik and Wolniak (2022) challenge this notion, who argues that not all individuals exhibit goal-directed behavior and that some exhibit avoidance behavior. Additionally, the significance of purpose, abilities, and values in defining entrepreneurs is acknowledged by Dana et al. (2019), which Shapiro’s approach may not fully address. However, perceived desirability is characterized as the degree to which an individual feels capable of starting a business; it fails to consider the strength of an individual's motivation (Krueger et al., 2000). Moreover, the sample used in the research (senior university students) is limited, as they are known to exhibit vocational preference at a critical juncture in their career decision-making process.

While purposeful models are valuable in understanding the entrepreneurial process and actual behavior, they may need to explain certain attitudes that predict intention fully. Psychological motivation, the internal factors that shape an individual's

behavior, including intrinsic and extrinsic factors, is a prevalent concept in management science. These theories are categorized into two broad categories: process and content theories, which will be discussed in the subsequent section (Lloyd, 2019).

1.4.2.2.- Motivational Theories for Entrepreneurs.

Motivation is a central aspect in the study of process theories, as it sheds light on the mechanisms that drive an individual's behavior. Motivation is crucial to understanding how and why an individual's behavior is initiated, sustained, redirected, and terminated (Pleitner, 1989). The expectation theory, proposed by Vroom (Jones & George, 2009), is one of the most widely recognized hypotheses that explain an individual's motivation based on their perception of the outcomes of their efforts and the rewards they are likely to receive.

The expectation theory (Hsu et al., 2017) was evaluated in a longitudinal study to investigate its effectiveness in predicting entrepreneurial intentions. However, the study highlighted the limitations of Vroom's model as it fails to consider the role of self-efficacy, or the individual's belief in their skills and abilities, in an entrepreneurial drive (Aldabbas et al., 2021). Despite the collective understanding that self-efficacy plays a crucial role in shaping behavior, there is ongoing debate regarding the influence of expected outcomes on self-efficacy judgments, especially when the results do not have a causal effect on self-efficacy (Bandura, 1994).

The study's results suggest that even if the incentives described by Vroom's model are present, an individual with low self-efficacy is unlikely to pursue entrepreneurship. However, according to research on the expectation theory, creating well-defined goals significantly impacts a person's motivation and effort (Lloyd, 2019). The goal-setting theory, proposed by Latham (2003), is like the expectation theory, assuming that the individual is committed to achieving a specific, challenging goal. Although this theory has been helpful in organizational settings, it may only partially apply to today's entrepreneurs, who will likely have multiple plans of varying difficulty levels (Lloyd, 2019). The equity theory, proposed by Adams, focuses on workplace fairness and employee satisfaction and is applied in organizational settings (Robbins, 1993).

The theories are less helpful in explaining the entrepreneur's underlying motivation because of this low-risk view, which is intrinsically at odds with the core description of the entrepreneur in this context (Lloyd, 2019). The fact that content theories of motivation focus on who is motivated (Pleitner, 1989), or the qualities inside an individual that energize, guide, and maintain behavior, is crucial in identifying the prospective entrepreneur.

These ideas are known as need theories, with Maslow's hierarchy of needs hypothesis being the most well-known. According to this view, a condition is a physiological or psychological lack that a person feels compelled to address, consequently affecting their behavior. Maslow believed these requirements are hierarchical, with only unmet wants influencing behavior (Jones & George, 2009).

It has been proposed in today's global economy (Amah, 2017) that residents of various nations may demand different degrees of Maslow's pyramid needs. Physiological and safety demands are expected to be the primary motivators of behavior in developing countries with poor living standards, as stated by the necessity of entrepreneurship. With more excellent living conditions, desires for personal growth and success may become more essential in developed countries, aligning more towards opportunity entrepreneurship.

More recently, Herzberg's two-factor method is noted as being different from other mentioned theories in that he defined two categories of requirements, motivation or satisfied wants and hygiene or dissatisfied needs (Jones & George, 2009). He contrasted these two demands, stating that motivation is tied to the nature of the task. In contrast, cleanliness relates to the physiological and psychological setting in which the work is performed.

If hygienic elements like basic income are met, people will not be dissatisfied but may not be driven. Motivational requirements, such as growth and responsibility, must be met to be motivated (Aldabbas et al., 2023). Despite the bulk of empirical data discrediting the theory in an organizational setting (Yesuf et al., 2023), it serves as a foundation for further motivation research, particularly in defining an individual's route to becoming an entrepreneur by necessity. Only met needs have the power to inspire individuals in Hertzberg's model, which on extrinsic incentives and the labor itself but

needs to explain inner motivation, leaving a big vacuum in understanding opportunity entrepreneurship (Lloyd, 2019).

1.4.2.3.- An Overview of Entrepreneurial Types and Their Unique Characteristics.

Social pressure from one's immediate surroundings might be a catalyst for starting a business (Iakovleva et al., 2011). For example, regarding recognizing possibilities, obtaining essential resources, and deciding to start a business, the family's view might have an impact (Aldrich & Cliff, 2003; Carr & Sequeira, 2007; Pruett et al., 2009).

Close friends' opinions can matter as a source of relational support and can impact an individual's decision to become an entrepreneur (Kabir et al., 2017; Knox, 2022). In turn, while coworkers' opinions may appear less critical than those of family and close friends, their positive appraisal of entrepreneurship might impact an individual's decision to start a business. In turn, colleagues' opinions appear less critical than those of family and close friends, but their optimistic assessments of entrepreneurship can impact an individual's entrepreneurial purpose (Knox, 2022).

As a result, the impact of a more accurate entrepreneurship valuation helps to form a positive or negative view of the growth of a new firm (Byron et al., 2022; Scherer et al., 1989). This valuing of entrepreneurship might boost Entrepreneurial Intention (EI). EI includes perceived personal support, self-confidence in one's capacity to establish a firm effectively, and the desire to pursue an entrepreneurial career (Byron et al., 2022; Rimal, 2003). As a result, as demonstrated by (Liñán et al., 2011), the attitudes of one's immediate social surroundings about entrepreneurship impact the motivating elements that shape EI. Hence it has been hypothesized that Entrepreneurial intention is favorably connected with a closer appraisal of entrepreneurship (Martin & Moodysson, 2013).

Cacciotti and Hayton (2015) discovered that venture failure stigmatization significantly impacts the success of entrepreneurial activities and that the social stigma associated with failure can be a devastating experience for entrepreneurs (Cope, 2011).

Potential entrepreneurs will be less inclined to explore entrepreneurial prospects if failure is considered unbearable and the stigma extends to personal and social arenas (Cardon et al., 2009; Landier, 2005; Nabi et al., 2018). As a result of societal norms (Batool et al., 2023; Cannon & Edmondson, 2005), the stigma of entrepreneurial failure has an impact on risk perception and, as a result, on the degree of entrepreneurial engagement (Pruett et al., 2009).

In this sense, the more the stigma created by the immediate environment, the greater the expected social pressure from them and the systematic impact on people's desire to embark on new initiatives or engage in risky activities (Armour & Cumming, 2008; Batool et al., 2023). According to the research, the social stigma of failure can create a wrong impression of entrepreneurship among young entrepreneurs. This perception impacts individuals' behavior, reducing their desire to start new businesses. As a result, the following theory has recently been proposed (Martin & Moodysson, 2013). Entrepreneurial intention is inversely connected with a closer stigma of failure.

1.4.3.- The Relationship between Entrepreneurial Orientation and Employee Outcomes

The relationship between entrepreneurial orientation and employee performance has received less attention despite its logical association with the company's architecture and management style (Tzokas et al., 2001). However, it is essential to note that entrepreneurial orientation directly influences employee performance (Lumpkin & Dess, 1996). Several key factors contribute to this relationship.

Firstly, creativity plays a crucial role in fostering innovation, which leads to the introduction of new products, services, and advancements, creating a competitive environment that drives organizations to function better (Tzokas et al., 2001). Secondly, an initiative-taking approach to exploring new markets often results in higher pricing than existing markets, providing organizations with opportunities for growth and increased profitability (Zahra & Covin, 1995). Thirdly, competition stimulates a company's ambition to expand its market share, directly impacting its competitors (Tzokas et al., 2001). This competitive aggressiveness and initiative-taking attitude are linked to performance in many ways.

Moreover, in established emerging markets, risk-taking yields speculative performance, indicating a positive and meaningful relationship between performance and risk-taking (Ahmed et al., 2021). Technological and organizational innovation are critical drivers of improved performance (Ireland et al., 2011). Wang (2008) asserts that an entrepreneurial attitude is essential to the success of any business. Additionally, higher levels of organizational commitment enhance the link between entrepreneurial orientation and performance (De Clercq et al., 2009). Emotional burden and entrepreneurial initiatives have also increased tenacity and better performance (Sánchez, 2012).

Overall, the existing body of research highlights the significant impact of an entrepreneurial attitude on business success (Ali-Soomro & Shah, 2019). This evidence suggests that embracing an entrepreneurial approach positively influences employee performance. Organizations can effectively navigate challenges and capitalize on opportunities by identifying and cultivating entrepreneurial characteristics, such as risk-taking and commitment (Mehraein et al., 2023). Furthermore, addressing the associated challenges of entrepreneurial orientation can yield substantial benefits for organizations (Simon et al., 2000). Multiple studies consistently demonstrate an entrepreneurial attitude's positive and considerable influence on organizational commitment (Ali-Soomro & Shah, 2019).

1.4.3.1.- Intellectuel Capital. Dimensions and Entrepreneurial Orientation.

The relationship between Intellectual Capital (IC) dimensions and Entrepreneurial Orientation (EO) has been extensively studied by various researchers, including Chen and Huang (2007); Ireland et al. (2003); Paladino (2022); Walter et al. (2006); and Nguyen et al. (2023). These studies have revealed that companies that invest in their knowledge and intellectual assets are better equipped to respond to the complex, dynamic, and highly competitive business environment.

Human Capital (HC) is an essential aspect of IC that companies seeking to improve their EO capabilities should focus on. Investments in HC can include recruitment and selection, employee training and development, and fostering a culture of learning, creativity, and innovation (Florén et al., 2018). This leads to a promotion of

entrepreneurial behaviors and practices, thus enhancing the long-term competitiveness of these organizations (Cohen & Levinthal, 1990; Dada & Watson, 2012; Walter et al., 2006).

Dimov (2017) researched HC in entrepreneurial enterprises and found that combining work experience, management experience, and employee education is necessary to enhance EO. They also noted that HC, with extensive industry-related expertise, is critical in improving decision-making and allowing organizations to respond more effectively to market shifts and trends. Structural Capital (STC) refers to the institutionalized knowledge that is integrated throughout the organizational infrastructure, including intellectual property rights, business processes, systems, and values that shape the corporate culture (El-Kassar et al., 2022; Engle et al., 2010; Liñán & Fayolle, 2015; Seleim & Khalil, 2011; Youndt et al., 1996). This reflects an organization's collective knowledge and knowledge, which guides its ability to adapt to market demands and reflects its competitive potential (Jinini et al., 2019).

Studies conducted by Chen and Huang (2007) have revealed a strong connection between EO and organizational/structural capital. Entrepreneurial firms that develop a culture that encourages collaboration with customers and suppliers have better marketing, technological, and financial capabilities, resulting in a higher level of proactivity, autonomy, and innovation (Chirico & Nordqvist, 2010).Organizations that can design their STC to support innovation and creativity are better equipped to develop their entrepreneurial activities and to identify and fulfill customer needs (Hughes & Morgan, 2007; Paladino, 2022).

Relational Capital (RC) refers to the network of relationships between an organization and its stakeholders. Enterprises that invest in developing their RC can expect benefits such as access to valuable resources and knowledge, improved competitiveness, and increased exploration of business opportunities by employees and managers (Jinini et al., 2019). EO is often more potent in companies with large, diversified, and broad relational networks, allowing them to participate in more beneficial interactions with key partners (Cohen & Levinthal, 1990; Stam & Elfring, 2008). Based on the findings of Jinini et al. (2019), each of the IC dimensions (Stam, STC, and RC) has a positive and substantial influence on EO. In conclusion,

organizations that invest in their knowledge and intellectual assets, including HC, STC, and RC, are better positioned to respond to complex business environment challenges and enhance their entrepreneurial orientation.

1.4.3.2.- Individual Entrepreneurial Orientation and Entrepreneurial Intention.

The construct of Entrepreneurial Orientation (EO) has been widely researched and documented in strategic management and entrepreneurship (Schachtebeck et al., 2018; Rauch et al., 2009). The notion of EO was first proposed by Miller (1983) and further developed by Covin and Slevin (1991) as a managerial strategy aimed at identifying and capitalizing on entrepreneurial opportunities (Lumpkin & Dess, 1996) through the demonstration of innovative, proactive, and risk-taking behaviors (Dai et al., 2014; Rauch et al., 2009; Robinson & Stubberud, 2014). EO has been studied both from a firm-level and individual-level perspective (Fey & Denison, 2003; Alt et al., 2023), as organizational behavior is often shaped by the actions of individuals (Bolton & Lane, 2012; Robinson & Stubberud, 2014).

Individuals with an entrepreneurial mindset tend to exhibit qualities such as innovativeness, proactiveness, and risk-taking (Goktan et al., 2016), which sets them apart from their more conservative counterparts who may be less open to new experiences and innovative ideas (Gupta et al., 2009; Alt et al., 2023). Studies have suggested that individuals who exhibit entrepreneurial behavior are more likely to start their own companies (Bolton & Lane, 2012) and have a higher entrepreneurial inclination (Martin & Moodysson, 2013). Creativity, imagination, and proactivity have all been positively correlated with EI (Gurel et al., 2010; Kumar & Shukla, 2019; Muammara & Maker, 2022).

Furthermore, individuals more inclined to take risks have higher EI as they are more confident in their ability to succeed as entrepreneurs (Barbosa et al., 2008; Zhao et al., 2005).

The influence of the immediate social environment, particularly reference groups, on individual EI must be considered (Engle et al., 2010; Gieure et al., 2020; Liñán et al., 2011). It is believed that the individual's EI may be positively or negatively impacted based on the perception of entrepreneurship within their close social circle

(Ajzen, 1991; Akerlof & Kranton, 2000). Additionally, entrepreneurial motivation is influenced by the entrepreneur's cognitive and psychological traits and personal characteristics, such as innovativeness and risk aversion (Marques et al., 2013).

An entrepreneurial orientation can be a foundation for entrepreneurial decisions and actions (Wiklund & Shepherd, 2005) and shape an individual's conviction to identify and develop business ideas within their social environment. Individuals with higher IEO are more confident in their beliefs and better equipped to manage resources and make quick judgments (Naveed et al., 2021). They are also better equipped to adapt to unfavorable conditions (Alt et al., 2023).

Chapter 2

Objectives

UNIVERSITAT ROVIRA I VIRGILI
CREATIVITY, INNOVATION, AND ENTREPRENEURSHIP AT WORK: PREDICTIVE RESEARCH
Rojin Ghasemijalal

2.1.- General objective

The primary objective of this research endeavor is to explore and examine the correlation between motivation and creativity in fostering an entrepreneurial mindset and the subsequent impact of this mindset on enhancing the creative aptitude of Spanish employees.

2.2.- Specific objectives

Objective one: To examine the relationship between innovation and employee creativity in a Spanish sample. Specifically, the study seeks to measure innovation as a predictor of employee creativity while exploring other relevant variables, such as personality, engagement, and lifestyle, which may impact creativity in the workplace. In addition, the study aims to investigate the phenomenon of workaholism as a potential predictor of employee creativity.

Objective two: To measure and investigate creativity and motivation as predictors of entrepreneurial orientation among Spanish workers. The study examines the relationship between creativity, motivation, and entrepreneurial orientation, specifically regarding autonomy, innovation, risk-taking, and competitive aggression.

Objective three: To explore the predictors of entrepreneurial motivation among a sample of Spanish workers. The study aims to investigate the relationship between creativity and entrepreneurial motivation and other relevant variables such as work enjoyment, independence and autonomy, intrinsic motivations, impulsivity, and irritation.

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Chapter 3

Method

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This thesis's overarching objective was achieved by implementing three studies. The fundamental elements of participant selection, measurement tools, data collection procedures, and analytical techniques are thoroughly examined in each study.

3.1.- Participants

In all three studies, the sample consisted of 1,106 workers from Spain, with a gender distribution of 48.51% males and 51.49% females (standard deviation = 11.25). The average age of the participants was 42.49 years. The sample group's marital status was distributed as follows: married (60.8%), single (6.9%), divorced or separated (23.8%), and widowed (8.5%). In terms of education, 1.4% of the participants had no degree, 28.5% had completed elementary school, 39.1% had completed high school, 18.4% had completed a three-year university program, 12.6% had completed a five-year university program (such as engineering or architecture), and 6% had completed a master's or doctoral degree.

3.2.- Instruments

In Study One, The Creative Potential and Practiced Creativity Scale (CPPC) measures creative potential and practiced creativity with seventeen items in the original Spanish version, divided into three subscales: Creative Potential, Practiced Creativity, and Perceived Organizational Support. The Creative Environment Perceptions Scale (CEP) assesses an individual's perceptions of their creative environment, consisting of nine items divided into three subscales: Support for Creativity, Work Characteristics, and Blocks to Creativity. The Workaholism Battery (WorkBAT), with a Spanish version drawn up by Boada-Grau et al., has nineteen items and two subscales: Driven and Work Enjoyment. The Maslach Burnout Inventory (MBI-GS) assesses burnout with fifteen items in three subscales: Exhaustion, Cynicism, and Professional Efficacy. The Overall Personality Assessment Scale (OPERAS) questionnaire is based on the Big Five personality factors. The Spanish adaptation of the Inventory of Obsessive Beliefs (ICO) evaluates obsessive-compulsive tendencies, and the Impulsivity

Inventory (DII) measures impulsivity. The Spanish version of the Irritation Scale (IS) has two subscales: Emotional and Cognitive Irritation.

In Study Two, The CPPC, CEP, EM, and EO are psychometric instruments used to assess various aspects of creativity, motivation, and entrepreneurial orientation. The CPPC measures creative potential, practiced creativity, and perceived organizational support through 17 items divided into three subscales. The CEP assesses an individual's perceptions of their creative environment through nine items divided into three subscales: support for creativity, work characteristics, and blocks to creativity. The EM evaluates an individual's motivation to start a professional or business venture through 17 items divided into four factors. Finally, the EO measures an individual's orientation towards pursuing a professional or business activity through 12 items and four factors: autonomy, innovativeness, risk-taking, and competitive aggressiveness. The Spanish versions of the EM and EO scales have shown adequate reliability and validity, and the response format for all scales is a Likert scale.

Study three describes several psychometric instruments used to assess constructs related to human behavior, including workaholism, personality traits, obsessive-compulsive tendencies, impulsivity, and entrepreneurial motivation. Specifically, the DUWAS questionnaire and the Workaholism Battery evaluate the workaholism construct, while the Overall Personality Assessment Scale measures the Big Five personality traits. The Inventory of Obsessive Beliefs assesses obsessive-compulsive tendencies, and the Impulsivity Inventory evaluates an individual's tendency to act without thinking. Lastly, the Entrepreneurial Motivation Scale evaluates an individual's motivation to initiate professional and business ventures. All the scales mentioned employ the Likert response format with varying numbers of items and internal consistency levels.

These three studies focus on psychometric instruments used to assess various constructs related to human behavior, including creativity, motivation, workaholism, personality traits, obsessive-compulsive tendencies, impulsivity, and entrepreneurial orientation. In Study 1, the Creative Potential and Practiced Creativity Scale (CPPC), Creative Environment Perceptions Scale (CEP), Workaholism Battery (WorkBAT), Maslach Burnout Inventory (MBI-GS), Overall Personality Assessment Scale (OPERAS), Inventory of Obsessive Beliefs (ICO), Impulsivity Inventory (DII), and Irritation Scale (IS)

were used. Study 2 highlights the CPPC, CEP, Entrepreneurial Motivation Scale (EM), and Entrepreneurial Orientation Scale (EO) as psychometric instruments to assess creativity, motivation, and entrepreneurial orientation. Study 3 discusses the DUWAS questionnaire, Workaholism Battery, Overall Personality Assessment Scale, Inventory of Obsessive Beliefs, Impulsivity Inventory, and Entrepreneurial Motivation Scale in assessing constructs related to human behavior. All the scales use the Likert response format with varying numbers of items and internal consistency levels.

3.3.- Procedure

Study one involved using non-probabilistic sampling, also known as random accidental sampling, to obtain a sample for the study. Company managers obtained consent before administering the scales to employees during work hours. Participants were instructed to respond to the rankings, and their responses were kept confidential and anonymous. The study included employees from various sectors, such as multinationals, SMEs, cooperatives, public administration, and self-employed professionals. The data collection process lasted an average of 40 minutes, and participation in the study was voluntary and unpaid.

In study two, trained interviewers administered questionnaires to company managers and employees during working hours. Participants were instructed to provide honest responses, and the study ensured that participation was voluntary and confidential. The anonymity of the responses was maintained, and a non-probability sampling method, specifically random sampling, was utilized to select participants and organizations based on their accessibility.

Study three, a non-probabilistic sampling method known as random-accidental sampling, was employed to gather employee data, with permission granted by company managers beforehand. Participants were administered the scales individually during their work hours, and the confidentiality and anonymity of their responses were maintained. The data collection process took an average of 40 minutes, and participation in the study was voluntary and unpaid.

In conclusion, the three studies discussed in this text utilized different sampling methods and data collection techniques to investigate various aspects of employee

behavior and attitudes in the workplace. Study one employed non-probabilistic sampling to obtain a diverse sample of employees from different sectors, while Studies 2 and 3 utilized random and random-accidental selection to select participants.

All three studies ensured that participation was voluntary and confidential, and the anonymity of responses was maintained. The data collection process took an average of 40 minutes in all three studies, and participants were instructed to respond to the scales. These studies provide valuable insights into employee behavior and attitudes in the workplace, and their findings can inform strategies to improve employee well-being and productivity.

The code of the Ethics Committee of the URV for the current research is CEIPSA-2023-TD-0020.

3.4.- Data Analysis

In Study One, the data analysis process involved stepwise regression in SPSS 26.0 in identifying the most effective predictor variables that explained the maximum variance of the four criterion variables. Pearson's correlation coefficients were used to evaluate significant relationships between the predictive and criterion variables. Furthermore, multiple regression was performed using the stepwise option, which introduced each predictive variable into the model based on its contribution to the variance explanation, ensuring a comprehensive assessment of the interrelationships among the variables of interest in the study.

Study two used the stepwise option in IBM SPSS Statistics 26 software to perform multiple regression analyses to identify the most effective predictive variables in the model. A series of steps were followed, with eight predictive variables initially selected based on their correlation with the criterion variable and input criteria. Subsequent steps involved using the partial correlation coefficient as the selection criterion and adding variables to the model if they met the entry criteria and had the highest absolute value for the partial correlation coefficient. This method ensured a comprehensive evaluation of the interrelationships among the variables of interest in the study.

In Study Three, stepwise regression in SPSS 26.0 was employed to identify the most effective predictor variables that explained the maximum variance of the four

criterion variables. Pearson's correlation coefficients were used to determine the strength of relationships between the predictive and criterion variables. Multiple regression analysis was then performed using the stepwise option, which allowed for the inclusion of each predictive variable in the model based on its contribution to the explanation of variance. This approach enabled a comprehensive examination of the interrelationships among the variables of interest in the study.

In conclusion, the three studies employed different approaches to analyze the data and evaluate the interrelationships among the variables of interest. Study one utilized stepwise regression in SPSS 26.0 and Pearson's correlation coefficients to identify the most effective predictor variables that explained the maximum variance of the four criterion variables. Multiple regression was then performed using the stepwise option, ensuring a comprehensive assessment of the interrelationships among the variables.

Study two used the stepwise option in IBM SPSS Statistics 26 software to perform multiple regression analyses. They identified the most effective predictive variables based on a series of steps, which ensured a comprehensive evaluation of the interrelationships among the variables. Study three employed stepwise regression in SPSS 26.0 and Pearson's correlation coefficients to identify the most effective predictor variables, followed by multiple regression analysis using the stepwise option, allowing for a comprehensive examination of the interrelationships among the variables of interest. These approaches yielded valuable insights into the variables of interest and can inform future research in similar areas.

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Chapter 4

Results

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Results

Study I: Exploratory Investigation of Predictors of Employee Creativity.

Study II: Creativity and Motivation as Predictors of Entrepreneurial Orientation in Spanish Workers.

Study III: Workaholism, Personality, and Obsessive Beliefs as Predictors of Entrepreneurial Motivation.

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Study I: Exploratory Investigation of Predictors of EmployeeCreativity

Abstract

Background: Recent studies focusing on workaholism have identified various variables – for example, personality, engagement, and lifestyle – as predictors of employee creativity. Here, we present a predictive study of these variables. It aims to determine the relationship between Creativity and Workaholic, Burnout, Personality, Obsessive Beliefs, Impulsivity, and Irritation. **Method:** Participants in the study were 1,106 Spanish workers (48.51% men and 51.49% women) obtained through non-probability sampling. Five assessment tools were used: The Creative Potential and Practiced Creativity (CPPC) scale, the Workaholism Battery (WorkBAT), the Maslach Burnout Inventory-General Survey (MBI-GS), the Overall Personality Assessment Scale (OPERAS), the Spanish adaptation of the Inventory of Obsessive Beliefs (ICO), Dickman's Impulsivity Inventory (DII), and the Irritation Scale (IS). Data were analyzed using stepwise regression in SPSS 26.0. **Results:** Significant correlations were found with various variables. Creative Potential is influenced by Work Enjoyment, Professional Efficacy, Functional Impulsivity, and Intolerance to Uncertainty; Practiced Creativity is positively influenced by Work Enjoyment and Professional Efficacy and negatively by Cynicism; and Support for Creativity is positively influenced by Work Enjoyment, Professional Efficacy, Emotional Irritation, and Emotional Stability and negatively by Cynicism. Our results confirm a significant positive predictive relationship between all measures of creativity and enjoyment of work, professional efficacy, functional impulsivity, and responsibility. Work Enjoyment is the variable that presents the most significant predictive capacity. **Conclusions:** The results of this study are essential for organizations because individual creativity can generate innovation and flexibility. Creative people try to achieve desirable results. They are successful because they set goals, develop innovative ideas, and are flexible. Work Enjoyment and Professional Efficacy are the variables that explain the most significant amount of variance when predicting Creativity.

Keywords: Workaholism; Creativity; Personality; Job Performance

Introduction

Creativity is an essential ingredient for organizational success. Given their need to thrive in a rapidly changing global economy, many organizations must innovate to grow and survive (Martin et al., 2021). Creativity is critical in innovation (Darvishmotevali et al., 2020). Innovation involves practically implementing creative ideas, and organizations can only innovate by generating these ideas (Lee et al., 2019). As a result, creativity is essential for individual and organizational performance, economic success, and local and global social development (Faggian et al., 2017). Organizational creativity studies argue that the driving force behind innovation in any organization is its employees, and it is through their creativity that an organization can create novel, potentially valuable ideas about organizational products, practices, services, or procedures (Shalley et al., 2004; Song et al., 2020). Employees are an organization's creative capital and its most important asset, llection of creative individuals whose ideas can be transformed into valuable products and services (Davila & Ditillo, 2017; Li et al., 2021).

As creative ideas turn ordinary companies into market leaders (Bathelt et al., 2017), employee creativity is a precious asset for any business organization. Many researchers suggest that enhancing employees' creative performance is essential to achieving a competitive advantage (Akbari et al., 2020; Bollinger, 2019; Lee et al., 2019). Employee creativity contributes significantly to organizational innovation, effectiveness, and survival (Shahzad et al., 2017; Sutanto, 2017). Thus, creative employees are essential for firms looking to build a solid foundation for organizational creativity and innovation (Matinaro, Liu 2017). The benefits of having creative employees extend beyond the ideas that these employees can generate and enhance the creative potential of other employees (Zhou & Feng, 2017). Creative ideas are likely to be applied by other employees in their work and then developed further and transferred to other people in the organization for their use and development (Zhou & Feng, 2017).

The topic of creativity in organizations has received increasing attention in recent decades. Researchers in various scientific disciplines – from psychologists to organizational behaviorists – have examined creativity in work environments and the factors it is stimulated or inhibited by (Christensen-Salem et al., 2021; Podsakoff et al., 2000; Teng et al., 2020). Attempts to conceptualize creativity in organizations can be situated within various person-context theories that define individual employees'

characteristics, the context of their work, and the interactions between these characteristics.

Previous research has examined the effect of individual characteristics such as personality, cognitive style, skills, experience, and motivation relevant to creativity (Grosser et al., 2017; Huang, Chang et al., 2020; Huang, Ku, o et al., 2020; Menold & Jablokow, 2019; Vincent et al., 2002). A major challenge confronting managers in the 21st century focuses on harnessing the potential capabilities of employees to enhance and accelerate organizational innovation (Zach, 2016). To pursue this goal, employees' knowledge and creativity can be harnessed to activate positive organizational changes (Schmidt & Brinks, 2017).

Creativity is a highly ambiguous concept that tends to be given different meanings in different disciplines or practices (Bell, 1976; Innocenti & Lazzeretti, 2019; Schulte & Gearhardt, 2017). This diversity is evident in the discourse on enterprise and entrepreneurship. Abstract economic function is embodied in daring entrepreneurs' creative and alert actions. At the same time, management-oriented experts often treat creativity firsthand, highlighting the creative behaviors and thought styles apparent in opportunity search, business model development, and social networking (Drazin, 1985; Sarasvathy, 2001; Song & Yu, 2018).

Creativity is a broad area that can improve lives (Batey & Furnham, 2008; Dentchev et al., 2016). It has been identified as an outcome that focuses on new and valuable ideas (Sanasi et al., 2020; Shalley et al., 2004), and it can be described as the capacity to perceive new relationships, examine subjects from new perspectives, and form new concepts from existing information (Forgionne & Newman, 2007). Some studies consider it a personal characteristic with broad areas of interest and high energy levels (King & Gurland, 2007; Lassig, 2020). Particularly in developing countries, it is not given sufficient importance by many organizations, particularly in developing countries that do not consider creativity's importance. Even so, environmental changes have forced organizations to think creatively to help ensure their survival (Fazlagić & Szczepankiewicz, 2020; Haase et al., 2018). Therefore, all organizations need managers to identify, understand, and use techniques and approaches that improve their employees' creativity. One way to achieve this is for managers to focus on the personality trait of perfectionism (Ekohariadi et al., 2020; Gajdzik & Wolniak, 2022). The current study's findings are significant to organizations because individual creativity can generate innovation and flexibility. Creative people usually try to achieve desirable outcomes.

They succeed tremendously by setting goals, generating the latest ideas, and being flexible.

This study aims to identify aspects presented as predictive variables of employee creativity; for this, we use the following indicators: Workaholic, Burnout, Personality, Obsessive Beliefs, Impulsivity, and Irritation.

Method

Participants

The sample comprised 1,106 Spanish employees, 48.51% men and 51.49% women. The mean age was 42.49 years (*SD* = 11.25). Regarding marital status, 60.8% were married, 6.9% were single, 23.8% were divorced/separated, and 8.5% were widowed. In terms of academic qualifications, 1.4% had no academic certificate or degree, 28.5% had finished primary education, 39.1% had finished secondary education, 18.4% had taken a three-year university degree, 12.6% had taken a five-year university degree (engineering or architecture), and 6% had completed a master's degree/doctorate.

Instruments

The Creative Potential and Practised Creativity Scale (CPPC; DiLiello & Houghton, 2006). The Spanish version consists of seventeen items (Boada-Grau, Sánchez-García, et al., 2014). Items are divided into three subscales: Creative Potential (6 items; α = .82; e.g., "2. I have confidence in my ability to solve problems creatively"), Practiced Creativity (5 items; α = .80; e.g., "8. I am invited to submit ideas for improvements in the workplace") and Perceived Organizational Support (3 items; α = .90; e.g., "13. Ideas are judged fairly in this organization"). The response format was a five-point scale ranging from 1 (*Totally disagree*) to 5 (*Totally agree*).

The Creative Environment Perceptions Scale (CEP; Mayfield & Mayfield, 2010). The Spanish version consists of nine items divided into three subscales (Boada-Grau, Vigil-Colet, et al., 2014): Support for Creativity (3 items; α=.85; e.g., "3. My organization encourages me to work creatively"), Work Characteristics (3 items; α=.71; e.g., "5. My work is challenging"), and Blocks to Creativity (3 items; α=.81; e.g., "9. It is difficult to be creative with the work deadlines I have").

The Workaholism Battery (WorkBAT; Burke et al., 2002; McMillan et al., 2002; Spence & Robbins, 1992). The Spanish version (Boada-Grau et al., 2013) has nineteen items and two subscales: Driven (12 items, e.g., "[14. I feel obliged to work hard even when it is not pleasant") and Work Enjoyment (7 items, e.g., "eight. Wasting time is as bad wasting money"). The response format was a five-point scale, ranging from 1 (*Do not agree at all*) to 5 (*Agree*), with reliabilities of .82 and .83.

The Maslach Burnout Inventory (MBI-GS: Salanova et al., 2000) assesses burnout with 15 items in three subscales: Exhaustion (5 items; α=.87; e.g., "6. I am burnt out by the job"), Cynicism (4 items; α=.85; e.g., "9. I have lost enthusiasm for my job"), and Professional Efficacy (6 items; α=.78; e.g., "12. I have accomplished many worthwhile things in this job"). The responses were anchored using a six-point scale, ranging from 1 (*Never*) to 6 (*Every day*).

The Overall Personality Assessment Scale (OPERAS; Vigil-Colet et al., 2013) is a questionnaire based on the Big Five personality factors, according to which human behavior depends on five personality traits: Extraversion (α = .86; e.g., "20. I make friends easily"), Emotional Stability (ES) (α=.86; e.g., "15. I often feel sad"), Conscientiousness (α =.77; e.g., "28. I am a perfectionist"), Agreeableness (α =.71; e.g., "29. I am often unpleasant with others"), and Openness to Experience (OE) (α = .81; e.g., "24. I like to visit museums"). Respondents were asked to indicate the extent to which each of the forty items described them, using a five-point scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). This scale provides scores unaffected by two of the best-known response biases: social desirability and acquiescence.

The Spanish adaptation of the Inventory of Obsessive Beliefs (ICO; Belloch et al., 2003) evaluates obsessive-compulsive tendencies. It consists of fifty-eight items, grouped into seven factors that are scored on a 7-point Likert scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). This study focuses on two aspects: Perfectionism and intolerance to uncertainty (14 items; α=.86, e.g., "2. I must be the best at things that are important to me"), and Excessive responsibility and importance of controlling thoughts (10 items: α=.84, e.g., "49. I should be able to rid my mind of inadequate thoughts").

The Impulsivity Inventory (DII; Dickman, 1993), Spanish version (Chico et al., 2003) consists of 23 items and two subscales: the first evaluates Functional Impulsivity (11 items; α = .77; e.g., "4. I am good at taking advantage of unexpected opportunities,

where you have to do something immediately or lose your chance") and the second assesses Dysfunctional Impulsivity (12 items: α = .76, e.g., "14. Frequently, I get into hurried situations because I do not think before acting"). The Likert responses were 1 (*True*) and 0 (*False*).

The Spanish version of the Irritation Scale (IS; Mohr et al., 2006) has eight items and two subscales (Merino-Tejedor et al., 2013). The first subscale is Emotional Irritation (5 items; α=.86; e.g., "3. When other people talk to me, it irritates me"); the second is Cognitive Irritation (3 items; α =.87; e.g., "1. I find it hard to switch off after work"). The Likert responses were on a 7-point scale, ranging from 1 (*Very much disagree*) to 6 (*Very much agree*).

Procedure

The sample was obtained using non-probabilistic sampling (Meng et al., 2019), also known as random accidental sampling (Bar-Yossef & Gurevich, 2008). Before collecting the data, we obtained permission to conduct the investigation. After receiving the respective company managers' consent and contacting employees to participate in the study, the scales were administered individually during their work hours. Participants were instructed to answer the scales and assured that their replies would be treated as strictly confidential and anonymous. The participants were employees of multinationals, SMEs, cooperatives, public administration, and self-employed professionals. The date and time for collecting the data were agreed upon with each participant, the average duration being 40 minutes. Participation was voluntary and unpaid.

Data analysis

The data were analyzed using stepwise regression in SPSS 26.0 (Olvera & Zumbo, 2019; Tang & Li, 2021). This enabled us to account for the maximum variance of the four criterion variables using the fewest predictor variables possible. Pearson's correlation coefficients were calculated in the predictive study to ascertain the significant relationships between the predictive variables and criterion variables. Subsequently, multiple regression was performed using the stepwise option, in which the program introduces each predictive variable into the model depending on its contribution to the variance explained.

Results

Reliability analysis

As shown in Table 1, all instruments have an adequate internal consistency (Cronbach's alpha coefficient). The minimum value was recorded for Agreeableness (α =.72) and the maximum for Emotional Stability (α = .86).

Table 1

Descriptive statistics and reliability values with Cronbach's alpha coefficient

	Minimum	Maximum	Average	SD	alpha
Creative Potential (cppcF1)	9	30	22.71	3.43	.85
Practiced Creativity (cppcF2)	5	25	17.48	4.25	.83
Support for Creativity (pceF1)	3	15	9.65	2.89	.80
Driven (wbF1)	13	60	31.18	9.00	.81
Work Enjoyment (wbF2)	7	32	15.37	5.37	.82
Exhaustion (mbiF1)	0	30	10.68	6.54	.85
Cynicism (mbiF2)	0	24	5.88	5.38	.84
Professional Efficacy (mbiF3)	12	36	27.88	5.59	.79
Extraversion (EX)	21	69	47.36	9.95	.85
Emotional Stability (ES)	8	71	49.26	9.11	.86
Conscientiousness (CO)	17	71	49.31	9.22	.78
Agreeableness (AG)	20	77	48.62	8.92	.72
Openness to Experience (OE)	4	68	48.52	9.87	.80
Perfectionism (ICO1)	21	98	72.40	14.28	.85
Excessive Responsibility (ICO2)	17	70	51.33	10.46	.83
Functional Impulsivity (Imp. Fun)	1	11	5.55	1.50	.76
Dysfunctional Impulsivity (Imp. Disfun)	2	11	5.55	1.41	.77
Emotional Irritation (iEm)	5	35	13.66	6.69	.85
Cognitive Irritation (iCo)	3	21	8.83	4.81	.86

Correlation analysis

Table 2 shows significant correlations. Of these, sixty-eight are positive, and fourteen are negative. Specifically, the positive correlations include Practiced Creativity with Support for Creativity (r= .68, p<.01), Exhaustion with Cynicism (r =.60, p <.01), and Cognitive Irritation with Driven (r=.55, p<.01). The negative correlations were Cynicism with Support for Creativity (r= -.35, p <.01) and with Practiced Creativity (r=-.31, p <.01).

Table 2

Pearson correlation matrix to examine the relationship among variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Creative Potential (cppcF1)																		
2. Practiced Creativity (cppcF2)	**.36****																	
3. Support for Creativity (pceF1)	**.28****	**.68****																
4. Driven (wbF1)	**.22****	**.11***	**.14****															
5. Work Enjoyment (wbF2)	**.30****	**.41****	**.38****	**.35****														
6. Exhaustion (mbiF1)	-.03	**-.19****	**-.16***	**.33***	**-.15****													
7. Cynicism (mbiF2)	**-.10***	**-.31****	**-.35****	.11	**-.21****	**.60****												
8. Professional Efficacy (mbiF3)	**.31***	**.30****	**.35****	**.29****	**.33****	**-.13****	**-.41****											
9. Extraversion (EX)	**.09***	.03	.07	.00	.09	-.04	-.02	-.01										
10. Emotional Stability (ES)	**.10***	**.12****	**.16****	-.10	**.11***	-.04	-.02	.00	**.25****									
11. Conscientiousness (CO)	.08	.03	.02	.02	.02	.01	-.04	.08	**.18****	**.24****								
12. Agreeableness (AG)	.07	.03	.04	-.01	.04	-.07	.00	.07	**.11***	**.22****	.06							
13. Openness to Experience (OE)	.06	.03	.03	.01	.06	-.04	**-.12***	.10	**.11***	-.04	.08	**.09***						
14. Perfectionism (ICO1)	**.21****	.08	**.16****	**.43****	**.17****	**.17****	-.02	**.22****	.05	-.06	.07	-.01	**.12***					
15. Excessive Responsibility (ICO2)	**.15****	.07	**.15****	**.36****	**.09***	**.15****	-.04	**.15***	.03	-.09	**.13****	.02	**.14****	**.83****				
16. Functional Impulsivity (Imp. Fun)	**.16****	.08	.01	.00	**.10***	-.09	-.06	.10	-.01	.04	.00	.02	.03	-.10	-.06			
17. Dysfunctional Impulsivity (Imp. Disfun)	**.10****	.04	.05	**.15****	**.15****	.04	.05	-.03	.05	.02	.04	-.01	**.12****	**.10***	.07	**.08***		
18. Emotional Irritation (iEm)	-.04	**-.10***	.01	**.34****	-.02	**.48****	**.29****	-.08	-.01	-.05	-.07	-.01	-.03	**.25****	**.28****	-.05	.09	
19. Cognitive Irritation (iCo)	.09	.06	**.11***	**.55****	**.24****	**.32****	**.13****	**.13****	-.02	.03	-.10	-.08	-.01	**.25****	**.21****	**.10***	**.11***	**.49****

Note. $^{*}p < .05$, $^{**}p < .01$.

Multiple regression

A multiple regression model was utilized to evaluate the effects of predictor variables on criterion variables about creativity. This statistical technique objectively evaluates independent variables (Hinton et al., 2014). Tables 3, 4, 5, and 6 show the data corresponding to the adjusted R^2 indices and significant typified beta coefficients between the criterion and predictive variables.

Table 3 shows an adjusted R^2 of .197 for Creative Potential, preceded by four variables (wbF2, mbiF3, Imp. Fun, and ICO.PerfecyIntoler. Incert). The beta coefficient values are fundamental, which show that the following predictive variables were statistically significant: wbF2 (β=.220), mbiF3 (β=.209), and Imp. Fun (β=.175), and ICO.Perfect (β=.134). Creative Potential (cppcF1) can be predicted through the variables wbF2, mbiF3, and Imp. Fun, ICO.Perfec.yIntoler.Incert.

Table 3

Summary of the models, variables, and coefficients of regression analysis(step-by-step method) for Creative Potential (cppcF1)

	Models					Coefficients			
Models and Variables	R	R2	R2 Adjusted	R Change	F Change	sig	B	SE	βt	Sig
Model 1	.342	.117	.114	.117	42.261	.000				
Model 2	.409	.167	.162	.050	19.275	.000				
Model 3	.437	.191	.183	.023	9.190	.003				
Model 4	.455	.207	.197	.016	6.555	.011				
Work Enjoyment (wbF2)							.142	.035	.2204.057	.000
Professional Efficacy (mbiF3)							.133	.035	.2093.850	.000
Functional Impulsivity							.419	.123	.1753.413	.001
Perfectionism (ICO1)							.033	.013	.1342.560	.011

Table 4 shows an adjusted R^2 of .245 for Practical Creativity, influenced by three indicators (WBF2, MBIF2, and MBIF3): WBF2 and MBIF3 influence positively while MBIF2 impacts negatively. Fundamental is the beta coefficient values, which show that the following predictive variables were statistically significant: WBF2 (β =.320), MBIF2 (β=-.215), and MBIF3 (β = .129). Practiced Creativity (cppcF1) can be predicted through the variables wbF2, mbiF3, and mbiF2.

Table 4

Summary of the models, variables, and coefficients of regression analysis (step-by-step method) for Practiced Creativity (cppcF2)

	Models						Coefficients				
Models and Variables	R	R2	R2 Adjusted	R Change	F Change	sig	B	SE	β	t	Sig
Model 1	.420	.176	.174	.176	67.611	.000					
Model 2	.490	.240	.235	.064	26.339	.000					
Model 3	.503	.253	.245	.013	5.334	.022					
Work Enjoyment (wbF2)							.251	.041	.320	6.097	.000
Cynicism (mbiF2)							-.175	.044	-.215	-3.974	.000
Professional Efficacy (mbiF3)							.100	.043	.129	2.310	.022

Table 5 shows an adjusted R^2 of .232 for Creativity Support, influenced by five indicators (WBF2, MBIF2, MBIF3, IEM, and the OPERAS Emotional Stability factor): WBF2, MBIF 3, IEM, and OPERA influence positively but MBIF2 influences negatively. Significant are the beta coefficient values, which show that the following predictive variables were statistically significant: WBF2 (β = .253), MBIF2 (β = -.243), MBIF3 (β = .148), IEM (β = .129), and OPERAS Emotional Stability factor (β = .121).

Table 5

Summary of the models, variables, and coefficients of regression analysis (step-by-step method) for Support for Creativity (pceF1)

Models and Variables	Models						Coefficients				
	R	R2	R2 Adjusted	R Change	F Change	sig	B	SE	β	t	sig
Model 1	.373	.139	.137	.139	51.039	.000					
Model 2	.447	.200	.195	.061	23.879	.000					
Model 3	.465	.217	.209	.016	6.559	.011					
Model 4	.479	.230	.220	.013	5.350	.021					
Model 5	.494	.244	.232	.014	5.956	.015					
Work Enjoyment (wbF2)							.129	.027	.253	4.726	.000
Cynicism (mbiF)							-.127	.030	-.243	-4.199	.000
Professional Efficacy (mbiF3)							.074	.029	.148	2.576	.010
Emotional irritation (iEm)							.053	.022	.129	2.479	.014
Emotional Stability (ES)							.038	.016	.121	2.441	.015

Discussion

Our objective is partially confirmed. The results demonstrate a significant positive predictive relationship between all creative measures and creativity: Work Enjoyment, Professional Efficacy, Functional Impulsivity, and Excessive Responsibility are all positively correlated. Hahn-Markowitz et al. (2018) showed that impulsivity has a negative relationship with creativity. The present study provides some preliminary evidence that Impulsivity can predict creativity: higher impulsivity will predict higher scores on creativity tasks. One explanation is that the more impulsive a person is, the greater the likelihood they will act on the first ideas that come to mind, even if they are less likely to be original. These people may need to rule out their first ideas before creating original or creative ideas (Beaty & Silvia, 2013; Shoimah et al., 2018).

The present study examined adaptive and maladaptive perfectionism in creativity. Adaptive perfectionism was positively related to a variety of creative measures. There is a dearth of studies exploring the relationship between perfectionism

and creativity, and they have confirmed the relationships discussed above. For example, Berglund and Wennberg (2006) and Gajdzik and Wolniak (2022) showed a meaningful relationship between positive perfectionism and creativity. Brown et al. (1999) and Flett and Hewitt (2006) also conducted a study on positive and negative perfectionism and found that positive perfectionists exhibited greater creativity than negative perfectionists. The results show a meaningful correlation between positive perfectionism and creativity dimensions. In many studies, the discussion of perfectionism has typically focused on negative aspects (Ocampo et al., 2020). However, other authors show perfectionism is positive in thoughts, feelings, and behaviors (Karin & Nordin-Bates, 2020). Perfectionism mediated brain structure variation and negative emotion in a nonclinical sample and confirmed the relationship between positive perfectionism and creativity.

Our results confirm that Work Enjoyment (WBF2) and Professional Efficacy (MBIF3) have a significant positive predictive relationship with Practiced Creativity (Table 6). This study's findings did not support the hypothesis that there is a correlation between Driven (MBIF2), with the item meaning "guilty when I am absent from work," and Practiced Creativity. It found a negative correlation between them. This is supported by previous literature that identifies workaholism and work engagement as weakly positively related and, therefore, two different concepts.

Table 6

Summary of the predictive models for the criterion variables

PREDICTOR VARIABLE	Potential Creative	Practiced Creativity		Support for Creativity	
	ΔR2 Corrected	β	ΔR2 Corrected	β	ΔR2 Corrected	β
Work enjoyment	.114	.220	.174	. 320	.137	. 253
Professional Efficacy	.048	.209	.010	.129	.014	.148
Functional Impulsivity	.021	.175	---	---	---	---
Perfectionism	.014	.134	---	---	---	---
Cynicism	---	---	.061	-.215	.058	-.243
Emotional Irritation	---	---	---	---	.011	.129
Emotional Stability	---	---	---	---	.012	.121
Total explained variance (%)	19.7	24.5			23.2	

All the data are significant at < .01 (bilateral).

Based on a previous cross-sectional study (Shimazu & Schaufeli, 2009), we expected workaholism to predict future unwell-being (i.e., high ill health and low life satisfaction) and poor job performance. In contrast, we expected work engagement to predict future well-being and work enjoyment (i.e., a low degree of ill-health and high life satisfaction) and superior job performance. The results showed that workaholism and work engagement were weakly and positively related (Shimazu et al., 2015). Also, workaholism was related to an increase in ill health and a decrease in life satisfaction. By contrast, work engagement was related to decreased sick health and increased life satisfaction and job performance (Shimazu et al., 2015). These findings suggest that workaholism and work engagement are two concepts with opposing relationships to well-being and performance. It has been found that workaholics affect immediate productivity and a company's future success. Although creativity has always been a concern in manufacturing, it negatively correlates with workaholism (Shimazu et al., 2020).

Work Enjoyment, Professional Efficacy, Emotional Irritation, and Emotional Stability positively correlate with creativity. Driven and Creativity negatively correlated with an index value of -.243. The closest correlation, with a value of .253, was with Work Enjoyment.

Research findings indicate that workaholism and work engagement are weakly positively related: work engagement has positive consequences for well-being and performance with creativity (Caesens et al., 2014; Miao & Cao, 2019). Therefore, workaholism should be discouraged, and work engagement should be actively encouraged.

As expected, workaholism was found to be related to an increase in ill health and a decrease in life satisfaction. By contrast, and as expected, work engagement was related to increased life satisfaction and job performance and decreased ill-health (Shimazu et al., 2015).

Much of the research in this area takes the form of literature reviews, which report a relationship between burnout and workaholism. Professional burnout occurs when a worker is overloaded by work, and management does not ensure essential freedoms in making decisions directly connected to work tasks (Hartmann & Mathieu, 2017). The potential effects of burnout are profound, both for individual staff members and for entire organizations. It has been hypothesized that professional burnout can reduce creativity and innovation (Shimazu et al., 2015; Shimazu & Schaufeli, 2009).

There is considerable overlap between various forms of creativity; creativity in one domain often correlates with creativity in another (Barron & Harrington, 1981; Szakács & Janka, 2019). Irritation-based innovation has a positive relationship with creativity, as the literature describes. When necessity drives invention, it is often accompanied by irritation as a motivating force. With Irritation Comes Innovation. However, the research into personality and creativity confirms a close association between creativity and specific personality traits. All the results suggest that personality effects are minor on creativity (Sadana et al., 2021). The results align with the previous study since emotional Stability is the only personality variable that slightly predicts Support for Creativity. In conclusion, Work Enjoyment and Professional Efficacy are those variables that explain a more significant variance when expecting Creativity.

Limitations and Suggestions for Future Research

The research we intend to carry out in the future will respond to some of the present study's limitations. First, the data were obtained through self-reports, which may be subject to forms of bias ranging from social desirability to lack of sincerity (Alzghoul et al., 2018). Second, it remains to be demonstrated that individuals with solid but untapped creative potential are likelier to develop creativity when they perceive strong organizational support (DiLiello & Houghton, 2006). Third, a multilevel methodology (Ding et al., 2019; Raudenbush, 2004) should be used to examine how the climate of

innovation teams (Newman et al., 2020; Shanker et al., 2017) fosters both creative potential and practiced creativity. Finally, longitudinal studies must determine the consequences of work addiction and the relationship between this and other variables such as training, personal growth, career advancement, and family conflicts (Calabrò, 2020; Xu & Pang, 2020).

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CREATIVITY, INNOVATION, AND ENTREPRENEURSHIP AT WORK: PREDICTIVE RESEARCH
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Study II: Creativity and Motivation as Predictors of Entrepreneurial Orientation in Spanish Workers

Abstract

Background: Entrepreneurship can be defined as a characteristic of managers and owners of individual businesses in which the entrepreneur rises to the challenge of uncertainty by developing innovative responses. This study investigated creativity and motivation as predictors of entrepreneurial orientation in Spanish workers. **Method:** A cross-sectional, descriptive design was used to examine the relationship between creativity, motivation, and entrepreneurial orientation in a sample of 1106 Spanish workers. Data was collected using the Creative Environment Perceptions, Creative Potential and Practiced Creativity, and Entrepreneurial Orientation Scale. A stepwise multiple linear regression was conducted to analyze the data. **Results:** It was found that creativity and motivation can be considered predictors of entrepreneurial orientation, as operationalized by the dime, innovation, risk-taking, and competitive aggression. Results indicate that fostering creativity may enhance employee morale and that training programs to improve creativity should be designed in consultation with employees and aligned with organizational goals to drive the development of new products and services. **Conclusions:** In conclusion, this study found that creativity and motivation are significant predictors of entrepreneurial orientation in workers. Specifically, creativity and motivation positively impacted the factors of autonomy, innovativeness, risk-taking, and competitive aggressiveness. These findings support the notion that creativity and motivation are essential factors in fostering entrepreneurial behavior workplace. Additionally, the study found that specific individual characteristics, such as work enjoyment, professional efficacy, and emotional stability, positively correlated with creativity and motivation. The potential moderating role of these unique characteristics in the relationship between creativity and motivation and entrepreneurial orientation could be one of the future research project's aims; this study highlights the importance of fostering creativity and motivation in the workplace to promote entrepreneurial behavior and drive organizational success.

***Keywords*:** Creativity Motivation; Entrepreneurial Orientation; Entrepreneurial Motivation.

Introduction

With the rapid growth of global development and the shift from a conventional society to a knowledge-based society, the new strategies that need to be implemented to create optimal new opportunities and values require institutions to change increasingly (Abraham et al., 2020). Today, the tendency to entrepreneurship is one of the unique strategies in organizations. The need for an entrepreneurial orientation strategy comes from three primary sources: the increase in new competitors, the distrust of traditional management methods, and the departure of the best workers to independent entrepreneurship (Gössling & Humpe, 2020).

Entrepreneurship is a characteristic of managers and owners of individual businesses in which the entrepreneur rises to the challenge of uncertainty by developing innovative responses (Demircioglu & Chowdhury, 2020). One of the essential perspectives that links the entrepreneurial process with the organization's strategies is the tendency toward entrepreneurship. According to this perspective, any organization can range from passive or conservative to active or entrepreneurial (Woronkowicz et al., 2020). When the organization is dynamic, its strategies include innovation, initiative, and leadership risk-taking. It emphasizes identifying, evaluating, and exploiting opportunities (Urbig et al., 2012).

Entrepreneurial orientation (EO) consists of the entrepreneur's processes, practices, and decision-making activities that lead to creating an entrepreneurial firm (Lumpkin & Pidduck, 2021; McKenny et al., 2018). Lumpkin and Dess (1996), as well as many others, have reported that the five dimensions of EO are autonomy, innovation, risk-taking, competitive aggressiveness, and proactivity, although some authors include only three of the five dimensions (Clarysse et al., 2011; Kannampuzha & Hockerts, 2019). The first dimension, autonomy, is defined as independent action by an individual or team to develop a business concept (Riding & Haines, 2001) and successfully implement it (Bolton & Lane, 2012). The second dimension, innovation, refers to the propensity for creativity and experimentation by introducing new products/services (Taques et al., 2021; Woo et al., 2021) and technology leadership through R&D in new processes (Gimenez-Jimenez et al., 2020). The third dimension is risk-taking, which involves taking bold actions such as venturing into new and unfamiliar markets (Lumpkin & Dess, 1996) and committing significant corporate resources to ventures in uncertain environments (Bolton & Lane, 2012; Street et al., 2018). The fourth dimension,

competitive aggressiveness, refers to the intensity of one's efforts to beat competitors (Hughes-Morgan et al., 2018). It is characterized by a combative attitude and vigorous response to competitors' actions (Chang & Sokol, 2020).

Finally, proactivity has an opportunity-seeking, forward-looking perspective characterized by developing new products and services ahead of competitors and acting in anticipation of future demand (Lin et al., 2019). Entrepreneurial orientation can be applied to individuals and organizations (Stertz et al., 2017; Wang et al., 2017). The factors it is influenced by have been examined in the literature independently and at various levels and organizations (De Costa et al., 2019).

Research has shown that both psychological and non-psychological factors can influence entrepreneurial orientation. Understanding the relationship between these factors and entrepreneurial orientation is vital for theoretical and empirical reasons, as they can affect the entrepreneurial orientation of entrepreneurs (Pittino et al., 2018). Various levels of entrepreneurial orientation may provide different benefits to the organization. One of the critical psychological variables in organizational productivity is the creativity variable associated with entrepreneurial activities (D'Intino et al., 2007; Isiwu & Onwuka, 2017; Palmer et al., 2019).

Motivation has been identified as a critical psychological factor impacting the inclination toward entrepreneurship and job performance improvement (Okangi, 2019; Zbierowski, 2019). The past three decades have seen an abundance of research from both psychological and managerial perspectives that highlights motivation as a function of several workplace factors, such as appraisal expectations, feedback on actual performance, and the expected reward, autonomy, and the nature of automation (Malik et al., 2021).

Theoretical and empirical evidence suggests that human work motivation can be classified into two distinct categories: intrinsic motivation, which is derived from the intrinsic value of work to the individual, such as interest, and external motivation, which stems from the desire to attain a reward or outcome separate from the work itself (Ho et al., 2018). Intrinsic and external motivations can potentially drive an individual's work behavior. However, they may also influence the individual's attitudes, enthusiasm, and overall performance toward work.

Both types of business motivation play a crucial role (Mäkikangas, 2018). It has a crucial impact on drawing in and engaging people in work and helps them constantly

express their creativity so that the organization can achieve its goals faster. Therefore, understanding how it works can show managers how to help employees meet their needs and develop a knowledgeable, active, and creative workforce (Grønhøj & Thøgersen, 2017).

Variables related to social status can determine the extent of the synergy of existing motivation. When external motivations or supports are provided for the direct or implicit purpose of control, they are more likely to destroy internal motivation and creativity (Vukadin et al., 2019). On the other hand, if external motivations are presented as a kind of validation of one's worthiness to achieve internal motivation, they are highly likely to support internal motivation and creativity (Fernet et al., 2017). As an illustration, providing financial support from an investor, driven by actions that aim to reinforce entrepreneurial activity, may have a detrimental effect on entrepreneurial creativity (Breaugh et al., 2018). Hence, it is crucial to consider this when formulating policies to support and foster entrepreneurial creativity.

According to Hannam and Narayan (2015), intrinsic motivation is fundamental to creativity. Motivated people are more curious and flexible; they seek out new things and use new methods in their work, which leads them to creativity (Gagné et al., 2019). Creativity has been studied from several aspects (person, process, product, and press) (Bledow et al., 2021; Tyagi et al., 2017), and the four diverse types have been categorized into two dimensions: (i) drivers for engagement in creative activity (internal/external) and (ii) type of problem (closed/open).

Creativity involves an interest in ideas, new experiences, and creative processes to develop and create new products/services, or technologies. Risk-taking involves giving projects support despite the possibility of failure. Leadership also means taking the lead in dealing with probable future events and overcoming the activities of competitors (Luu et al., 2019). Two other elements are components of entrepreneurship. The first is autonomy or independence in implementing innovative ideas or risky actions, and the second is competitive proficiency or a challenging attitude toward competitors trying to improve their position or enter new markets (Barroso-Tanoira, 2017).

In short, entrepreneurial firms tend to develop creative and innovative projects by anticipating market opportunities and overcoming competitors. These companies have grand expectations of their actions and take risks. On the other hand, non-profit organizations tend to react passively, adapting and avoiding risks based on a policy of

chasing and competing with competitors. In other words, they stand and watch with no entrepreneurial inclinations (Alsafadi et al., 2020). From a personal perspective, creativity is a quality of individual talents and traits (Hennessey, 2010), while from a process perspective, it is a process that generates ideas over various stages (Hennessey, 2017).

Research that examines creativity from a press perspective examines situational and environmental influences (cultural, organizational, and familial) that affect creative people and the creative process (Hunter et al., 2007; Hunter et al., 2009). Creativity is a product, broadly defined as novel (original, new) ideas about processes, services, and products that have the potential to be valuable (applicable, appropriate) to an organization in either the short or long term (Mumford et al., 2007).

Motivation is a crucial aspect of contemporary society and pervades many aspects of daily life (Zhang et al., 2014). Within organizations, for instance, employees require motivation to achieve organizational objectives, enhance their efficiency and efficacy, foster creativity and innovation, and facilitate organizational changes or improvements (Zhu et al., 2018). Motivation entails embracing change and employees' resistance to change, which drives an individual's behavior toward attaining a particular goal (Tan et al., 2019).

There are two types of motivation: epistemological or intrinsic and social or extrinsic, and both affect group creativity (Anderson et al., 2014). Intrinsic motivation means that the individual is attracted to the work itself, not the work's results (Deci & Ryan, 2000); external pressures or constraints are known as extrinsic motivations (Ryan & Deci, 2000). It is important to note that motivation epistemological alone is insufficient to increase group creativity and improve organizational performance; social creativity must also be activated (Fischer et al., 2019).

In addition to high intrinsic motivation, group members must have high social motivation for the group to achieve satisfactory results (Choi et al., 2018) because the ability to achieve effective results depends on this (Paulus, 2020). Intrinsic motivation is related to a person's personality traits, such as the inclination towards social (Briggs & Reinig, 2010) and moral principles (Hofstee et al., 1992). Social motivation depends on cooperative incentive structures (Bechtoldt et al., 2010), goal congruence among members (Pearsall et al., 2010), participative leadership, and hope for continued cooperation. Moreover, these factors lead to increased social motivation (Shin & Jang, 2017).

It should be said that high social motivation can only be associated with group creativity if it is accompanied by elevated levels of epistemic motivation (Hannam & Narayan, 2015; Oztop et al., 2018). Creativity and motivation in an organization are interrelated and play a significant role in improving organizational performance. Therefore, this study investigates motivation and creativity's role in Spanish workers' entrepreneurial orientation.

Method

Participants

The sample used in this study was 1,106 workers from Spain, 48.51% of whom were men and 51.49% women. The mean age of the participants was 42.49 years (SD = 11.25). Of the participants, 60.8% were married, 6.9% were single, 23.8% were divorced/separated, and were 8.5% widowed. In terms of academic qualifications, 1.4% did not have an educational qualification at all, 28.5% had completed primary school education, 39.1% had completed secondary school education, 18.4% had a three-year university degree, 12.6% had a five-year university degree (engineering or architecture), and 6% had a master's or doctoral degree.

Instruments

The Creative Potential and Practiced Creativity Scale (CPPC; DiLiello & Houghton, 2006). The Spanish version consists of seventeen items (Boada-Grau, Sánchez-García, et al., 2014). The items are divided into three subscales: Creative Potential, Practised Creativity, and Perceived Organizational Support. The Creative Potential subscale includes six items with a Cronbach's alpha coefficient of .82. An example is "I think I am good at generating innovative ideas." The Practiced Creativity subscale includes five items with a Cronbach's alpha coefficient of .80. An example is, "In my workplace, I have the chance to apply my imaginative abilities and abilities." The Perceived Organizational Support subscale includes six items with a Cronbach's alpha coefficient of .90. An example item is "Creative work is recognized in my organization." The response format is a 5-point scale ranging from 1 *Totally disagree* to 5 *Totally agree*.

The Creative Environment Perceptions Scale (CEP; Mayfield & Mayfield, 2010) is used to evaluate a person's perceptions of their creative environment. The Spanish adaptation of the scale consists of nine items divided into three subscales: Support for Creativity, Work Characteristics, and Blocks to Creativity. Each subscale includes three items. The Support for Creativity subscale has a Cronbach's alpha coefficient of .85. An example item is " My work is challenging." The Work Characteristics subscale has a Cronbach's alpha coefficient of .71. An example item is "I have the resources I need to carry out my work." The Blocks to Creativity subscale has a Cronbach's alpha coefficient of .81. An example item is "It is difficult to be creative with my work deadlines. "

The Entrepreneurial Motivation Scale (EM; Robichaud & McGraw, 2008) is used to evaluate a person's motivation to start a professional and business venture. The French version of the scale consists of seventeen items and four factors. The Spanish version of the scale, created by Boada-Grau et al. (2016a), consists of thirteen items and three elements: Family Security, Independence and Autonomy, and Intrinsic Motivations. These three factors have demonstrated adequate reliability (Boada-Grau et al., 2021). The Cronbach's alpha values for the three factors range from .77 to .83. The response format is a Likert scale ranging from 1 *not at all important* to 5 *very important*.

The Entrepreneurial Orientation Scale (EO; Lee et al., 2011) is a tool used to measure an individual's orientation towards pursuing a professional or business activity. The scale in English comprises twelve items and four factors. The Spanish version of the scale, created by Boada-Grau et al. (2016b), also consists of twelve items and four factors that confirm the structure of the original scale. The four factors are autonomy, innovativeness, risk-taking, and competitive aggressiveness. The scale has demonstrated reasonable reliability and convincing evidence of validity. The four factors have Cronbach's alpha coefficients ranging from .70 to .72 and confidence intervals ranging from .67 to .74. The response format is a Likert scale ranging from 1 *Strongly disagree* to 5 *Strongly agree*.

Procedure

The data for this study were gathered by administrating questionnaires to consenting company managers and employees. The scales were administered during working hours by trained interviewers, who provided the participants with appropriate instructions. Participants were requested to provide truthful responses; participation was voluntary and confidential. The anonymity of the responses was ensured. The participants and the organizations for which they worked were selected based on

accessibility using a non-probability sampling method (random sampling) (Kerlinger, 2001).

Data analysis

Multiple regression analyses were conducted using IBM SPSS Statistics 26 software with the stepwise option (Hinton, 2014). This method adds variables to the regression model in a series of steps. The first step involves selecting the eight predictive variables that correlated best with the criterion variable and met the input criteria. In subsequent phases, the partial correlation coefficient is used as the selection criterion: variables are added individually to the model if they meet the entry criteria and have the highest absolute value for the partial correlation coefficient.

Each time a new variable is added, the previously selected predictor variables are re-evaluated to determine whether they continue to meet the exit criteria. If a selected variable no longer meets the exit criteria, it is removed from the model. The process ends when no more predictor variables meet the entry criteria, and no selected variables meet the exit criteria. This process aims to explain the maximum variance with the smallest possible number of predictive variables.

Ethical Considerations

This study adhered to the ethical standards outlined in the 1964 National Research Committee Helsinki Declaration and any subsequent revisions, or equivalent ethical standards, for all research procedures involving human subjects. Informed consent was obtained by including informed consent elements in the internet invitation. Participants provided implied consent by returning the survey.

Results

Reliability analysis

The indices for internal consistency are appropriate given that they range between .71 (agreeableness) and .89 (MPIQ).

Correlation analysis

As shown in Table 1, the results reveal significant positive correlations between all variables, especially Creative Potential (cppcF1) and Innovativeness ($r = .55$, $p < .01$) as well as Practised Creativity (cppcF2) and Innovativeness ($r = .368$, $p < .01$).

Table 1

Pearson correlation matrix to examine the relationship among variables.

	1	2	3	4	5	6	7	8	9
OE-Autonomy (F1)									
OE-Innovativeness (F2)	.271**								
OE-Risk taking (F3)	.205**	.347**							
OE-Competitive Agr (F4)	.231**	.395**	.469**						
Creative Potential (cppcF1)	.282**	.550**	.249**	.388**					
Practiced Creativity (cppcF2)	.191**	.331**	.204**	.263**	.368**				
Work Characteristics (pceF2)	.175**	.188**	.128**	.233**	.252**	.469**			
Family Security (me.F1)	.247**	.114**	.150**	.199**	.064*	.171**	.155**		
Independence & Autonomy (me.F2)	.246**	.110**	.152**	.200**	.060	.159**	.151**	.972**	
Intrinsic Motivations(me.F3)	.245**	.317**	.246**	.232**	.242**	.216**	.198**	.431**	.454**

Note. *p < .05, **p < .01.

Multiple regression

As detailed in tables 3, 4, 5, and 6, a multiple regression model was used to examine predictor variables' effects on motivation and creativity criterion variables.

The model used adjusted *R*2 and beta coefficients to assess the relationships between the variables. The adjusted *R*2 for Creativity and Motivation vs. Autonomy (F1) in Table 2 is .140, preceded by four variables (cppcF1, me.F2, and me.F3). These variables showed strong positive correlations and were statistically significant, as indicated by the beta coefficients: cppcF1 (β = .245), me.F2 (β = .181,) and me.F3 (β = .112).

Table 2

Summary of the models, variables, and coefficients of regression analysis (step-by-step method) for Creativity and Motivation vs. Autonomy

Models and Variables	Models						Coefficients				
	R	R^2	R^2 Adjusted	R Change	F Change	sig	B	SE	β	t	Sig
Model 1	.283	.080	.079	.080	82.573	.000					
Model 2	.365	.133	.131	.053	58.236	.000					
Model-3	.378	.143	.140	.009	10.336	.001					
cppcF1							.161	.020	.245	7.896	.000
me.F2							.100	.019	.181	5.318	.000
me.F3							.078	.024	.112	3.215	.001

Note: Creative Potential (cppcF1), Independence & Autonomy (me.F2), Intrinsic Motivations (me.F3), Work Characteristics (pceF2)

Table 3 shows that the adjusted *R*2 for Creativity and Motivation vs. Innovativeness (F2) is .355, preceded by three variables (cppcF1, me.F3, and cppcF3). The beta coefficient values indicate that the following predictive variables were statistically significant: cppcF1 (β = .478), me.F3 (β = .182), and cppcF3 (β = .121).

Table 3

Summary of the models, variables, and coefficients of regression analysis (step-by-step method) for Creativity and Motivation vs. Innovativeness.

Models and Variables	Models						Coefficients				
	R	R^2	R^2 Adjusted	R Change	F Change	sig	B	SE	β	t	Sig
Model 1	.552	.304	.304	.304	415.398	.000					
Model 2	.586	.343	.342	.039	56.205	.000					
Model 3	.597	.357	.355	.013	19.404	.000					
cppcF1							.318	.018	.478	17.403	.000
me.F3							.128	.019	.182	6.656	.000
cppcF3							.049	.011	.121	4.405	.000

Note: Creative Potential (cppcF1), Intrinsic Motivations (me.F3), Perceived Organizational Support (cppcF3)

Table 4 shows that Risk Assumption (F3) can be preceded by four variables (me.F3, cppcF1, cppcF3, and me.F1) and has an adjusted *R*2 of .128. The beta coefficient values indicate that the following predictive variables were statistically significant and had positive correlations: me.F3 (β = .146), cppcF1 (β = .172), cppcF3 (β = .149), and me.F1 (β = .073).

Table 4

Summary of the models, variables, and coefficients of regression analysis (step-by-step method) for Creativity and Motivation vs. Risk-taking.

Models and Variables	Models						Coefficients				
	R	R^2	R^2 Adjusted	R Change	F Change	sig	B	SE	β	t	sig
Model 1	.254	.064	.063	.064	65.429	.000					
Model 2	.319	.102	.100	.037	39.495	.000					
Model 3	.352	.124	.121	.022	23.892	.000					
Model 4	.358	.128	.124	.004	4.585	.033					
me.F3							.113	.027	.146	4.179	.000
cppcF1							.125	.023	.172	5.356	.000
cppcF3							.066	.014	.149	4.654	.000
me.F1							.055	.026	.073	2.141	.033

Note: Intrinsic Motivations (me.F3), Creative Potential (cppcF1), Perceived Organizational Support (cppcF3), Family Security (me.F1)

Table 5 shows that the adjusted *R*2 for Creativity and Motivation with Competitive Agr (F4) is .207 and is preceded by four variables (cppcF1, me.F2, cppcF3, and pceF2). The beta coefficient values indicate that the following predictive variables had positive correlations and were statistically significant: cppcF1 (β = .339), me.F2 (β = .163), cppcF3 (β = .109), and pceF2 (β = .067).

Table 5

Summary of the models, variables, and coefficients of regression analysis (step-by-step method) for Creativity and Motivation vs. Competitive Agr.

Modelsand Variables	Models						Coefficients				
	R	R^2	R^2 Adjusted	R Change	F Change	sig	B	SE	β	t	Sig
Model 1	.386	.149	.148	.149	166.410	.000					
Model 2	.427	.182	.180	.033	38.241	.000					
Model 3	.447	.200	.197	.018	20.955	.000					
cppcF1							.240	.021	.341	11.365	.000
me.F2							.098	.018	.159	5.381	.000
cppcF3							.060	.013	.140	4.578	.000

Note: Intrinsic Creative Potential (cppcF1), Independence & Autonomy (me.F2), Perceived Organizational Support (cppcF3).

Discussion

This study investigated creativity and motivation as predictors of entrepreneurial orientation in Spanish workers. The results showed that all the objectives were partially fulfilled and positively related. Autonomy is influenced by motivation and creativity. The results of previous research are consistent with these findings (d'Inverno & Luck, 2012; H. Li et al., 2018; Thuneberg et al., 2018). Reeve (2006) found that autonomy is crucial to people's motivation and emotions. In other words, autonomy is essential in motivation, emotional well-being, and mental and physical health. Sawan (2018) found that the more motivated participants are autonomous, and that motivation and autonomy are reciprocal and reinforce each other (Çekmecelioğlu & Günsel, 2011).

Employees who are given freedom and independence and are allowed to use their discretion when performing their work tasks are more self-confident and motivated and have higher levels of creativity and performance. The role of autonomy and other factors that influence it has been investigated in other studies. Chang et al. (2012) showed that individuals with high self-control showed similar levels of creativity regardless of task autonomy. Individuals with low self-control showed more creative performance under a no autonomy condition than under an autonomy condition. Disick and Kuvaas (2011) showed that the relationship between perceived job autonomy and self-reported and

supervisor-rated job quality was moderated by intrinsic motivation. Jaiswal and Dhar (2016, 2017) found that job autonomy moderates affective commitment and employee creativity. Zhang et al. (2017) found a positive relationship between the effects of workplace autonomy on dedication and creativity. The research shows that motivation, creativity, and self-confidence impact employee autonomy (Peng et al., 2021).

Regarding the three variables studied, creativity and innovation seem remarkably similar. Innovation is the ability to present and implement creative activities in an organization (Norelco & Potocan, 2019; Pooran et al., 2021; Vickers, 2017). Creativity and innovation can be regarded as end states, the difference being that creativity refers to the novelty and appropriateness of the product, and innovation refers to its usefulness (Baas et al., 2015; Boada-Grau et al., 2016b).

Although it has been said that being creative can lead to innovative activities, this does not mean that more creative people constantly engage in more innovative activities (De Dreu & Nijstad, 2008; De Dreu et al., 2011). People can be innovative without being creative or fail to be innovative despite being highly creative (Choi et al., 2018).

However, creativity impacts innovation because creativity can lead to innovative activities (Mueller & Thomas, 2001; Sia & Appu, 2015; Syed et al., 2020). Other researchers point out a relationship between motivation, creativity, and innovation, which means that employee motivation can increase when creativity and innovation increase (Diliello et al., 2011; Ibrahim et al., 2016). Indeed, creativity and innovation are significant predictors of employee motivation. Internal and social motivations influence creativity and innovation (Balau et al., 2020).

This means that when group members have high internal and social motivation, they also have a more remarkable ability to create and innovate (Naranjo-Valencia et al., 2016; Ekvall, 1996). Baas et al. (2015) and De Dreu et al. (2011) pointed out that creativity involves, and sometimes requires, a willingness to take risks that enables individuals to undertake entrepreneurial activities. The higher motivation was correlated with increased risk-taking (Li et al., 2019).

Creativity-motivated entrepreneurs are more willing to take risks than others (Block et al., 2015). Creativity and risk-taking should be considered multidimensional traits (Tyagi et al., 2017). Risk-taking has five domains (financial, health and safety, leisure, ethical, and social), and the probability of social risk-taking is the strongest predictor of a creative personality (Bridgestock et al., 2020).

Competitive aggression is influenced by creativity and motivation (Shin & Grant, 2020). Competitive aggression improves organizational performance (Aronson & LaFont, 2020; Hughes-Morgan et al., 2018). Three fundamental factors generate competitive behavior: awareness, capacity, and motivation. Understanding determines an organization knows competition, ability determines the resources available for competitive activities, and motivation determines the level of competitive activities (Chan et al., 2017; Hughes-Morgan et al., 2018; Tuan, 2019). Indeed, motivation as a promoter of competitive behavior can determine how long competitive activities last. It is so vital to competitive activities that it can lead organizations to take action to outperform their competitors (Tarí et al., 2020).

Baas et al. (2015), Bittner and Heidemeier, (2013) found that a promotion focus leadsto a cooperative mindset, while a prevention focus (on individual responsibilities, for example) leads to a competitive attitude that can reduce creativity. In addition, motivational states influence competitive activities, and group collaboration affects group creativity (Hao et al., 2020). The general relationship between creativity and the non-cooperative and conflictual work environment has been explored in previous research. In line with some studies, we found a positive relationship between creativity and a competitive work environment, while others found a negative relationship (Gajdzik & Wolniak, 2022; Shin & Zhou, 2007). A potential rationale for this is that when cognition is formed without reference to conflict, conflict can harm creativity, but when awareness is conflict-oriented, competition can increase creativity and genius (De Dreu & Nijstad, 2008; De Dreu, Nijstad, & van Knippenberg, 2008).

Table 6

Summary of the predictive models for the criterion variables.

PREDICTOR VARIABLE	Factor 1 OE-Autonomy		Factor 2 OE-Innovativeness		Factor 3 OE-Risk Taking		Factor 4 OE-Competitive Agr.	
	ΔR2 Corrected	β	ΔR2 Corrected	β	ΔR2 Corrected	β	ΔR2 Corrected	β
Creative Potential	.079	.245.	304		. 478.037	. 172	.148	.341
Independence & Autonomy	.052	.181	---		------	---	.032	.159
Intrinsic Motivation	.009	.112	038.		182..063	146.	---	---
Perceived Organizat. Support	---	---	.013		.121.021	.149	.017	.140
Family security	---	---	---		---.003	.073	---	---
Total explained variance (%)	14.0		35.5		12.4		19.7	

All the data are significant at < .01 (bilateral).

In conclusion, the proposed objectives are partially demonstrated (Table 6) since only some predictor variables are significant. The findings of our investigation demonstrated that the variables we studied could be considered predictors of entrepreneurial orientation. Creativity and motivation were positively related to four dimensions of entrepreneurial orientation (autonomy, innovation, risk-taking, and competitive aggression).

Limitations and Suggestions for Future Research

Some of the limitations of this study point to potential directions for future research. For example, the fifth dimension of entrepreneurial tendency, reactivity, should have been investigated here and could be considered in future research. It would be intriguing to duplicate this study in different organizations and measure the status of the variables under investigation to compare organizations and develop strategies to improve organizational performance. One potential avenue for future research is the implementation of training programs based on human resources and organizational goals to increase creativity and improve workers' morale. This could involve meetings and other methods to facilitate group-level knowledge and opinion sharing, as such communication can support the entrepreneurial process.

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UNIVERSITAT ROVIRA I VIRGILI
CREATIVITY, INNOVATION, AND ENTREPRENEURSHIP AT WORK: PREDICTIVE RESEARCH
Rojin Ghasemijalal

Study III: Workaholism, Personality, and Obsessive Beliefs as Predictors of Entrepreneurial Motivation

Abstract

Background: Recent studies focusing on Entrepreneurial Motivation have identified several variables – for example, family security, motivation, and entrepreneurial intentions – as predictors of employee creativity. Here, we present a predictive study of these variables. The study aims to determine the relationship between Creativity and Entrepreneurial Motivation, Work Enjoyment, Independence and Autonomy, Intrinsic Motivations, Impulsivity, and Irritation. **Method:** Participants in the study were 1,106 Spanish workers (48.51% men and 51.49% women) obtained through non-probability sampling. Six assessment tools were used: the DUWAS scale, the Workaholism Battery (WorkBAT), the Overall Personality Assessment Scale (OPERAS), the Spanish adaptation of the Inventory of Obsessive Beliefs (ICO), Dickman's Impulsivity Inventory (DII), and the Entrepreneurial Motivation Scale (EM). Data were analyzed using SPSS 26.0. **Results:** The study examined the correlations between different creativity-related variables and identified 120 correlations, ninety-two of which were direct and positive and twenty-eight indirect and negative. The study also used a multiple regression model to predict the criterion variables Family Security, Independence and Autonomy, and Intrinsic Motivations. The results showed that the predictor variables Perfectionism and Intolerance of Uncertainty, Responsibility, and Work Enjoyment were statistically significant in predicting Family Security. At the same time, Perfectionism and Intolerance of Uncertainty, Work Enjoyment, and Kindness Factor were significant predictors of Independence and Autonomy. Perfectionism, Intolerance of Uncertainty, and Work Enjoyment were significant predictors of Intrinsic Motivations. **Conclusions:** The best predictor of entrepreneurial motivation is the Perfectionism and Intolerance of Uncertainty variable. This entrepreneurial and intrinsic motivation is crucial for determining an individual's intention. Government support through financial assistance, advisory services, and training programs can encourage entrepreneurship among management students.

***Keywords*:** Workaholism; Obsessive Beliefs; Family security; Creativity; Entrepreneurial Motivation

Introduction

Entrepreneurial motivation is a topic that has been explored in various theoretical models to gain insights into entrepreneurial behavior. Previous research has focused on understanding why people start a business venture and the relationship between entrepreneurial behaviors and motivation. Morris et al. (2006) suggested that the reason for initiating a business venture is a critical determinant of growth aspirations. Individuals motivated by financial gain or challenges are more inclined towards growth. Conversely, those motivated by discrimination or self-expression may be less inclined toward development.

The present study investigates the connections between potential antecedents of employees' creativity and their perceived level of creativity. Specifically, it examines the relationship between self-perceived creativity and entrepreneurial intentions, directly and indirectly, through factors such as attitudes toward entrepreneurship, subjective norms, and entrepreneurial self-efficacy. Additionally, the study aims to analyze the impact of predictor variables on entrepreneurial motivation, defined as intrinsic motivation. Entrepreneurship is a widely recognized economic growth, innovation, and employment driver. In the current socioeconomic environment, the sustainability of organizations and companies requires constant adaptation. For an organization to innovate and create, employees must be motivated and provided with the necessary resources, and the work environment must be effectively managed (Mumford et al., 2020).

Therefore, this research seeks to provide critical insights into the underlying factors that shape entrepreneurial motivation, which can be used to devise effective strategies that support and foster entrepreneurship. This study contributes to the existing literature on entrepreneurial motivation by examining these factors. It sheds light on the environment's impact on creativity, self-perceived creativity on attitudes towards entrepreneurship, and predictor variables on entrepreneurial motivation. These insights are valuable for entrepreneurs and policymakers, who can use this information to devise effective strategies that support and foster entrepreneurship. The research objectives of this study will be addressed through the formulation and testing of hypotheses, which will be explored in detail.

The relationship between entrepreneurial behaviors and motivation has been established in previous research (De Jong et al., 2013; George & Marino, 2011). However, the interaction between these constructs remains underexplored in the literature (Carsrud & Brännback, 2009).

Entrepreneurship requires individuals to generate valuable ideas, and creativity is considered a fundamental aspect of entrepreneurship (Baron, 1998). Entrepreneurs must be able to creatively interpret their environment to identify opportunities within their area of expertise (DeTienne & Chandler, 2004).

The role of the environment in fostering creativity has been widely recognized in research, and emotional, informational, and organizational support is positively associated with creativity in work settings (Madjar, 2008; Zhou & George, 2001). The support of family and friends can also significantly impact work creativity (Madjar, 2008). Individuals with elevated levels of self-perceived creativity are expected to have positive attitudes toward entrepreneurship, as they may view entrepreneurship as an opportunity to express their creative potential (Kolvereid, 1996; Moriano, 2005; Kautonen et al., 2013).

Moreover, self-rated creativity may act as a precursor to entrepreneurial self-efficacy, which pertains to an individual's belief in their capacity to execute entrepreneurial duties, such as recognizing fresh business prospects, generating new products, promoting concepts or novel innovations, resolving dilemmas, managing financial resources, securing support from others, exhibiting leadership, and making effective decisions. (Moriano, 2005; Wilson et al., 2007; Phipps & Prieto, 2015; van Gelderen et al., 2008). Possessing creativity can enhance the perceived level of ease in pursuing an entrepreneurial career option and influence motivational factors.

This research has three main goals. Firstly, it aims to investigate the connections between various aspects of employees' potential antecedents, namely, the support from their organization and family about creativity and participation in entrepreneurial motivation. Secondly, it examines the relationship between personality variables and entrepreneurial motivation. Thirdly, the study aims to analyze the impact of a set of predictor variables on entrepreneurial motivation, defined as intrinsic motivation.

Entrepreneurship is a widely recognized driver of economic growth, innovation, and employment (Acs et al., 2012; Carree & Thurik, 2010). Organizations such as the European Commission (2013) are committed to fostering entrepreneurial intentions and career paths. In the current socioeconomic environment, organizations and companies require constant adaptation to be sustainable (Mumford et al., 2020). Innovation necessitates financial, material, and information resources, opportunities for exploration, and enough time to pursue novel ideas and approaches (Amabile, 1997).

The Global Entrepreneurship Monitor report (GEM, 2013) identifies several factors associated with entrepreneurship, including the perception of opportunities, orientation, attitudes, fear of failure, and entrepreneurial motivations. The report suggests that to foster entrepreneurship, government authorities must not only focus on providing external resources, such as capital and favorable financing terms, but also analyze potential entrepreneurs' skills, motivations, and experiences. Governments need to adopt a holistic approach to supporting entrepreneurship, which considers the development of necessary skills, attitudes, and motivations of prospective entrepreneurs to encourage the creation of new businesses and positively impact economic growth and development (GEM, 2013).

Entrepreneurial motivation toward family security has recently gained attention as entrepreneurs seek financial stability and security for their families through entrepreneurial activities. A new hypothesis proposes that entrepreneurial motivation toward family security can be accurately predicted using certain predictor variables in a predictive model. These predictor variables include workaholism, personality traits, and obsessive beliefs, which it is suggested have a significant impact on entrepreneurial motivation toward family security.

> *Hypothesis 1:* If Family Security is influenced by Workaholism, Personality, Impulsivity, and Obsessive Beliefs, then a model incorporating these predictors can be used to predict Family Security reliably.

Several studies have examined the relationship between workaholism and entrepreneurship. Clark et al. (2015) discovered a positive correlation between workaholic tendencies and entrepreneurial activity, highlighting the adverse effects of workaholism, such as burnout and decreased work-life balance. Similarly, Brandstätter et al. (2016) found that elevated levels of work engagement, which is related to workaholism, were positively linked to entrepreneurial intentions. Research on personality traits has also demonstrated that specific personality traits are linked to higher entrepreneurial motivation. For instance, Zhao et al. (2010) discovered that elevated levels of extraversion, openness to experience, and emotional stability were positively associated with entrepreneurial motivation.

Moreover, obsessive beliefs have been identified as a potential predictor of entrepreneurial motivation. According to Kish-Gephart and Campbell (2015), research has shown that these beliefs, described as persistent, irrational thoughts or beliefs that are difficult to control, are positively associated with entrepreneurship and innovation.

In conclusion, the hypothesis that entrepreneurial motivation towards family security may be accurately predicted by considering workaholism, personality traits, and obsessive beliefs is significant as it has implications for creating effective strategies to support and promote entrepreneurship among individuals who desire to provide financial security for their families. We, therefore, posed the following hypothesis.

Hypothesis 2: Independence and autonomy can be influenced by Workaholism, Personality, Impulsivity, and Obsessive Beliefs, so a model that incorporates these predictors can be used to predict independence and autonomy reliably.

This hypothesis proposes that workaholism, personality traits, and obsessive beliefs are critical indicators of entrepreneurial motivation toward autonomy and independence. It suggests that by integrating these predictor variables into a predictive model, an individual's level of entrepreneurial motivation regarding independence and autonomy can be accurately forecasted.

Prior studies have underscored the significance of understanding the motivational factors that propel individuals toward entrepreneurship. Krueger (2000) emphasized the role of cognitive factors, particularly entrepreneurial self-efficacy, in predicting entrepreneurial intentions. Workaholism, a well-known concept, and its effect on personal and professional life have been defined and measured by Spence and Robbins (1992). In their study, workaholism, personality traits, and obsessive beliefs significantly predict entrepreneurial motivation toward independence and autonomy. By integrating these factors into a predictive model, an individual's entrepreneurial motivation level can be accurately forecast, thereby having profound implications for entrepreneurship education and training programs. We, therefore, hypothesized the following.

Hypothesis 3: Intrinsic motivations can be predicted through the predictor variables (Workaholism, Personality, Impulsivity, and Obsessive Beliefs) in a

predictive model based on the assumption that these predictor variables significantly impact entrepreneurial motivation toward intrinsic motivations.

According to Baron (2004), entrepreneurship is crucial for driving economic growth and innovation on a global scale. To comprehend the driving force behind entrepreneurs starting and developing successful businesses, various researchers have analyzed varied factors that influence entrepreneurial motivation. One of the most extensively researched aspects is intrinsic motivation, which pertains to an individual's internal drive to pursue a specific objective or activity for personal satisfaction rather than for external rewards such as financial gain or public recognition, as Cardon et al. (2009) noted. This research will examine the impact of predictor variables such as workaholism, personality, and obsessive beliefs on entrepreneurial motivation and whether these variables significantly influence the development of intrinsic motivation. Based on the hypothesis, this study aims for a predictive model that includes these variables so that intrinsic entrepreneurial motivation can be accurately predicted.

Method

Participants

The sample consisted of 1,106 Spanish employees, with a male-to-female ratio of 48.51% to 51.49%. The mean age was 42.49 years (standard deviation = 11.25). Marital status was as follows: married (60.8%), single (6.9%), divorced/separated (23.8%), and widowed (8.5%). In terms of academic qualifications, 1.4% had no academic certificate or degree, 28.5% had completed primary education, 39.1% had completed secondary education, 18.4% held a three-year university degree, 12.6% held a five-year university degree (such as engineering or architecture), and 6% had completed a master's degree or doctorate. The sample included employees from various organizations, including multinationals, SMEs, cooperatives, and public administration.

Instruments

The Dutch Work Addiction Scale (DUWAS; Schaufeli et al., 2006) is a commonly used tool that assesses the workaholism construct. The questionnaire has two dimensions: Working Excessively (WkE) and Working Compulsively (WkC). In the

extended version of the survey, the WkE scale is assessed using thirteen items (e.g., "I often find myself in a hurry and racing against the clock"). In comparison, the WkC scale involves eight items (e.g., "I feel an obligation to work diligently, even when the work is not enjoyable"). The response format is a 4-point Likert scale (1= = *never to 4= = almost always).*

The Workaholism Battery (WorkBAT; Burke et al., 2002; McMillan et al., 2002; Spence & Robbins, 1992) is a validated psychometric instrument that assesses the construct of workaholism. A Spanish version of the WorkBAT was later developed by Boada-Grau et al. (2013). The WorkBAT consists of nineteen items and two subscales: the Driven subscale (comprising twelve items, such as "I feel guilty when I take time off work" and the Work Enjoyment subscale containing seven items, such as "My job is more like fun than work." The WorkBAT utilizes a five-point Likert scale as its response format, from 1 (*Do not agree at all*) to 5 (*Agree*). The Driven and Work Enjoyment subscales possess alpha coefficients of .82 and .83, respectively, indicating a high consistency.

The Overall Personality Assessment Scale (OPERAS; Vigil-Colet et al. (2013) is a questionnaire based on the Big Five personality factors. It consists of forty items. This theory posits that five fundamental personality traits determine human behavior: Extraversion (EX) (α = .86; e.g., "20. I make friends easily"), Emotional Stability (ES) (α=.86; e.g., "15. I often feel sad"), Conscientiousness (CO) (α =.77; e.g., "28. I am a perfectionist"), Agreeableness (AG) (α =.71; e.g., "29. I am often unpleasant with others"), and Openness to Experience (OE) (α = .81; e.g., "24. I like to visit museums"). The survey participants were requested to indicate the degree to which they agreed with the depiction of their characteristics across forty items on a 5-point scale ranging from "1. *Enormously disagree*" to "5. *Strongly agree*". This scale provides scores unaffected by two of the best-known response biases: social desirability and acquiescence.

The Inventory of Obsessive Beliefs (ICO; Belloch et al., 2003) is a psychometric instrument developed to evaluate obsessive-compulsive tendencies among individuals. Belloch et al. (2003) proposed that the Spanish adaptation of the ICO consists of fifty-eight items grouped into seven factors. These factors are scored using a 7-point Likert scale, where one represents "Strongly disagree," and seven means "Strongly agree." The present study focuses on two specific factors of the ICO, namely Perfectionism and

Intolerance of Uncertainty, and Excessive Responsibility and the Importance of Controlling Thoughts. The first factor comprises fourteen items and has a Cronbach's alpha coefficient of .86, as illustrated by item 2, "I must be the best at things that are important to me." The second factor, Responsibility and Control comprises ten items and has a Cronbach's alpha coefficient of .84, exemplified by item 49, "I should be able to rid my mind of inadequate thoughts."

The Impulsivity Inventory (DII; Dickman, 1993), Spanish version (Chico et al., 2003), is a psychometric tool that consists of twenty-three items and two subscales. The first subscale, Functional Impulsivity, comprises eleven items and has been found to possess a basic level of internal consistency, with a coefficient alpha of .77. This subscale evaluates an individual's ability to take advantage of unexpected opportunities that require immediate action. An example item on this subscale is "4. I am good at taking advantage of unexpected opportunities, where you have to do something immediately or lose your chance." The second subscale evaluates dysfunctional impulsivity, with a coefficient alpha of .76. This subscale assesses an individual's tendency to act without thinking, resulting in hurried situations. An example item on this subscale is "14. Frequently, I get into hurried situations because I do not think before acting." The Likert response options for each item are 1 (*True*) and 0 (*False*).

The Entrepreneurial Motivation Scale (EM; Robichaud & McGraw, 2008) is a psychometric instrument used to evaluate an individual's motivation to initiate professional and business ventures. The French version of the scale consists of seventeen items and four factors. In contrast, the Spanish scale developed by Boada-Grau et al. (2016) has 13 items and a structure of three elements: Family Security (4 items; $\alpha = .75$; for example, "To be better prepared for my children"), Independence and Autonomy (5 items; $\alpha = .84$; for example, "Being able to decide what I want to do"), and Intrinsic Motivations (4 things; $\alpha = .78$; for example, "To increase the profits and sales of my business"). These three factors have been found to possess adequate reliability, as demonstrated by Boada-Grau et al. (2021). The Cronbach's alpha coefficients relating to the three factors exhibit a high degree of internal consistency, ranging from .77 to .83. The response format utilized for the scale involved a Likert scale, which varied from "*not at all important*" (1) to "*very important*" (5).

Procedure

The sample for this study was collected using non-probabilistic sampling, also called random-accidental selection (Kerlinger, 2001). Before collecting the data, we received permission from the company managers to conduct the research. After obtaining consent and contacting employees to participate, the scales were administered to each participant individually during their work hours. The respondents were provided with clear instructions to answer the surveys and were informed that their responses would be treated with strict confidentiality and anonymity. The data collection process was conducted at a time mutually agreed upon with each participant, typically lasting 40 minutes. The participation of respondents was entirely voluntary and unpaid.

Data analysis

The data analysis for this study was conducted utilizing stepwise regression in SPSS 26.0. This method facilitated the recognition of the predictor variables that demonstrated the optimal explanation for the maximum variance of the four criterion variables. Pearson's correlation coefficients were computed to determine the significant associations between the predictive and criterion variables. Afterward, multiple regression was performed employing the stepwise option, which added each predictor variable to the model based on its contribution to the variance explained.

Results

Correlation analysis

The outcomes of an investigation exploring the significant correlations among different variables are illustrated in Table 1. A total of fifty-two positive correlations were identified. In terms of specific findings, the study found a positive correlation between the three factors of Entrepreneurship Motivation and Workaholism (DUWAS & WorkBat), Perfectionism and Intolerance of uncertainty and Responsibility and control (ICO), and Responsibility with Family Security and Independence and autonomy.

Table 1

Pearson correlation matrix to examine the relationship among variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Family Security Independence and autonomy	.972**														
Intrinsic motivation	.481**	.504**													
Driven (wbF1)	.233**	.222**	.264**												
Work Enjoyment (wbF2)	.154**	.157**	.191**	.377**											
Work Excessively	.178**	.173**	.183**	.698**	.305**										
Work Compulsively	.220**	.210**	.179**	.778**	.252**	.783**									
Extraversion	.028	.018	.036	.002	.086	-.024	-.010								
Emotional Stability	-.031	-.024	.010	-.100*	.105*	.018	-.075	.194**							
Responsibility	.128*	.106*	.055	.019	.016	-.027	.008	.183**	.200**						
Kindness	-.071	-.083	.035	-.007	.038	-.041	-.088	.059	.116*	-.020					
Openness toExperience	-.010	-.016	.075	.010	.069	-.024	.001	.152**	-.058	.061	.087				
Functional Impulsivity	.037	.047	.078	-.005	.102*	.038	.014	-.023	-.021	-.003	.008	.058			
Dysfunctional Impulsivity	.079	.053	-.025	.152**	.153**	.112*	.128*	.015	-.030	.042	-.015	.132**	.026		
PerfecIntoler.Incert	.339**	.339**	.364**	.434**	.183**	.324**	.389**	.049	-.062	.073	.002	.111*	-.097	.099	
RespyControl	.319**	.306**	.355**	.360**	.103*	.294**	.337**	.028	-.096	.124*	.025	.143**	-.072	.065	835**

Note. *p < .05, **p < .01.

Multiple regression

This study used a multiple regression model to investigate the influence of predictor variables on criterion variables related to motivation. This statistical approach enables dependent variables to be objectively evaluated (Hinton et al., 2014). The analysis results, including adjusted *R*2 indices and significant beta coefficients, are presented in Tables 2, 3, and 4.

The analysis in Table 2 shows that the adjusted R-squared value for the predictor variable of Family Security is .138. This prediction is based on the inclusion of three predictor variables: PerfecyIntoler.Incert, OPERAS Responsibility Factor, and wbF2. The beta coefficient values for these predictor variables indicate that ICO1.PerfecyIntoler.Incert (β = 9.185), Responsibility Factor (β = .320), and wbF2 (β = .118) are statistically significant in predicting Family Security and show a positive relationship between me.F1.Fami: Familiarity and predictor variables.

Table 2

Summary of the models, variables, and coefficients of regression analysis (step-by-step method) for me.F1.Family Security

	Models					Coefficients				
Models and Variables	R	R2R2 Adjusted	R Change	F Change	sig	B	SE	β	t	Sig
Model 1	.348	.121.118	.121	45.155	.000					
Model 2	.367	.134.129		.0135.075	.025					
Model 3	.382	.146.138		.0124.444	.036					
ICO1.PerfecIntoler.Incert						9.185	1.191		7.712	.000
OPERAS Responsibility						.069	.011	.320	6.141	.000
Work Enjoyment (wbF2)						.040	.018	.118	2.297	.022

According to Table 3, the ajusted *R*2 value for Independence and Autonomy is .135 and is influenced by three indicators: ICO1.PerfecyIntoler.Incert, wbF2, and OPERAS Kindness Factor. The beta coefficient values indicate that ICO1.PerfecyIntoler.Incert (β = .325), wbF2 (β = .115), and OPERAS Kindness Factor (β = -.104) are statistically significant predictor variables. The results suggest that me.f2.Independence and Autonomy can be predicted through the variables ICO1.PerfecyIntoler.Incert, wbF2, and OPERAS Kindness, with ICO1.PerfecyIntoler.Insert aInsert2 influencing positively, and OPERAS Kindness Factor influencing negatively.

Table 3

Summary of the models, variables, and coefficients of regression analysis (step-by-step method) for me.f2.Independence and Autonomy.

	Models						Coefficients				
Models and Variables	R	R2	R2 Adjusted	R Change	F Change	sig	B	SE	β	t	Sig
Model 1	.347	.120	.118	.120	44.694	.000					
Model 2	.364	.132	.127	.012	4.572	.033					
Model-3	.378	.143	.135	.011	4.109	.043					
ICO1.PerfecIntoler.Incert						.086		.014	.325	6.231	.000
Work Enjoyment (wbF2)						.078		.036	.115	2.199	.029
OPERAS Kindness						-.045		.022	-.104	-2.027	.043

According to Table 4, the adjusted R2 value for Intrinsic Motivations is .138, influenced by two indicators: ICO1.PerfecyIntoler.Incert and wbF2. The beta coefficient values indicate that ICO1.PerfecyIntoler.Incert (β = .315) and wbF2 (β = .162) are statistically significant predictor variables. Both variables have a positive influence on Intrinsic Motivations. The results suggest that Intrinsic Motivations can be predicted through the variables ICO1.PerfecyIntoler.Incert and Work Enjoyment.

Table 4

Summary of Model-5, variables, and regression analysis coefficients (stepwise method) for me.f3 and Intrinsic Motivations

Models andVariables	Models					Coefficients				
	R	R2R2 Adjusted	R Change	F Change	sig	B	SE	β	t	sig
Model 1	.344	.118.115	.118	43.660	.000					
Model-2	.379	.143.138	.025	9.622	.002					
ICO1.PerfecIntoler.Incert						.071	.012	.315	6.031	.000
Work Enjoyment (wbF2)						.094	.030	.162	3.102	.002

Discussion

The notion that family security is central to shaping entrepreneurial motivation has received growing attention in entrepreneurship research. This hypothesis posits that personal characteristics, behaviors, and dispositions are crucial factors in determining an individual's motivation to start and operate a business. This perspective aligns with the growing body of literature aimed at understanding the drivers behind individuals choosing entrepreneurship as a career path. As reviewed by Benzing et al. (2009), the existing literature suggests that personal and family security, economic factors, independence, and internal satisfaction are considered vital motivators for entrepreneurs in starting new ventures (Shabbir & Gregorio, 1996; Swiercz & Ha, 2003). Concurrently, research has explored how societal changes have impacted family structure. One notable study by Bitler et al. (2004) found that these changes significantly affected family structure, decreasing divorce and marriage rates. However, another study by Fitzgerald and Ribar (2004) found no evidence to indicate that these societal changes affected the prevalence of single-parent households.

The predictor variables outlined in the hypothesis encompass a range of personality traits, behavioral tendencies, and dispositions that are believed to influence entrepreneurial motivation. For instance, OPERAS-measured (OPERAS; Vigil-Colet et al., 2013) extraversion and emotional stability are considered essential traits for entrepreneurs, as they can impact their capacity to engage with others and deal with stress in the face of ambiguity (Cuesta et al., 2018). The evaluation of entrepreneurs' motivation is crucial, as it is an aspect that impacts their behavior both before and after the start of a venture (Kuratko et al., 1997). The type and magnitude of an individual's entrepreneurial motivation can determine the goals and aspirations of the enterprise, contributing to a spectrum of macroeconomic outcomes (Fernández-Serrano & Romero, 2012; Fernández et al., 2009; Hessels et al., 2008).

Additionally, traits such as responsibility, kindness, and openness to experience are believed to play a significant role in an individual's capability to manage a successful business because they influence their decision-making processes, collaboration abilities, and receptiveness to new prospects.

In conclusion, the first hypothesis, that family security plays a role in shaping entrepreneurial motivation, is supported by existing empirical evidence within entrepreneurship. Cheraghi (2017) highlighted various external adverse conditions, such

as unemployment, dissatisfaction with one's current job, job loss, low-paying positions with limited upward mobility, and concerns over future family security, which can serve as push factors to attract individuals towards entrepreneurship. These findings indicate the significance of considering external factors when analyzing entrepreneurial motivation. The relationship between entrepreneurs' motivation and the success of their enterprises is a well-recognized area of study in both developed and developing countries (Isaak, 2016). However, it is essential to recognize that this is a complex and multi-dimensional topic, and not all individuals with the relevant predictor variables necessarily exhibit entrepreneurial motivation. Additional research is required to enhance our comprehension of the interrelationship between predictor variables and entrepreneurial inspiration.

The second hypothesis that independence and autonomy play a role in shaping entrepreneurial motivation has received considerable attention in entrepreneurship research. Shane et al. (2003) argued that this is further supported by entrepreneurship and satisfaction research, which highlights autonomy's significance. Additionally, societal trends that favor increased self-reliance further underscore the importance of this factor. The self-determination theory and self-directed learning perspectives offer insights into how autonomy can be effectively incorporated into entrepreneurship education.

The desire for autonomy and self-direction has been proposed as a fundamental motive for individuals' interest in working in smaller firms. This is supported by the findings of Al-Jubari et al. (2017), who provided evidence of the importance of autonomy in entrepreneurship as a career. The need for independence has also been identified as a predictor of an individual's suitability for an entrepreneurial role (Bhardwaj & Mittal, 2017; Vecchio, 2003), further emphasizing its significance in this area. The concept of entrepreneurial motivation is an essential aspect of entrepreneurship research. Entrepreneurial motivation is a critical predictor of subsequent entrepreneurial behavior, and individuals willing to take calculated risks and believe in their capabilities are assumed to drive the economy.

According to Scarborough (2012), entrepreneurs’ driving motivations are profit, personal growth, self-belief, and the desire to establish an entrepreneurial entity in an environment characterized by risk and uncertainty. The discussion on entrepreneurship has focused on exploiting entrepreneurial opportunities, resulting in a lack of research on initiating the process (Carsrud & Brännback, 2011). Miller and Le Breton-Miller (2017) argue that employees with high entrepreneurial motivation scores are more likely

to consider entrepreneurship as a career option.

By exploring the impact of entrepreneurial motivation among employees working in companies on the willingness to become an entrepreneur, the study sheds light on the mismatch between entrepreneurship-promoting efforts and outcomes observed by Mahto and McDowell (2018). The study's findings are expected to contribute to the literature on entrepreneurship and the individual identity formation process (Ashforth & Schin, 2016).

The third hypothesis, regarding intrinsic motivation, has garnered considerable attention in entrepreneurship research as a predictive factor of entrepreneurial conduct. Perwin (2003) explains that inherent motivation is an innate inclination towards a particular task, whereas extrinsic motivation entails receiving external rewards for engaging in a specific behavior. Investigating entrepreneurial motivation is crucial to comprehending the motivating forces behind individuals' decisions to pursue entrepreneurship (Lee & Wong, 2004). Previous research on entrepreneurial intention (EI) has explored numerous factors influencing an individual's decision to start a new venture, including personality traits, socio-demographic characteristics, and capital availability. However, the phonological approach to predicting start-up decisions has failed (Linan & Santos, 2007). Ajzen (1991) provides a more extensive framework for comprehending EI in The Theory of Planned Behavior. His approach accounts for the interplay between societal and personal factors and the impact of attitudes, subjective norms, and perceived control on intention.

The key drivers of EI have been identified as DSE (Desire for Self-Employment), FSE (Fear of Self-Employment), TR (Tendency to Risk), and PG&NGS (Perceived Growth and Non-Growth Situations) (Ummah, 2009). Uncertainty is also essential in predicting self-employment intention, as individuals need knowledge and motivation to risk starting a new venture (McMullen & Shepherd, 2006). Successful entrepreneurs tend to possess specific vital drivers, such as independence, achievement, internal locus of control, risk-taking ability, innovation, self-confidence, and proactivity. Entrepreneurial and intrinsic motivation significantly determine an individual's entrepreneurial intention (McStay, 2008).

Table 5

Summary of the predictive models for the criterion variables

PREDICTOR VARIABLE	Factor 1 Family Security		Factor 2 Independence & Autonomy		Factor 3 Intrinsic Motivation	
	ΔR2 Corrected	*β*	ΔR2 Corrected	*β*	ΔR2 Corrected	*β*
PerfecIntolerIncert	.118	---.118		.325	. 115	.315
Responsability	.011	.320---		---	---	---
Work enjoyment	.009	.118.009		.115	023.	.162
Kindness	---	---.008		-.104	---	---
Total explained variance (%)	13.8	13.5			13.8	

All the data are significant at < .01 (bilateral).

In conclusion, the three hypotheses are partially demonstrated (Table 5) since only some predictor variables are significant (Perfectionism and intolerance to uncertainty, Responsibility, Work enjoyment, and kindness). Existing discussions on entrepreneurship support the hypothesis that family security plays a role in shaping entrepreneurial motivation. Personal and family security, economic factors, independence, and internal satisfaction are critical motivators for individuals to start new ventures. Predictor variables such as extraversion, emotional stability, responsibility, kindness, and openness to experience also significantly shape entrepreneurial motivation and have been linked to an individual's success in managing a business. The desire for autonomy and self-direction has also been identified as a fundamental motive for individuals interested in entrepreneurship. The current study explored the predictive capacity of entrepreneurial motivation on the willingness of employees to become entrepreneurs.

Limitations and Future Research

The study presents several limitations that must be considered when interpreting its findings. One of the primary limitations is the complex and multifaceted relationship between the predictor variables and entrepreneurial motivation. The study acknowledges that not all individuals possessing the predictor variables will exhibit entrepreneurial motivation and therefore calls for further research to gain a deeper understanding of this relationship.

Another area for improvement is the reliance on self-reported data, which may only partially capture external factors such as cultural, social, and economic environments. These external factors may also be crucial in shaping an individual's entrepreneurial motivation. Future research designs should incorporate both internal and external factors to gain a more comprehensive understanding of the drivers behind entrepreneurial motivation.

Additionally, the study only focuses on a limited set of predictor variables, which may not capture the full range of factors contributing to entrepreneurial motivation. Therefore, future research should expand the scope of predictor variables and consider other relevant factors such as family background, educational level, and previous work experience. Finally, it must be noted that the study's results may not be universally applicable. The impact of the predictor variables on entrepreneurial motivation may vary with geographical and cultural differences. Future research should explore the generalizability of the findings across different regions and cultures. This will enable a more nuanced understanding of entrepreneurial motivation.

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Chapter 5

General Discussion

UNIVERSITAT ROVIRA I VIRGILI
CREATIVITY, INNOVATION, AND ENTREPRENEURSHIP AT WORK: PREDICTIVE RESEARCH
Rojin Ghasemijalal

This doctoral thesis explores the influence of creativity motivation and entrepreneurial mindset on the creative aptitude of Spanish employees. Specifically, the research seeks to investigate how an entrepreneurial mindset can foster creativity and its subsequent impact on the creative abilities of employees in Spain. We have formulated specific objectives developed in three separate studies to achieve this.

The primary aim of the first study was to explore the predictive variables of creativity. Our findings partially confirm our intent, indicating a significant positive predictive relationship between all creative measures and creativity. Specifically, work enjoyment, professional efficacy, functional impulsivity, and excessive responsibility are all positively correlated with creativity. While previous research conducted by Hahn-Markowitz et al. (2018) suggested a negative relationship between impulsivity and creativity, our study provides preliminary evidence that impulsivity can predict creativity. Higher levels of impulsiveness predict higher scores on creativity tasks. One explanation is that highly impulsive individuals tend to act on their initial ideas, even if they are less original.

That study investigated the relationship between adaptive and maladaptive perfectionism and creativity. Consistent with previous research findings by Berglund and Wennberg (2006), Flett and Hewitt (2006), and Gajdzik and Wolniak (2022), our results indicate a positive association between adaptive perfectionism and various measures of creativity. Specifically, our findings reveal a significant positive predictive relationship between Work Enjoyment (WBF2) and Professional Efficacy (MBIF3) with Practiced Creativity.

Moreover, our results also indicate a weak positive relationship between workaholism and work engagement, consistent with the previous study by Shimazu et al. (2015). However, Driven and Creativity are negatively correlated with an index value of -.243. The variable with the closest correlation to creativity was Work Enjoyment, with a value of .253. In line with previous research conducted by Caesens et al. (2014) and Deku et al. (2023), our findings suggest that workaholism and work engagement are weakly positively related. Work engagement has positive consequences for well-being and performance with creativity. Therefore, it is recommended to discourage workaholism and actively encourage work engagement.

The first study's results are consistent with previous research findings, indicating that personality effects have a small impact on creativity (Sadana et al., 2021). Specifically, Emotional Stability is the only personality variable slightly predictor of Support for Creativity. Consequently, Work Enjoyment and Professional Efficacy are the variables that best explain variance when predicting creativity.

The second study investigated the predictive role of creativity and motivation on entrepreneurial orientation among Spanish workers. The findings suggest that all objectives were partially fulfilled and positively related. The results indicate that the variables examined in this research can predict entrepreneurial orientation. Specifically, creativity and motivation were positively related to four dimensions of entrepreneurial orientation: autonomy, innovation, risk-taking, and competitive aggression moreover, previous research was conducted by d'Inverno and Luck (2012), and Thuneberg et al. (2018) indicate that autonomy is influenced by motivation and creativity. Reeve (2006) also found that autonomy is crucial to individuals' motivation and emotions. Further, Sawan (2018) found that motivation and autonomy have a reciprocal relationship and reinforce each other, consistent with Çekmecelioğlu and Günsel's (2011) study.

Chang et al. (2012) reported that individuals with high self-control exhibited similar levels of creativity regardless of task autonomy. Conversely, individuals with low self-control demonstrated higher levels of creative performance under no autonomy condition than under an autonomy condition. Similarly, Zhang et al. (2017) found a positive relationship between workplace autonomy, commitment, and creativity. Research suggests that employee autonomy is influenced by motivation, creativity, and self-confidence (Peng et al., 2021).

Moreover, creativity significantly impacts innovation, often leading to innovative activities (Mueller & Thomas, 2001; Sia & Appu, 2015; Syed et al., 2020). Creativity and innovation also predict employee motivation, as internal and social motivations influence both (Balau et al., 2020). Specifically, group members with high internal and social motivation are more able to create and innovate (Duan et al., 2020; Ekvall, 1996). Notably, being creative often entails a willingness to take risks, which enables individuals to undertake entrepreneurial activities (Baas et al., 2015; De Dreu

et al., 2011). Although, higher motivation positively correlates with increased risk-taking (Li et al., 2022). Competitive aggression is influenced by creativity and motivation (Shin & Grant, 2020).

Motivation can determine how long competitive activities last and is so vital to competitive activities that it can drive organizations to take action to outperform their competitors (Tarí et al., 2020). Moreover, motivational states influence competitive activities, while group collaboration influences creativity (Hao et al., 2020). Consistent with prior research, our results suggest a positive relationship between creativity and a competitive work environment, while others have found a negative relationship (Gajdzik & Wolniak, 2022; Shin & Zhou, 2007).

The third study examines the relationship between Creativity and Entrepreneurial Motivation, Work Enjoyment, Independence and Autonomy, Intrinsic Motivations, Impulsivity, and Irritation. The predictor variables hypothesized in this study encompass a range of personality traits, behavioral tendencies, and dispositions that are believed to influence entrepreneurial motivation. For example, OPERAS-measured extraversion and emotional stability are considered crucial traits for entrepreneurs, as they can influence their capacity to interact with others and deal with stress in the face of ambiguity (Cuesta et al., 2018).

In conclusion, family security has been identified as a significant factor in shaping entrepreneurial motivation, as evidenced by existing empirical research on entrepreneurship.

Cheraghi (2017) highlighted various external adverse conditions, such as unemployment, dissatisfaction with one's current job, job loss, low-paying positions with limited upward mobility, and concerns over future family security, which can serve as push factors attracting individuals towards entrepreneurship. These findings underscore the importance of considering external factors when analyzing entrepreneurial motivation.

The relationship between entrepreneurs' motivation and the success of their enterprises is a well-established area of study in both developed and developing countries (Isaak, 2016). However, it is essential to recognize that this is a complex and multi-dimensional topic, and not all individuals with relevant predictor variables

necessarily exhibit entrepreneurial motivation. Additional research is needed to enhance our understanding of the interrelationship between predictor variables and entrepreneurial inspiration. The role of independence and autonomy in shaping entrepreneurial motivation has received considerable attention in entrepreneurship research.

Shane et al. (2003) argued that this is further supported by entrepreneurship and satisfaction research, which highlights autonomy's significance. Additionally, societal trends that favor increased self-reliance further underscore the importance of this factor. The self-determination theory and self-directed learning perspectives offer insights into how autonomy can be effectively incorporated into entrepreneurship education. The desire for autonomy and self-direction has been proposed as a fundamental motive for individuals' interest in working in smaller firms, as evidenced by Al-Jubari et al. (2017), who provided evidence of the importance of autonomy in entrepreneurship as a career.

The concept of entrepreneurial motivation is an essential aspect of entrepreneurship research. According to Scarborough (2012), entrepreneurs' driving motivations include profit, personal growth, self-belief, and the desire to establish an entrepreneurial entity in an environment characterized by risk and uncertainty. Miller and Le Breton-Miller (2017) argue that employees with high entrepreneurial motivation scores are more likely to consider entrepreneurship as a career option. Intrinsic motivation has received considerable attention in entrepreneurship research as a predictive factor of entrepreneurial behavior. Perwin (2003) explains that intrinsic motivation is an innate inclination towards a particular task, whereas extrinsic motivation entails receiving external rewards for engaging in a specific behavior. Investigating entrepreneurial motivation is crucial to understanding the motivating forces behind individuals' decisions to pursue entrepreneurship (Lee & Wong, 2004). Uncertainty is also essential in predicting self-employment intention, as individuals need knowledge and motivation to risk starting a new venture (McMullen & Shepherd, 2006).

In conclusion, the three hypotheses were partially supported, with Work Enjoyment and Professional Efficacy being the best predictors of creativity, Creativity,

Motivation being the best predictors of entrepreneurial orientation, and Perfectionism and Responsibility explaining a significant variance in entrepreneurial motivation.

The study's results examine various predictor variables influencing entrepreneurial motivation, including creativity, work enjoyment, independence and autonomy, intrinsic motivations, impulsivity, and irritation. The study found that family security is a significant factor in shaping entrepreneurial motivation. External factors such as unemployment and concerns over future family security can be pushed factors that attract individuals towards entrepreneurship. The study also highlights the importance of autonomy and self-direction in entrepreneurship and the role of intrinsic motivation in predicting entrepreneurial behavior. Overall, the study partially supports the three hypotheses, with different predictor variables explaining significant variance in creativity, entrepreneurial orientation, and entrepreneurial motivation.

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Chapter 6

General Conclusion

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The primary goal of this doctoral research is to investigate the correlation between motivation and creativity in fostering an entrepreneurial mindset and the subsequent impact of this mindset on enhancing the creative aptitude of Spanish employees. It also aims to comprehend the effect of employing creativity and innovation on employee performance in Spain. To achieve this aim, validated instruments were used to gather participant data, and sociodemographic and occupational information was obtained.

Study one examined the relationship between innovation and employee creativity in a Spanish sample while considering relevant variables, including personality, engagement, lifestyle, and workaholism. The study findings revealed significant correlations between various variables and measures of creativity. Work Enjoyment and Professional Efficacy were identified as the most important predictors of creativity, with Work Enjoyment presenting the most excellent predictive capacity, as shown. Practiced Creativity is positively influenced by Work Enjoyment and Professional Efficacy, whereas Cynicism negatively impacts it. Furthermore, Support for Creativity is positively influenced by Work Enjoyment and Professional Efficacy, along with Emotional Irritation and Emotional Stability, while it is negatively affected by Cynicism. The results of this study are essential for organizations, as fostering individual creativity can lead to innovation and flexibility. Creative individuals are purposeful, innovative, and flexible, which makes them successful in achieving desirable results. Thus, organizations may focus on enhancing Work Enjoyment and Professional Efficacy to promote creativity and innovation in the workplace.

1.- The study revealed a positive correlation between Work Enjoyment and Practiced Creativity. This suggests that employees who experience higher levels of enjoyment in their work are more likely to engage in creative practices. When individuals find their work enjoyable, they are more motivated, enthusiastic, and willing to explore new ideas and solutions, resulting in higher levels of creative output.

2.- Findings also indicated a positive correlation between Professional Efficacy and Practiced Creativity. Employees who have a strong belief in their abilities to perform their job tasks effectively are more likely to engage in creative practices. This positive self-assessment of competence and skills may boost individuals' confidence to

take on innovative challenges and generate creative solutions to problems.

3.- Conversely, the study found a negative correlation between Cynicism and Practiced Creativity. Employees who exhibit higher levels of cynicism are less likely to engage in creative practices. Cynicism may lead to a lack of trust in the organization, its processes, and colleagues, hindering the willingness to invest time and effort in generating creative ideas or participating in innovative endeavors

Study two aimed to investigate the correlation between creativity and motivation as predictors of entrepreneurial orientation among Spanish workers, explicitly focusing on autonomy, innovation, risk-taking, and competitive aggression. The study findings revealed that creativity and motivation significantly predicted entrepreneurial orientation, as reflected in the dimensions. The results suggest that fostering creativity in the workplace can lead to enhanced employee morale, and training programs aimed at boosting creativity should be designed in consultation with employees and aligned with organizational objectives. Additionally, the study highlighted the positive correlation between individual characteristics, such as work enjoyment, professional efficacy, emotional stability, and creativity and motivation. These findings underscore the importance of fostering creativity and motivation in the workplace to promote entrepreneurial behavior and drive organizational success.

4.- There is a significant positive correlation between Creativity and Entrepreneurial Orientation among Spanish workers. This suggests that individuals who display higher levels of creativity are more likely to exhibit entrepreneurial behaviors, such as autonomy, innovation, risk-taking, and competitive aggression. Creative individuals tend to think innovatively and take calculated risks, which are essential characteristics for entrepreneurial success.

5.- The study also found a significant positive correlation between Motivation and Entrepreneurial Orientation. This indicates that workers with higher levels of motivation are more inclined to adopt entrepreneurial behaviors and orientations. Motivated employees are proactive in pursuing organizational objectives and seizing opportunities, aligning well with the core principles of entrepreneurial orientation.

6.- The findings reveal positive correlations between certain Individual

Characteristics, such as work enjoyment, professional efficacy, emotional stability, and both Creativity and Motivation. Employees who experience higher levels of work enjoyment and professional efficacy are more likely to be creative and motivated in their work endeavors.

7.- Additionally, emotional stability positively influences creativity and motivation, suggesting that emotionally stable individuals are more likely to exhibit entrepreneurial traits and behaviors.

In Study Three, the objective was to explore the predictors of entrepreneurial motivation among Spanish workers. The study investigated the relationship between creativity and entrepreneurial motivation and other pertinent variables such as work enjoyment, independence and autonomy, intrinsic motivations, impulsivity, and irritation. The study revealed 120 correlations between various creativity-related variables, direct and positive, and twenty-eight indirect and negative correlations. Moreover, a multiple regression model was used to predict Family Security, Independence and Autonomy, and Intrinsic Motivations criterion variables. The results indicated that Perfectionism, intolerance to uncertainty, Responsibility, and work enjoyment were significant predictors of Family Security. Perfectionism, intolerance to uncertainty, work enjoyment, and Kindness Factor were significant predictors of Independence and Autonomy. In contrast, perfectionism, intolerance to delay, and work enjoyment were significant predictors of Intrinsic Motivations. The study concluded that the best predictor of entrepreneurial motivation was the Perfectionism and intolerance to uncertainty variable. The results emphasized the significance of entrepreneurial and intrinsic motivation in determining an individual's entrepreneurial intention. Finally, the study recommended that government support in financial assistance, advisory services, and training programs could encourage entrepreneurship among management students.

8.- Study found a positive correlation between Creativity and Entrepreneurial Motivation among Spanish workers. Individuals with higher creativity levels are more likely to exhibit motivation towards entrepreneurship, indicating the crucial role of creativity in driving entrepreneurial intentions and behaviors.

9.- The study highlighted the significance of Individual Characteristics in influencing Entrepreneurial Motivation. Specific traits such as Perfectionism, intolerance to uncertainty, Responsibility, and work enjoyment were significant predictors of various aspects of entrepreneurial motivation, such as Family Security, Independence and Autonomy, and Intrinsic Motivations.

10.- The best predictor of Entrepreneurial Motivation identified in the study was Perfectionism and intolerance to uncertainty. Individuals displaying these traits are more likely to be motivated towards entrepreneurship, emphasizing the importance of personal characteristics related to high standards and seeking certainty in driving entrepreneurial intentions and actions.

In conclusion, this doctoral research has examined the correlation between motivation and creativity in fostering an entrepreneurial mindset among Spanish employees and its subsequent impact on enhancing their creative aptitude. The findings reveal significant relationships between variables such as work enjoyment, professional efficacy, emotional stability, and creativity, emphasizing the importance of fostering individual creativity within organizations to promote innovation and flexibility. The study further demonstrates that creativity and motivation significantly predict entrepreneurial orientation, highlighting the role of creativity in enhancing employee morale and driving organizational success. Additionally, the research identifies predictors of entrepreneurial motivation, including perfectionism, intolerance to uncertainty, responsibility, and work enjoyment, which play crucial roles in determining an individual's entrepreneurial intention. The study recommends government support through financial assistance, advisory services, and training programs to encourage entrepreneurship among management students. Overall, this research contributes to understanding the interplay between motivation, creativity, and entrepreneurship, providing valuable insights for organizations and policymakers in Spain.

Chapter 7

Limitations, Future Research and Implications

Regarding the general limitations, the first limitation identified is methodological. Specifically, the study employed non-probabilistic random sampling, which warrants caution when generalizing the results. Longitudinal studies are necessary to explore further the variable under investigation and its relationship with other variables such as training, personal growth, career advancement, and work-related conflicts with family. Another limitation concerns the need for a multilevel methodology to examine the impact of the innovation team's climate on both creative potential and practiced creativity.

Furthermore, it would be interesting to consider other personality and environmental variables, such as social values or the influence of family, to provide a more comprehensive understanding of the topic. Additionally, it is essential to investigate whether individuals with untapped creative potential are more likely to develop creativity when they perceive solid organizational support.

Finally, the study could benefit from employing Structural Equation Modeling (SEM) and moderation analysis to explore the results comprehensively.

As specific limitations of each study, the following can be highlighted:

In the first study, self-report data collection introduces potential biases, such as social desirability and lack of sincerity. Alternative methods of data collection should be considered for more objective results. Additionally, future studies should investigate whether strong organizational support can facilitate the development of untapped creative potential. A multilevel methodology would be beneficial to examine how team innovation climate influences both creative potential and practiced creativity. Furthermore, longitudinal studies are needed to explore the consequences of work addiction and its relationship with variables such as training, personal growth, career advancement, and family conflicts. These future research directions would provide valuable insights into the topic at hand.

The second study did not investigate the fifth dimension of entrepreneurial tendency, reactivity, and future research could address this limitation. Additionally, the study could be replicated in different organizations to enable comparisons and strategies to enhance organizational performance. One avenue for future research could be implementing training programs aligned with human resources and

organizational goals to increase creativity and improve workers' morale. This could involve facilitating communication and knowledge sharing among groups to support the entrepreneurial process.

In the third study, several limitations of the present study on entrepreneurial motivation must be considered when interpreting the findings. The study recognizes the complex relationship between predictor variables and entrepreneurial motivation and needs further research to understand this relationship better. The reliance on self-reported data is another area for improvement. Future research designs should incorporate internal and external factors to understand the drivers behind entrepreneurial motivation better. Furthermore, the limited set of predictor variables is another shortcoming, and future research should consider other relevant factors such as family background, educational level, and previous work experience.

Lastly, the study's results may not be universally applicable. Future research should explore the generalizability of the findings across different regions and cultures to enable a more nuanced understanding of entrepreneurial motivation.

In general, a limitation of this study pertains to the importance placed on various job characteristics. It can be argued that workers may come to appreciate specific features present in their jobs over time due to a cognitive dissonance process whereby attributes that were highly valued but absent are overlooked, while those characteristics are overvalued (Yesuf et al., 2023). To explore this possibility, longitudinal research could be undertaken to track the evaluation of job quality in newly hired workers in organizations and follow up over time to evaluate adjustments made to the assessment of initially positively evaluated job characteristics.

According to Nahrgang et al. (2011), job quality may vary depending on the sector or type of industry an organization belongs to. They found that the importance of different job characteristics in predicting work engagement differed across sectors. As our study revealed variances in fit and work engagement among diverse age groups, it is conceivable that other factors, such as the industry sector, may also influence work quality. Therefore, exploring industry sector differences could provide further insight into the variations in work quality.

This study focused on workers with a single job, which only partially reflects the current labor reality where some workers have multiple jobs in multiple organizations.

Future research could investigate the appropriate level and work engagement of workers with multiple jobs, exploring whether these individuals fulfill unique needs with each position and how their needs evolve when holding various positions.

Additionally, since the changing environment of today's workforce has made workers change organizations more frequently than in previous decades, it is essential to understand the implications of these constant changes on job quality. Sennett (1998) suggests that these changes affect people's socialization patterns, negatively affecting society.

Future research should investigate the potential effect of job quality on talent attraction and retention, particularly in fostering innovation at work. In recent years, organizations have increasingly relied on consulting firms to establish an employer brand that emphasizes the quality of work life offered to employees, exemplified by initiatives such as Great Place to Work.

Previous research has suggested that inclusion in such listings can benefit organizations (Dineen & Allen, 2016). Therefore, it would be worthwhile to explore the relationship between job characteristics and worker creativity and innovation, particularly in the context of talent management and retention. Another future line to research might be to investigate the potential moderating impact of individual characteristics on the connection between creativity, motivation, and entrepreneurial orientation.

In conclusion, the studies discussed in this text have highlighted several limitations and areas for future research regarding factors affecting job quality, creativity, motivation, and entrepreneurial orientation. These studies have recognized the importance of understanding the complex relationships between predictor variables and various outcomes and have called for multilevel and longitudinal research designs to provide a more nuanced understanding of these relationships. Additionally, future research should consider external and internal factors, such as industry sector and individual characteristics, and examine the potential effect of job quality on talent attraction, retention, and innovation at work. Addressing these limitations and exploring these avenues for future research will provide valuable insights into enhancing organizational performance and promoting worker well-being.

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Chapter 8

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Chapter 9

Appendix

UNIVERSITAT ROVIRA I VIRGILI
CREATIVITY, INNOVATION, AND ENTREPRENEURSHIP AT WORK: PREDICTIVE RESEARCH
Rojin Ghasemijalal

APPENDIX I: DATA COLLECT

PARTICIPANT INFORMATION

TÍTULO DEL ESTUDIO: Creatividad, Innovación y Emprendimiento en el Trabajo
[Creativity, Innovation, and Entrepreneurship at Work]

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INTRODUCCIÓN

Soy Rojina Ghasemijalal, y realizo mi tesis doctoral en la Universidad Rovira i Virgili (URV). Me gustaría invitarle a participar en un estudio que tiene como objetivo investigar los conceptos de Creatividad y Emprendimiento.

Nuestra intención es que reciba la información correcta y suficiente para que pueda evaluar y decidir si desea o no participar en este estudio. Por este motivo, lea esta hoja informativa con atención y nosotros le aclararemos las dudas que le puedan surgir Adicionalmente, le informamos que usted es libre de consultar con las personas que considere oportuno antes de decidir sobre su participación en el estudio.

PARTICIPACIÓN VOLUNTARIA

Debe saber que su participación en este estudio es voluntaria y que puede decidir no participar o cambiar su decisión y retirar el consentimiento en cualquier momento.

DESCRIPCIÓN GENERAL DEL ESTUDIO

Este estudio que tiene como objetivo investigar los factores determinantes de la Creatividad, la Orientación Emprendedora y la Motivación Emprendedora, como es el caso de los rasgos de personalidad, las creencias obsesivo-compulsivas y el perfil de las personas que tienen mayor tendencia al emprendimiento. Se contactará con los participantes a través de la red social y se les pedirá que rellenen unos cuestionarios.

Usted puede participar en este estudio si cumple con los siguientes **criterios**:

- vivir en España, y ser ciudadano español,
- ser mayor de edad,
- trabajar desde hace más de un año.

El estudio dura entre 20 y 25 minutos y es totalmente anónimo, durante este proceso deberá rellenar unas encuestas, los datos obtenidos de las misma son únicamente para investigación.

CONFIDENCIALITAT I PROTECCIÓ DE DADES

Este estudio no implica el tratamiento de datos personales ya que los datos que se recogen no se podrán vincular, directa o indirectamente, a sus titulares.

Para pasar al estudio marque una de las siguientes casillas:

☐ Doy mi consentimiento para participar en el estudio

☐ No doy mi consentimiento

Atentamente,
Rojin Ghasemijalal

NOTE: This research obtained approval from the Ethical Committee Concerning Research into People, Society, and the Environment of the Rovira and Virgili University (CEIPSA), with the number: CEIPSA-2023-TD-0020.

SCALES USED

1.- DATOS DE LA EMPRESA / ORGANIZACIÓN

1.1.- Número total de empleados de la compañía / institución: .....

1.2.- Sector o Actividad económica de la empresa: .....

1.3.- Desde una perspectiva económica, la situación de la empresa en los últimos 12 meses es (contestar sólo una):

1.--Nada estable.
2.--Algo estable.
3.--Bastante estable.
4.--Muy estable.
5.--Totalmente estable.

2.- DATOS DEL EMPLEADO.

2.1.- Sexo: 1.- Hombre 2.- Mujer

2.2.- Edad.....en años.

2.3.- Estado Civil:

1.-- Casado.
2.-- Pareja de hecho.
3.-- Soltero.
4.-- Divorciado o Separado.
5.-- Viudo.

2.4.- Denominación del puesto (Especificar): .....

2.5.- Antigüedad en el lugar de trabajo actual: ..... en meses

2.6.- Antigüedad en esta profesión: ..... en meses

2.7.- Antigüedad en esta empresa: ..... en meses

2.8.- Nivel Formación Académica:

1.--Sin estudios. Ningún certificado o título académico.
2.--Estudios primarios acabados.
3.--Estudios secundarios acabados.
4.--Universidad: Diplomatura o Ingeniero Técnico (3 años).
5.--Universidad: Licenciado, Ingeniero Superior o Arquitecto (más de 3 años).
6.--Titulación de Máster, Doctorado, etc.

2.9.-Ambito del Contrato:

1.--Empresas de Trabajo Temporal (ETT).
2.--Empresa.
3.--Autónomo.

2.10.-Tipo de contratos:

1.--Indefinido (Jornada Completa). 2.--Indefinido (Jornada Parcial).
3.--Temporal (Jornada Completa). 4.--Temporal (Jornada Parcial).
5.--Otros (Especificar): .....

2.11.- Contesta según:

1 Casi nunca	2 A veces	3 Neutral	4 A menudo	5 Casi siempre

1.- En términos generales, ¿te sientes saludable?	
2.- Teniendo todo en cuenta la felicidad, ¿cómo estás de feliz con tu vida?	
3.- ¿Con qué frecuencia te llevas trabajo a casa?	

2.12.-Tomando como referencia los últimos 12 meses, contesta:

Utiliza un número que exprese una cantidad, una frecuencia, un valor….

1.- ¿Cuántas noches te has despertado pensando en temas de trabajo?	
2.- Estando en reuniones de tipo social, ¿cuántas veces pensaste o hasta manifestaste a alguien, que deberías estar trabajando?	
¿A cuántas citas personales (visitas a médicos, encuentros –cafés, almuerzos, cenas- con amistades) llegaste tarde por quedarte trabajando?	
4.- ¿Cuántas veces perdiste oportunidades personales por no poder dedicarles tiempo, debido al que le dedicas al trabajo?	
5.- Fuera del horario laboral y durante el fin de semana, ¿cuántas llamadas telefónicas de índole laboral?	
6.- ¿Cuántas horas extras trabajas al año?	
7.- ¿Cuántos días de vacaciones has disfrutado?	
8.- ¿Cuántas horas trabajas a la semana de promedio?	
9.- Si no vas a turnos, ¿cuántos sábados has trabajado por la mañana?	
10.- Si no vas a turnos, ¿cuántos sábados has trabajado por la tarde?	
12.- Si no vas a turnos, ¿cuántos días festivos y domingos has trabajado?	
13.- En los últimos 12 meses, ¿cuántos días ha ido al trabajo estando enfermo?	

3.- DUWAS (DUWAS; del Líbano, 2009)

A continuación, encontrará algunas afirmaciones sobre el trabajo.
Lea atentamente cada frase e indique por favor el grado de acuerdo o desacuerdocon respecto a las mismas.

1 Nada de acuerdo	2 Algo de acuerdo	3 Bastante de acuerdo	4 Muy de acuerdo	5 Totalmente de acuerdo

1.-No me gusta tener demasiado trabajo	
2.-A menudo me gustaría no comprometerme tanto con mi trabajo	
3.-Siempre parece que voy con prisas y a contrarreloj	
4.-A menudo estoy trabajando después de que mis compañeros se han ido	
5.-Para mí, es importante trabajar duro incluso cuando no disfruto de lo que hago	
6.-Suelo estar ocupado/a y llevar muchos asuntos entre manos	
7.-A menudo me encuentro pensando en el trabajo incluso cuando intento desconectar un poco	
8.-Me comprometo demasiado e intento abarcar más de lo que puedo	
9.-Parece que tengo un impulso interno que me lleva a trabajar duro, un sentimiento de que es algo que debo hacer quiera o no	
10.-Cuando trabajo, me presiono imponiéndome plazos	
11.-A menudo siento que hay algo dentro de mí que me impulsa a trabajar duro	
12.-Dedico más tiempo a trabajar que a estar con mis amigos, practicar mis aficiones o hacer actividades de ocio	
13.-Me siento culpable cuando no estoy trabajando en algo	
14.-Me siento obligado/a a trabajar duro, incluso cuando no lo estoy disfrutando	
15.-A veces me doy cuenta de que estoy haciendo dos o tres cosas al mismo tiempo, como comer y redactar un informe mientras hablo por teléfono	
16.-Me siento culpable cuando me tomo tiempo libre en el trabajo	
17.-Me cuesta relajarme cuando no estoy trabajando	

4.- CUESTIONARIO DE ADICCIÓN AL TRABAJO (WORKBAT; Boada-Grau et al., 2013)

A continuación, encontrará algunas afirmaciones sobre el trabajo.
Lea atentamente cada frase e indique por favor el grado de acuerdo o desacuerdocon respecto a las mismas.

1 Nada de acuerdo	2 Algo de acuerdo	3 Bastante de acuerdo	4 Muy de acuerdo	5 Totalmente de acuerdo

1. Cuando tengo tiempo libre, me gusta relajarme y no hacer cosas serias.	
2. Me gusta mi trabajo más que a la mayoría de la gente.	
3. Me siento culpable cuando falto al trabajo.	
4. Mi trabajo es más diversión que trabajo.	
5. A menudo desearía no estar tan comprometido con mi trabajo.	
6. Me gusta relajarme y divertirme todo lo que puedo.	
7. Mi trabajo es tan interesante que a menudo no parece trabajo.	
8. Espero con ganas el fin de semana para pasármelo bien y no trabajar.	
9. Trabajo más de lo que se espera de mí sólo para pasármelo bien.	
10. La mayoría del tiempo mi trabajo es muy agradable.	
11. Rara vez encuentro nada placentero mi trabajo.	
12. Perder el tiempo es tan malo como perder dinero.	
13. Paso mi tiempo libre ocupado en proyectos y otras actividades.	
14. Me siento obligado a trabajar duro incluso cuando no es agradable.	
15. Me gusta usar mi tiempo de manera constructiva, dentro y fuera del trabajo.	
16. Pierdo la noción del tiempo cuando estoy involucrado en un proyecto.	
17. A veces, cuando me levanto por la mañana, me muero de ganas de llegar al trabajo.	
18. Es importante para mí trabajar duro, aun cuando no me guste lo que estoy haciendo.	
19. Cuando me involucro en un proyecto interesante, es difícil describir cómo me siento de eufórico.	
20. A menudo me encuentro pensando en el trabajo, aun cuando quiero descansar durante un tiempo.	
21. Entre mi trabajo y otras actividades en las que estoy implicado no dispongo de demasiado tiempo libre.	
22. A menudo siento que hay algo dentro de mí que me impulsa a trabajar duro.	
23. A veces disfruto tanto de mi trabajo que tengo dificultades para dejarlo.	
24. Me aburro y me siento inquieto durante las vacaciones cuando no tengo nada productivo que hacer.	
25. Me parece que tengo una compulsión interna a trabajar duro.	

5.- Irritation Scale (Merino-Tejedor et al., 2013)

Utilice la siguiente escala de respuestas para precisar en qué medida le afectan (o no) las cuestiones planteadas.

por favor haga solamente una cruz en cada línea	Muy en desacuerdo	Bastante en desacuerdo	Algo en desacuerdo	Quizás puede ser	Algo de acuerdo	Bastante de acuerdo	Muy de acuerdo
1.-Me resulta difícil desconectar despuésdel trabajo							
2.-En casa no puedo dejar de pensar en los problemas del trabajo							
3.-Cuando otras personas se dirigen a mí,reacciono de malas maneras							
4.-Incluso en vacaciones, no puedo dejarde pensar a veces en los problemas del trabajo							
5.-De vez en cuando me siento dominado/a por los nervios							
6.-Me enfado con facilidad							
7.-Me enojo, aunque en realidad no lo quiero							
8.-Cuando vuelvo cansado/a a casa del trabajo suelo estar bastante nervioso/a							

6.- Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli et al., 1996) (Adaptación española realizada por Salanova et al., 2000).

Instrucciones: Conteste a cada uno de los siguientes enunciados teniendo en cuenta la siguiente escala.

0	1	2	3	4	5	6
Nunca / Ninguna vez	Casi nunca /Pocas veces al año	Algunas Veces / Una vez almes o menos	Regularmente / Pocas veces al mes	Bastantes veces/ Una vez por semana	Casi siempre/ Pocas veces por semana	Siempre/ Todos los días

1.-Estoy emocionalmente agotado por mi trabajo.	
2.-Estoy “consumido” al final de un día de trabajo.	
3.-Estoy cansado cuando me levanto por la mañana y luego tengo que afrontar otro día en mi puesto de trabajo.	
4.-Trabajar todo el día es una tensión para mí.	
5.-Puedo resolver de manera eficaz los problemas que surgen en mi trabajo.	
6.-Estoy “quemado” por el trabajo.	
7.-Contribuyo efectivamente a lo que hace mi organización.	
8.-He perdido interés por mi trabajo desde que empecé en ese puesto.	
9.-He perdido entusiasmo por mi trabajo.	
10.-En mi opinión soy bueno en mi puesto.	
11.-Me estimula conseguir objetivos en mi trabajo.	
12.-He conseguido muchas cosas valiosas en este puesto.	
13.-Me he vuelto más cínico respecto a la utilidad de mi trabajo.	
14.-Dudo da la trascendencia y valor de mi trabajo.	
15.-En mi trabajo, tengo la seguridad de que soy eficaz en la finalización de las cosas.	

7.- CUESTIONARIO CREENCIAS OBSESIVAS (ICO; Belloch et al., 2003)

Instrucciones para responder el cuestionario: Este cuestionario hace referencia a diferentes actitudes y creencias que tiene a veces la gente. Lea detenidamente cada una de las afirmaciones y decida en qué grado está de acuerdo o en desacuerdo con ellas. Responda a cada una de las QUE DESCRIBE MEJOR LO QUE PIENSA HABITUALMENTE, lo que mejor caracteriza su forma de pensar. Utilice la siguiente escala de valoración:

1	2	3	4	5	6	7
Totalmente en desacuerdo	Bastante en desacuerdo	Algo en desacuerdo	Ni de acuerdo, ni en desacuerdo	Algo de acuerdo	Bastante de acuerdo	Totalmente de acuerdo

2.-Debo ser el/la mejor en aquello que es importante para mí	
5.-Si me esfuerzo continuamente por controlar mi mente, lo conseguiré	
9.-Un fallo, por pequeño que sea, indica que un trabajo no está completo	
12.-Debo proteger a los demás de posibles males	
16.-Antes de tomar una decisión debo conocer todos los detalles que tengan que ver con el asunto	
19.-En cualquier situación de la vida diaria no hacer nada puede causar tanto daño como actuar mal	
23.-Para mí, es inaceptable tener cualquier pequeño descuido si puede afectar a los demás	
26.-Si yo sé que existe la posibilidad de que suceda algo malo, aunque sea muy poco probable, tengo la obligación de intentar prevenir que no se produzca	
30.-Siempre debo trabajar con todas mis fuerzas, esforzándome al máximo	
36.-Debería tener la certeza absoluta de que mi entorno es seguro	
40.-Es fundamental tenerlo todo muy claro, hasta los más mínimos detalles	
43.-Debo esforzarme constantemente para evitar problemas graves (accidentes, enfermedades, etc.)	
44.-Es importante seguir trabajando en algo hasta que se haga bien	
46.-Debería saber en todo momento qué es lo que me ronda por la mente para poder controlar mis pensamientos	
47.-Para sentirme seguro, tengo que estar preparado ante cualquier cosa que pueda ocurrir	
49.-Debería ser capaz de librar mi mente de pensamientos inadecuados	
50.-Para ser una persona digna de consideración debo ser perfecto en lo que haga	
52.-Para mí, no hacer nada para prevenir un posible daño, es tan malo como provocarlo yo mismo	
53.-Tener dudas me resulta insoportable	
54.-Debo estar preparado para recuperar el control de mi mente en cuanto aparezca una imagen o pensamiento intruso	
55.-Debo estar completamente seguro de mis decisiones	
56.-Si pierdo el control sobre mis pensamientos, debo luchar para recuperarlo	
57.-Si me esfuerzo mucho conseguiré estar completamente seguro de todo lo que haga	
58.-Para mí, las cosas no están bien si no están perfectas	

8.- EI- Impulsividad Dickman (Chico et al., 2003)

Por favor, leer estas instrucciones cuidadosamente antes de comenzar. Este cuestionario contiene 23 frases. Leer, por favor, atentamente cada una de ellas y escoge la respuesta que se corresponda mejor con tu manera más frecuente de ser, pensar o actuar (V=Verdadero F=Falso). No hay respuestas correctas ni incorrectas, ni tampoco respuestas buenas o malas. Asegúrate de que has respondido a todas las frases.

	V	F
1. No me gusta tomar decisiones de forma rápida, aunque sean decisiones sencillas, como, por ejemplo, qué ropa me pongo o qué voy a cenar.		
2. Frecuentemente digo lo primero que se me ocurre sin pensar mucho antes.		
3. Me gusta solucionar lenta y cuidadosamente los problemas.		
4. Soy bueno aprovechando las ventajas de las oportunidades inesperadas, en las que tienes que hacer algo rápidamente o pierdes tu oportunidad.		
5. La mayor parte del tiempo puedo concentrarme en mis trabajos de forma rápida.		
6. Frecuentemente me propongo actividades sin pensar si seré capaz de llevarlas a cabo.		
7. Frecuentemente compro cosas sin pensar si realmente me puedo permitir comprarlas.		
8. No me siento a gusto cuando tengo que decidirme rápidamente.		
9. Me gusta tomar parte en conversaciones rápidas en las que realmente no hay mucho tiempo para pensar antes de hablar.		
10. A menudo me decido rápidamente sin tomarme el tiempo necesario para considerar la situación desde todos los puntos de vista.		
11. Frecuentemente, no paso mucho tiempo pensando sobre una situación antes de actuar.		
12. No me gusta tener que hacer las cosas de forma rápida, aun cuando esté haciendo algo que no es muy difícil.		
13. Disfrutaría trabajando en una ocupación que requiera tomar decisiones rápidas.		
14. Frecuentemente, me meto en situaciones apuradas porque no pienso antes de actuar.		
15. Muchas veces los planes que hago no resultan bien porque antes no los he madurado cuidadosamente.		
16. Me gusta los deportes y los juegos en los que se tiene que escoger el próximo movimiento muy rápidamente.		
17. A menudo pierdo oportunidades debido a que tengo que decidirme rápidamente.		
18. La gente me valora porque puedo pensar de forma rápida.		
19. Raramente me veo implicado en proyectos sin considerar primero los posibles potenciales problemas.		
20.Antes de tomar decisiones importantes, sopeso cuidadosamente los pros y los contras.		
21. Soy bueno razonando detenidamente.		
22. Intento evitar aquellas actividades donde tengo que actuar sin tener antes mucho tiempo para pensar.		
23. A menudo digo y hago cosas sin considerar las consecuencias.		

9.- OPERAS v.2 (Vigil-Colet et al., 2013)

A continuación, se presentan un conjunto de frases en relación con tu forma de pensar y de actuar. Has de decidir hasta qué punto te describen cada una de las afirmaciones. No hay respuestas correctas ni incorrectas, ni tampoco respuestas buenas o malas. Las alternativas de respuesta para cada afirmación son:

Ejemplo: *Me siento bien rodeado de gente*

En esta afirmación, una persona que conteste *Bastante de acuerdo* consideraría que en general se siente bien rodeada de gente, aunque no siempre. Si has comprendido estas instrucciones, puedes empezar el cuestionario. Asegúrate de responder a todas las frases.

1 Completamente en desacuerdo	2 Bastante en desacuerdo	3 Ni de acuerdo ni en desacuerdo	4 Bastante de acuerdo	5 Completamente de acuerdo

	1	2	3	4	5
1.-Me gusta visitar museos.					
2.-Soy el alma de la fiesta.					
3.-Me siento cómodo conmigo mismo.					
4.-Siempre estoy dispuesto a asumir responsabilidades.					
5.-Siempre mantengo mi palabra.					
6.-Suelo hablar bien de los demás.					
7.-El arte me parece aburrido.					
8.-Me desenvuelvo bien en situaciones sociales.					
9.-A menudo tengo el ánimo por el suelo.					
10.-Evito mis obligaciones.					
11.-Alguna vez he cogido algo que no era mío.					
12.-Respeto a los demás.					
13.-Creo en la importancia de formarse culturalmente.					
14.-Hablo poco.					
15.-A menudo me siento triste.					
16.-Dejo las cosas a medias.					
17.-Creo que los demás tienen buenas intenciones.					
18.-Evito las discusiones filosóficas.					
19.-Alguna vez he dicho algo malo de alguien.					
20.-Hago amigos con facilidad.					
21.-Es difícil que las cosas me preocupen.					
22.-Dejo mis cosas desordenadas.					
23.-Soy muy crítico con los demás.					
24.-Me gusta probar cosas nuevas.					

25.-Prefiero que otros sean el centro de atención.					
26.-Alguna vez me he aprovechado de alguien.					
27.-Me dejo llevar por el pánico con facilidad.					
28.-Soy perfeccionista.					
29.-A menudo soy desagradable con otras personas.					
30.-Me gusta visitar sitios nuevos.					
31.-Permanezco en segundo plano.					
32.-Cambio de humor a menudo.					
33.-Pierdo el tiempo.					
34.-Acepto a la gente tal y como es.					
35.-Me siento identificado con los valores tradicionales.					
36.-Sé cautivar a la gente.					
37.-Me desperados.					
38.-Cuando hago planes los mantengo.					
39.-Cuando alguien me la juega, se la devuelvo.					
40.-El teatro me parece poco interesante.					
41.-Los problemas de los demás me dejan indiferente.					
42.-Siento curiosidad por el mundo que me rodea.					

10.- The Entrepreneurial Motivation Scale (EM; Robichaud & McGraw, 2008)

A continuación, encontrarás algunas afirmaciones sobre LA MOTIVACIÓN A EMPRENDERUN PROYECTO PROFESIONAL PROPIO (empresa, microempresa, etc.) EN EL FUTURO.
No hay respuestas correctas ni incorrectas, ni tampoco respuestas buenas o malas. Leer atentamente cada frase e indique por favor el grado de acuerdo o desacuerdo conrespecto a las mismas.

1 Nada importante	2 Poco importante	3 Ni importante ni no importante	4 Bastante importante	5 Muy importante

	Puntuación
1.-Poder para decidir lo que yo quiero hacer	
2.-Crear mi propio trabajo	
3.-Ser mi propio jefe	
4.-Obtener una seguridad personal que me garantiza un trabajo propio	
5.-Maximizar el crecimiento de mi negocio	
6.-Construir de algo que podría beneficiar a mis hijos	
7.-Estar más preparado para mis hijos	
8.- Proteger la situación financiera de mi familia.	
9.-Construir un fondo de pensiones para la vejez	
10.-Conseguir un reto	
11.-Ayudar a mi desarrollo personal	
12.-Darme a conocer en la comunidad	
13.-Demostrar que puedo tener éxito en lo que emprendo	

11.- The Entrepreneurial Orientation Scale (EO ; Lee et al., 2011)

A continuación, encontrarás algunas afirmaciones sobre LA ORIENTACIÓN A EMPRENDERUN PROYECTO PROFESIONAL PROPIO (empresa, microempresa, etc.) EN EL FUTURO. No hay respuestas correctas ni incorrectas, ni tampoco respuestas buenas o malas. Leer atentamente cada frase e indique por favor el grado de acuerdo o desacuerdo con respecto a las mismas.				
1 Completamente en desacuerdo	2 Bastante en desacuerdo	3 Ni de acuerdo ni en desacuerdo	4 Bastante de acuerdo	5 Completamente de acuerdo

	Puntuación
oe1.-No quiero recibir ningún apoyo financiero de mis padres, familia, etc., porque ya soy adulto/a	
oe2.-Siempre soy positivo/a sobre los problemas que surgen en mi vida, y los resuelvo yo mismo/a	
oe3.-Si creo una empresa, puedo aportar mis propios fondos y los recursos humanos	
oe4.-Disfruto trabajando en cosas nuevas, por lo que normalmente estoy al día sobre tendencias y modas	
oe5.-Suelo tener ideas progresistas e innovadoras, más que ideas conservadoras	
oe6.-Me gusta hablar sobre el futuro y, cuando lo hago, puedo convencer a mis amigos para que estén de acuerdo con mis predicciones	
oe7.-Prefiero vivir una vida difícil a una vida cómoda, aunque sé quetendré que afrontar muchas dificultades	
oe8.-Me interesa más crear mi propia empresa que conseguir un trabajo	
oe9.-Creo que fundar una empresa es el único modo de tener éxito en la vida	
oe10.-Si tuviera que crear una nueva empresa, estoy convencido/a de que tendría éxito y generaría beneficios	
oe11.-Aunque la gente rechace de plano mis peticiones, persisto sin importarme que piensen que soy un plomo	
oe12.-Aunque cree nuevas empresas y fracase muchas veces, seguiré intentándolo hasta tener éxito	

12.- Creative Potential and Practised Creativity Scale (CPPC; DiLiello & Houghton, 2006)

A continuación, encontrarás algunas afirmaciones sobre CREATIVIDAD EN TU TRABAJO Y EN TU ORGANIZACIÓN.
No hay respuestas correctas ni incorrectas, ni tampoco respuestas buenas o malas.
Leer atentamente cada frase e indique por favor el grado de acuerdo o desacuerdo conrespecto a las mismas.

1 Completamenteen desacuerdo	2 Bastante en desacuerdo	3 Ni de acuerdoni en desacuerdo	4 Bastante de acuerdo	5 Completamente de acuerdo

	Puntuación
pc1.-Creo que soy bueno/a generando ideas innovadoras.	
pc2.-Tengo confianza en mi capacidad para solucionar problemas de forma creativa.	
pc3.-Tengo la habilidad de desarrollar más a fondo las ideas de losdemás.	
pc4.-Soy bueno/a a la hora de encontrar maneras creativas de resolver problemas.	
pc5.-Cuento con talento y habilidades para hacer bien mi trabajo.	
pc6.-Me siento cómodo/a probando ideas nuevas.	
pc7.-En el trabajo tengo oportunidad de usar mis habilidades y capacidades creativas.	
pc8.-En el trabajo me invitan a que presente ideas de mejora.	
pc9.-Tengo la oportunidad de participar en equipos.	
pc10.-Tengo libertad para decidir cómo llevar a cabo mis tareas.	
pc11.-En el trabajo mis capacidades creativas se aprovechan al máximo.	
pc12.-En mi organización se reconoce el trabajo creativo.	
pc13.-Mi organización juzga las ideas de un modo justo.	
pc14.-En mi organización se anima a la gente a resolver los problemas de forma creativa.	
pc15.-Mi organización cuenta con buenos mecanismos para fomentar y desarrollar las ideas creativas.	
pc16.-En mi organización se anima a la gente a asumir riesgos.	
pc17.-Las ideas innovadoras y creativas se recompensan.	

13.- Creative Environment Perceptions Scale (CEP; Mayfield & Mayfield, 2010)

A continuación, encontrarás algunas afirmaciones sobre CREATIVIDAD EN TU TRABAJO. No hay respuestas correctas ni incorrectas, ni tampoco respuestas buenas o malas. Leer atentamente cada frase e indique por favor el grado de acuerdo o desacuerdo conrespecto a las mismas.

1 Completamente en desacuerdo	2 En desacuerdo	3 Neutral	4 De acuerdo	5 Completamente de acuerdo

	Puntuación
pce1.-Mi superior me anima a ser creativo/a.	
pce2.-Mi grupo de trabajo apoya las nuevas maneras de hacer las cosas.	
pce3.-Mi organización me anima a trabajar de forma creativa.	
pce4.-Cuento con los recursos necesarios para llevar a cabo mi trabajo.	
pce5.-Mi trabajo es retador.	
pce6.-Tengo control sobre cómo hago mi trabajo.	
pce7.-La política de mi organización dificulta la creatividad.	
pce8.-Las políticas de mi organización impiden la espontaneidad en el trabajo.	
pce9.-Es difícil ser creativo con los plazos con los que trabajo.	

14.- The Entrepreneurial Motivation Scale (EM ; Robichaud & McGraw, 2008)

A continuación, encontrarás algunas afirmaciones sobre LA MOTIVACIÓN A EMPRENDER UN PROYECTO PROFESIONAL PROPIO (empresa, microempresa, etc.) EN ELFUTURO. No hay respuestas correctas ni incorrectas, ni tampoco respuestas buenas o malas. Lea atentamente cada frase e indique por favor el grado de acuerdo o desacuerdo con respecto a las mismas.

1	2	3	4	5
Nada importante	Poco importante	Ni importante ni no importante	Bastante de importante	Muy importante

	Puntuación
1.- Poder para decidir lo que yo quiero hacer	
2.- Crear mi propio trabajo	
3.- Ser mi propio jefe	
4.- Obtener una seguridad personal que me garantiza un trabajo propio	
5.- Maximizar el crecimiento de mi negocio	
6.- Construir de algo que podría beneficiar a mis hijos	
7.- Estar más preparado para mis hijos	
8.- Proteger la situación financiera de mi familia	
9.- Construir un fondo de pensiones para la vejez	
10.- Conseguir un reto	
11.- Ayudar a mi desarrollo personal	
12.- Darme a conocer en la comunidad	
13.- Demostrar que puedo tener éxito en lo que emprendo	

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