the LISBON MBA
católica|nova
In collaboration with MIT Sloan

Title: Developing Intrapreneurial culture within Portuguese organizations

Field of study: Intrapreneurship / Corporate Entrepreneurship

Purpose: Dissertation for obtaining the Degree of Master in Business Administration

Author: Waleed Ata

Thesis Supervisor: Joao Cotter Salvado

Date: 9-June-2024

Abstract

This study ventures into uncharted territory in Portugal, exploring intrapreneurial culture. It delves into how organizations can cultivate this culture to survive and thrive in a dynamic and unpredictable environment. The paper underscores the importance of continuous strategic adaptation for organizational success. It posits that fostering an intrapreneurial culture is the key to unlocking innovation, driving organizational progress, and offering a future brimming with growth and success.

The study identifies four key pillars of intrapreneurial culture: human behavior, organizational determinants, organization antecedents, and contextual influences. This research focuses on organizational antecedents, shortcomings, and the necessary improvements to nurture an intrapreneurial environment. The paper establishes a foundation for fostering this culture by diagnosing the current state and pinpointing deficiencies, highlighting the crucial role that each member of the organization plays in this process.

The findings reveal a balanced view of management support and work discretion, with inconsistencies such as a weak link between innovation and individual rewards. Additionally, time limitations and rigid adherence to procedures are potential roadblocks to innovation. These insights underscore the organization's need to address these areas and cultivate a more conducive environment for intrapreneurial development.

This study is a treasure trove of practical insights, identifying critical areas for improvement and providing a straightforward roadmap toward an intrapreneurial culture. The observed correlations between sub-factors within organizational antecedents shed light on the interplay of organizational strategy, work practices, intrapreneurial climate, and innovation levels. These findings not only lay the groundwork for future research to delve into the remaining three factors influencing intrapreneurial culture but also empower organizations to take tangible steps toward fostering innovation, instilling them with confidence and direction.

Table of contents

List of tables

List of figures

1 Introduction:

Nowadays, organizations operate in increasingly volatile and complex business environments that force them to adopt constantly revamped strategies that must be adapted to new contexts. The development and adoption of these strategies can become more manageable when Intrapreneurship (Corporate Entrepreneurship) is present within companies. Intrapreneurship helps firms think outside the box but inside the company's box, therefore innovating within itself, enhancing its internal performance, adapting to external changes, and refreshing the business (Felício et al., 2012). There are multiple definitions for Intrapreneurship; for example, Antoncic and Hisrich (2001) claim that Intrapreneurship is simply entrepreneurship within existing organizations. Zahra (1991) developed a more complete definition, stating that intrapreneurship refers to formal and informal activities to create new businesses in established companies through product and process innovation and market developments. While entrepreneurship ignites new ventures, intrapreneurship fuels their growth and expansion. (Teltumbde, 2006).

This phenomenon is essential for organizations as it accelerates organizational growth, profitability, and renewal and helps secure the organization's survival in the business (Zahra, 1991). However, intrapreneurship in practice is not as widespread as expected (Huang et al., 2021). Recent research indicates that the Nordic countries lead with a prevalence of intrapreneurship of around 9%. In contrast, the opposite is observed for Mediterranean Eastern European and developing countries (Elert et al., 2019). The observation that growing academic interest in intrapreneurship does not reflect proportionately in practice may be attributed to practitioners' concerns about structuring an appropriate internal process to facilitate intrapreneurship within the firm (Huang et al., 2021).

Different measuring tools have been developed to evaluate the numerous factors that help a company become intrapreneurial, yet due to the subjectivity of the topic, it remains a challenge to analyze intrapreneurship and draw reliable and valid conclusions (Covin & Wales, 2019). According to Campos (2020), the number of studies on intrapreneurship in Portugal is scarce. Most intrapreneurship research has been conducted in the United States, with a distinct organizational culture background. As a result, applying these findings to different organizational contexts could lead to intriguing insights (Turro et al., 2016).

In 2017, American Chamber of Commerce in Portugal (AMCHAM) conducted the first study on intrapreneurship in Portugal, coordinated by Dr. Dana T. Redford. The study involved 12 active Portuguese organizations from different sectors and highlighted the importance of intrapreneurship in Portugal. They concluded that, even though some companies managed to become intrapreneurial, there is

ubiquitous pressure on managers to curtail costs and increase efficiency while maintaining top innovation and customer service levels. This pressure to reduce costs leads managers to have higher cost reduction priorities in their list of KPIs than encouraging intrapreneurship behaviors in their employees, and the best way to tackle this issue is to implement a training program on best practices in intrapreneurship.

However, AmCham's study does not investigate why there is no intrapreneurial behavior in organizations, the root cause, and what issues need to be solved. Training will help, but it is not the only thing that needs to be done; it does not show what the organizations need to do more to implement intrapreneurial behavior. Additionally, the targeted interviewees were the CEO, a board of directors member, or the human resource manager, so the opinions of other employees in the organization were not considered. The current study will fill these gaps by finding more details about why these issues exist and how they are solved.

1.1 The aim of this study

Based on the literature review from previous studies, my proposed paper suggests that the factors that influence the development of the intrapreneurial culture within organizations can be categorized into four categories: Human Behavior, Organizational Determinants, Organizational Antecedents, and Contextual Influences. The literature review section will provide more details about each factor.

This paper will focus only on Organizational Antecedents. After reviewing previous papers and studies in this field, it has been noticed that Organization Antecedents play a crucial role in developing intrapreneurial culture. Neessen et al. (2019) argued that the behavior of the intrapreneur often depends on the organizational context, which can facilitate or inhibit the actions and behaviors of intrapreneurs. Authors like Dess et al. (2003) and Rigtering and Weitzel (2013) highlighted the need to study the organizational factors that facilitate intrapreneurship. A valuable quality of corporate entrepreneurship is creating an environment that stimulates entrepreneurial thinking and behavior (Antoncic & Hisrich, 2001). The success of intrapreneurial behavior depends on the organizational context and how the strategies defined by the organization fit with their employees. For these reasons, Organization Antecedents are crucial in developing an Intrapreneurial culture within organizations.

Entrepreneurial behavior within an organization is facilitated by creating and authenticating the favorable conditions to value, back, and support entrepreneurial initiatives employees realize (Scheepers, 2012). Those conditions are the organizational antecedents. Furthermore, they determine firm-level entrepreneurship. Thus, firms' intrapreneurial intensity is strongly related to organizational antecedents (Ruba, 2019). Evaluating a firm's intrapreneurship empowers the organization to gauge its internal

ecosystem and strategically employ knowledge management practices, fostering a proactive and adaptable corporate entrepreneurial landscape. (Hornsby et al.,2008).

This study aims to **study Organizational Antecedents within Portuguese organizations** and analyze what they lack to understand what they need to achieve a level that can put them on the track to achieve an Intrapreneurial culture. Will assess their current state and identify any deficiencies in Organizational Antecedents. This diagnostic approach will serve as a foundation for fostering an intrapreneurial culture, which is the ultimate objective of this paper. Organizational Antecedents can be measured using the Corporate Entrepreneurship Assessment Instrument (CEAI), developed by Kuratko et al. (2014). We will be looking into all five main sub-factors: (1) Management support, (2) Work discretion, (3) Rewards/ reinforcement, (4) Time availability and (5) Organizational boundaries. These sub-factors have been introduced in the tool Corporate Entrepreneurship Assessment Instrument (CEAI).

2 Literature review:

This chapter discusses the most relevant concepts to intrapreneurial culture to get a complete overview of intrapreneurship and the factors that affect it. The first part of this section will talk about Intrapreneurship and Intrapreneurs. Then, we will dive into the four crucial factors in developing an intrapreneurial organizational culture. Since the focus will be on Organizational antecedents, we will discuss in this section the five significant points measured in the survey and their effect on the Intrapreneurial culture.

2.1 Intrapreneurship:

Pinchot (1985) and Drucker & Noel (1986) were the first authors to discuss intrapreneurship. For Pinchot (1985), intrapreneurship consists of taking advantage of a new opportunity and creating economic value within the company. For Drucker & Noel(1986), intrapreneurship is linked to generating new possibilities for business growth and improvement. Business success in creating an intrapreneurial culture will demand that firms creatively combine external and internal assets and capabilities. Organizations and employees, not just business firms, need to become more entrepreneurial and adopt new agile practices on tactical and strategic levels. A corporate entrepreneurship approach implies a process in which individuals within organizations act entrepreneurially in pursuing new opportunities (Burgelman, 1983; Kanter, 1984; Morris et al., 2010). This implies that employees need intrapreneurial behavior with organizational support to establish an intrapreneurial culture. For that, it can be noticed that an intrapreneurial culture within an organization must be implemented at the organizational and individual levels first. Then, an overall intrapreneurial culture will be achieved.

2.1.1 Organizational-level

At the organizational level, intrapreneurship is a process of corporate renewal in established firms (Fischer, 2011) in which new business opportunities are being investigated and explored. This could involve the development of new products or services, markets, and technologies (Sathe, 1989). Hornsby et al. (2002) established “corporate entrepreneurship (Intrapreneurship) as embodying entrepreneurial efforts that require organizational sanctions and resource commitments for carrying out innovative activities in the form of product, process, and organizational innovations.” This perspective follows a top-down approach that considers organizations’ leaders' will to change the corporate environment towards a new, more flexible, and agile environment (Rigtering & Weitzel, 2013). The objective is to create a culture and strategy in companies where the employees are perfectly aligned with that and have all the resources to create and develop an intrapreneurial behavior. So, intrapreneurship at the organizational level expresses itself through creating new products or innovations, new business ventures, and processes of self-renewal by the organization (Campos, 2020). From the perspective of Asiaei et al. (2020), “intrapreneurship is treated as a channel through which the organization’s strategic knowledge resources are mobilized more effectively for the ultimate purpose of generating real value for the company.”

According to Dess and Lumpkin (2005), the effect of intrapreneurship on a firm's strategic success is most potent when it stimulates all parts of an organization. Intrapreneurship is found in companies where the strategic leaders and the culture generate a solid impetus to innovate, take risks, and aggressively pursue new venture opportunities. These ideas are captured by the concept known as "entrepreneurial orientation." It represents a frame of mind and a perspective on entrepreneurship reflected in a firm's ongoing processes and corporate culture (Covin et al., 1991).

Intrapreneurs, driven by intrinsic motivation, possess the power to reinvigorate, transform, and elevate organizations, leaving an indelible mark on their trajectory. Organizations must act as catalysts to unleash this transformative potential, nurturing and fostering an intrapreneurial spirit within their employees. Intrapreneurship should permeate the organization's core culture, becoming an integral practice aligned with strategic objectives. To foster innovation and bolster long-term strategic performance, companies must empower their employees through job autonomy, appropriate reward systems, and active involvement, enabling them to generate and pursue innovative ideas (Adeyeye et al., 2015). For that, there is a significant role on companies' shoulders to provide a suitable environment, factors, tools, and resources that will allow their employees to become more intrapreneurial.

2.1.2 Individual-level

At the individual level, intrapreneurship is a process where the employee's behavior can influence and affect the organization toward becoming more intrapreneurial. Zampetakis & Moustakis (2010) defined it as “a process by which individuals inside organizations pursue opportunities independent of the resources they currently control, engage themselves at doing new things, and are willing to escape from routine to pursue opportunities”; hence, Intrapreneurship can also be defined as a bottom-up approach. The intrapreneur tends to challenge the organization, surpass the standard job description, and overcome organizational boundaries (Rigtering & Weitzel, 2013). According to Moriano et al. (2014), “Intrapreneurs are the driving forces behind product development or improvement and market penetration.”

Over the years, it has become evident how the role of employees in organizations has changed. Nowadays, decision-making processes have become more decentralized, and employees are gaining more responsibility than before (Foss et al., 2015). This trend goes hand in hand with employees being relied upon to be flexible, proactive, risk-taking, and innovative (Giunipero et al., 2005). Furthermore, Heinze and Weber (2016) found that intrapreneurial employees implement new logic in organizations by using opportunistic tactics and leveraging slight changes to spark more significant changes in the broader organization. Behaviors of intrapreneurs generate initiatives that can push up and impact the performance of teams and organizations (Fellnhofer et al., 2017; Kollmann et al., 2017). Intrapreneurs are, therefore, seen as crucial elements in the business environment to overcome market instability and ensure the long-term success of companies (McKinney & McKinney, 1989). Therefore, Intrapreneurship has become a desired trait for employers to look for in their employees.

Intrapreneurs with sufficient experience to handle these complex environments could better cope with the need for innovative startups (Garrett & Holland, 2015), resulting in an institutionalization of entrepreneurship as a cultural norm (Kemelgor, 2002). Along these lines, culture improves employees' participation in risk-taking and innovation, thus enabling organizational competitiveness and sustainability through entrepreneurial acts (Kemelgor, 2002).

Why foster a Culture of Intrapreneurship?

Intrapreneurship could be an essential remedy for the lack of capabilities surrounding innovativeness and competitiveness within established organizations (Pinchot, 1985). Research also indicates that nurturing employees’ intrapreneurial engagement leads to permanent organizational development (Falola et al., 2018). Below are the benefits to the company and the employee from fostering an intrapreneurial culture:

For the Company: By fostering an intrapreneurial ethic within a company, employees can be empowered to become "change agents" who are comfortable bringing innovative ideas forward and promoting their execution through moderate risk-taking abilities (Bhatia & Khan, 2013). Intrapreneurship involves a company extending its competencies and increasing its opportunities by creating new organizations, new products/services- or combining added resources (Covin & Slevin, 1991). The conditions in which intrapreneurship is facilitated could serve as a basis for developing business practices, such as development and rewards, which would stimulate intrapreneurial behavior (Schmelter et al., 2010).

For the Employee: Employees who succeed as intrapreneurs tend to have many talents and traits, such as traditional entrepreneurs and a commitment to the organization and its goals. Working within an existing company, rather than launching an independent start-up business, offers several advantages to such individuals. Access to the company's resources increases their chances of success while maintaining a salaried position provides added security in case of failure. Intrapreneurs also gain experience that they can apply to future entrepreneurial ventures, as well as a stimulating work environment (Byrd et al., 2002)

2.2 Theoretical model and the proposed framework

Considering all the factors influencing intrapreneurship, a framework was constructed to summarize all the interactions within the phenomenon under analysis. Figure 1 shows the proposed factors that influence intrapreneurship, and since the paper will focus on organizational antecedents, a deeper analysis has been done on that part. The sub-factors for organizational antecedents were considered based on the usage of the CEAI tool, and more details about the importance of these sub-factors are in the upcoming section.

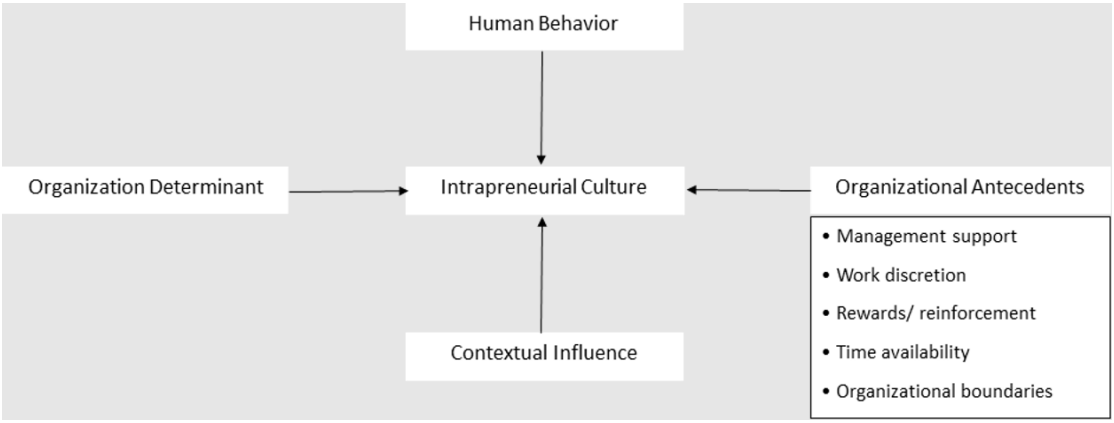


Figure 1 – Theoretical framework for developing Intrapreneurial Culture

2.3 Factors required to develop Intrapreneurial culture

2.3.1 Human behavior

Intrapreneurial behavior can lead to the continuing growth of entrepreneurial skills and an increased capacity to demonstrate self-determined extra-role behaviors, eventually leading to organizational outcomes such as strategic renewal and innovation (Balanka, 2018). When employees are self-motivated, they can have the capacity to accept and overcome challenges (Balanka, 2018). Therefore, it is essential to understand the personal motivational factors that drive employees to engage in intrapreneurial projects. Individuals' intentions are vital for implementing entrepreneurial behaviors to increase organizational performance (Douglas & Fitzsimmons, 2013).

Camelo-Ordaz et al. (2012) propose that intrapreneurs' behavior can influence their innovation performance and make them more creative. Research has shown that intrapreneur's behavior, such as persistence, hard work, ambition, creativity, risk-taking (Camelo-Ordaz et al., 2012), an optimistic perception of success (Camelo-Ordaz et al., 2012), an orientation toward goals (Franco & Pinto, 2016), and a desire to take on new challenges (Smith et al., 2016) can influence their innovative behaviors and push employees to become more intrapreneurial oriented.

2.3.2 Organization determinant

The organizational determinant is defined by organizational capabilities, which are defined as an organization's capacity to deploy its assets, tangible or intangible, to perform a task or activity to improve performance (Maritan, 2001) and (Barney, 2002) defines organizational capabilities as the firm attributes that enable organizations to coordinate and utilize their resources.

Organizational capabilities enable organizations to deliver superior customer value consistently (Narver et al., 2004). Hult and Ketchen (2001) identified four capabilities: (1) market orientation, (2) entrepreneurship, (3) innovativeness, and (4) organizational learning. It is essential to integrate these capabilities as they support organizations in creating superior value in turbulent markets and create potential advantages for organizations (Hult & Ketchen, 2001).

2.3.3 Organizational antecedents

Organizations, particularly their internal corporate environments, such as culture, structure, resources, and communication, play a key role in fostering intrapreneurship (Huang et al., 2021).

Antoncic (2007) mentioned that antecedent intrapreneurship is divided into the environment and the organization. 1) The positive environmental factors include the dynamism of technological opportunities,

industry growth, and demand for new products, while antecedent undesirable for the environment include unwanted changes and high competition. 2) In terms of organization, organizational characteristics that can encourage intrapreneurship are an open system, formal control in intrapreneurship activity, intensive removal of the environment, organizational support, and company values.

Measuring a firm's intrapreneurship enables the business to assess its internal environment and appropriately apply knowledge management practices to proactively implement and maintain a dynamic corporate entrepreneurial environment (Hornsby et al., 2008). It empowers management to identify, effectively communicate, and support critical factors that can enhance entrepreneurial actions within their organizations (Ruba, 2019).

The factors that will be studied and measured are:

2.3.3.1 Management support

There are multiple definitions for management support. However, they all lead to the same point; for example, management support refers to the willingness of management to facilitate and promote intrapreneurship (Marvel et al., 2007) and (Sebora et al., 2010), including pushing employees and recognizing that their activities involve some risk-taking (Kelley & Lee, 2010) and (Kuratko et al., 1990), and creating new things within the organization (Garcia-Morales et al., 2014). Another definition is management support, which indicates the willingness of managers to consider the encouragement and facilitation of entrepreneurial activities within a firm. It can take different forms, including championing innovative ideas, recognizing people who articulate ideas, providing the necessary resources or expertise, such as seed money to initiate ideas, or institutionalizing the entrepreneurial activity within the firm's system and processes (Hornsby et al., 2002), and (Alipour et al., 2011).

An intrapreneur initiates a controlled risk process, but without top management's willingness to support risky and new projects, large-scale innovation will not become real (Stevenson & Gumpert, 1985). The influence of strategic direction set by top management influences the intensity of intrapreneurship; the top management sets an overall strategy to encourage employees to behave more entrepreneurially (Ruba, 2019). The inclination of the top managers toward risky, innovative, and proactive behaviors sends a signal throughout the organization on how these behaviors are encouraged (Covin & Slevin, 1991) (Scheepers, 2012). Hence, the top management's strategy towards intrapreneurial behaviors will push employees to act innovatively and proactively and feel risk-free since they know they will not be punished. Lukes and Stephan (2017) emphasized the role of managerial support as an antecedent of employees' innovative behavior.

Kuratko and Welsch (2001) reason that pushing for innovation requires a willingness to tolerate failure and learn from it. By supporting experimentation and controlled risk-taking processes, the company has more chances to develop a new product. Dawes (2007) views mistakes as inevitable for success, and Turner (2002) added that the very nature of success demands trial and error. Cohen (2004) states, "If employees do their homework, use sound business reasoning, and try to benefit the organization, they should not be penalized for taking risks on new things; they should be supported and applauded."

2.3.3.2 Work discretion

Lumpkin and Dess (1996) define it as an independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion. Work discretion and giving employees autonomy in their work are other dimensions that influence the intrapreneur. Giving the employees the freedom to design their work and to help them in the decision-making process results in more intrapreneurial activities (Sebora et al., 2010), (Meynhardt & Diefenbach, 2012). It also increases employee performance (Globocnik & Salomo, 2015), allowing initiatives to enhance the development of the latest ideas. Hertog (2010) implies that work discretion is a coherent regime that can make economic decisions independently of larger interest groups within the organization or the ability given to lower managers or employees to set strategies reasonably and select teams to implement them accordingly. As a result, autonomy leads employees to act responsibly as they understand their responsibility and evaluate all the outcomes of their actions or ideas because they are the ones who will be accountable for the results. From that perspective, employees may become committed to initiating innovative ideas or actions and calculating the risks they may encounter in those initiatives (Scheepers, 2012). The independent spirit and freedom of action necessary to advance new venture development drives entrepreneurial value creation (Burgelman, 2001). For entrepreneurship to thrive in many organizational contexts, “the exercise of autonomy by strong leaders, unfettered teams, or creative individuals who are disengaged from organizational constraints” is required (Lumpkin & Dess, 1996).

2.3.3.3 Rewards/Reinforcement

Intrapreneurs are highly motivated, desire freedom and access to corporate resources, and learn and gain more experience; they are also goal-oriented and seek rewards, feedback, and recognition. Encouraging the right people to act in the right roles with an entrepreneurial attitude to create value from opportunity must be founded on a reward system that is meaningful and motivating (Turner, 2002). Rewards are physical and non-physical recognitions, appraisals, or factors given to employees to thank them for their performance and encourage them to perform their duties perfectly. Rewards and reinforcement refer to how top managers develop and use systems that reward employees based on performance, highlight

significant achievements, and encourage the pursuit of challenging work, increasing responsibilities, and promoting innovative ideas in the organization Hornsby et al. (2002). Rewards should align with goals based on results (Marvel et al., 2007) and (Sebora et al., 2010). Rewards motivate employees to participate in innovative projects (Monsen et al., 2010) and (Urban & Nikolov, 2013). A reward predicts job satisfaction (Van Wyk & Adonisi, 2008) and increases commitment (Brazeal, 1993).

Rewards and reinforcement systems are necessary to bring out and support intrapreneurial behavior among employees in the organization. Appropriate rewards can encourage employees to adopt more intrapreneurial behavior to engage in innovative, proactive, and moderate risk-taking behavior (Scheepers, 2012). Firms face risky decision moments, pushing for new innovative ideas to stay in competition and allocating scarce resources. It can be stated (Ruba, 2019) that the organizational antecedents and intrapreneurship relationship will be promising if the firm avails enough resources in terms of rewards and reinforcement. Jones and George (2003) believe that organizations must reward intrapreneurs equitably to prevent them from leaving and becoming outside entrepreneurs who might form a new venture that competes directly against them. Entrepreneurial leaders freely and frequently reward and recognize their employees in many ways, encouraging them to take even more initiative (Cohen, 2004). According to Bhardwaj and Momaya (2007), the reward for entrepreneurial behavior should be viewed broadly and measured using the following four criteria: recognition given to the employee, the formal appraisal process, an appropriate increase in job responsibilities, and the degree to which obstacles are removed.

2.3.3.4 Time availability

Previous studies by Davis (2006) have reported the importance of time availability as a predictor of intrapreneurship behavior within organizations. Time is one of the resources necessary to foster entrepreneurial behavior among employees within a firm and to realize an innovative idea; employees need time (Ruba, 2019). Time availability refers to the extent to which individuals and groups within an organization feel and experience that they have sufficient time to pursue new ideas, they feel that their jobs are structured in ways that give them possibilities to achieve short- and long-term organizational goals, as well as to think, develop and experiment new ideas, new products and new processes (Kuratko el al., 2014). Evaluating and balancing the employees' workload is essential to ensure they have enough time to think about innovative ideas to pursue innovation. From that perspective, their jobs must be structured to support achieving such goals, for example, by moderating the workload, avoiding putting constraints on all aspects of the employee’s jobs, and allowing employees to work with others (Ruba, 2019).

2.2.3.5 Organizational boundaries

The organizational structure dimension refers to the organization's flexibility, the flow of information throughout the organization, and the centralization of decision-making (Van Wyk & Adonisi, 2008; Zur & Walega, 2015). Open communication channels and mechanisms that allow ideas to be evaluated, selected, and implemented positively relate to intrapreneurship (Castrogiovanni et al., 2011; Marvel et al., 2007). The level of this formalization is found to be positively related to job satisfaction and self-efficacy (Duygulu & Kurgun, 2009; Globocnik & Salomo, 2015). Organizational boundaries also refer to the extent to which employees precisely feel the explanations of outcomes expected from organizational work and the development of mechanisms for evaluating, selecting, and using innovations within the organization (Davis, 2006). Organizational boundaries help promote intrapreneurial activity because they enhance the flow of information between the external environment and the organization and between departments/divisions (Hornsby et al., 2009).

2.3.4 Contextual influence

Historically, the external environment has been viewed as a determinant of entrepreneurial activity at both the organizational and individual levels (Covin & Slevin, 1991). There has been a consensus in the research that the external environment is an essential enabler of entrepreneurship (Davidsson, 2015) and corporate entrepreneurship (Kearney et al., 2013). Antoncic and Hisrich (2001) revealed that the external environment was an essential determinant in intrapreneurship, involving the environmental characteristics of dynamism, technological opportunities, industry growth, demand for new products, and the favorability of change that drive organizations to have intrapreneurship as a mode of exploring opportunities through innovative employee suggestions.

Felício et al. (2012), examined two environmental determinants: environmental munificence (environmental dynamism, the abundance of technological opportunities, the growth potential of the industry, and demand for new products) and environmental hostility (radical changes in an industry or intensity of the rivalry) and their influence on firm intrapreneurship activities. The study revealed a positive association between environmental factors and intrapreneurship and proposed intrapreneurship as a business strategy for firms to cope with threats from the dynamic environment (Wickrama, 2021). The socio-cultural environment is an element in the external environment of firms. As people are the building blocks of organizations, it is essential to understand the extent to which the socio-cultural context influences employee behaviors, particularly the behavior of intrapreneurs (Wickrama, 2021).

3 Methodology:

3.1 Survey and statistical analysis

An online survey was used to collect the data and analyze and test the proposed framework. This method was used frequently in other similar research (Antoncic & Hisrich, 2001; Farrukh, 2017; Gawke et al., 2019; Hornsby et al., 2002; Kearney et al., 2013; Moriano et al., 2014; Wakkee et al., 2010).

Surveys offer a structured approach to data collection, minimizing interviewer bias and ensuring consistent responses across participants (Moser & Kalton, 1971). This structured approach allows for efficient data analysis and minimizes the introduction of personal bias during data collection. However, a potential disadvantage of surveys lies in respondent bias, where participants may provide inaccurate answers due to social desirability or imperfect recall (Tourangeau et al., 2000). Correlation analysis will be applied next, which will help uncover the strength and direction of relationships between variables. In the context of this study, correlation analysis can reveal how various factors influence the development of an intrapreneurial culture within Portuguese organizations. It is important to remember, however, that correlation does not imply causation. Because two variables are related, it does not necessarily mean one causes the other. Regression analysis will be done next; it will build upon correlation analysis by identifying relationships and potentially predicting future outcomes based on the identified relationships (Hair et al., 2019). This predictive capability allows researchers to gain valuable insights into how changes in one variable might influence another. However, regression analysis relies on certain assumptions about the data, such as linearity and normality. Violating these assumptions can lead to inaccurate or misleading predictions (Field, 2013).

Combining these techniques will give us a comprehensive understanding of organizational antecedents, which will help foster or hinder an intrapreneurial culture within Portuguese organizations.

As highlighted in the literature review, intrapreneurship is a bottom-up process and vice versa. Surveying a range of job levels (from entry-level to top management) will provide a more holistic view of the organization's strengths and weaknesses regarding intrapreneurship. This approach captures the perspectives of both employees on the ground floor and those in leadership positions, providing a richer understanding of the intrapreneurial ecosystem within the organization.

The survey instrument is divided into two sections. The first section gathers demographic information about the respondents to understand their characteristics and ensure the data is collected from relevant individuals within Portuguese organizations.

The second section focuses on the organization itself. The first part collects information about the organization's sector, type, location, size, and work style. The second part utilizes a validated tool, the Corporate Entrepreneurship Assessment Instrument (CEAI), developed by (Kuratko et al., 2014), to assess five key factors that influence intrapreneurship: management support, work discretion, rewards/reinforcement, time availability, and organizational boundaries. The table for survey questions is in the appendix section (Survey and questionnaire).

Based on a scoring system that Kuratko et al. (2014) developed for the CEAI tool, if the organization scores (1 or 2) in any of the five sub-factors, it will be considered a low score. The organization needs to develop activities to enhance the low sub-factors and raise their readiness to become more intrapreneurial. The studies that validate the CEAI tool is effective in identifying areas that need attention and improvement to achieve the desired outcomes when implementing a new strategy (Hornsby et al., 1999; Hornsby et al., 2002; Kuratko et al., 2005; Rutherford & Holt, 2007; Hornsby et al., 2009; Goodale et al., 2011; van Wyk & Adonisi, 2012; Hornsby et al., 2013). CEAI scoring sheets and validations for the CEAI tool, along with the findings of each study, are in the Appendix (Survey and questionnaire).

3.2 Data collection

The survey welcomed participants from all levels within Portuguese organizations, regardless of industry or company. Currently employed individuals answered based on their present workplace; if they work outside the country or are unemployed, they can respond based on their last Portuguese employer or a previous Portuguese company.

Due to the broad target audience (employees in any Portuguese organization), ensuring a representative sample was a significant challenge. The survey collected demographic and organizational details from respondents. Additionally, it aimed to maximize participation by distributing it through social media, email, and a dedicated survey platform in September.

Researchers can benefit from utilizing social media platforms, where users actively connect and engage, to recruit participants, gather data, and even tap into participants' social networks for referrals (Kane et al., 2014). This study will specifically use LinkedIn to target diverse organizations and employees across different levels within them. We will achieve this through various means, including posting on the platform and directly contacting HR teams from various companies across different sectors. The

downside of using LinkedIn is a low response rate; professionals on LinkedIn might be less receptive to survey requests than users on platforms dedicated explicitly to surveys. Also, with sampling bias, LinkedIn users are more likely to be employed and have higher education levels than the general public. Examples of papers that used LinkedIn as a platform to distribute their surveys are as follows: (Kaliszewski et al., 2021; Kaliszewski et al., 2020).

To further enhance participation, we will also distribute emails to companies with the support of The Lisbon MBA. This affiliation with a reputable academic institution fosters trust and assures companies that the survey is legitimate and purely for academic purposes. The downside is that companies might be hesitant to share sensitive information, especially if the survey questions delve into internal processes. They might also be so busy they prioritize internal projects or surveys from paying clients over academic research.

Prolific (Survey platform) boasts a vibrant research ecosystem with a rapid pace of new studies launching every 3 minutes (Prolific, 2024). The platform connects researchers and survey participants, attracting around 30k researchers and 120k active participants from 38 countries. Prolific promises swift responses, reliable data quality, and fair participant compensation. Examples of papers that used Prolific as a platform to get survey responses (Khenfer et al., 2020; Sherman, 2020).

We conducted a pilot survey targeting 50 participants based explicitly in Portugal to evaluate these claims. Prolific allows researchers to target specific demographics, ensuring diverse data. Participants were compensated upon completing the survey, upholding the platform's commitment to fair treatment.

4 Analysis and Results

4.1 Sampling and Characteristics

After running the survey on Prolific and distributing it through social media and emails, 212 valid responses were acquired from the public, 50 valid responses were obtained from social media and emails, and 162 valid responses were obtained from the survey platform.

After evaluating the responses, it was noticed that the data ranged around a specific score, and there were very few up-normal responses. Also, one of the factors that raised the confidence about the data was that multiple interviews were conducted with employees ranging from entry-level up to CEO level from different sectors in Portugal to get an idea and better understanding of the entrepreneurial culture within corporates and to understand employee’s entrepreneurial behavior in different sectors, to build some expectations on how the data would look like and raise the confidence level in the data.

To ensure diverse and unbiased perspectives on intrapreneurship in Portugal, we adopted a nationwide sampling approach rather than focusing on a specific organization. This broader scope minimizes potential biases from shared environments, internal pressures, or word-of-mouth influences within a single organization. Furthermore, the survey delves directly into the topic by asking respondents about their connections to entrepreneurs, entrepreneurial behaviors, and relevant training experiences. This allows us to gauge entrepreneurship's true extent and perception among the Portuguese population, unobscured by organizational constraints.

4.2 Data

Figures show the detailed percentage and counts for all collected data are in the appendix section (Data).

Individuals

Table 1 shows a summary of the characteristics of the sample that has responded to the survey:

Table 1- Sample Characteristics Summary

Gender	Age	School location	University location	Highest educational level	Job position
-Male: 137	20-27: 124	Inside Portugal: 197	Inside Portugal: 191	-High school: 28	-Entry level: 151
-Female: 74	28-35: 42			-Diploma: 16	-First/Middle manage.: 26
-Prefer not to say: 1	36-45: 29			-Bachelor: 91	-Senior: 27
	Above 45: 17			-Masters: 74	-Executive/Senior manage.: 8
				-PhD: 3	

To gain diverse perspectives from various organizational levels, we deliberately targeted individuals across different age groups (20-45+) and educational backgrounds while acknowledging that this approach does not encompass the entire working population. While most respondents (59%) fall within the 20-27 age bracket, residing primarily in Lisbon and Porto and having completed their education in Portugal, this composition skews younger than the overall working population. Additionally, the distribution of educational attainment leans towards higher degrees, with 43% holding bachelor's degrees and 35% with master's degrees. When it comes to entrepreneurship, 63% did not have any training or lectures related to entrepreneurship, and the results show that 66% of the surveyed population did not have innovative ideas to come up to improve a process or come up with new ideas from the 34% (72 respondents) who had ideas, only 28% from them (20 respondents) managed to implement their ideas. However, with all that, 70% of respondents were familiar with the term entrepreneurship, and they already knew and heard about entrepreneurs and their achievements.

Organizations

Table 2 shows a summary of the characteristics of the surveyed organizations:

Table 2- Surveyed Organization Characteristics Summary

Organization sector	Office district	Organization type	Local vs international organization	Size	Work lifestyle
-Tech, Media, and Telecom: 31% -Healthcare: 8% -Financial service: 6% -Construction: 5% -Travel and Tourism: 4%	-Lisbon: 34% -Porto: 25% -Braga: 10% -Setubal: 6% -Coimbra: 5%	-Private: 75% -Public: 25%	-Local: 75% -International: 25%	- +100 employees: 56% - 1-50 employees: 32% - 50-100 employees: 12%	-Office: 42% -Hybrid: 41% -Remote: 8%

Data was collected from 29 sectors, with the majority coming from Technology, media, and telecom sectors, followed by healthcare and financial services. Offices were located among all 16 districts, with the majority in Lisbon, Porto, and Braga. 75% were from the private sector, 75% were Portuguese organizations, the majority of the organizations were large companies (+100 employees), 42% of these companies supported the work-in-office policy, and 41% supported the hybrid policy.

4.3 Results:

This survey comprises 49 questions to assess employee perceptions of various organizational antecedents that can influence innovation. By analyzing responses across five key sections: Management Support, Work Discretion, Rewards/Reinforcement, Time Availability, and Organizational Boundaries, we can gain valuable insights into the overall innovation ecosystem within the organization, the score of each factor mentioned in the table below:

Table 3- Calculated score from the CEAI tool

Factor	Mean	Standard deviation
Management support	2.9	0.82
Work discretion	3	0.73
Rewards/Reinforcement	3.1	0.79
Time availability	2.8	0.71
Organizational boundaries	2.7	0.53

Before discussing each section's score in detail, it is worth mentioning that a previous study was conducted in the same field (Campos, 2020). In his analysis, he used the CEAI tool to measure

(Management support, rewards/reinforcement, and work discretion factors), (Table 4) shows the results for these three sections.

Table 4- Results from the (Campos, 2020) paper

Factors	Mean	Standard deviation
Management support	3.28	0.78
Work discretion	3.5	0.81
Rewards/Reinforcement	3.63	0.81

(Campos, 2020), collected 310 responses, 49.4% of which were men and 50.6% women. Almost all respondents work in the private sector (64.8% and 81.6%, respectively). Regarding age, more responses were reached from people between 45 and 54 (28.4%), and only four answers were collected from people with 65 or more years old. Furthermore, on average, 24.8% of the answers came from people with less than four years of work experience or from people between 21 and 30 years of experience. Most of the sample has, in terms of education level, high school or is undergraduate (35.8% and 35.2%, respectively)

The current study's mean results differ significantly from the previous one, likely due to a substantial age difference in the participant pools. While the current study primarily surveyed individuals aged 20-27, the previous study was 45-54.

Analyzing only the older respondents (above 45) in the current study revealed a notable jump in mean scores. Specifically, management support increased to 3, work discretion rose to 3.5, and rewards/reinforcement remained stable at 3.1. This suggests that age significantly impacts the reported values, and future studies should consider controlling age or analyzing different age groups separately for more accurate comparisons.

4.3.1 Survey

Management support:

This section of the survey, comprised of 19 questions, aimed to gauge employee perceptions of management support within the organization—the scale from 1 (strongly disagree) to 5 (strongly agree). The analysis of these responses sheds light on the current state of the innovation ecosystem and unveils areas for potential improvement.

Table 5- Management Support questions score

Question	Score
My organization is quick to use improved work methods	3.3
My organization is quick to use improved work methods that are developed by workers.	3.2
In my organization, developing one's own ideas is encouraged for the improvement of the corporation.*	3.4
Upper management is aware and very receptive to my ideas and suggestions.	3.3
A promotion usually follows from the development of new and innovative ideas.	2.7
Those employees who come up with innovative ideas on their own often receive management encouragement for their activities.	3.1
The ''doers on projects'' are allowed to make decisions without going through elaborate justification and approval procedures.	2.8
Senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track.	2.7
Many top managers have been known for their experience with the innovation process.	2.9
Money is often available to get new project ideas off the ground.	2.5
Individuals with successful innovative projects receive additional rewards and compensation beyond the standard reward system for their ideas and efforts.	2.6
There are several options within the organization for individuals to get financial support for their innovative projects and ideas.**	2.4
People are often encouraged to take calculated risks with ideas around here.	2.8
Individual risk takers are often recognized for their willingness to champion new projects, whether eventually successful or not.	2.7
The term ''risk taker'' is considered a positive attribute for people in my work area.	2.7
This organization supports many small and experimental projects, realizing that some will undoubtedly fail.	2.6
An employee with a good idea is often given free time to develop that idea	2.5
There is considerable desire among people in the organization for generating new ideas without regard for crossing departmental or functional boundaries.	2.8
People are encouraged to talk to employees in other departments of this organization about ideas for new projects.	3.1
Total section score	2.9

***For the highest score**

****For the lowest score**

The survey results, with an average score of 2.9 out of 5, paint a picture of an organization with a nascent yet uneven approach to fostering innovation. While there are some positive indicators, there is significant room for improvement. Employees exhibit a moderate level of comfort in developing new ideas (average score: 3.17) and collaborating across departments (3.1). This suggests a baseline level of openness to new concepts. However, a crucial disconnect emerges when examining the reward system and risk tolerance. Promotions and financial rewards for successful innovation remain unclear (average score: 2.7, 2.6, 2.4). Furthermore, the data reveals a limited appetite for calculated risks within the organization (average score: 2.70). This lack of a robust framework for recognizing and supporting risk-taking behavior hinders innovation's full potential to flourish. The survey highlights an opportunity to strengthen the linkage between innovative ideas and concrete rewards. Additionally, fostering a culture that embraces calculated risks and experimentation alongside a supportive environment for project development would likely yield a more robust and successful innovation pipeline within the organization.

Work discretion:

This section of the survey, encompassing 11 questions, sought to gauge employee perceptions of work discretion within the organization. The scale from 1 (strongly disagree) to 5 (strongly agree). By analyzing these responses, a valuable insight into the level of autonomy employees experience in their day-to-day work, a key factor influencing job satisfaction and innovation.

Table 6- Work discretion questions score

Question	Score
I feel that I am my own boss and do not have to double check all of my decisions with someone else.**	2.4
Harsh criticism and punishment result from mistakes made on the job.	3.3
This organization provides the chance to be creative and try my own methods of doing the job.	3
This organization provides the freedom to use my own judgment.	3.3
This organization provides the chance to do something that makes use of my abilities.*	3.4
I have the freedom to decide what I do on my job.	2.7
It is basically my own responsibility to decide how my job gets done.	3.1
I almost always get to decide what I do on my job.	2.7
I have much autonomy on my job and am left on my own to do my own work.	3.3
I seldom have to follow the same work methods or steps for doing my major tasks from day to day.	3
Total section score	3

***For the highest score**

****For the lowest score**

The average score of 3 paints a picture of a workplace with moderate work discretion. While employees report feeling some sense of ownership and the ability to utilize their skills (average score: 3.23), a closer look reveals inconsistencies in the level of autonomy granted across different aspects of their work (scores ranging from 2.7 to 3.3). For example, while employees feel comfortable using their judgment (average score: 3.3) and have some flexibility in how they approach tasks (average score: 3.1), there seems to be a lingering presence of structured work methods (average score: 2.9). Additionally, some employees may feel the need to double-check decisions (average score: 2.4), potentially indicating a culture of micromanagement.

These inconsistencies suggest an opportunity for the organization to refine its approach to work discretion. Empowering employees with greater control over their work processes fosters a sense of ownership, increases job satisfaction, and can lead to enhanced innovation and problem-solving. The organization can cultivate a more engaged and productive workforce by establishing clear expectations while giving employees the autonomy to make decisions and execute tasks within those parameters.

Rewards/Reinforcement:

This section of the survey, consisting of 6 questions, aimed to assess employee perceptions of the organization's reward and reinforcement systems. The scaled responses ranged from 1 (strongly disagree) to 5 (strongly agree). Analyzing these responses shows how well the organization recognizes and rewards employee contributions.

Table 7- Rewards/Reinforcement questions score

Questions	Score
My manager helps me get my work done by removing obstacles and roadblocks.	3
The rewards I receive are dependent upon my innovation on the job.**	2.3
My supervisor will increase my job responsibilities if I am performing well in my job.	3.4
My supervisor will give me special recognition if my work performance is especially good.	3.2
My manager would tell his/her boss if my work was outstanding.	3.1
There is a lot of challenge in my job.*	3.7
Total section score	3.1

***For the highest score**

****For the lowest score**

The average score of 3.1 indicates a somewhat mixed picture regarding rewards and reinforcement. While there are positive aspects, there is also room for improvement.

Employees perceive their supervisors as supportive in removing roadblocks and facilitating their work (average score: 3.0). They also report recognition for solid job performance (average score: 3.18). This suggests that the organization acknowledges and appreciates good work to an extent.

However, a disconnect emerges when examining the link between performance and rewards beyond recognition. There seems to be some ambiguity regarding whether innovation directly translates into increased rewards (average score: 2.3). Additionally, while employees find their work challenging (average score: 3.7), a potential indicator of engaging tasks, the connection between good performance and increased responsibility is not entirely clear (average score: 3.4).

These findings suggest that the organization could benefit from strengthening the alignment between rewards and desired employee behaviors, particularly innovation-related ones. The organization can incentivize and encourage employees to actively seek new ideas and solutions by linking rewards to innovative contributions. Additionally, clarifying the path for increased responsibility based on performance can motivate employees and provide a clear career progression track.

Time availability:

This section of the survey, containing six questions, aimed to gauge employees' perceptions of their time availability for innovation. The responses were scaled from 1 (strongly disagree) to 5 (strongly agree). By analyzing these responses, we can understand how much time pressure employees face and whether they have the bandwidth to dedicate to new ideas.

Table 8- Time availability questions score

Question	Score
During the past three months, my workload kept me from spending time on developing new ideas.	2.7
I always seem to have plenty of time to get everything done.**	2.6
I have just the right amount of time and workload to do everything well.*	2.9
My job is structured so that I have very little time to think about wider organizational problems.*	2.9
I feel that I am always working with time constraints on my job.	2.8
My co-workers and I always find time for long-term problem solving.	2.7
Total section score	2.8

***For the highest score**

****For the lowest score**

The average score of 2.8 paints a concerning picture regarding time availability for innovation. Employees report feeling time-constrained (average score 2.8) and struggling to balance workload with developing new ideas (average score 2.7). This suggests that current workloads may hinder the ability to devote time to innovation.

While some employees feel they have "just the right amount of time" (score 2.9), the overall trend suggests a lack of dedicated time for problem-solving or broader strategic thinking (average score 2.9). Additionally, the ability to collaborate with colleagues on long-term issues seems limited (score 2.7).

These findings highlight the need for the organization to re-evaluate workload distribution and explore strategies to create dedicated time for innovation. This could involve implementing processes to streamline existing tasks, delegating effectively, or introducing protected time for employees to focus on new ideas. The organization can empower employees to contribute to innovation and problem-solving beyond their immediate tasks by addressing time constraints.

Organizational boundaries:

This section of the survey, with seven questions, aimed to assess employee perceptions of organizational boundaries. The scale from 1 (strongly disagree) to 5 (strongly agree). Analyzing these responses can reveal insights into how clear expectations, procedures, and communication contribute to the overall work environment.

Table 9 – Organizational boundaries questions score

Question	Score
In the past three months, I have always followed standard operating procedures or practices to do my major tasks.**	2.4
There are many written rules and procedures that exist for doing my major tasks.	2.7
On my job I have no doubt of what is expected of me.**	2.4
There is little uncertainty in my job.	3.2
During the past year, my immediate supervisor discussed my work performance with me frequently.	2.9
My job description clearly specifies the standards of performance on which my job is evaluated.	3.1
I clearly know what level of work performance is expected from me in terms of amount, quality, and timelines of output.*	3.6
Total section score	2.7

***For the highest score**

****For the lowest score**

The average score of 2.7 suggests a somewhat mixed picture regarding organizational boundaries. While there is clarity on performance expectations (average score: 3.3), there appears to be a need for streamlining procedures and potentially increasing communication.

Employees report a strong understanding of what is expected of them in terms of performance (average score: 3.6), and their job descriptions clearly outline these expectations (average score: 3.1). This indicates that the organization provides clear performance goals. Additionally, there is low uncertainty regarding job duties (average score: 3.2).

However, a potential issue arises with the prevalence of written rules and procedures (average score: 2.7). While some structure is necessary, an overabundance of procedures could lead to feelings of rigidity and hinder creativity. Furthermore, adherence to standard operating procedures seems to be a strong emphasis (average score: 2.4). This, coupled with the moderate score for frequent performance discussions (average score: 2.9), suggests a potential for micromanagement.

These findings suggest that the organization could benefit from reviewing and streamlining existing procedures. Focusing on clear communication and fostering a culture of open dialogue alongside well-defined performance expectations could be more effective. By balancing clear boundaries and allowing flexibility, the organization can empower employees to find creative solutions within established guidelines.

Survey results

Management Support: While there is some encouragement for developing new ideas, a disconnect exists regarding rewards and risk tolerance. Promotions and financial rewards for successful innovation are unclear, and there seems to be limited support for taking calculated risks. Work Discretion: Employees experience a moderate level of autonomy, with some inconsistencies in its application across different aspects of their work. There is an opportunity to empower employees with greater control over their work

processes. Rewards/Reinforcement: There is a mixed picture regarding rewards and reinforcement; while supervisors are seen as supportive, the link between performance and rewards beyond recognition is unclear, particularly regarding innovation. Time availability and employee workload are barriers to innovation, with limited time for developing new ideas or problem-solving. Organizational Boundaries: While performance expectations are clear, there appears to be a need for streamlining procedures and potentially increasing communication to foster a more flexible and creative environment.

The analysis reveals several potential linkages between these organizational antecedents and the potential outcomes for innovation that can lead to establishing an intrapreneurial culture:

- Limited management support for risk-taking and unclear rewards for innovation can lead to a lack of employee motivation to pursue new ideas.
- Restricted work discretion can stifle creativity and hinder employees' ability to develop innovative solutions.
- A weak connection between performance and rewards, particularly for innovation, can demotivate employees and decrease innovation efforts.
- Time constraints and a lack of dedicated time for innovation can severely limit the potential for new ideas to emerge.
- Overly rigid procedures and unclear communication can hinder creativity and make it difficult for employees to find innovative solutions within established boundaries.

Overall, this analysis suggests that by strengthening these organizational antecedents, the organization can unlock its full innovation potential and achieve a more successful innovation pipeline, which will put the organization on the track to becoming more intrapreneurial.

4.3.2 Correlation matrix

This section delves into the findings of a correlation matrix analysis conducted to explore the multifaceted landscape of factors influencing the development of intrapreneurial culture within Portuguese organizations. The analysis yielded a network of intriguing relationships, shedding light on potential focus areas for fostering an intrapreneurial culture within the workforce. The correlation table is in the section of the appendix (Correlation and regression analysis).

A noteworthy observation was the weak negative correlation between age and time availability (-0.12). This suggests that as employees progress through their careers and potentially take on family responsibilities, their free time for pursuing entrepreneurial ventures might decrease. However, the moderate positive correlation between age and job position (0.66) indicates that with experience comes

the possibility of holding higher positions, which could offer greater autonomy and resources for budding entrepreneurs.

The analysis revealed a subtle link between job position and having received entrepreneurship training (0.11). This hints at the potential strategic approach of organizations to equip future leaders with the skillset necessary to identify and potentially pursue entrepreneurial opportunities. Similarly, the weak positive correlation between organization size and entrepreneurship training (0.11) suggests that larger organizations might have the resources to invest in such training programs, potentially fostering a more entrepreneurial culture. Interestingly, work lifestyle exhibited weak positive correlations with entrepreneurial ideas (0.02) and using the latest tools (0.17). This alignment could imply that a work environment that prioritizes flexibility and staying up-to-date with technological advancements might indirectly encourage employees to explore entrepreneurial possibilities.

A significant finding was the moderate positive correlation between management support, work discretion (0.61), and rewards/reinforcements (0.77). This suggests that employees who perceive strong support from management also feel empowered to make independent decisions (discretion) and are more likely to be recognized for their contributions (rewards). This supportive environment could be a breeding ground for fostering calculated risk-taking and initiative, both crucial traits for aspiring entrepreneurs.

The weak positive correlation between knowing an entrepreneur and having entrepreneurial ideas (0.23) underscores the potential influence of social networks. Being surrounded by successful entrepreneurs might provide exposure to entrepreneurial thought processes, challenges, and rewards, potentially inspiring similar pursuits. Additionally, the weak positive correlation between the highest educational level and having entrepreneurial ideas (0.12) suggests that higher education might equip individuals with a broader knowledge base and critical thinking skills, potentially igniting their interest in venturing outside the traditional employment landscape.

A thought-provoking finding was the weak negative correlation between time availability and rewards/reinforcements (-0.25). This could be interpreted in two ways. On the one hand, individuals with less free time might be working in demanding, high-paying jobs that offer greater financial rewards in the short term. Alternatively, those with more accessible time might deduce it to pursuing entrepreneurial attempts that may not offer immediate financial returns but hold the potential for higher future gains. This finding highlights the complex interplay between time management, financial security, and the long-term vision often associated with entrepreneurial pursuits.

4.3.3 Regression analysis

This study employs regression analysis to investigate the impact of individual and organizational attributes on five key aspects: management support, work discretion, rewards/reinforcement, time availability, and organizational boundaries. By identifying these influences, we aim to contribute valuable insights for organizations that want to develop intrapreneurial culture. Regression analysis tables are in the appendix (Correlation and regression analysis) section.

Individual attributes

Linear regression analyses were conducted to examine the influence of individual employee attributes (independent variables) on five dependent variables: management support, work discretion, rewards/reinforcement, time availability, and organizational boundaries (n=212). The models explained a moderate portion of the variance for management support ($R^2 = 0.101$, $p < 0.001$) and work discretion ($R^2 = 0.139$, $p < 0.001$). The explanatory power was lower for rewards/reinforcement ($R^2 = 0.095$), time availability ($R^2 = 0.053$), and organizational boundaries ($R^2 = 0.050$).

Knowing an entrepreneur emerged as the most significant predictor of management support ($\beta = 0.316$, $p = 0.013$). This suggests that employees who have established connections with entrepreneurs are more likely to receive backing from their managers. This could be due to a higher potential for entrepreneurial ventures or a greater understanding of the associated risks and rewards. Additionally, job position had a positive and statistically significant association with management support ($\beta = 0.209$, $p = 0.019$). This indicates that individuals in certain positions, likely those with more authority or visibility, may receive more management support for their endeavors. The marginally significant negative association between entrepreneurial ideas and management support ($\beta = -0.244$, $p = 0.054$) warrants further investigation. Managers may perceive employees with numerous entrepreneurial ideas as less focused or potentially disruptive to current projects.

Job position was the most significant predictor of work discretion ($\beta = 0.233$, $p = 0.003$). This aligns with expectations, as certain positions inherently grant more autonomy and control over work tasks. While not statistically significant, possessing entrepreneurial ideas was associated with lower work discretion ($\beta = -0.199$, $p = 0.072$). This could be because employees with entrepreneurial aspirations might feel constrained by existing workflows or seek more control over their projects.

Knowing an entrepreneur was the only statistically significant predictor of rewards/reinforcement ($\beta = 0.340$, $p = 0.006$). This suggests that employees connected to entrepreneurs might be perceived as more innovative or entrepreneurial, leading to greater recognition and rewards from management.

Job position was the only variable with a statistically significant association with time availability ($\beta = 0.153$, $p = 0.051$). Individuals in specific positions, likely those with less demanding schedules or more control over their workload, may report having more time to pursue entrepreneurial activities.

Entrepreneurial ideas emerged as the most significant predictor of having more permeable organizational boundaries ($\beta = 0.142$, $p = 0.095$). However, the marginally significant p-value necessitates further investigation. Employees with entrepreneurial ideas might be more likely to seek resources or collaborations beyond their immediate team or department, leading to more permeable boundaries.

Organizational attributes

Linear regression analyses were conducted to examine the influence of organizational attributes (independent variables) on five dependent variables: management support, work discretion, rewards/reinforcement, time availability, and organizational boundaries (n=212). The models explained a moderate portion of the variance for management support ($R^2 = 0.287$), work discretion ($R^2 = 0.152$), and rewards/reinforcement ($R^2 = 0.176$). The explanatory power was lower for time availability ($R^2 = 0.113$) and organizational boundaries ($R^2 = 0.044$).

Organization type and work lifestyle emerged as significant predictors of management support. Employees in organizations with a more flexible work style ($\beta = 0.264$, $p < 0.001$) were more likely to receive support from their managers. Interestingly, the coefficient for organization type ($\beta = -0.139$, $p = 0.244$) suggests a trend where employees in the private sector might receive less support. However, this result was not statistically significant and requires further investigation.

For work discretion, using the latest tools and technologies ($\beta = 0.254$, $p = 0.013$) was associated with higher work discretion. This suggests that organizations equipping employees with advanced tools might also grant them more control over their work.

Using the latest tools and technologies ($\beta = 0.517$, $p < 0.001$) emerged as the strongest predictor of rewards/reinforcement for entrepreneurial behavior. This suggests that employees with access to and utilize advanced tools might be perceived as more innovative or entrepreneurial, leading to greater recognition and rewards from management. Interestingly, having unique products or services ($\beta = 0.324$, $p = 0.003$) was also associated with receiving more rewards/reinforcement.

Organization size was the only statistically significant predictor of time availability ($\beta = -0.226$, $p = 0.001$). Employees in larger organizations reported having less time to pursue entrepreneurial activities within their workday. This could be due to increased workload or stricter time management expectations in larger companies.

The regression model for organizational boundaries did not explain a significant portion of the variance. However, a marginally significant association existed between having unique products or services ($\beta = -0.074$, $p = 0.340$) and less permeable organizational boundaries. While the direction of this relationship needs further exploration with a larger sample size, employees working with unique products or services might encounter stricter boundaries to protect intellectual property or maintain a competitive advantage.

5 Discussion

This study investigated organizational antecedents within Portuguese organizations, saw what is lacking, and identified weaknesses to be tackled to put the organization on track to achieve intrapreneurial culture.

This study investigated employee perceptions of factors influencing their innovative potential within the organization. The survey data, categorized into five key dimensions (management support, work discretion, rewards and reinforcement, time availability, and organizational boundaries), revealed a complex landscape with positive and concerning aspects.

While management support and work discretion received somewhat neutral scores, inconsistencies were found, such as the limited connection between innovation and individual rewards. Furthermore, time constraints and strict adherence to procedures emerged as potential barriers to innovation. These findings highlight the need for the organization to address several areas to enhance its environment and foster an intrapreneurial culture. This includes:

- Strengthening the link between individual innovation and rewards.
- Implementing strategies to improve time management and address employee perceptions of time constraints.
- Promoting greater employee autonomy and flexibility within established structures.
- Encouraging collaboration and open communication across departmental boundaries.

By addressing these concerns and fostering a culture that values and rewards innovation, the organization can unlock the full potential of its workforce and drive increased creativity and success.

The study also investigated the relationship between individual and organizational factors, a top-down and bottom-up process. On an individual level, training and guidance unlock employee potential and innovation. Employees are receptive due to existing familiarity with entrepreneurship and success stories. A positive correlation exists between training and willingness to implement ideas. Equip your workforce with proper skills and encourage out-of-the-box thinking (within company constraints) to unlock innovation. On the organizational level, previous studies emphasized these five key factors:

- Management Support: Encourage calculated risks, provide financial and moral backing, and recognize achievements to cultivate trust and motivation.
- Work Discretion: Empower employees to make decisions and learn from mistakes. Minimize criticism and offer training to nurture an entrepreneurial mindset and minimize errors.
- Rewards and Reinforcement: Recognize ideas and performance to incentivize innovation and risk-taking. Shift the perception of risk-taking from negative to positive.
- Time Availability: Allocate dedicated time for employees to work on ideas. Integrate this into job descriptions and train time management skills for effective balancing.
- Organizational Boundaries: Embrace flexibility and empower employees to explore process improvements freely. Foster creativity and job satisfaction through increased autonomy.

Several factors limit this study. First, it is possible that external variables not considered in this research influenced both individual behaviors and organizational policies/strategies. Additionally, technological and operational differences between sectors might have fostered intrapreneurship culture, which this study did not explore.

Future research could incorporate more variables and controls specific to the Portuguese context for a more comprehensive understanding. Exploring each organization sector in Portugal will help understand the differences and determine how to improve them properly. Furthermore, investigating the remaining three factors influencing intrapreneurial culture (human behavior, organizational determinants, and contextual influences) and their interactions could provide valuable insights.

6 Conclusion

This study delves into a relatively unexplored area – investigating intrapreneurial culture within Portuguese organizations. Intrapreneurial culture empowers organizations to thrive in a dynamic market, adapting to positive and negative disruptions and fostering growth for employees and the organization. The research focused on organizational antecedents, recognizing their critical role in igniting the intrapreneurial spark. Through surveys, interviews, and analysis, we gained valuable insights into the current organizational antecedents in Portuguese organizations. This study equips organizations with valuable knowledge by identifying areas for improvement and providing a roadmap toward an intrapreneurial culture. The observed correlations between the five sub-factors within organizational antecedents shed light on the interplay between organizational strategy, work practices, and the resulting intrapreneurial climate and innovation levels. These findings pave the way for future research to explore the three factors influencing intrapreneurial culture – human behavior, organizational determinants, and

contextual influences. Additionally, further studies could delve deeper into industry-specific dynamics to provide more nuanced recommendations.

References

Adeyeye, J. O., Falola, H. O., Waribo, J. Y., & Akinbode, J. O. (2015). The effects of apprenticeship system on skill development of employees in the printing industry in Lagos State, Nigeria. *British Journal of Economics*, *10*, 2.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Antoncic, B. (2007). Intrapreneurship: a comparative structural equation modeling study. *Industrial Management & Data Systems*, *107*(3), 309-325.

Antoncic, B., & Hisrich, R. D. (2001). Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of business venturing*, *16*(5), 495-527.

Antoncic, B., & Hisrich, R. D. (2003). Clarifying the intrapreneurship concept. *Journal of small business and enterprise development*, *10*(1), 7-24.

Asiaei, K., Barani, O., Bontis, N., & Arabahmadi, M. (2020). Unpacking the black box: how intrapreneurship intervenes in the intellectual capital-performance relationship?. *Journal of Intellectual Capital*, *21*(6), 809-834.

Augusto Felício, J., Rodrigues, R., & Caldeirinha, V. R. (2012). The effect of intrapreneurship on corporate performance. *Management Decision*, *50*(10), 1717-1738.

Barney, J. B. (1997). Gaining and sustaining competitive advantage.

Bhardwaj, B. R., & Momaya, K. (2006). Role of organizational flexibility for corporate entrepreneurship: Case study of FedEx Corporation. *Global Journal of Flexible Systems Management*, *7*(1/2), 37-44.

Brazeal, D. V. (1993). Organizing for internally developed corporate ventures. *Journal of Business venturing*, *8*(1), 75-90.

Burgelman, R. A. (2020). *Strategy is destiny: How strategy-making shapes a company's future*. Free Press.

Burgelman, R. A. (1985). Managing the new venture division: Research findings and implications for strategic management. *Strategic Management Journal*, *6*(1), 39-54.

Byrd, J., & Brown, P. L. (2013). The Innovation Equation: Building Creativity and Risk-Taking in Your Organization.

Camelo-Ordaz, C., Fernández-Alles, M., Ruiz-Navarro, J., & Sousa-Ginel, E. (2012). The intrapreneur and innovation in creative firms. *International Small Business Journal*, *30*(5), 513-535.

Castrogiovanni, G. J., Urbano, D., & Loras, J. (2011). Linking corporate entrepreneurship and human resource management in SMEs. *International Journal of Manpower*, *32*(1), 34-47.

Cohen, A. R. (2004). Building a company of leaders. *Leader to leader*, *2004*(34), 16.

Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship theory and practice*, *16*(1), 7-26.

Covin, J. G., & Wales, W. J. (2019). Crafting high-impact entrepreneurial orientation research: Some suggested guidelines. *Entrepreneurship theory and practice*, *43*(1), 3-18.

Davidsson, P. (2015). Entrepreneurial opportunities and the entrepreneurship nexus: A re-conceptualization. *Journal of business venturing*, *30*(5), 674-695.

Dawes, G. (2007). Mistakes–how can we learn from them?. *Development and Learning in Organizations: An International Journal*, *21*(2), 20-22.

Dess, G. G., Ireland, R. D., Zahra, S. A., Floyd, S. W., Janney, J. J., & Lane, P. J. (2003). Emerging issues in corporate entrepreneurship. *Journal of management*, *29*(3), 351-378.

Douglas, E. J., & Fitzsimmons, J. R. (2013). Intrapreneurial intentions versus entrepreneurial intentions: distinct constructs with different antecedents. *Small business economics*, *41*, 115-132.

Drucker, P. F., & Noel, J. L. (1986). Innovation and Entrepreneurship: Practices and Principles. *The Journal of Continuing Higher Education*, *34*(1), 22–23.

Duygulu, E., & KURGUn, O. A. (2009). The effect of managerial entrepreneurship behavior on employee satisfaction: hospitality managers' dilemma. *African Journal of Business Management*, *3*(11), 615.

Elert, N., Stam, E., & Stenkula, M. (2019). Intrapreneurship and trust.

Alipour, F., Idris, K., & Karimi, R. (2011). Intrapreneurship in learning organizations: Moderating role of organizational factors. *Journal of American Science*, *7*(11), 141-150.

Falola, H. O., Salau, O. P., Olokundun, M. A., Oyafunke-Omoniyi, C. O., Ibidunni, A. S., & Oludayo, O. A. (2018). Employees' intrapreneurial engagement initiatives and its influence on organisational survival. *Verslas: teorija ir praktika/business: Theory and practice*, *19*, 9-16.

Farrukh, M., Chong, W. Y., Mansori, S., & Ramzani, S. R. (2017). Intrapreneurial behaviour: the role of organizational commitment. *World Journal of Entrepreneurship, Management and Sustainable Development*, *13*(3), 243-256.

Fellnhofer, K., Puumalainen, K., & Sjögrén, H. (2017). Entrepreneurial orientation in work groups–effects of individuals and group characteristics. *International Entrepreneurship and Management Journal*, *13*, 427-463.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. sage.

Fischer, A. (2011). Recognizing opportunities: initiating service innovation in PSFs. *Journal of Knowledge Management*, *15*(6), 915-927.

Foss, N. J., Lyngsie, J., & Zahra, S. A. (2015). Organizational design correlates of entrepreneurship: The roles of decentralization and formalization for opportunity discovery and realization. *Strategic Organization*, *13*(1), 32-60.

Franco, M., & Pinto, J. (2017). Intrapreneurship practices in municipal archives: A practice-oriented study. *Journal of Librarianship and Information Science*, *49*(2), 165-179.

García-Morales, V. J., Bolívar-Ramos, M. T., & Martín-Rojas, R. (2014). Technological variables and absorptive capacity's influence on performance through corporate entrepreneurship. *Journal of Business Research*, *67*(7), 1468-1477.

Garrett, R. P., & Holland, D. V. (2015). Environmental effects on the cognitions of corporate and independent entrepreneurs. *Small Business Economics*, *45*, 369-381.

Gawke, J. C., Gorgievski, M. J., & Bakker, A. B. (2019). Measuring intrapreneurship at the individual level: Development and validation of the Employee Intrapreneurship Scale (EIS). *European Management Journal*, *37*(6), 806-817.

Giunipero, L. C., Denslow, D., & Eltantawy, R. (2005). Purchasing/supply chain management flexibility: Moving to an entrepreneurial skill set. *Industrial marketing management*, *34*(6), 602-613.

Globocnik, D., & Salomo, S. (2015). Do formal management practices impact the emergence of bootlegging behavior?. *Journal of Product Innovation Management*, *32*(4), 505-521.

Dess, G. G., & Lumpkin, G. T. (2005). The role of entrepreneurial orientation in stimulating effective corporate entrepreneurship. *Academy of Management Perspectives*, *19*(1), 147-156.

Hair, J. F., Babin, B. J., Anderson, R. E., & Black, W. C. (2019). Multivariate Data Analysis (8th ed.). *England: Pearson Prentice.*

Hornsby, J. S., Kuratko, D. F., Shepherd, D. A., & Bott, J. P. (2009). Managers' corporate entrepreneurial actions: Examining perception and position. *Journal of business venturing*, *24*(3), 236-247.

Hult, G. T. M., & Ketchen Jr, D. J. (2001). Does market orientation matter?: A test of the relationship between positional advantage and performance. *Strategic management journal*, *22*(9), 899-906.

Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). Conceptualizing corporate entrepreneurship strategy. *Entrepreneurship theory and practice*, *33*(1), 19-46.

Hornsby, J. S., Holt, D. T., & Kuratko, D. F. (2008, August). THE DYNAMIC NATURE OF CORPORATE ENTREPRENEURSHIP: ASSESSING THE CEAI. In *Academy of Management Proceedings* (Vol. 2008, No. 1, pp. 1-6). Briarcliff Manor, NY 10510: Academy of Management.

Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. (2002). Middle managers' perception of the internal environment for corporate entrepreneurship: assessing a measurement scale. *Journal of business Venturing*, *17*(3), 253-273.

Johanna de Villiers-Scheepers, M. (2012). Antecedents of strategic corporate entrepreneurship. *European Business Review*, *24*(5), 400-424.

Jones, G.R. & George, J.M. (2003). Contemporary Management. *3rd ed. New York, NY: McGraw-Hill*.

Kaliszewski, A., Kozłowski, A., Dąbrowski, J., & Klimek, H. (2021). LinkedIn survey reveals competitiveness factors of container terminals: forwarders' view. *Transport Policy*, *106*, 131-140.

Kaliszewski, A., Kozłowski, A., Dąbrowski, J., & Klimek, H. (2020). Survey data on global shipping lines assessing factors of container port competitiveness. *Data in brief*, *30*.

Kane, G. C., Alavi, M., Labianca, G., & Borgatti, S. P. (2014). What's different about social media networks? A framework and research agenda. *MIS quarterly*, *38*(1), 275-304.

Kanter, R. M. (1983). *The change masters: Binnovation and entrepreneturship in the American corporation*. Touchstone Book.

Kearney, C., Hisrich, R. D., & Antoncic, B. (2013). The mediating role of corporate entrepreneurship for external environment effects on performance. *Journal of Business Economics and Management*, *14*(sup1), S328-S357.

Kelley, D., & Lee, H. (2010). Managing innovation champions: The impact of project characteristics on the direct manager role. *Journal of Product Innovation Management*, *27*(7), 1007-1019.

Kemelgor, B. H. (2002). A comparative analysis of corporate entrepreneurial orientation between selected firms in the Netherlands and the USA. *Entrepreneurship & Regional Development*, *14*(1), 67-87.

Khenfer, J., Shepherd, S., & Trendel, O. (2020). Customer empowerment in the face of perceived Incompetence: Effect on preference for anthropomorphized brands. *Journal of Business Research*, *118*, 1-11.

Kollmann, T., Stöckmann, C., Meves, Y., & Kensbock, J. M. (2017). When members of entrepreneurial teams differ: linking diversity in individual-level entrepreneurial orientation to team performance. *Small Business Economics*, *48*, 843-859.

Kuratko, D. F., Hornsby, J. S., & Covin, J. G. (2014). Diagnosing a firm's internal environment for corporate entrepreneurship. *Business Horizons*, *57*(1), 37-47.

Kuratko, D. F., Montagno, R. V., & Hornsby, J. S. (1990). Developing an intrapreneurial assessment instrument for an effective corporate entrepreneurial environment. *Strategic management journal*, 49-58.

Kuratko, D. F., & Welsch, H. P. (2004). Strategic entrepreneurial growth.

Huang, L. Y., Yang Lin, S. M., & Hsieh, Y. J. (2021). Cultivation of intrapreneurship: A framework and challenges. *Frontiers in Psychology*, *12*, 731990.

Lukes, M., & Stephan, U. (2017). Measuring employee innovation: A review of existing scales and the development of the innovative behavior and innovation support inventories across cultures. *International Journal of Entrepreneurial Behavior & Research*, *23*(1), 136-158.

Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of management Review*, *21*(1), 135-172.

Maritan, C. A. (2001). Capital investment as investing in organizational capabilities: An empirically grounded process model. *Academy of Management Journal*, *44*(3), 513-531.

Marvel, M. R., Griffin, A., Hebda, J., & Vojak, B. (2007). Examining the technical corporate entrepreneurs' motivation: Voices from the field. *Entrepreneurship theory and practice*, *31*(5), 753-768.

McKinney, G., & McKinney, M. (1989). Forget the corporate umbrella-entrepreneurs shine in the rain. *MIT Sloan Management Review*, *30*(4), 77.

Meynhardt, T., & Diefenbach, F. E. (2012). What drives entrepreneurial orientation in the public sector? Evidence from Germany's federal labor agency. *Journal of Public Administration Research and Theory*, *22*(4), 761-792.

Monsen, E., Patzelt, H., & Saxton, T. (2010). Beyond simple utility: incentive design and trade–offs for corporate employee–entrepreneurs. *Entrepreneurship Theory and Practice*, *34*(1), 105-130.

Moriano, J. A., Molero, F., Topa, G., & Lévy Mangin, J. P. (2014). The influence of transformational leadership and organizational identification on intrapreneurship. *International entrepreneurship and management journal*, *10*, 103-119.

Morris, M. H., Kuratko, D. F., & Covin, J. G. (2009). *Corporate entrepreneurship & innovation*. Cengage Learning.

Moser, C. A., & Kalton, G. (1971). Survey Methods in Social Investigation (2nd ed.). *London: Heinemann.*

Narver, J. C., Slater, S. F., & MacLachlan, D. L. (2004). Responsive and proactive market orientation and new-product success. *Journal of product innovation management*, *21*(5), 334-347.

Neessen, P. C., Caniëls, M. C., Vos, B., & De Jong, J. P. (2019). The intrapreneurial employee: toward an integrated model of intrapreneurship and research agenda. *International Entrepreneurship and Management Journal*, *15*, 545-571.

Pinchot III, G. (1985). Intrapreneuring: Why you don't have to leave the corporation to become an entrepreneur. *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*.

Prolific (2024), https://www.prolific.com/

Campos, R. B. F. (2020). Intrapreneurship: The determinants behind its dynamic.

Remo Metalor Ruba (2019), Organizational Antecedents and Intrapreneurial Intensity of State-Owned Enterprises after the Structural Adjustment Policy. *International Journal of Innovative Science, Engineering & Technology,* Vol. 6 Issue 9.

Rigtering, J. C., & Weitzel, U. (2013). Work context and employee behaviour as antecedents for intrapreneurship. *International Entrepreneurship and Management Journal*, *9*, 337-360.

Hertog, S. (2010). Defying the resource curse: explaining successful state-owned enterprises in rentier states. *World Politics*, *62*(2), 261-301.

Sathe, V. (1989). Fostering entrepreneurship in the large, diversified firm. *Organizational Dynamics*, *18*(1), 20-32.

Schmelter, R., Mauer, R., Börsch, C., & Brettel, M. (2010). Boosting corporate entrepreneurship through HRM practices: Evidence from German SMEs. *Human Resource Management*, *49*(4), 715-741.

Sebora, T. C., & Theerapatvong, T. (2010). Corporate entrepreneurship: A test of external and internal influences on managers' idea generation, risk taking, and proactiveness. *International Entrepreneurship and Management Journal*, *6*, 331-350.

Sherman, G. D. (2020). The moral psychology of continuation decisions: A recipe for moral disengagement. *Organizational Behavior and Human Decision Processes*, *158*, 36-48.

Smith, L., Rees, P., & Murray, N. (2016). Turning entrepreneurs into intrapreneurs: Thomas Cook, a case-study. *Tourism Management*, *56*, 191-204.

Bhatia, S., & Khan, P. N. U. (2013). Building an intrapreneurial culture: a Sine-Qua-non for organizations today. *Global Journal of Management and Business Studies*, *3*(8), 849-854.

Stevenson, H.H. & Gumpert, D. (1985). The heart of entrepreneurship. *Harvard Business Review, 63(2), 85-94.*

Davis, T. M. (2006). Corporate entrepreneurship assessment instrument (CEAI): Systematic validation of a measure.

Tourangeau, R., Rips, L. J., & Rasinski, K. (2000). The psychology of survey response.

Turner, C. (2002). Lead to succeed: Creating entrepreneurial organizations. *London: Texere Publishing.*

Turro, A., Alvarez, C., & Urbano, D. (2016). Intrapreneurship in the Spanish context: a regional analysis. *Entrepreneurship & Regional Development*, *28*(5-6), 380-402.

Urban, B., & Nikolov, K. (2013). Sustainable corporate entrepreneurship initiatives: a risk and reward analysis. *Technological and Economic Development of Economy*, *19*(sup1), S383-S408.

Van Wyk, R., & Adonisi, M. (2008). The role of entrepreneurial characteristics in predicting job satisfaction. *South African Journal of Economic and Management Sciences*, *11*(4), 391-407.

Wakkee, I., Elfring, T., & Monaghan, S. (2010). Creating entrepreneurial employees in traditional service sectors: The role of coaching and self-efficacy. *International Entrepreneurship and Management Journal*, *6*, 1-21.

Wickrama Arachchilage Deepthi Nilmini Wickramaarachchi (2021), CONTEXTUALDETERMINANTS OF INTRAPRENEURIAL BEHAVIOUR: AN INTEGRATIVE PERSPECTIVE.

Zahra, S. A. (1991). Predictors and financial outcomes of corporate entrepreneurship: An exploratory study. *Journal of business venturing*, *6*(4), 259-285.

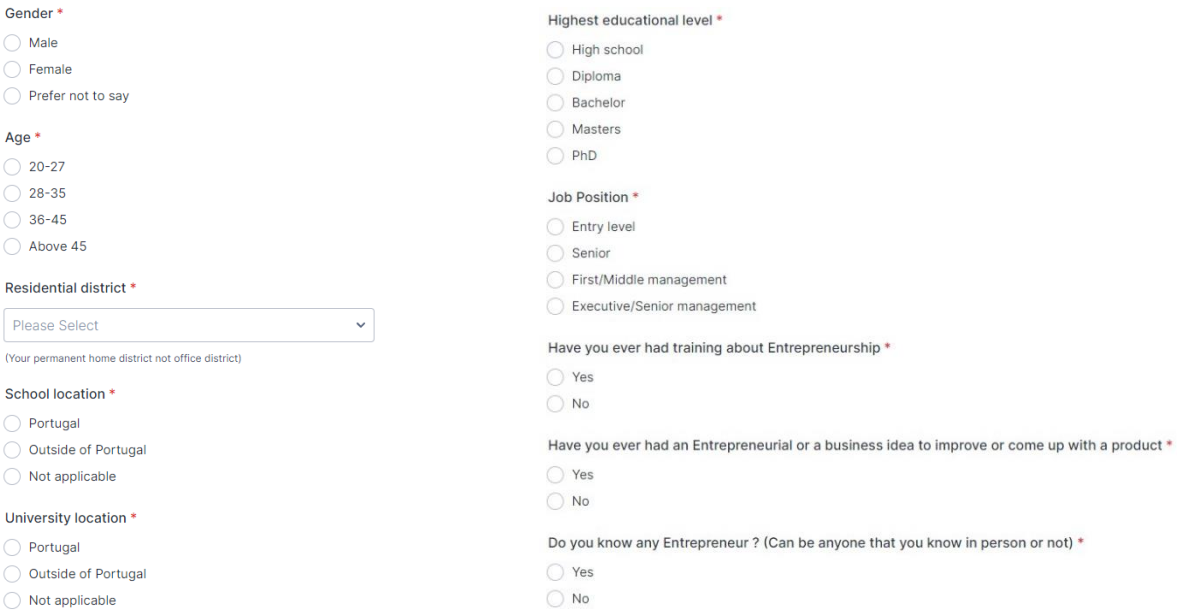
Zampetakis, L. A., & Moustakis, V. S. (2010). An exploratory research on the factors stimulating corporate entrepreneurship in the Greek public sector. *International journal of manpower*, *31*(8), 871-887.

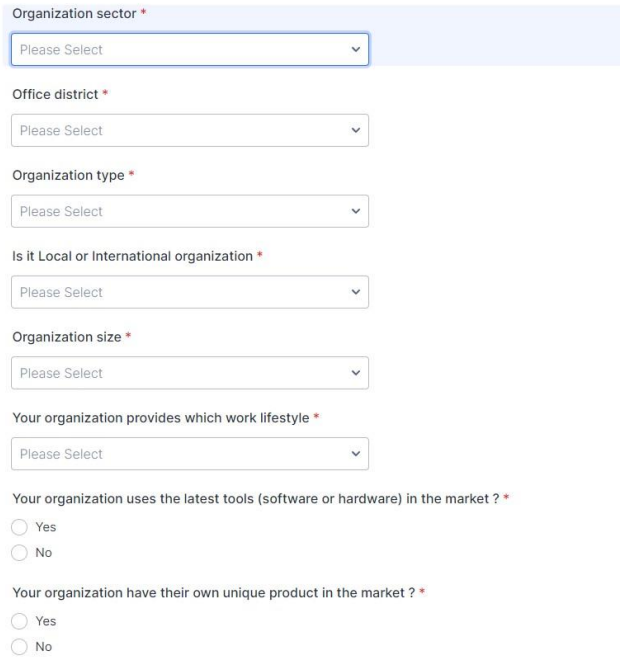
Zur, A., & Walega, A. (2015). Routines do matter: role of internal communication in firm-level entrepreneurship. *Baltic Journal of Management*, *10*(1), 119-139.

APPENDIX

1. Survey and questionnaire

Individual and Organization Demography Questionnaire:





CEAI tool, scoring system, and validation table:

Reference: (Kuratko et al., 2014)

We are interested in learning about how you perceive your workplace and organization. Please read the following items. Using the scale below please indicate how much you agree or disagree with each of the statements. If you strongly agree, write "5." If you strongly disagree write "1." There are no right or wrong answers to these questions so please be as honest and thoughtful as possible in your responses. All responses will be kept strictly confidential. Thank you for your cooperation!

Strongly Disagree 1	*Disagree* 2	*Not Sure* 3	*Agree* 4	*Strongly Agree* 5

Section 1: Management support for corporate entrepreneurship

— 1. My organization is quick to use improved work methods.
— 2. My organization is quick to use improved work methods that are developed by workers.
— 3. In my organization, developing one's own ideas is encouraged for the improvement of the corporation.
— 4. Upper management is aware and very receptive to my ideas and suggestions.
— 5. A promotion usually follows from the development of new and innovative ideas.
— 6. Those employees who come up with innovative ideas on their own often receive management encouragement for their activities.
— 7. The "doers on projects" are allowed to make decisions without going through elaborate justification and approval procedures.
— 8. Senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track.
— 9. Many top managers have been known for their experience with the innovation process.
— 10. Money is often available to get new project ideas off the ground.
— 11. Individuals with successful innovative projects receive additional rewards and compensation beyond the standard reward system for their ideas and efforts.
— 12. There are several options within the organization for individuals to get financial support for their innovative projects and ideas.
— 13. People are often encouraged to take calculated risks with ideas around here.
— 14. Individual risk takers are often recognized for their willingness to champion new projects, whether eventually successful or not.
— 15. The term "risk taker" is considered a positive attribute for people in my work area.
— 16. This organization supports many small and experimental projects, realizing that some will undoubtedly fail.
— 17. An employee with a good idea is often given free time to develop that idea.
— 18. There is considerable desire among people in the organization for generating new ideas without regard for crossing departmental or functional boundaries.
— 19. People are encouraged to talk to employees in other departments of this organization about ideas for new projects.

Section 2: Work discretion

— 20. I feel that I am my own boss and do not have to double check all of my decisions with someone else.
— 21. Harsh criticism and punishment result from mistakes made on the job.
— 22. This organization provides the chance to be creative and try my own methods of doing the job.
— 23. This organization provides the freedom to use my own judgment.
— 24. This organization provides the chance to do something that makes use of my abilities.
— 25. I have the freedom to decide what I do on my job.
— 26. It is basically my own responsibility to decide how my job gets done.
— 27. I almost always get to decide what I do on my job.
— 28. I have much autonomy on my job and am left on my own to do my own work.
— 29. I seldom have to follow the same work methods or steps for doing my major tasks from day to day.

Section 3: Rewards/Reinforcement

— 30. My manager helps me get my work done by removing obstacles and roadblocks.
— 31. The rewards I receive are dependent upon my innovation on the job.
— 32. My supervisor will increase my job responsibilities if I am performing well in my job.
— 33. My supervisor will give me special recognition if my work performance is especially good.
— 34. My manager would tell his/her boss if my work was outstanding.
— 35. There is a lot of challenge in my job.

Section 4: Time availability

— 36. During the past three months, my workload kept me from spending time on developing new ideas.
— 37. I always seem to have plenty of time to get everything done.
— 38. I have just the right amount of time and workload to do everything well.
— 39. My job is structured so that I have very little time to think about wider organizational problems.
— 40. I feel that I am always working with time constraints on my job.
— 41. My co-workers and I always find time for long-term problem solving.

Section 5: Organizational boundaries

— 42. In the past three months, I have always followed standard operating procedures or practices to do my major tasks.
— 43. There are many written rules and procedures that exist for doing my major tasks.
— 44. On my job I have no doubt of what is expected of me.
— 45. There is little uncertainty in my job.
— 46. During the past year, my immediate supervisor discussed my work performance with me frequently.
— 47. My job description clearly specifies the standards of performance on which my job is evaluated.
— 48. I clearly know what level of work performance is expected from me in terms of amount, quality, and timelines of output.

SCORING SCALES

Scale 1: Management Support for Entrepreneurship

Statement						
1	1	2	3	4	5	
2	1	2	3	4	5	
3	1	2	3	4	5	
4	1	2	3	4	5	
5	1	2	3	4	5	
6	1	2	3	4	5	
7	1	2	3	4	5	
8	1	2	3	4	5	
9	1	2	3	4	5	
10	1	2	3	4	5	
11	1	2	3	4	5	
12	1	2	3	4	5	
13	1	2	3	4	5	
14	1	2	3	4	5	
15	1	2	3	4	5	
16	1	2	3	4	5	
17	1	2	3	4	5	Total
18	1	2	3	4	5	Score
19	1	2	3	4	5	(Scale 1)
Sub-Totals	☐	+ ☐	+ ☐	+ ☐	+ ☐	= ☐

Scale Score = Total Score (19)
☐

Scale 2: Work Discretion

Statement						
20	1	2	3	4	5	
*21	5=1	4=2	3	2=4	1=5	
22	1	2	3	4	5	
23	1	2	3	4	5	
24	1	2	3	4	5	
25	1	2	3	4	5	
26	1	2	3	4	5	
27	1	2	3	4	5	Total
28	1	2	3	4	5	Score
29	1	2	3	4	5	(Scale 2)
Sub-Totals	☐	+ ☐	+ ☐	+ ☐	+ ☐	= ☐

Scale 3: Rewards/Reinforcement

Statement						
30	1	2	3	4	5	
31	1	2	3	4	5	
32	1	2	3	4	5	
33	1	2	3	4	5	Total
34	1	2	3	4	5	Score
35	1	2	3	4	5	(Scale 3)
Sub-Totals	☐	+ ☐	+ ☐	+ ☐	+ ☐	= ☐

Scale Score = Total Score divided by (6)
☐

Scale 4: Time Availability

Statement						
*36	5=1	4=2	3	2=4	1=5	
37	1	2	3	4	5	
38	1	2	3	4	5	
*39	5=1	4=2	3	2=4	1=5	Total
*40	5=1	4=2	3	2=4	1=5	Score
41	1	2	3	4	5	(Scale 4)
Sub-Totals	☐	+ ☐	+ ☐	+ ☐	+ ☐	= ☐

Scale Score = Total Score divided by (6)
☐
Items 36, 39, 40 are revised scores.

Scale 5: Organizational Boundaries

Statement						
*42	5=1	4=2	3	2=4	1=5	
*43	5=1	4=2	3	2=4	1=5	
*44	5=1	4=2	3	2=4	1=5	
*45	5=1	4=2	3	2=4	1=5	
46	1	2	3	4	5	Total
*47	5=1	4=2	3	2=4	1=5	Score
*48	5=1	4=2	3	2=4	1=5	(Scale 5)
Sub-Totals	☐	+ ☐	+ ☐	+ ☐	+ ☐	= ☐

Scale Score = Total Score divided by (7)
☐
Items 42, 43, 44 , 45, 47, and 48 are revised scores.

Authors	Findings
Hornsby, Kuratko, and Montagno (1999)	• U.S. and Canadian managers perceive the workplace similarly in terms of entrepreneurial climate as measured by the CEAI. • Levels of intrinsic satisfaction of Canadian managers are lower than in the U.S. • Overall levels of entrepreneurial behaviors are similar between the U.S. and Canada but for Americans, entrepreneurial behavior is significantly related to the existence of the CEAI factors.
Hornsby, Kuratko, and Zahra (2002)	• Exploratory and confirmatory factor analyses yielded the same five-factor solution for the CEAI. • Management level differences were found for all the factors except the rewards/reinforcement factor.
Kuratko, Hornsby, and Bishop (2005)	• Job satisfaction serves as a mediator between CEAI factors and new ideas offered and implemented (R-squared = .78).
Rutherford and Holt (2007)	• CE mediates the relationship between the CEAI antecedents and individual entrepreneurial outcomes.
Hornsby, Kuratko, Shepherd, and Bott (2009)	• Management support, rewards/reinforcement, and autonomy/discretion were significantly correlated with number of ideas implemented. • Management level moderated the relationship between management support and ideas implemented and autonomy/discretion and ideas implemented. Specifically, senior and middle managers were likely to implement more entrepreneurial ideas than frontline managers.
Goodale, Kuratko, Hornsby, and Covin (2011)	• R-squared of .10 between CEAI factors and innovation performance. • R-squared of .30 when moderators of operations control and risk control are entered into the model.
van Wyk and Adonisi (2012)	• Significant positive correlations between extrinsic job satisfaction and the corporate entrepreneurship sub-scales of work discretion, rewards, and innovative initiatives. • The market orientation sub-scales of intelligence generation and responsiveness each correlated positively with the corporate entrepreneurship sub-scales of management support and risk acceptance, and rewards. • Responsiveness correlated positively with innovative initiatives and financial support. Intrinsic job satisfaction correlated positively with the sub-scales of corporate entrepreneurship work discretion and rewards. • Extrinsic job satisfaction correlated positively with the corporate entrepreneurship sub-scales of work discretion and rewards. • The flexibility sub-scale formality correlated positively with management support and risk acceptance, and innovative initiatives. • The flexibility sub-scale authoritarianism correlated negatively with the corporate entrepreneurship sub-scale of sufficient time.
Hornsby, Kuratko, Holt, and Wales (2013)	• Assessing the convergent validity of the CEAI composite and individual factors, the CEAI composite—EO relationship was .32. • When considering the factors of the CEAI, management support was the most strongly correlated at $r = .45$ ($p < .01$). EO was less strongly correlated with the other CEAI factors but these relationships were positive and significant. These included work discretion ($r = .17$, $p < .01$), rewards/reinforcement ($r = .15$, $p < .01$), and time availability ($r = .13$, $p < .01$).

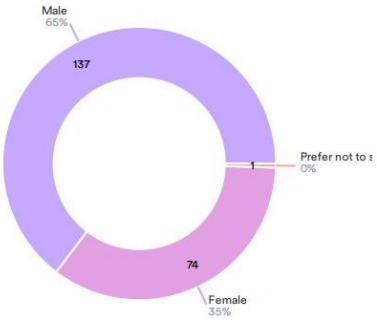
2. Data

Question	Average	Standard Deviation
My organization is quick to use improved work methods	3.3	1.01
My organization is quick to use improved work methods that are developed by workers.	3.2	1.00
In my organization, developing one's own ideas is encouraged for the improvement of the corporation.	3.4	1.17
Upper management is aware and very receptive to my ideas	3.3	1.16
A promotion usually follows from the development of new and innovative ideas.	2.7	1.16
Those employees who come up with innovative ideas on their own often receive management encouragement for their activities.	3.1	1.13
The ''doers on projects'' are allowed to make decisions without going through elaborate justification and approval procedures.	2.8	1.10
Senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track.	2.7	1.14
Many top managers have been known for their experience with the innovation process.	2.9	1.09
Money is often available to get new project ideas off the ground.	2.5	1.18
Individuals with successful innovative projects receive additional rewards and compensation beyond the standard reward system for their ideas and efforts.	2.6	1.21
There are several options within the organization for individuals to get financial support for their innovative projects and ideas.	2.4	1.14
People are often encouraged to take calculated risks with ideas around here.	2.8	1.12
Individual risk takers are often recognized for their willingness to champion new projects, whether eventually successful or not.	2.7	1.12
The term ''risk taker'' is considered a positive attribute for people in my work area.	2.7	1.16
This organization supports many small and experimental projects, realizing that some will undoubtedly fail.	2.6	1.15
An employee with a good idea is often given free time to develop that idea	2.5	1.14
There is considerable desire among people in the organization for generating new ideas without regard for crossing departmental or functional boundaries.	2.8	1.08
People are encouraged to talk to employees in other departments of this organization about ideas for new projects.	3.1	1.20

Question	Average	Standard Deviation
I feel that I am my own boss and do not have to double check all of my decisions with someone else.	2.4	1.25
Harsh criticism and punishment result from mistakes made on the job.	3.3	1.21
This organization provides the chance to be creative and try my own methods of doing the job.	3	1.13
This organization provides the freedom to use my own	3.3	1.08
This organization provides the chance to do something that makes use of my abilities.	3.4	1.11
I have the freedom to decide what I do on my job.	2.7	1.15
It is basically my own responsibility to decide how my job gets done.	3.1	1.16
I almost always get to decide what I do on my job.	2.7	1.14
I have much autonomy on my job and am left on my own to do my own work.	3.3	1.16
I seldom have to follow the same work methods or steps for doing my major tasks from day to day.	3	1.05
My manager helps me get my work done by removing obstacles and roadblocks.	3	1.13
The rewards I receive are dependent upon my innovation on the job.	2.3	1.18
My supervisor will increase my job responsibilities if I am performing well in my job.	3.4	1.14
My supervisor will give me special recognition if my work performance is especially good.	3.2	1.20
My manager would tell his/her boss if my work was outstanding.	3.1	1.12
There is a lot of challenge in my job.	3.7	0.97
During the past three months, my workload kept me from spending time on developing new ideas.	2.7	1.15
I always seem to have plenty of time to get everything done.	2.6	1.13
I have just the right amount of time and workload to do everything well.	2.9	1.13
My job is structured so that I have very little time to think about wider organizational problems.	2.9	1.11
I feel that I am always working with time constraints on my job.	2.8	1.09
My co-workers and I always find time for long-term problem solving.	2.7	0.99
In the past three months, I have always followed standard operating procedures or practices to do my major tasks.	2.4	0.90
There are many written rules and procedures that exist for doing my major tasks.	2.7	1.16
On my job I have no doubt of what is expected of me.	2.4	1.05
There is little uncertainty in my job.	3.2	1.14
During the past year, my immediate supervisor discussed my work performance with me frequently.	2.9	1.22
My job description clearly specifies the standards of performance on which my job is evaluated.	3.1	1.05
I clearly know what level of work performance is expected from me in terms of amount, quality, and timelines of output.	3.6	0.97

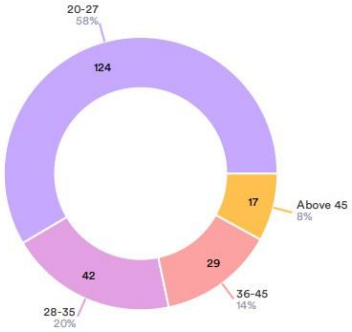
Gender

212 Responses



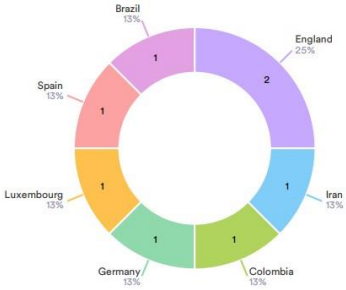
Age

212 Responses



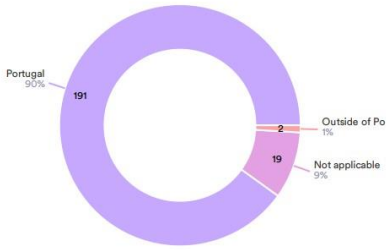
Please write down the country if (Outside of Portugal)

8 Responses- 204 Empty



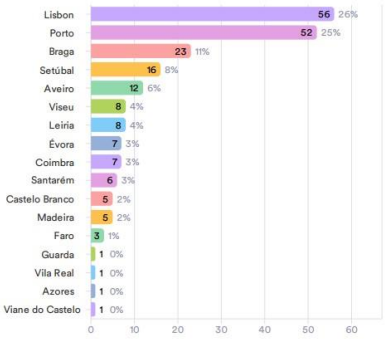
University location

212 Responses



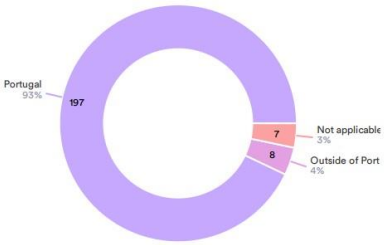
Residential district

212 Responses



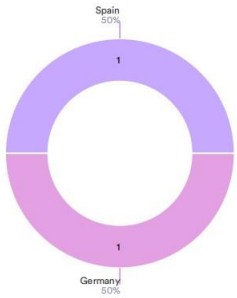
School location

212 Responses



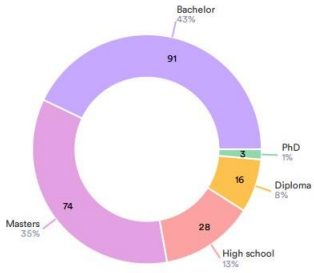
Please write down the country if (Outside of Portugal)

2 Responses- 210 Empty



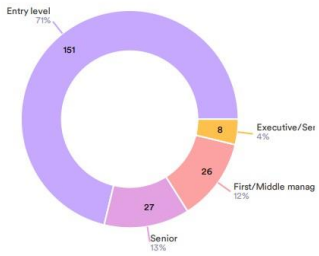
Highest educational level

212 Responses



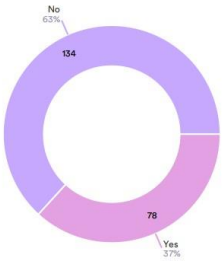
Job Position

212 Responses



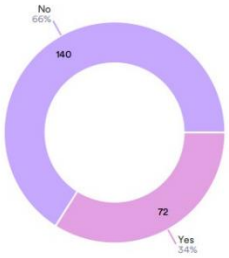
Have you ever had training about Entrepreneurship

212 Responses



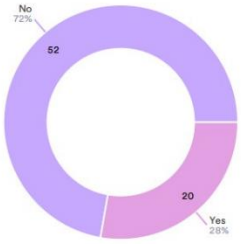
Have you ever had an Entrepreneurial or a business idea to improve or come up with a product

212 Responses



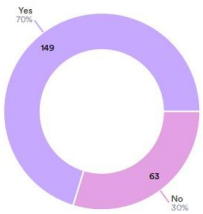
If (Yes), did you manage to implement it ?

72 Responses- 140 Empty



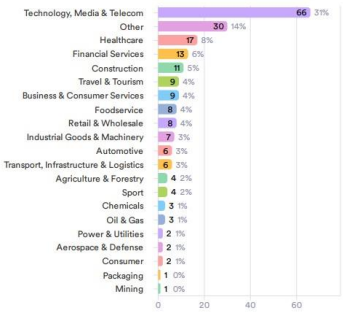
Do you know any Entrepreneur ? (Can be anyone that you know in person or not)

212 Responses



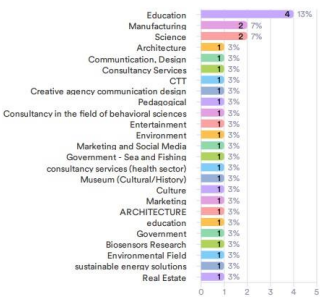
Organization sector

212 Responses



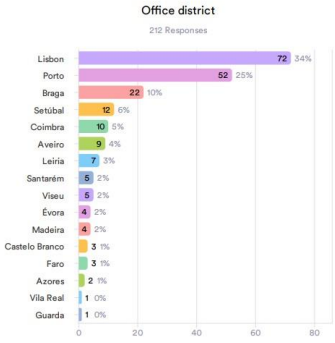
Please write down Organization sector if (Other)

30 Responses- 182 Empty



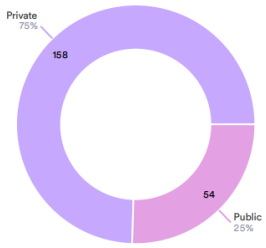
Office district

212 Responses



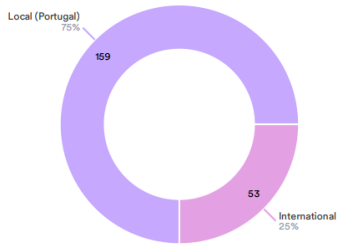
Organization type

212 Responses



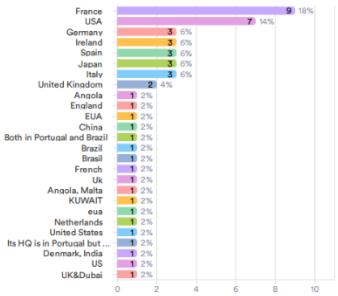
Is it Local or International organization

212 Responses



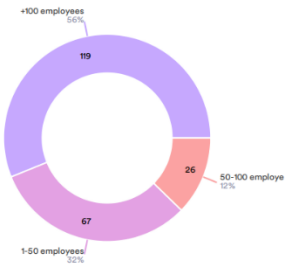
Please specify the country if your answer is (International)

51 Responses- 159 Empty



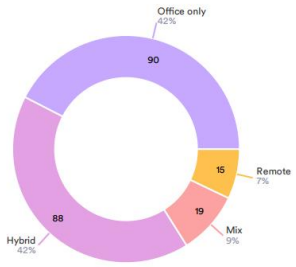
Organization size

212 Responses



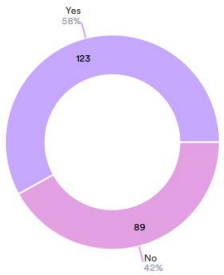
Your organization provides which work lifestyle

212 Responses



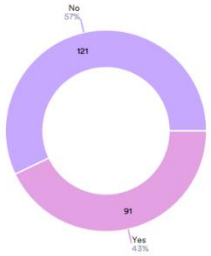
Your organization uses the latest tools (software or hardware) in the market ?

212 Responses



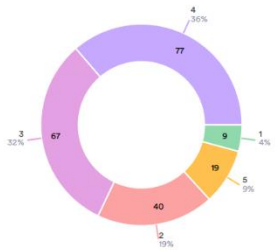
Your organization have their own unique product in the market ?

212 Responses



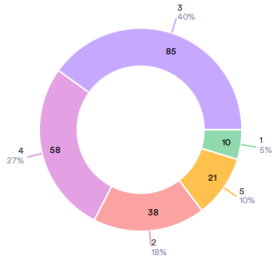
My organization is quick to use improved work methods.

212 Responses



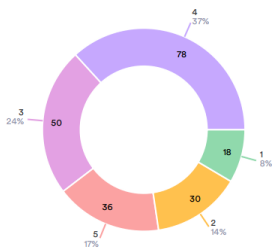
My organization is quick to use improved work methods that are developed by workers.

212 Responses



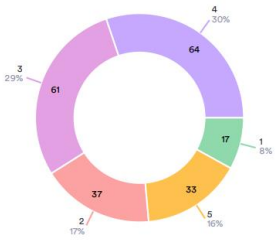
In my organization, developing one's own ideas is encouraged for the improvement of the corporation.

212 Responses



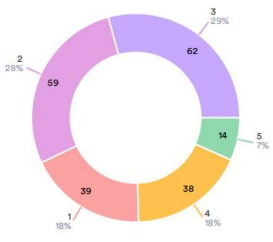
Upper management is aware and very receptive to my ideas and suggestions.

212 Responses



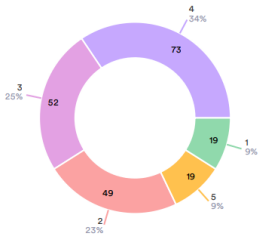
A promotion usually follows from the development of new and innovative ideas.

212 Responses



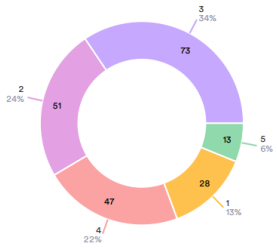
Those employees who come up with innovative ideas on their own often receive management encouragement for their activities.

212 Responses



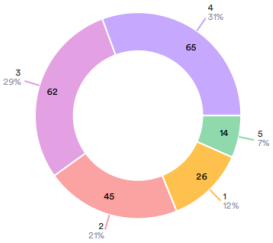
The "doers on projects" are allowed to make decisions without going through elaborate justification and approval procedures.

212 Responses



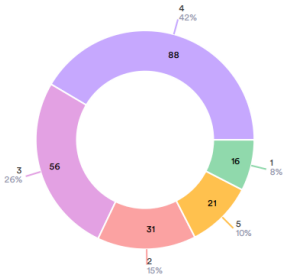
This organization provides the chance to be creative and try my own methods of doing the job.

212 Responses



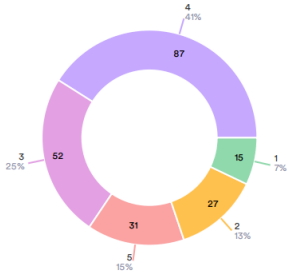
This organization provides the freedom to use my own judgment.

212 Responses



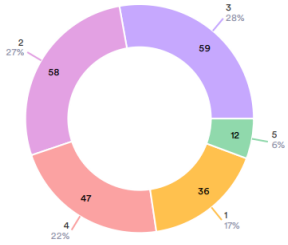
This organization provides the chance to do something that makes use of my abilities.

212 Responses



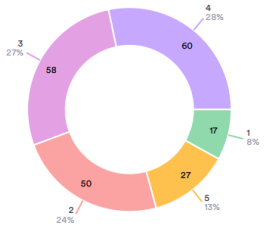
I have the freedom to decide what I do on my job.

212 Responses



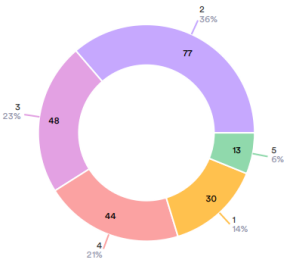
It is basically my own responsibility to decide how my job gets done.

212 Responses



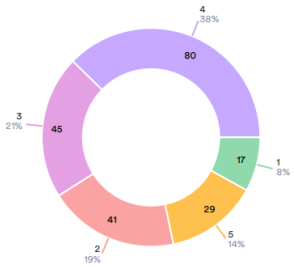
I almost always get to decide what I do on my job.

212 Responses



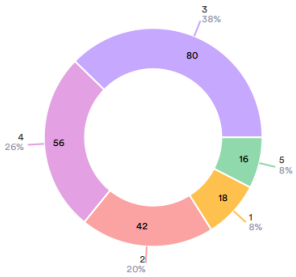
I have much autonomy on my job and am left on my own to do my own work.

212 Responses



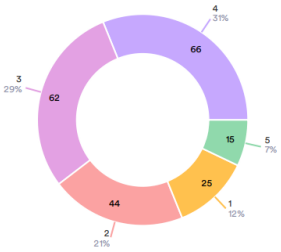
I seldom have to follow the same work methods or steps for doing my major tasks from day to day.

212 Responses



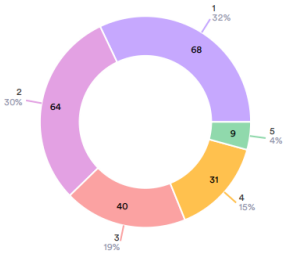
My manager helps me get my work done by removing obstacles and roadblocks.

212 Responses



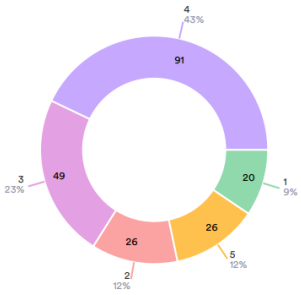
The rewards I receive are dependent upon my innovation on the job.

212 Responses



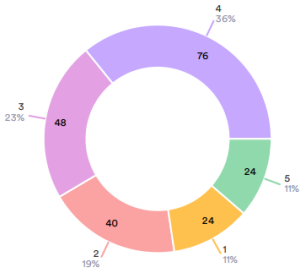
My supervisor will increase my job responsibilities if I am performing well in my job.

212 Responses



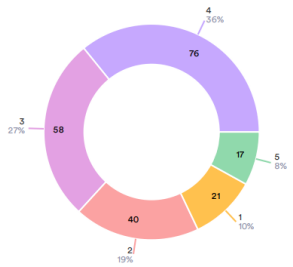
My supervisor will give me special recognition if my work performance is especially good.

212 Responses



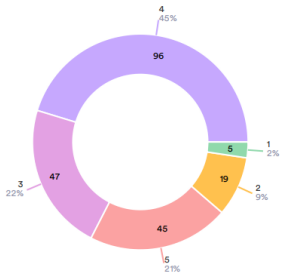
My manager would tell his/her boss if my work was outstanding.

212 Responses



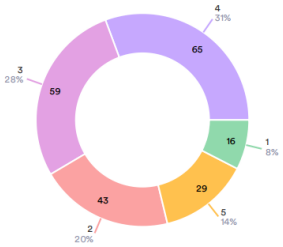
There is a lot of challenge in my job.

212 Responses



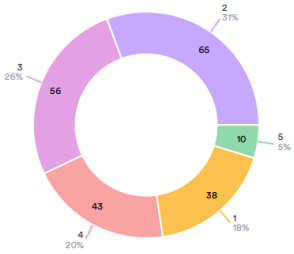
During the past three months, my workload kept me from spending time on developing new ideas.

212 Responses



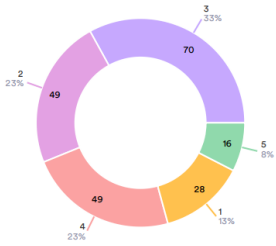
I always seem to have plenty of time to get everything done.

212 Responses



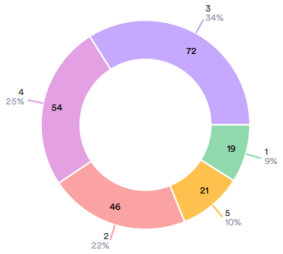
I have just the right amount of time and workload to do everything well.

212 Responses



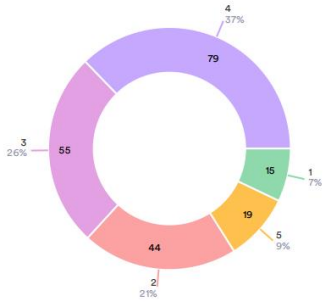
My job is structured so that I have very little time to think about wider organizational problems.

212 Responses



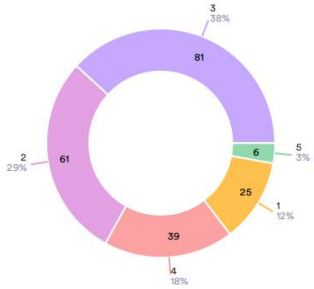
I feel that I am always working with time constraints on my job.

212 Responses



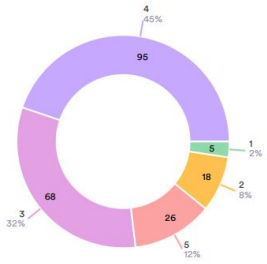
My co-workers and I always find time for long-term problem solving.

212 Responses



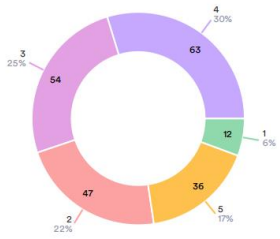
In the past three months, I have always followed standard operating procedures or practices to do my major tasks.

212 Responses



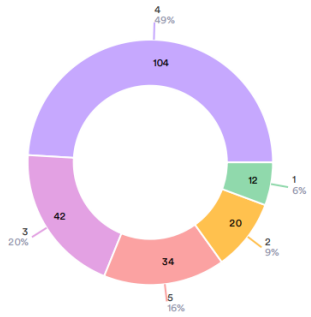
There are many written rules and procedures that exist for doing my major tasks.

212 Responses



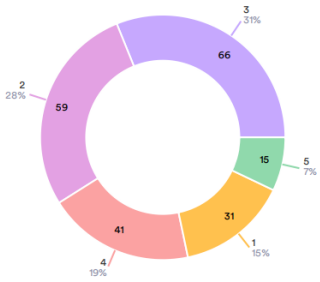
On my job I have no doubt of what is expected of me.

212 Responses



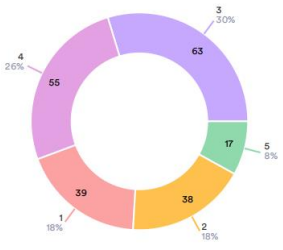
There is little uncertainty in my job.

212 Responses



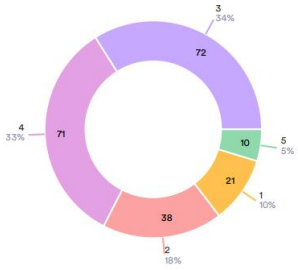
During the past year, my immediate supervisor discussed my work performance with me frequently.

212 Responses



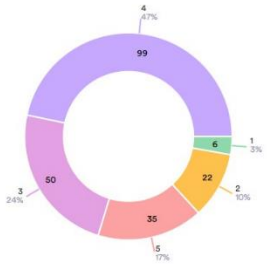
My job description clearly specifies the standards of performance on which my job is evaluated.

212 Responses



I clearly know what level of work performance is expected from me in terms of amount, quality, and timelines of output.

212 Responses



3. Correlation and regression analysis:

3.1 Correlation analysis

	Gender	Age	School location	University location	Highest educational level	Job Position	bout Entrep	Entrepreneurial ideas	Knowing an Entrepreneur	Organization type	ILocal or Int. organization
Gender	1										
Age	-0.01306	1									
School location	-0.03277	0.088504	1								
University location	0.102347	0.104487	0.325184512	1							
Highest educational level	-0.09075	0.121346	-0.080465185	-0.525743201	1						
Job Position	0.038215	0.664107	-0.010962501	0.06103124	0.159766974	1					
Training about Entrepreneurship	0.045686	0.044367	-0.002313865	-0.130938224	0.234370098	0.111378829	1				
Entrepreneurial ideas	-0.10172	0.068294	0.088120928	0.007171917	0.121854743	0.147703795	0.299679	1			
Knowing an Entrepreneur	0.021857	-0.01188	-0.06372573	-0.073643755	0.065560915	0.083362422	0.239268	0.226578092	1		
Organization type	0.048852	0.060365	0.043537273	0.078662979	-0.075074537	0.031535604	-0.04786	0.099204675	-0.001117406	1	
Local or Int. organization	0.011427	0.10286	0.150234537	0.226758438	-0.032550101	0.127406627	0.146829	0.138013112	-0.005959035	0.237518557	1
Organization size	0.111119	0.058391	0.020983987	-0.07070409	0.093745616	0.070124746	0.106773	0.014760105	-0.006247351	-0.080894492	0.325360246
work lifestyle	0.059742	0.028618	-0.11398473	-0.083251453	0.08256607	0.127432203	-0.0055	0.01817637	0.156165808	0.132206774	0.176803161
using latest tools	0.118981	0.023333	0.029618391	0.046297442	0.012932326	0.163880057	0.113868	-0.015612269	0.074282072	0.160797033	0.248315785
unique products	-0.00472	-0.01767	0.132782132	0.063317753	0.071816247	-0.051733799	0.049777	-0.038347558	0.00088525	0.135155116	0.203576534
Management support	0.106843	-0.05951	-0.067165558	-0.089425882	0.050032103	0.095158098	0.125286	-0.061478936	0.193958648	0.052885856	0.094522573
Worst discretion	0.1123	0.096203	-0.161112225	-0.141864556	0.180053553	0.23664878	0.107577	-0.058980113	0.127956895	0.025341378	-0.065320569
Rewards/Reinforcements	0.077109	-0.08225	0.021261845	-0.077720764	0.138860684	0.020798571	0.14453	-0.005460387	0.211399073	0.036363261	0.143922184
Time availablity	0.022101	-0.11801	-0.057003874	-0.009618241	-0.129229115	0.009078905	-0.01495	-0.035123984	-0.02608482	0.024179146	-0.071067211
Organizational boundries	-0.10146	0.005288	0.037928394	0.028089215	0.051785289	-0.044227194	-0.07379	0.083302705	-0.118149265	-0.004461948	-0.149445433

	Organization size	work lifestyle	using latest tools	unique products	Management support	Worst discretion	Rewards/Reinforcements	Time availablity	Organizational boundries
Gender									
Age									
School location									
University location									
Highest educational level									
Job Position									
Training about Entrepreneurship									
Entrepreneurial ideas									
Knowing an Entrepreneur									
Organization type									
Local or Int. organization									
Organization size	1								
work lifestyle	-0.015783427	1							
using latest tools	0.156796491	0.171729483	1						
unique products	0.24962708	0.031625377	0.081155277	1					
Management support	-0.043717466	0.3098794	0.449352135	0.123727735	1				
Worst discretion	-0.114001545	0.30713797	0.172385446	0.073420797	0.610699056	1			
Rewards/Reinforcements	0.036752318	0.180823315	0.345221987	0.210766693	0.768379177	0.497885177	1		
Time availablity	-0.247796697	0.098072811	0.152231499	0.024084513	0.418933383	0.436579775	0.162563349	1	
Organizational boundries	-0.146710051	-0.070472016	-0.10743787	-0.110957067	-0.282335215	-0.237152013	-0.275665544	-0.122445654	1

3.2 Regression analysis

3.2.1 Individual demography:

Management support:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.317983
R Square	0.101113
Adjusted R Square	0.061064
Standard Error	0.799759
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	9	14.53358206	1.614842451	2.52471474	0.00919817
Residual	202	129.2019926	0.639613825		
Total	211	143.7355747			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.602327	0.192635139	13.50909639	4.72792E-30	2.222493054	2.982160276	2.222493054	2.982160276
Gender	0.137734	0.117674653	1.170460516	0.243194696	-0.094294685	0.369761756	-0.094294685	0.369761756
Age	-0.15722	0.076318959	-2.060095522	0.040671247	-0.307708345	-0.006740348	-0.307708345	-0.006740348
School location	-0.00026	0.148538465	-0.001747203	0.998607659	-0.293144314	0.29262526	-0.293144314	0.29262526
University location	-0.09827	0.121930879	-0.805948308	0.421220413	-0.338690534	0.142150564	-0.338690534	0.142150564
Highest educational level	-0.00692	0.067945804	-0.10183445	0.918989094	-0.140893223	0.127054776	-0.140893223	0.127054776
Job Position	0.208968	0.088464327	2.362175463	0.01911876	0.034536303	0.383400222	0.034536303	0.383400222
Training about Entrepreneurship	0.16877	0.124811556	1.352196308	0.177824446	-0.077330878	0.414870329	-0.077330878	0.414870329
Entrepreneurial ideas	-0.24431	0.126236114	-1.935320579	0.054347142	-0.493216865	0.004602166	-0.493216865	0.004602166
Knowing an Entrepreneur	0.316329	0.126525266	2.500128529	0.013210474	0.066849769	0.565809085	0.066849769	0.565809085

Work discretion:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.37249
R Square	0.138749
Adjusted R Square	0.100376
Standard Error	0.701591
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	9	16.0183886	1.779820956	3.615832952	0.000335002
Residual	202	99.43043215	0.492229862		
Total	211	115.4488208			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.312775	0.16898983	13.68588359	1.33878E-30	1.979564817	2.645985467	1.979564817	2.645985467
Gender	0.147549	0.103230489	1.429313165	0.154458906	-0.055998847	0.351096241	-0.055998847	0.351096241
Age	-0.05555	0.066951066	-0.829679725	0.407699293	-0.18756054	0.076464656	-0.18756054	0.076464656
School location	-0.19482	0.130305873	-1.495078985	0.13645441	-0.451751746	0.062116601	-0.451751746	0.062116601
University location	-0.06337	0.106964277	-0.592410204	0.554238483	-0.274276472	0.147543014	-0.274276472	0.147543014
Highest educational level	0.085093	0.059605687	1.427594404	0.154952732	-0.032436401	0.202621891	-0.032436401	0.202621891
Job Position	0.232691	0.077605631	2.998380475	0.003055041	0.079670181	0.385712238	0.079670181	0.385712238
Training about Entrepreneurship	0.08744	0.109491361	0.798599182	0.425460785	-0.128452878	0.303332302	-0.128452878	0.303332302
Entrepreneurial ideas	-0.19996	0.11074106	-1.805629969	0.072464968	-0.418314094	0.018399341	-0.418314094	0.018399341
Knowing an Entrepreneur	0.161443	0.110994719	1.45451183	0.147356537	-0.057413745	0.380300009	-0.057413745	0.380300009

Rewards/Reinforcement:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.308422
R Square	0.095124
Adjusted R Square	0.054808
Standard Error	0.771409
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	9	12.63640811	1.404045345	2.359452367	0.014873584
Residual	202	120.2046558	0.595072554		
Total	211	132.8410639			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.625847	0.185806777	14.13213857	5.53174E-32	2.259477519	2.992216721	2.259477519	2.992216721
Gender	0.112808	0.113503425	0.993875906	0.321472334	-0.110995167	0.336611806	-0.110995167	0.336611806
Age	-0.12902	0.073613672	-1.752610601	0.081186038	-0.274165874	0.016133672	-0.274165874	0.016133672
School location	0.139421	0.143273203	0.973113196	0.33166088	-0.143081818	0.421923907	-0.143081818	0.421923907
University location	0.000848	0.117608779	0.007211474	0.994253243	-0.231050199	0.232746464	-0.231050199	0.232746464
Highest educational level	0.10539	0.06553732	1.608091157	0.109377054	-0.023835021	0.234614991	-0.023835021	0.234614991
Job Position	0.084576	0.085328521	0.991184722	0.322781197	-0.083672521	0.252825173	-0.083672521	0.252825173
Training about Entrepreneurship	0.145488	0.120387345	1.20849586	0.228269373	-0.091889436	0.382864652	-0.091889436	0.382864652
Entrepreneurial ideas	-0.15826	0.121761407	-1.299795988	0.195152194	-0.398351376	0.0818214	-0.398351376	0.0818214
Knowing an Entrepreneur	0.340195	0.122040309	2.787563587	0.005817477	0.0995588	0.580831441	0.0995588	0.580831441

Time availability:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.23068
R Square	0.053213
Adjusted R Square	0.01103
Standard Error	0.706682
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	9	5.669783068	0.629975896	1.261465201	0.259926483
Residual	202	100.878828	0.499400139		
Total	211	106.5486111			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	3.149281	0.170216211	18.50165393	2.33403E-45	2.813652958	3.48490991	2.813652958	3.48490991
Gender	0.002895	0.103979646	0.027846104	0.977812386	-0.202129287	0.207920143	-0.202129287	0.207920143
Age	-0.15034	0.067436939	-2.229321405	0.026893927	-0.283309242	-0.01736798	-0.283309242	-0.01736798
School location	-0.04186	0.13125152	-0.318920066	0.750116661	-0.300657522	0.216940035	-0.300657522	0.216940035
University location	-0.10681	0.107740531	-0.99140797	0.322672487	-0.319255164	0.105625521	-0.319255164	0.105625521
Highest educational level	-0.12751	0.060038253	-2.123738699	0.034908537	-0.245887632	-0.009123492	-0.245887632	-0.009123492
Job Position	0.153365	0.078168825	1.961968221	0.05113975	-0.000766771	0.307496273	-0.000766771	0.307496273
Training about Entrepreneurship	0.029687	0.110285954	0.269184959	0.788062106	-0.187772031	0.247146671	-0.187772031	0.247146671
Entrepreneurial ideas	-0.03035	0.111544722	-0.272098063	0.785824533	-0.250292463	0.189590258	-0.250292463	0.189590258
Knowing an Entrepreneur	-0.06253	0.111800222	-0.559311843	0.576568509	-0.282976338	0.157913961	-0.282976338	0.157913961

Organizational boundaries:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.223304
R Square	0.049864
Adjusted R Square	0.007532
Standard Error	0.535519
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	9	3.040234122	0.337803791	1.177916148	0.310803143
Residual	202	57.92973122	0.286780848		
Total	211	60.96996534			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.734625	0.128988699	21.20049794	2.92498E-53	2.480287647	2.988961646	2.480287647	2.988961646
Gender	-0.08605	0.078795076	-1.09204664	0.276113353	-0.241414247	0.069318451	-0.241414247	0.069318451
Age	0.018533	0.051103258	0.362667126	0.717232736	-0.082230777	0.119297721	-0.082230777	0.119297721
School location	-0.00324	0.099461518	-0.03253236	0.974079632	-0.19935169	0.192880254	-0.19935169	0.192880254
University location	0.067387	0.081645049	0.825365023	0.410138051	-0.093598893	0.228372829	-0.093598893	0.228372829
Highest educational level	0.056015	0.045496584	1.231185385	0.219685057	-0.033694406	0.145723865	-0.033694406	0.145723865
Job Position	-0.05267	0.05923581	-0.889111201	0.375000895	-0.169467052	0.064132608	-0.169467052	0.064132608
Training about Entrepreneurship	-0.09651	0.083573954	-1.154776572	0.249546177	-0.261298476	0.068279988	-0.261298476	0.068279988
Entrepreneurial ideas	0.141961	0.084527839	1.679453566	0.094609693	-0.024709501	0.308630664	-0.024709501	0.308630664
Knowing an Entrepreneur	-0.13895	0.084721456	-1.640042809	0.102552569	-0.305998665	0.028105036	-0.305998665	0.028105036

3.2.2 Organizational demography:

Management support:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.535981797
R Square	0.287276487
Adjusted R Square	0.266416286
Standard Error	0.706912641
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	41.29185088	6.881975147	13.77151135	3.93411E-13
Residual	205	102.4437238	0.499725482		
Total	211	143.7355747			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.221162048	0.154056482	14.41784217	5.32049E-33	1.917423748	2.524900347	1.917423748	2.524900347
Organization type	-0.138568939	0.118610138	-1.168272306	0.244053789	-0.372421101	0.095283223	-0.372421101	0.095283223
Is it Local or International (	-0.037858902	0.127151657	-0.297746035	0.766198532	-0.288551555	0.212833751	-0.288551555	0.212833751
Organization size	-0.127585555	0.059557627	-2.142220269	0.033355081	-0.24500958	-0.01016153	-0.24500958	-0.01016153
work lifestyle	0.263913128	0.066369995	3.976392132	9.69759E-05	0.133057813	0.394768443	0.133057813	0.394768443
using latest tools	0.727402691	0.103627515	7.019397243	3.2006E-11	0.52309032	0.931715061	0.52309032	0.931715061
unique products	0.215635351	0.103085389	2.091812945	0.037686676	0.012391837	0.418878865	0.012391837	0.418878865

Work discretion:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.389917323
R Square	0.152035518
Adjusted R Square	0.127217046
Standard Error	0.691045512
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	17.55232131	2.925386886	6.125901488	6.34349E-06
Residual	205	97.89649944	0.4775439		
Total	211	115.4488208			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.277365808	0.150598581	15.12209338	3.37122E-35	1.980445118	2.574286497	1.980445118	2.574286497
Organization type	-0.058977159	0.115947853	-0.508652446	0.611542833	-0.287580353	0.169626034	-0.287580353	0.169626034
Is it Local or International (	-0.230980593	0.124297653	-1.858286032	0.064562034	-0.476046281	0.014085095	-0.476046281	0.014085095
Organization size	-0.100291255	0.058220816	-1.72260134	0.086468737	-0.215079619	0.014497109	-0.215079619	0.014497109
work lifestyle	0.294284739	0.064880276	4.535812043	9.75862E-06	0.166366559	0.422202919	0.166366559	0.422202919
using latest tools	0.254251078	0.101301526	2.509844513	0.012851794	0.054524636	0.45397752	0.054524636	0.45397752
unique products	0.168574354	0.100771568	1.672836465	0.095884851	-0.030107223	0.367255931	-0.030107223	0.367255931

Rewards/Reinforcement:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.419996174
R Square	0.176396786
Adjusted R Square	0.152291326
Standard Error	0.730547163
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	23.4327367	3.905456116	7.317710854	4.22887E-07
Residual	205	109.4083272	0.533699157		
Total	211	132.8410639			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.668100218	0.159207121	16.7586739	2.8251E-40	2.354206902	2.981993535	2.354206902	2.981993535
Organization type	-0.139125067	0.122575683	-1.135013605	0.257694951	-0.380795712	0.102545577	-0.380795712	0.102545577
Is it Local or International (	0.086048723	0.131402775	0.654847074	0.513300298	-0.173025448	0.345122894	-0.173025448	0.345122894
Organization size	-0.073493493	0.061548843	-1.194067824	0.233831286	-0.194843407	0.047856421	-0.194843407	0.047856421
work lifestyle	0.125427026	0.068588973	1.828676262	0.068901183	-0.009803232	0.260657285	-0.009803232	0.260657285
using latest tools	0.516514647	0.107092139	4.823086471	2.75335E-06	0.305371411	0.727657883	0.305371411	0.727657883
unique products	0.323960887	0.106531888	3.040975729	0.002665932	0.113922243	0.533999531	0.113922243	0.533999531

Time availability:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.336078855
R Square	0.112948997
Adjusted R Square	0.086986528
Standard Error	0.679002325
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	12.03455872	2.005759787	4.35047219	0.00037082
Residual	205	94.51405239	0.461044158		
Total	211	106.5486111			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.824800492	0.147974026	19.08984003	2.31226E-47	2.533054384	3.1165466	2.533054384	3.1165466
Organization type	-0.067328285	0.113927174	-0.590976523	0.555187167	-0.291947499	0.157290929	-0.291947499	0.157290929
Is it Local or International (	-0.07786182	0.122131457	-0.63752469	0.524494526	-0.318656628	0.162932989	-0.318656628	0.162932989
Organization size	-0.226326052	0.057206173	-3.956322198	0.000104857	-0.339113944	-0.113538161	-0.339113944	-0.113538161
work lifestyle	0.066454011	0.063749576	1.042422793	0.298443461	-0.059234876	0.192142899	-0.059234876	0.192142899
using latest tools	0.281875323	0.099536095	2.831890529	0.005088786	0.085629611	0.478121036	0.085629611	0.478121036
unique products	0.133542749	0.099015373	1.34870722	0.178919043	-0.061676308	0.328761805	-0.061676308	0.328761805

Organizational boundaries:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.210025345
R Square	0.044110646
Adjusted R Square	0.016133396
Standard Error	0.533193512
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	2.689424529	0.448237421	1.576661268	0.155453479
Residual	205	58.28054082	0.284295321		
Total	211	60.96996534			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.888965239	0.116198116	24.86241039	8.42907E-64	2.659868628	3.118061851	2.659868628	3.118061851
Organization type	0.0440916	0.089462477	0.492850202	0.622645915	-0.132292933	0.220476132	-0.132292933	0.220476132
Is it Local or International (	-0.113156869	0.095904974	-1.17988529	0.239413203	-0.302243452	0.075929715	-0.302243452	0.075929715
Organization size	-0.052093244	0.044921732	-1.159644617	0.247542396	-0.140661088	0.036474599	-0.140661088	0.036474599
work lifestyle	-0.033711523	0.050060006	-0.67342228	0.501437187	-0.132410006	0.064986959	-0.132410006	0.064986959
using latest tools	-0.068480191	0.078161735	-0.876134476	0.381982392	-0.222584141	0.085623759	-0.222584141	0.085623759
unique products	-0.074393689	0.077752833	-0.956797144	0.339796632	-0.227691447	0.078904069	-0.227691447	0.078904069

3.2.3 Individual and Organizational demography together:

Management support:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.577400052
R Square	0.33339082
Adjusted R Square	0.282374811
Standard Error	0.699181203
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	15	47.92012106	3.194674738	6.53502358	2.98234E-11
Residual	196	95.8154536	0.488854355		
Total	211	143.7355747			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.215303825	0.213827201	10.36025266	2.45269E-20	1.793606388	2.637001261	1.793606388	2.637001261
Gender	0.097251373	0.104745917	0.928450253	0.354316034	-0.109322367	0.303825112	-0.109322367	0.303825112
Age	-0.086278509	0.067503528	-1.27813333	0.202713989	-0.219404998	0.046847981	-0.219404998	0.046847981
School location	-0.022474964	0.131383763	-0.171063483	0.864350318	-0.2815823	0.236632371	-0.2815823	0.236632371
University location	-0.161974745	0.110662184	-1.463686498	0.144881532	-0.3802162	0.05626671	-0.3802162	0.05626671
Highest educational level	-0.033335482	0.060096899	-0.55469554	0.579735349	-0.151855054	0.08518409	-0.151855054	0.08518409
Job Position	0.092812325	0.079400028	1.16892056	0.243855325	-0.063775743	0.249400394	-0.063775743	0.249400394
Training about Entrepreneurship	0.119868629	0.111777322	1.072387733	0.284864527	-0.100572036	0.340309294	-0.100572036	0.340309294
Entrepreneurial ideas	-0.159863909	0.112613873	-1.419575618	0.157319754	-0.38195437	0.062226553	-0.38195437	0.062226553
Knowing an Entrepreneur	0.214436823	0.112292711	1.909623705	0.057642023	-0.007020261	0.435893908	-0.007020261	0.435893908
Organization type	-0.10754792	0.119626574	-0.899030349	0.369739646	-0.343468418	0.128372577	-0.343468418	0.128372577
Is it Local or International organizati	0.050314615	0.134104454	0.375189736	0.707925052	-0.214158307	0.314787536	-0.214158307	0.314787536
Organization size	-0.152179872	0.060604376	-2.511037682	0.012845649	-0.27170026	-0.032659484	-0.27170026	-0.032659484
work lifestyle	0.218682413	0.068286043	3.202446688	0.001590252	0.084012692	0.353352133	0.084012692	0.353352133
using latest tools	0.667925588	0.105489009	6.33170788	1.62008E-09	0.459886365	0.875964811	0.459886365	0.875964811
unique products	0.227518583	0.104499319	2.17722552	0.03065845	0.021431169	0.433605997	0.021431169	0.433605997

Work discretion:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.499357684
R Square	0.249358097
Adjusted R Square	0.191911012
Standard Error	0.664941008
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	15	28.78809823	1.919206549	4.340657135	5.49406E-07
Residual	196	86.66072253	0.442146543		
Total	211	115.4488208			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.08036734	0.203355687	10.2301901	5.89562E-20	1.679321206	2.481413474	1.679321206	2.481413474
Gender	0.142857038	0.099616315	1.434072699	0.153144983	-0.053600404	0.33931448	-0.053600404	0.33931448
Age	-0.025147194	0.064197755	-0.391714535	0.695694703	-0.151754233	0.101459845	-0.151754233	0.101459845
School location	-0.169604398	0.124949658	-1.357381856	0.176220805	-0.416022768	0.076813972	-0.416022768	0.076813972
University location	-0.064037613	0.105242853	-0.608474699	0.543577186	-0.271591381	0.143516155	-0.271591381	0.143516155
Highest educational level	0.068260711	0.057153843	1.194332827	0.233791162	-0.044454739	0.18097616	-0.044454739	0.18097616
Job Position	0.195623998	0.075511662	2.590646161	0.010299585	0.046704336	0.344543659	0.046704336	0.344543659
Training about Entrepreneurship	0.12797454	0.10630338	1.203861438	0.230095032	-0.081670738	0.337619818	-0.081670738	0.337619818
Entrepreneurial ideas	-0.153482997	0.107098964	-1.433095071	0.153423817	-0.364697278	0.057731284	-0.364697278	0.057731284
Knowing an Entrepreneur	0.073430321	0.10679353	0.687591476	0.492522934	-0.137181601	0.284042242	-0.137181601	0.284042242
Organization type	-0.023564835	0.113768239	-0.20713017	0.836123235	-0.247931869	0.2008022	-0.247931869	0.2008022
Is it Local or International organizati	-0.172993367	0.127537111	-1.356415912	0.176527261	-0.424514561	0.078527827	-0.424514561	0.078527827
Organization size	-0.140259705	0.057636468	-2.433523607	0.015849394	-0.253926958	-0.026592451	-0.253926958	-0.026592451
work lifestyle	0.234005766	0.064941949	3.603306778	0.000398331	0.105931071	0.362080462	0.105931071	0.362080462
using latest tools	0.174697572	0.100323017	1.74135086	0.083191106	-0.023153585	0.372548729	-0.023153585	0.372548729
unique products	0.199877593	0.099381794	2.011209349	0.045673214	0.003882661	0.395872525	0.003882661	0.395872525

Rewards/Reinforcement:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.485952026
R Square	0.236149372
Adjusted R Square	0.177691416
Standard Error	0.71951915
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	15	31.37033381	2.091355588	4.03964468	2.16766E-06
Residual	196	101.4707301	0.517707807		
Total	211	132.8410639			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.388506868	0.220047056	10.8545277	8.52514E-22	1.954542997	2.822470738	1.954542997	2.822470738
Gender	0.090470369	0.10779279	0.839298889	0.402324119	-0.122112236	0.303052974	-0.122112236	0.303052974
Age	-0.081307817	0.069467086	-1.170450951	0.243240691	-0.218306721	0.055691087	-0.218306721	0.055691087
School location	0.083584936	0.135205485	0.618206692	0.537156805	-0.183059375	0.350229246	-0.183059375	0.350229246
University location	-0.08208642	0.113881152	-0.720807774	0.471886627	-0.306676133	0.142503294	-0.306676133	0.142503294
Highest educational level	0.075727855	0.061845012	1.22447798	0.22224166	-0.046239242	0.197694952	-0.046239242	0.197694952
Job Position	0.011795249	0.081709635	0.144355667	0.885367945	-0.14934769	0.172938188	-0.14934769	0.172938188
Training about Entrepreneurship	0.073898902	0.115028727	0.642438662	0.521339153	-0.152953993	0.300751796	-0.152953993	0.300751796
Entrepreneurial ideas	-0.093331254	0.115889612	-0.805346161	0.421595861	-0.321881935	0.135219427	-0.321881935	0.135219427
Knowing an Entrepreneur	0.289325098	0.115559108	2.503697922	0.013106548	0.061426218	0.517223978	0.061426218	0.517223978
Organization type	-0.099980361	0.123106299	-0.812146591	0.417692797	-0.342763369	0.142802646	-0.342763369	0.142802646
Is it Local or International organizati	0.1579549	0.138005316	1.144556636	0.253788645	-0.114211072	0.430120872	-0.114211072	0.430120872
Organization size	-0.092486283	0.06236725	-1.482930266	0.139699079	-0.215483308	0.030510742	-0.215483308	0.030510742
work lifestyle	0.083370767	0.070272363	1.18639481	0.236902528	-0.055216257	0.221957792	-0.055216257	0.221957792
using latest tools	0.474848279	0.108557498	4.374163817	1.97846E-05	0.260757562	0.688938995	0.260757562	0.688938995
unique products	0.298013311	0.107539019	2.771210983	0.006122645	0.085931178	0.510095444	0.085931178	0.510095444

Time availability:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.401427697
R Square	0.161144196
Adjusted R Square	0.096946048
Standard Error	0.675288755
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	15	17.16969028	1.144646019	2.510106607	0.002046618
Residual	196	89.37892083	0.456014902		
Total	211	106.5486111			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	3.204448394	0.206520289	15.5163854	6.02961E-36	2.797161219	3.611735568	2.797161219	3.611735568
Gender	0.030462445	0.101166535	0.301111877	0.763648381	-0.169052248	0.229977139	-0.169052248	0.229977139
Age	-0.117979654	0.065196794	-1.809592867	0.071890926	-0.24655694	0.010597632	-0.24655694	0.010597632
School location	-0.041085119	0.126894112	-0.323774823	0.746453739	-0.291338228	0.20916799	-0.291338228	0.20916799
University location	-0.148830287	0.106880632	-1.392490711	0.165351556	-0.359613986	0.061953413	-0.359613986	0.061953413
Highest educational level	-0.136345107	0.058043265	-2.349025446	0.019818129	-0.250814623	-0.021875591	-0.250814623	-0.021875591
Job Position	0.124586692	0.076686767	1.624617858	0.105851008	-0.026650443	0.275823826	-0.026650443	0.275823826
Training about Entrepreneurship	0.03799519	0.107957663	0.351945281	0.725257401	-0.174912567	0.250902947	-0.174912567	0.250902947
Entrepreneurial ideas	0.015809279	0.108765627	0.145351796	0.884582488	-0.198691898	0.230310456	-0.198691898	0.230310456
Knowing an Entrepreneur	-0.114195343	0.10845544	-1.05292407	0.293672115	-0.328084787	0.099694101	-0.328084787	0.099694101
Organization type	-0.076995907	0.11553869	-0.666407996	0.505933999	-0.304854519	0.150862706	-0.304854519	0.150862706
Is it Local or International organizati	-0.04712976	0.129521831	-0.363875028	0.716343541	-0.302565102	0.208305582	-0.302565102	0.208305582
Organization size	-0.232577293	0.058533401	-3.973411601	9.95141E-05	-0.348013426	-0.117141161	-0.348013426	-0.117141161
work lifestyle	0.06475529	0.06595257	0.981846359	0.327385952	-0.065312491	0.194823072	-0.065312491	0.194823072
using latest tools	0.258473533	0.101884234	2.536933559	0.011961752	0.057543435	0.45940363	0.057543435	0.45940363
unique products	0.175255473	0.100928364	1.736434309	0.084058343	-0.023789513	0.374300459	-0.023789513	0.374300459

Organizational boundaries:

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.303691503
R Square	0.092228529
Adjusted R Square	0.022756222
Standard Error	0.531395905
Observations	212

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	15	5.6231702	0.374878013	1.32755818	0.188438779
Residual	196	55.34679515	0.282381608		
Total	211	60.96996534			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.816367787	0.162514236	17.3299759	2.08293E-41	2.495866764	3.13686881	2.495866764	3.13686881
Gender	-0.076976027	0.079609622	-0.96691864	0.334776278	-0.233977444	0.080025389	-0.233977444	0.080025389
Age	0.014744704	0.051304437	0.287396268	0.774112544	-0.086434892	0.115924299	-0.086434892	0.115924299
School location	0.025585018	0.099855078	0.256221502	0.79804853	-0.171343298	0.222513334	-0.171343298	0.222513334
University location	0.102665582	0.084106139	1.220666923	0.223678627	-0.063203602	0.268534766	-0.063203602	0.268534766
Highest educational level	0.068956794	0.045675207	1.509720465	0.132725154	-0.021121164	0.159034753	-0.021121164	0.159034753
Job Position	-0.04084722	0.060346087	-0.676882657	0.499278485	-0.159858226	0.078163786	-0.159858226	0.078163786
Training about Entrepreneurship	-0.057818027	0.084953673	-0.68058302	0.496938554	-0.225358668	0.109722613	-0.225358668	0.109722613
Entrepreneurial ideas	0.138611343	0.085589473	1.619490543	0.106949646	-0.030183186	0.307405872	-0.030183186	0.307405872
Knowing an Entrepreneur	-0.142936644	0.085345382	-1.674802327	0.095567798	-0.31124979	0.025376502	-0.31124979	0.025376502
Organization type	0.036430505	0.090919308	0.400690518	0.689084425	-0.142875211	0.215736221	-0.142875211	0.215736221
Is it Local or International organizati	-0.167337817	0.101922874	-1.641808263	0.102233275	-0.368344118	0.033668485	-0.368344118	0.033668485
Organization size	-0.039267636	0.046060902	-0.852515568	0.394968529	-0.130106241	0.051570968	-0.130106241	0.051570968
work lifestyle	-0.010464743	0.051899169	-0.201636034	0.840410387	-0.112817234	0.091887749	-0.112817234	0.091887749
using latest tools	-0.034030976	0.080174391	-0.424461917	0.671694517	-0.192146197	0.124084246	-0.192146197	0.124084246
unique products	-0.089419916	0.079422201	-1.12588061	0.26159275	-0.246051712	0.06721188	-0.246051712	0.06721188