



THE IMPACT	OF ORGANIZATIONAL	CULTURE ON	KNOWLEDGE	SHARING
то Ркомоте	E INNOVATION IN MULT	TINATIONAL F	IRMS	

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Dissertation

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Abstract

Organizational culture plays a central role in shaping the knowledge-sharing dynamics within multinational firms and subsequently influencing their innovation capabilities. Understanding the intrinsic relationship between organizational culture, knowledge sharing, and innovation becomes imperative for sustained competitiveness.

This study explores the multifaceted landscape of organizational cultures in well-known companies and their implications for fostering innovation through effective knowledge sharing. By conducting an extensive literature review, this study identifies and categorizes diverse organizational cultures among well-known multinational companies, among them, five with presence in Portugal. The research examines how these varying cultural dimensions influence the willingness of employees to share their expertise and collaborate across the company.

The primary objective of this research is to uncover strategies and practices that multinational companies use to support their organizational culture to promote knowledge sharing and innovation across different business activities. By conducting a comparative analysis, the dissertation sheds light on the approaches adopted by companies operating in various sectors, including financial services, consultancy, manufacturing, chemical industry, transportation, and technology services.

The findings of this research contribute to both theoretical and practical domains. Theoretically, it enriches understanding the complex interplay between organizational culture, knowledge sharing, and innovation within the multinational context. Practically, the research offers actionable insights for managers and executives aiming to cultivate a culture that fosters knowledge sharing and innovation, thus enhancing the overall competitive advantage of their firms.

In conclusion, this dissertation highlights the critical importance of organizational culture as a catalyst for knowledge sharing and innovation within multinational firms. This research provides a comprehensive framework for formulating effective strategies that transcend business activities and industries by dissecting and comparing diverse cultural paradigms.

Keywords: Innovation; Knowledge Sharing; Organizational Culture; Organizational Innovation.

Resumo

A cultura organizacional desempenha um papel fundamental na moldagem das dinâmicas de partilha de conhecimento dentro das empresas multinacionais, que irá influenciar posteriormente a capacidade de inovação da empresa. Compreender a intrínseca relação entre cultura organizacional, partilha de conhecimento e inovação torna-se imperativo para uma competitividade sustentada.

Este estudo explora as várias estratégias das culturas organizacionais presentes em empresas de renome e suas implicações na promoção da inovação por meio da partilha eficaz de conhecimento. Após uma extensa revisão de literatura, este estudo identifica e categoriza diversas culturas organizacionais que existem entre as empresas de renome multinacionais, entre estas, cinco presentes em Portugal. A pesquisa examina como essas diferentes dimensões culturais influenciam a disposição dos funcionários em compartilhar sua expertise e colaborar dentro da empresa.

O objetivo principal desta pesquisa é descobrir estratégias e práticas que as empresas multinacionais utilizam para alavancar sua cultura organizacional a fim de promover a partilha de conhecimento e a inovação em diferentes atividades empresariais. Ao conduzir uma análise comparativa, a dissertação tem principal incidência sobre as abordagens adotadas por empresas que operam em diversos setores, incluindo serviços financeiros, consultoria, indústria automóvel, indústria química, transporte e serviços de tecnologia.

Os resultados desta pesquisa contribuem tanto para o domínio teórico quanto prático. Teoricamente, enriquece a compreensão da interação complexa entre cultura organizacional, partilha de conhecimento e inovação no contexto multinacional. Na prática, a pesquisa oferece insights para gestores e executivos que visam cultivar uma cultura que promova a partilha de conhecimento e a inovação, levando assim à vantagem competitiva geral de suas empresas.

Em conclusão, esta dissertação destaca a importância crítica da cultura organizacional como um catalisador para a partilha de conhecimento e inovação dentro de empresas multinacionais. Ao dissecar e comparar diversos paradigmas culturais, esta pesquisa fornece um quadro abrangente para a formulação de estratégias eficazes que transcendam atividades empresariais e indústrias.

Palavras-chave: Inovação; Partilha de Conhecimento; Cultura Organizacional; Inovação Organizacional.

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1. Introduction

Companies rely on their employees to come up with and put into action new concepts, generate innovative products and services, forge new connections with clients, raise brand awareness, and foster growth and profitability. Additionally, employees have a significant role in businesses in ways other than just their direct contributions, they help to shape a company's reputation and brand by influencing its overall culture and values. Hence, having a strong and positive corporate culture increases the possibility to attract clients and business partners that are loyal and engaged to its values.

This study explores the multifaceted landscape of organizational cultures present in multinational companies and their implications on fostering innovation through effective knowledge sharing.

1.1 Motivation and Objectives

According to several CEO's from successful companies such as Steve Jobs, Bill gates, Elon Musk states that the people are the most important asset of a company and having a great environment where people feel valuable and stimulated is crucial to the survival and success of a company, which to be honest it makes a perfect sense bearing in mind that no company as ever been built or sustained by a machine.

Throughout my professional journey encompassing diverse industries such as Retail, Banking Services, Catering, Telecommunications Sales, and Renewable Energies, and through these different industries, one overarching curiosity has persistently captivated my attention, that was the ability and strategies used by the companies to build and maintain a culture in huge corporations, that not only amplifies efficiency but also to foster innovation.

In recent years, the study of organizational culture and its impact on innovation has gained significant attention in the academic realm and business world. Numerous researchers have examined the relationship between these two crucial elements, recognizing the potential for a strong culture to foster and support innovation within organizations, analyzing the different types of culture, what characterizes it, and the different dimensions involved. However, despite the growing body of literature on the subject, the existing studies focuses on single industries or sectors, limiting our understanding of how organizational culture and innovation interact across diverse business areas. This knowledge gap hinders the development of a holistic understanding of the mechanisms and drivers that shape the

relationship between culture and innovation within organizations operating in different domains.

The objective of this study is to fill this gap by conducting a literature review, gathering knowledge on the topic of knowledge-sharing, organizational culture and innovation, by conducting qualitative research, identifying the patterns and main differences on the analysis.

1.2 Research Question and Research Methodology

The research methodology is fundamental for an effective and well-structured investigation which should be followed strictly from the first step till the end of the project. A pragmatic and methodic research design will facilitate the workflow and will enable to accomplishment of the goals proposed by the initial study. According to (Henver, 2004) design science research, it is fundamentally a problem-solving paradigm where it aims to create a design an artifact that will evaluate through analysis, implementation, management, and the use of information systems to effectively define ideas, practices, and technical capabilities, summarizing the methodology of this study.

The knowledge base that surged with the Literature Review was essential to understand and explore the environment to develop enriched content for it. The hierarchical barriers, management structure, human resources management practices and a good organizational structure to disseminate knowledge among an organization are some of the main challenges to overcome and built an organizational innovation culture.

Based on these challenges, it was proposed a research question to conduct this research which is "How does organizational culture impacts knowledge sharing to foster innovation in multinational companies?".

Aiming to answer these questions and provide some conclusions regarding the qualitative research, considering previous methods used by the authors on the articles explored on the literature, this study will be based on qualitative research by doing in-depth interviews, so the next steps to implement in the research design are investigation plan, where interview design will be defined, then the participants will be selected in order to collect useful data to reach the final step of the investigation that is formulating conclusions and key points that arise from the investigation.

This led us to a framework that is described on the **Figure 1** below, synthetizing how the environment develops a business need and the knowledge base used to develop the content for the research.

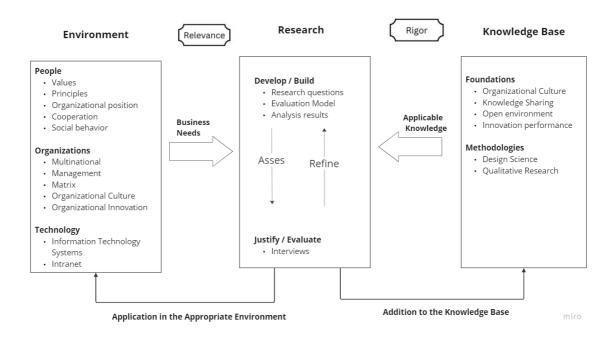


Figure 1 - Design Science Approach. Adapted from Henver, (2004).

1.3 Structure

This literature review will be divided in 5 chapters where there are represented the following themes:

<u>Chapter 1 – Introduction</u> - Includes the introduction of the topic, the motivation of the researcher, the research question, and the dissertation structure.

<u>Chapter 2 – Literature Review</u> - Describes the methodology used in this work, the articles selection and exclusion method, the main background concepts, the research results, and the literature discussion.

<u>Chapter 3 – Methodology</u> - Explain the methodology used to conduct the research, establishes the research question, and selection of participants to participate on the conducted interviews.

<u>Chapter 4 – Case Study Results</u> - The interviews results are presented in the scope of the research, highlighting the main themes found and analyzed.

<u>Chapter 5 – Framework to Support an Organizational Innovation Culture</u> – These chapter presents the framework that raised from the study.

<u>Chapter 6 – Research Results</u> - The conclusions and limitations of the entire wok are presented in this chapter, comparing the case study results with the literature review.

2. Literature review

2.1 Introduction

The literature review aims to identify the main topics there are known and the gaps that exist within the theme under investigation. The literature review was organized into two main components: first, it comprises the procedure and method for selecting and reviewing scientific papers to analyze further in this study, and second discussing the main topics, identified on the selected and analyzed papers, to frame the principal areas and key concepts explored on the topic under investigation.

This research focuses on understanding the barriers, challenges, and catalysts to develop and maintain an organizational culture that promotes knowledge sharing increases innovation within multinational firms.

2.2. Literature Review Methodology

The literature methodology starts with selecting the keywords used to explore the main topic under investigation, followed by the PRISMA research methodology described in Figure 2, which is used to identify and select the papers to analyze further in this literature review.

As we can see in **Table 1** below, it presents the main keywords used to research the articles that would be relevant to the study, the number of files on the database Scopus regarding the field of *Innovation, Organizational Culture, and Knowledge Sharing*.

At the beginning of this research, the central theme under exploration was knowledge management practices in international consulting firms, but along with the investigation there was an increasing number of articles related to the culture of organizations and knowledge sharing in multinational firms the different business sectors and/or other countries, leading the research to these topics.

Some keywords, such as "Organizational Culture", were combined to focus the research on this subject. Also, keywords like "Practices" and "Multinational" were introduced in the study to specify the articles to direct the database center to a specific field that it is linked to the field of study.

Please bear in mind that the research of documents on Scopus, was done using the "Search within - Article title, Abstract, Keywords" and in Web of Science (WOS) was used the "Search within "All fields".

Table 1 - Search Strings made by author.

Keywords	Source	Total Articles	Saved Articles	Accessed date		
Innovation AND Management AND	Scopus	58	7	20 /40 /2022		
Practices AND Consulting AND Firms	wos	111	13	20/10/2022		
Innovation AND Knowledge AND	Scopus	386	15	20 /40 /2022		
Management AND Multinational	wos	1397	5	20/10/2022		
Innovation AND Consulting AND	Scopus	606	11	20 /10 /2022		
Management	wos	3499	9	20/10/2022		
Internal AND Innovation AND Practices	Scopus	56	5	22 /04 /2022		
AND Multinational	Wos	87	0	22/04/2023		
Innovation AND Practices AND	Scopus	36	3	22 /04 /2022		
Multinational AND Culture	Wos	92	7	22/04/2023		
Innovation AND	Scopus	1048	15			
"Organizational Culture" AND Knowledge	Wos	881	10	10/05/2023		
Knowledge AND "organizational Culture"	Scopus	320	3	08/06/2023		
AND "Organizational Innovation"	Wos	44	3			
Total saved articles			106	08/06/2023		

2.2.1 PRISMA Methodology

After collecting the articles, it was applied the PRISMA flow diagram. The first step is "identification," where 78 articles came from the Scopus database search, five from the World of Science database, and three other articles from Google Scholar. The second step is "screening," where 11 duplicated articles were found as they came up because of two different queries. The third step is "eligibility," where eight papers are excluded due to the lack of connection with the theme under exploration. Finally, in the last step, the goal is to analyze the articles, discover which ones to use in the form, and categorize them as "included." All the papers collected will be explored in a further stage where no report is excluded due to the contribution that might have regarding the field of study. Still, the articles had different focuses due to the difficulty of finding articles entirely related to innovation management practices and knowledge sharing within consulting firms. Regarding what was said, only 33 of them will be considered and analyzed in this literature review. The PRISMA flow diagram is presented below on **Figure 2**.

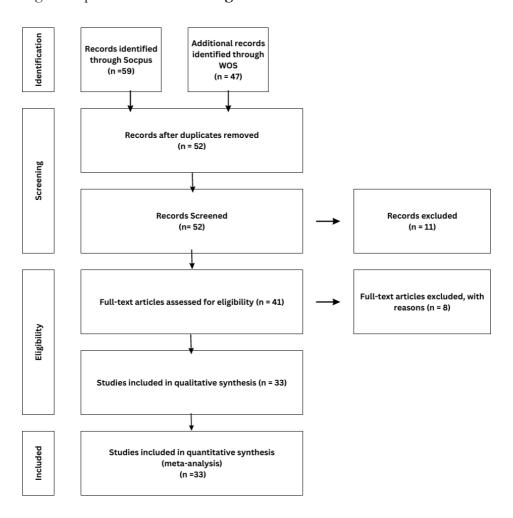


Figure 2 - PRISMA flow diagram, made by the author.

2.3 Background of key concepts

On the development of the literature review, it was possible to acknowledge the fact that there exist strong bonds between organizational culture, knowledge sharing and innovation. However, the results showed that, there are different perspectives and frameworks presented but none of them contradict the fact that the organizational culture of a company and knowledge-sharing practices has a huge impact on the innovation capability and performance among a company.

It was possible to acknowledge the different types of culture within an organization, the main influencing factors and dimensions that structure an organizational culture and what kind of culture have positive impact on knowledge sharing. It was possible to perceive that power distance, individualism, collectivism, communication and management effectiveness, information technology systems and knowledge sharing practices have direct impact on innovation output.

Several studies analyzed in this research have conducted investigations on specific market, within a specific organization, where the lack of studies on the contexts and variables that impact on innovation and knowledge sharing were scarce among different contexts, within the same study.

In this chapter will analyze and discuss the main concepts reviewed in this study and the relation between them that have a significant impact on the theme under exploration.

2.4 Innovation

According to Organization for Economic Cooperation and Development (OECD,2018) innovation is defined as "a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)"

Innovation refers to creating new ideas, products, services, processes, or business models that bring significant improvements or changes to existing ones (Baregheh, 2009). It involves identifying new opportunities, experimenting with new approaches, and introducing novel solutions that meet the needs of individuals, organizations, or society at large. There are different ways to innovate and so there are different innovation types, the objective of

this research is to explore in more details the organizational innovation type, which is based on developing new organizational structures and establishing new practices, and social innovation, which is defined as the creation of new social patterns of human interaction (Lorenz, 2010).

2.4.1 Innovation performance

Innovation performance is the ability of an organization to create and implement new processes, products, or services that generates value and increase its competitive position on the market by measuring innovation efforts and the outcomes regarding the ability to develop and launch new services/products/processes or improve the same to generate value for the company (Rhee, 2022).

The survival of companies in a wide range of industries is linked to innovation performance and knowledge creation, both essential to maintain a competitive advantage in the market (Mors, 2010). The author proved that heterogeneous groups and managers that have connections between local (people in the same country) and global (people in foreign countries) contacts (such as clients) have higher innovation performance due to the possibility of learning new things due to the different contexts.

2.4.2 Innovation types

Innovation can be categorized into numerous forms based on many dimensions, according with Oke (2007), we can find several common innovation types that are well-known:

- a) Product innovation: Product innovation is the creation of novel, improved goods, services, or features that offer consumers greater value. It entails developing brandnew products or producing noteworthy upgrades to already existing ones.
- b) Process Innovation: Process innovation is concerned with enhancing the procedures, processes, or equipment utilized to deliver goods or services. It entails figuring out more cost-effective, higher-quality, or more productive ways of manufacturing products or providing services.

- c) Business model innovation: Rethinking and rebuilding how a firm develops, delivers, and captures value are all parts of the process of business model innovation. To obtain a competitive advantage, it includes providing novel methods for generating income, maximizing available resources, or forging strategic alliances.
- d) **Service Innovation:** Service innovation is the development of brand-new or enhanced products, processes, or experiences. It entails figuring out novel ways to satisfy customers, improve consumer satisfaction, or set services apart from rivals.
- e) **Marketing Innovation:** Creating novel marketing strategies, tactics, or campaigns to promote goods or services is referred to as marketing innovation. To establish a distinct mark or target new client categories, it may also involve creative approaches to market research, advertising, branding, pricing, or distribution.
- f) Organizational Innovation: Improvement of internal systems, structures, or processes within a company is the focus of organizational innovation. It entails putting new management techniques, operational procedures, or organizational designs into place to boost productivity, adaptability, collaboration, or employee engagement.
- g) **Technology innovation:** Technology innovation is the development or use of new technologies, scientific developments, or engineering innovations. It involves creating novel goods, services, or procedures employing new expertise, technology, or both.

2.4.3 Innovation Dimensions

Innovation can occur in every field and can be distinguished into two degrees: radical and incremental Lorenz, (2010). Radical innovation is riskier, demands more resources than incremental innovation, and implies more difficulty in implementation, and incremental innovation is more related to significant transformations that promotes improvements on the output.

Although Innovation comes with the fact of bringing something novel to life, it is not intrinsically restricted to the fact of change and novelty, it must add value and usability with it Granstrand & Holgersson, (2020).

2.5 Organizational Culture & Organizational Innovation

2.5.1 Organizational Culture

Culture is something that has been studied along the years and its being defined as a way of patterns, way of thinking, and beliefs that a group of people shares, but it is distinguished from other groups Kluckhohn, (1951, p. 86). These beliefs, values, behaviors, and attitudes are shared, interpreted, and transmitted over time among several generations which are in the same group Bik, (2010, p. 72).

The cultural environment inevitably influences the individuals they are a part of, both at the national and organizational levels. In essence, culture is a complex concept with interconnected facets, where any change in one aspect can impact the entire cultural landscape, as observed by Hall, (1976, p. 16).

Organizational culture is an agglomerate of values, ideologies or principles that are followed, respected, and shared among employees across an organization Tian, (2018). It represents the workplace's collective personality and identity, influencing how employees think, behave, and interact. Decision-making, communication habits, and the general work environment are all influenced by organizational culture. It has a significant impact on employee motivation, job satisfaction, and organizational performance. A positive culture promotes collaboration, innovation, and a sense of belonging, whereas a poor culture can be detrimental to productivity and employee well-being.

The significance of organizational culture plays a central role of a company's success and in fostering innovation. The influence of organizational culture on innovation is emphasized by the exchange of knowledge and acceptable behaviors that is common within employes and that are influenced by the management of the organization, policies, and practices, as it is emphasized by Tushman, (1997).

Creativity, and innovation in corporate culture, are crucial factors for an organization's survival and success. The organization has to instruct and encourage his leaders to promote an acceptable and stimulating environment to positively influence their members to commit and embrace innovation (Martins & Terblanche, 2003). This is only

possible if there is knowledge sharing and its promotion among employees to boost the value and talent of the creative minds, where an open environment with few formal rules and regulations are established, to let employees' ideas arise and be fluently developed (Shahzad, 2017). Also, employees must have the perception of openness from the organization to innovation and availability to conceive their ideas, which will likely influence their innovative behavior. This should be encouraged by rewarding creativity and innovation initiatives, funding projects, and providing the necessary amount of time to develop projects (Gumusluoğlu & Ilsev, 2009).

Employee attitudes directly impact the relationship between organizational culture and its performance, as companies with a strong innovation culture tend to perform better regarding what is delivered and perceived in the market (Gregory, 2009).

Schuldt & Gomes (2020) states that an organization with a strong innovation culture is more prepared to face challenges that come along with hard times and verify that an organizational culture of innovation is essential to develop an innovative mindset and behaviors to sustain the organization and its performance on the long-term.

2.5.2 Organizational Culture Dimensions

Schuldt & Gomes (2020) and Bates (1995) have analyzed in their studies that Power Distance, Cultural Congruence and Individualism vs Collectivism, as organizational culture dimensions defined with a perspective of employee behavior, positively impacted organizational performance.

Martins & Terblanche (2003) analyzed how an organization can organize itself to build a culture of creativity and innovation and established a model that we can see presented in **Figure 3**, to present the different cultural dimensions of an organization, which is defined by the management of the company, among them are:

- **Strategy** Defines the vision and mission and purposefulness of employees.
- Structure encompasses flexibility, freedom (autonomy, empowerment, decision making) and cooperation among teams and group interaction.
- **Support Mechanisms** Reward and recognition, availability of resources (time, information technology, creative people)

- Behavior that encourages innovation mistake handling; idea generating; continuous learning culture; risk taking; competitiveness; support for change; conflict handling.
- **Communication** Open communication.

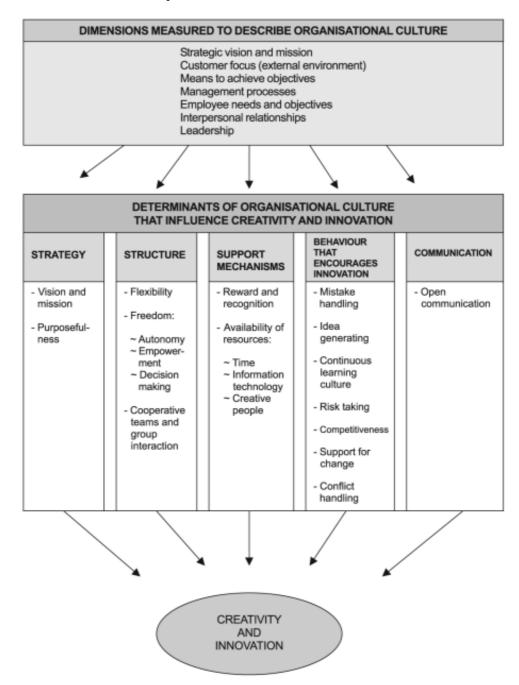


Figure 3 - Theoretical model from Martins & Terblanche (2003).

Considering the different dimensions of organization to build a culture of innovation, there is a key factor which is the knowledge sharing among employees. Yang (2018) contributed to fill the gap of previous theoretical models from studies made by Leavy's

(2015) or Wang and Noe (2010), which discusses on his study the influence of collaborative culture and knowledge sharing.

Yang (2018) found that a collaborative culture is crucial to the innovation of an organization specially when it comes to product innovation and process innovation. He states that is imperative to have a collaborative environment where employees have a climate that stimulates the knowledge sharing process, which will promote the innovation capability in the organization. The knowledge-sharing behavior among employees, directly and indirectly, impacts innovation outcomes. Hurley, (1995) found that the more a culture emphasizes decision-making, participation, people, and career development, the higher will be the innovativeness capability of the group.

Lin (2007) developed a methodology to study the enablers of an organization's innovation capability bearing in mind the employee motivators, organizational contexts, and information and communication systems. He developed a framework based on the following dimensions, presented below in **Figure 4**:

- Enablers dimension the individual, organizational, and technology factors.
- Processes dimension which encompasses the knowledge-sharing processes.
- Outcomes dimension which defines the firm innovation capability.

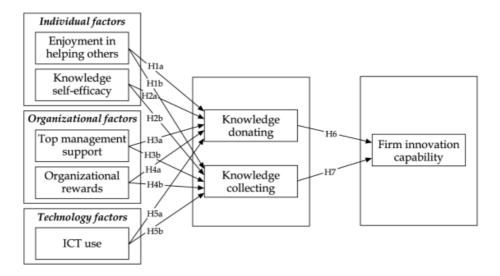


Figure 4 - Model developed by Lin (2007).

The individual factors include the motivation to share and receive knowledge, experiences, values, and beliefs.

Organizational Factors define how organizations manage and support their intellectual resources with tools to promote new processes, disciplines, and cultures to define organizational innovation.

Technology factors indicate the information and communication technology systems that are used to facilitate the sharing of knowledge among an organization by codifying, disseminating, and integrating the organization's knowledge, such as the use of online databases, intranet, and internal platforms (Lin, 2007).

Lin (2007) found that employees who enjoy helping others and the ones that have more confidence on their ability and usefulness, are more willing to share and collect knowledge. Also, bearing in mind the organizational factors, by developing an organizational culture that promotes social interaction is more important than rewarding the employees on the long term. Rewarding employees only secure their compliance in sharing knowledge temporarily.

Finally, regarding technology factors, Lin (2007) found that information and communication systems such as online database and intranet foster the willingness to acquire knowledge, but only for personal advantage and not to provide any organizational outcome. The use of ICT systems alone doesn't boost knowledge sharing, it is needed for social interaction to achieve that. Thereby, Lin (2007) affirms that knowledge-sharing culture, considering donation and collection, significantly impacts an organization's innovation capability.

2.5.3 Organizational Culture Types

According to Tian (2018) there exist several organizational culture types that have an impact on innovation output, which among the existing ones there is Innovation-Oriented Culture, Learning Culture, Adhocracy/Development Culture, Hierarchical Culture, Clan Culture, and Market/rational Culture. The last four types mentioned are commonly used in studies, hence, there will be a greater focus in this research. The main characteristics are described in **Figure 5**:

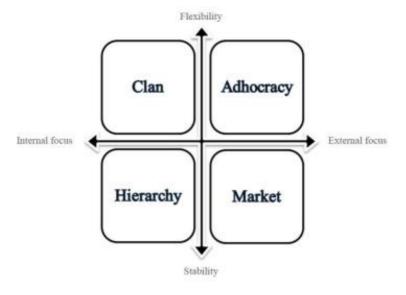


Figure 5 - Model of Cameron and Quinn model (1999).

Hierarchical Culture

In contrast to adhocracy culture, the hierarchical culture is a culture that is based on predictability, control, and stability to guarantee efficiency, where people have according to the rules that are provided bases on regulations and procedures provided by the management. In this type of culture, standardized methods are used daily, guaranteeing precise communication, a formal environment, and consistency, which results on a predictable and stable environment that stresses internal control (Strengers, 2022).

According to Tian (2018) in the hierarchical culture may reduce external idea stimulation, information gathering, organizational learning. Companies with a purpose to foster innovation should avoid this type of culture.

Clan Culture

According to Strengers (2022) Clan culture is a type of culture where employees have a strong positive bond with the organization and are stimulated to share ideas and cooperate with others. This type of culture, it is blended an internal focus with flexibility and description where employees could feel like the organization is an extended family. Cameron and Quinn (2006) state that this type of culture normally emphasizes the long-term benefit, involving values such as participation, teamwork, open communication and decision-making, trust, and support. Also, according to Barczak, (2010), building a positive environment where people can trust each other is necessary to increase creativity.

Schuldt & Gomes, (2020) sates that an organization with a Clan culture has positively impacted the perception of an innovation development culture.

Adhocracy/Developmental Culture

Strengers (2022) states that the adhocracy culture is an organizational culture type that blends flexibility, discretion, differentiation, and focuses on external factors. It's a dynamic environment where adaptability is highly valued, and being able to think outside the box is encouraged. In this captivating culture, change is embraced as a catalyst for creating and acquiring new resources, and where creative people thrive within this context. This type of culture fosters innovation and involves people that can take calculated risks, working autonomously, and paying attention to detail (Kimberly and Quinn, 1984).

However, according to Tian (2018) it is unclear how an adhocracy/developmental culture fits in with the goals and plans of a certain organization as it deals with the problems and difficulties of a particular period of time. The fundamental cause is that a future growth orientation may easily disregard potential risk factors and a lack of market research in an organization with an adhocracy/developmental culture that places an excessive focus on flexibility, which results on a risk management and operations less effective when it comes to uncertain events (Tian, 2018).

Market/Rational Culture

Strengers (2022) and Tian (2018) define a market culture that combines stability, and control-based values with external focus and differentiation, where employees are motivated by rewards promoting competitiveness to achieve goals to meet client expectations. This type of culture is characterized by clear communication and rationalization and continues to increase innovation in the organization.

Innovation-Oriented Culture

Innovation-oriented culture promotes innovation across the organization, demanding shared responsibility and requiring the participation of all employees to boost the value provided by the human capital and increase the motivation of employees to seek innovation (Kenny and Reedy, 2006). This type of culture encourages risk-taking and future market orientation, it involves investing in R&D projects, promoting the implementation of

creative ideas by talented employees, and fostering various types of innovation. Empirical studies suggest that an innovation-oriented culture can be a crucial resource for organizational innovation, contributing to a firm's growth and performance. (Tian (2018), Stock (2013), Meyer (2014), Gomes (2015), Ali and Park (2016)).

Learning Culture

A learning culture is a culture that is defined as a set of values in an organization that prioritizes the development, learning and education on an individual and collective level (Van Breda-Verduijn & Heijboer, 2016).

According to Škerlavaj (2010), Cerne, (2012) and Tran, (2008), to achieve increased organizational learning, the organizational learning culture comprises three factors there are knowledge acquisition, information interpretation, and behavioral and cognitive changes. It is necessary to create an appropriate environment among employees to promote the transfer of knowledge to facilitate learning and innovation.

Tian (2018) and Phipps (2012) state that overall studies found a positive impact between organizational learning culture and innovation and between transformational creativity and leadership.

2.6 Knowledge Management & Knowledge Sharing

Knowledge management and knowledge sharing are concepts that are reviewed specially in multinational organizations due to the size and complexity of the structure of the company (Rhee, 2022). Utilizing collective expertise is made possible by effective knowledge management, and information sharing fosters cooperation and creativity, leading to greater innovation performance. In today's competitive business world, embracing these concepts enables firms to respond to market changes, stay one step ahead of rivals, and achieve sustainable growth.

The concepts presented below will frame the different types of knowledge and knowledge sharing practices and their impact on innovation.

2.6.1 Knowledge

Davenport's and Prusak's (1998) characterize knowledge as a complex aggregation of contextual knowledge, values, framed experiences, and expert insights. In addition to being within organizational routines, practices, processes, and norms, as well as in recorded or stored repositories, knowledge often begins in the mind of the persons who hold it. Knowledge is a belief based on argumentation with facts, opinions, experiences, or contextual information Nonaka, (1994) and Nonaka & Takeushi (1995), which is composed and differentiated in two different levels: tacit knowledge and explicit knowledge.

Knowledge Management

Knowledge Management seems to have two sides in the first one, there is the management to support data and information, and the second, there is the management of expertise, that is, the management of individuals with specific abilities, according to Blair (2002).

Information

Information can be considered a resource as "compressed knowledge for the user" (Bawden & Robinson, 2015), although information can also be regarded as meaningful data" (Floridi, 2010).

Information and Communication Technology Systems

ICT sector refers to equipment and services related to broadcasting, computing, and telecommunications, all of which capture and display information electronically ("OECD Guide to Measuring the Information Society 2011," 2011).

Information and communication technology systems that are used to facilitate the sharing of knowledge among an organization by codifying, disseminating, and integrating the organization's knowledge, such as the use of online databases, intranet, and internal platforms (Lin, 2007).

2.6.2 Types of Knowledge

Tacit Knowledge

Tacit knowledge is defined by the knowledge that is acquired by the exchange of experiences, formally or informally, between two or more individuals, which result from their experiences and skills. This type of knowledge is not easily codified or written to be stored. (Haas & Hansen (2007). Tacit knowledge is one of the most important assets for the success of organizations, and it is one of the foundations to generate ideas that result in an increase in innovation performance within organizations. (Gopalakrishnan & Bierly, 2001).

Explicit or Codified Knowledge

Codified or Explicit knowledge is the knowledge that is easily compressed into data in a written form, which can be easily shared and able to solve recurrent problems that can be easily accessed and improved along the organization (Kimble, 2013).

2.6.3 Knowledge Sharing

The process of exchanging information between individuals, groups, or organizations is referred to as knowledge sharing. This information can be explicit, as it comes in documents or procedures, or tacit, as in learned and exchanged via experience. The benefits of sharing information extend to both the giver and the receiver (Saulais & Ermine, 2020).

2.6.4 Knowledge Sharing Types

Formal Knowledge Sharing

Formal knowledge sharing is a kind of knowledge that is transferred within a company accredited by management positions, which is transmitted in a formal and precise language to share codified knowledge most efficiently and concisely (Anand, 2007).

Informal Knowledge Sharing

Informal knowledge sharing is defined by the exchange of knowledge, information, and experiences between the employees in informal contexts, such as the time they spend together during coffee breaks or at lunch concerning the context of the company (Anand, 2007).

These two knowledge types are linked, both can play a significant role in the performance of tasks within a company, if there is good management between the use of codified knowledge and the exchange of experiences and advises between the employees, which in some cases can increase the outcome from the tasks done (Haas & Hansen, 2007). The conversion from tacit knowledge into explicit knowledge can be a benefit for companies, however, as Kimble (2013) states, the effectiveness of this conversion can only be expected if the sender and the receiver of the knowledge sharing have similar contextual knowledge and if it's on a context where the reader of this codified knowledge can fully execute by himself, for example, if someone codified knowledge on regard to how to surf, as surf demands some skills on the person who is doing it, probably some tacit knowledge will be lost on the conversion of knowledge. Also, Soo (2002) suggest that actual knowledge cannot be codified. Once it is codified, it becomes information and data.

2.7. Knowledge Sharing & Innovation

Knowledge sharing is essential within companies due to the value there exists on knowledge, which is what makes the firms competitive. As Anand (2007) state, the lack of knowledge sharing implies a significant financial risk as the employee decides to leave the company, his knowledge and ideas also go with him, and it may be even worse if the employee joins a competitor. Rhee (2002) state that it should be designed and provided training to the employees, about tacit knowledge creation as a core organizational competence to be developed. It is also stated that senior employees have more ability to positions as managers, and junior employees may be more effective as innovators (in the Asian context).

According to Argote (2003) in a company where employees have a better relationship, it is expected that knowledge sharing is done more recurrently then between employees who do not have close ties. Also, Sturdy (2006) describe informal meetings

scheduled to do team building among the employees have proved to increase the exchange of knowledge between employees. Exchange of knowledge, dialogue and cooperation among the employees is a central characteristic to innovation, and throughout the years another major topic has been more explored along the years which is knowledge hiding (Castañeda and Cuéllar, 2020). According to Connelly, Zweig, Webster and Trougakos (2012), knowledge hiding means that an individual intentionally omits the knowledge and his vision to a person that is demanded of him, this will negatively impact companies' environment.

This leads us to what Machado and Davim (2021) state, employees that have a sense of belonging to the company are more likely to share knowledge and actively participate in actions to promote this engagement to assist the company. Due to this, employees who have a sense of inclusion in the company will stay for a more extended period, which results in the retention of knowledge of the company.

As Mors (2010) state that a part of the responsibility of multinational firms is to develop knowledge, where senior partners have more responsibility on developing new knowledge and doing a benchmark to improve internal processes and practices. He affirms that knowledge comes much of the time from talks in the corridors and in informal environments, and it refers to the importance of getting to know managers and internal partners.

On the study conducted by Rhee, (2022) he founds that senior managers have more capacity to develop explicit knowledge, but they are passive in sharing tacit knowledge and reluctant to embrace innovation, which creates internal competition in service organizations.

Knowledge sharing and innovation are linked, and this last concept is dependent on the first one. Knowledge sharing and innovation studies have been growing throughout the years. It has been proved that these practices among companies promote the development of services, products, business models, and processes. A company that supports this exchange among employees has a more innovative capability, as stated by Castañeda and Cuéllar (2020).

Knowledge is used and developed in every firm and knowledge creation is important for the performance of organizations. As Rhee, (2022) state in his study, the capability of global consulting firms to create new knowledge positively impacts innovation performance, confirming previous studies on knowledge creation capability and innovation. Also, Rhee, (2022) state that the increase in innovation performance and competitive advantage is heavily impacted by tacit knowledge creation. On the other hand, has explicit knowledge cannot be

fully delivered to the reader by itself, it has not directed impact on innovation performance of the firm (Park, 2015).

2.8. Literature Discussion

It is important to understand the main contributions of the literature review for the development of this study. After analyzing the articles selected for this research it was possible to understand that are 5 main category's which are *Innovation; Organizational Innovation; Organizational Culture; Knowledge Sharing; and Knowledge Sharing Practices*.

Based on these 5 categories that a raise from the literature, we can note the relation among them, where the type of organizational culture that a company may have, will affect the way that knowledge is disseminated within the organization. This will have direct impact on the organizational innovation and innovation performance on the company.

The main limitations found on the studies conducted in the articles analyzed, were the sample size of the study conducted and the fact that these were based on a sample limited to a specific industry or a specific company, which make us unable to generalize the results found and apply them to other type of industries and organizational contexts.

Organizational culture and knowledge-sharing practices in multinational firms have become a topic of growing interest in the academic literature, as the ability to innovate and manage human resources is becoming increasingly crucial for the success of companies in today's fast-paced and highly competitive business environment (Lin, 2007 and Schuldt & Gomes, 2020). One key aspect explored in the literature is the relationship between organizational culture, innovation, and employee knowledge sharing.

Understanding and maintaining a positive culture that promotes collaboration, innovation, and a sense of belonging, is essential for fostering a healthy and productive workplace (Schuldt & Gomes, 2020 and Pettigrew, 1979). An organization must be structured and supported by an open environment with a lateralized hierarchy so that employees can discuss and share their vision and ideas fluently (Shahzad, 2017). Management leaders must be instructed to promote an acceptable and stimulating environment where employees are committed and engaged with the company to embrace innovation (Martins & Terblanche, 2003), considering that employees' attitudes directly impact the relationship between organizational culture and its performance, as companies with a strong innovation culture attitude tend to perform better regarding what is delivered and perceived in the

market (Gregory,2009) and are also better prepared to face challenges and maintain their success in the long-term (Schuldt & Gomes, 2020).

There are several types of Organizational Culture, and as we have seen in this research, it is something crucial to sustaining the development of an organization. Still, without ensuring that knowledge is effectively shared, stored, and created in the organization, it is impossible to maintain a company's long-term success (Lin, 2007). Promoting social interaction is more important than rewarding employees and using ICT systems, as rewarding employees only secure their compliance in sharing knowledge temporarily. Using ICT is only beneficial for personal advantage and not to provide any organizational outcome (Lin, 2007).

In a company where employees have a better relationship, it is expected that knowledge sharing is done more recurrently than between employees who do not have close ties (Argote, 2003). From this, we can conclude that promoting informal meetings scheduled by the company to do team building among the employees has proved to increase the knowledge exchange between employees (Sturdy, 2006).

In conclusion, organizational culture and knowledge-sharing practices are closely related to the innovation capability of a company. The literature suggests that innovation is directly linked to the practices that are used to promote an environment where employees feel comfortable sharing their vision, knowledge, and ideas among the different hierarchical levels, and this is impacted by the culture that is developed and sustained along the several levels of an organization, considering the various structure to share codified and tacit knowledge and the practices that are used to share this knowledge fluently, formally and informally, through the organization from the top management till the lowest level of the organization.

3. Methodology

3.1 Introduction

To organize the case study on the several multinational companies, various recommended methodologies were analyzed, and was applied the case study as a method was adopted Creswell (2007). As Yin (2003) states that a case study methodology is suitable when the questions such as "How" or "Why" are the focus of the study. This methodological approach to research is particularly suitable for understanding, exploring, or describing complex events and contexts involving various factors since it has multiple sources of information such as observations, interviews, documents, and reports.

The case study is organized in 4 different phases, the first one is defined by the methodology used to conduct this case study, then it is defined by the analyze of the results that arise from the data collected from the sample. Finally, it will describe a summary of the research and final conclusions.

The case study is organized as it is described on the **Table 2** below.

Table 2 - Case Study structure. Made by author.

Case Study Phases	Description		
Research Methodology	The first phase is to identify the case, aims, objectives and research questions, that will be the focus of the investigation.		
Data Sample After researching and developing a literature review on the main studied, it is described the method use to define the sample.			
Data Collection In this stage, after the method used to sample is defined, the integrated design was structured based on insights gathered from McN (2009), to collect insightful data.			
Data Analysis	Once the participants are selected and the interview is designed, the data was analyzed to gather insights and make comparisons among the information provided by the participants. The analysis was made through thematic analysis, using manual approach.		
Case Study Results	This is the last phase of the case study, where it is raised the main concepts and conclusions that result from the study.		

3.2 Research Design

This case study aims to explore the impact of organizational culture on knowledge sharing to promote innovation among multinational companies, In different activity sectors, with a focus on organizational innovation, by conducting an exploratory and qualitative research, by doing in-depth interviews, by analyzing perspectives of experienced managers in different size of companies and different business areas, to understand the strategies that best suit them, and challenges to implement these practices and this impact on innovation and engagement from the employees, in order to support the success of an organization.

Considering this, the case study aims to answer the following questions:

- How does organizational culture impacts knowledge sharing?
- How does knowledge sharing among impacts innovation within an organization?
- How does organizational culture impacts knowledge sharing to foster innovation in multinational firms?

To be able to answer the questions and conclusions that arise from the literature review, the research must be conducted in a specific way considering the environment that is involved. In this way, to be able to develop the case study to collect insightful data, the research was based on non-exploratory and cross-sectional research methods as follow:

- Non-exploratory The study focused on completing several interviews.
- Cross-sectional The study focused on multinational firms in different business areas.
- Qualitative method This method was used to observe, analyze, and interpret the
 results from the interview.

3.3. Data Sample

The sample was selected bearing in mind a specific profile of the interviewees to guaranty that all the questions can be answered within the context that the research is involved so the data collected can be enriched. Considering what was said, it was used a non-probability sampling approach, which means that the sample was selected based on a defined characteristic. Then, it was used the purposive sampling, choosing people that work in a multinational company in different business activities.

The sample was performed by 6 individuals which were divided by one female and 5 males, with experiences between 2 to 25+ years of work experience.

The information regarding the participants is described below on the **Table 3**:

 Table 3 - Participants information.

P #	Gender	Years of Experience	Background	Position	Activity Sector	N° of employees
P1	Female	20+	Audit and Management Control	Regional Manager	Financial Services	>150 000
P2	Male	2+	Informatic Engineering	Technology Consultant	Consultancy, Auditing and Accountability	>150 000
Р3	Male	5+	Mining Engineer	Data Analyst	Chemical Industry	>7 000
P4	Male	7+	Mechanical Engineer	Software Programmer & Data Analyst	Technological Services	>6 000
P5	Male	3+	Mechanical Engineer	Process & Production Manager	Automobile Production Sector	>4 000
P6	Male	25+	Marketing & Social Communication Engineering & Industry 4.0	Technology manager	Logistics and Transportation	>8 000

P# = Participant

3.4 Data Collection

The data collection was based on semi-structured interview conducted with 6 participants, were the time spent with the participants varied between 50 minutes and 1hour and 30 minutes approximately, starting by the participants 1 and 6, which are the ones who have more experience, and are on a higher hierarchical position. In this way, the insights gathered could guide better the following interviews, made with the participants with less experience which are in lower hierarchical positions. The interviews conducted were guided with the objective to obtain valuable insights on regard to the organizational culture and knowledge sharing practices used in a company to boost innovation.

The interviews were not recorded due to confidential issues. The answers provided from the interviewees were filled in form of notes while the participants were answering the questions.

3.4.1 Interview Design

The interview design was built considering the model developed by the author expressed on the **Table 4** presented below, adapted from the models developed by Lin (2007) and Martins & Terblanche (2003), mentioned on the literature review. This model will be considered on the interviews to be developed and improved, to conceive a framework that better describes the determinant factors that impacts and define the culture of an organization on knowledge sharing to boost innovation.

Table 4 - Model by Lin (2007) and Martins & Terblanche (2003) adapted by the author.

Organizational Culture Determinants					
Strategy	Structure	Top Management Support	Behavioral Management	Communication	
Vision and Mission	Matrix Management	Organizational Rewards	Idea Generating Autonomy	Open Communication	
Company Values	Flexibility Freedom	Employee Recognition	Decision Making	Knowledge Sharing Practices	

Organizational Culture Determinants					
Strategy	Structure	Top Management Support	Behavioral Management	Communication	
Company Purpose	Autonomy	Human Resources	Team Leadership	Information Communication &	
	Leadership	Management	Risk Control	Technology Systems	
	Empowerment & Decision Making	Availability of Resources	Support for Change		
			Competitiveness		

Following this, the interview was prepared based on McNamara (2009) eight principles, which includes the following features: "(1) choose a setting with little distraction; (2) explain the purpose of the interview; (3) address terms of confidentiality; (4) explain the format of the interview; (5) indicate how long the interview usually takes; (6) tell them how to get in touch with you later if they want to; (7) ask them if they have any questions before you both get started with the interview; and (8) don't count on your memory to recall their answers."

The script developed based on the previous principles is attached on **Annex 1**.

The questions made under the interviews to create effective research questions were also based on McNamara (2009) principles, that suggests several recommendations for 758 The Qualitative Report May 2010, which includes the following elements: "(a) wording should be open-ended (respondents should be able to choose their own terms when answering questions); (b) questions should be as neutral as possible (avoid wording that might influence answers, e.g., evocative, judgmental wording); (c) questions should be asked one at a time; (d) questions should be worded clearly (this includes knowing any terms particular to the program or the respondents' culture); and (e) be careful asking "why" questions".

Considering the model presented on **Table 4** and McNamara (2009) principles, the interview questions were the following:

- 1. How do you define the organizational culture of your company?
- 2. How does your company ensure that the behaviors, principles, and values are shared among other employees?
- **3.** How does your company ensure that knowledge is effectively disseminated throughout the organization?
- 4. What practices are used to share, create, and store knowledge?
- **5.** What kind of practices does your company use to promote informal knowledge sharing among employees? Does your company promote team building events?
- **6.** How does your company promote organizational innovation and how does they measure it?
- 7. What are the main barriers to an organizational innovation culture?
- **8.** Can you describe any specific initiatives or programs that your company has implemented to support innovation within the organization at your level?
- **9.** What strategy is more important to promote a positive culture to promote innovation?
- **10.** What strategy would you like to see implemented in terms of organizational culture to promote knowledge sharing?

4. Case Study Results

After reviewing the data collected from the interviews and getting together the main themes and subthemes, it was possible to interpret and raise the main insights provided by the participants of the interviews and the common perspectives and practices used in multinational firms within the different activity sectors. Considering the 10 the main themes that raised will be analyzed in this chapter in detail.

In each theme, there will be an initial text in stating the common ideas/insights gathered from the participants answers, that are commonly shared among the participants, followed by a table (in the themes were information provided is sufficient), mentioning some of the quotes of the participants and the respective comments and/or keywords, on regard to each thematic.

Please bear in mind that, since the Interviews were not recorded, there are some insights that were not completely transcribed word to word that are mentioned on the introduction of the following themes.

4.1 Case Study Analysis

4.1.1 Organizational Culture Types

In this theme which came from the question "How do you describe the organizational culture of your company?", it was possible to conclude that every participant mentioned that their company has mixed cultures, where the hierarchical culture is always present among the participants companies, as the context that they are involved in is related to huge corporations with thousands of employees.

We can conclude that the companies are ruled by an organization matrix (a matrix organization is a work structure where team members report to multiple leaders), where some companies have a stronger hierarchical culture, than other depending on the activity sector and the department that the participants are involved in.

Also, every company has departmental cultures, where the kind of culture depends on the managers; type of sector the departments are involved and the overall company culture. For instance, innovation departments have more freedom and availability to take risks, the financial department is stricter and more controlled since the sector requires to be these features.

 Table 5 - Participants Quotations and Company Culture Type.

Participant	Quotation	Culture type
1	"Due to the risk and competence that is necessary within the activity sector, the company has a well-defined structure, where the decisions must be reviewed by the team leaders and managers, however, there is felt a sense of cooperation, flexibility, open communication, and autonomy but within a certain parameter due to the risk and financial risk that can occur."	Hierarchical & Clan Culture.
2	"Culture depends on the department that the employee is involved in, depending on the projects that the people are integrated and depending on the managers of the department and teams. People that are in the technology sector, have more flexibility to differentiate and think outside of the box, where the risk can be taken as long as there is expected a financial return.	Hierarchical &Market Culture Departmental Culture
	In general, the company has a mix of Hierarchical and Market culture, where Open Communication, R&D and Continuous Learning are present values. However, the hierarchy is heavily felt and there is a huge focus on goals and client focus. "	
3	"Besides being a hierarchical culture giving the dimension of the company, I believe the company has a Clan Culture and Developmental Culture, where cooperation, creativity, and freedom to make some decisions, within certain parameters, such as deadlines, are stimulated among all the employees."	Hierarchical, Clan & Developmental Culture
4	"I define the company culture is a Clan Culture, where of course there are several hierarchical levels but as there is an informal environment, the hierarchy is not felt, where cooperation and flexibility are felt in every hierarchical level.	Hierarchical & Clan Culture
	The lack of hierarchical fixation and the fact that having a lot of flexibility is something negative in the moment of taking a decision, which sometimes it takes a lot of time to make a decision".	
5	"The company culture has a mix of Hierarchical and Market Culture, stating that the company is currently under development, being huge among the national level, but it is still small comparison with the international panoramic in the automobile industry, which makes the companies values with a huge client focus.	Hierarchical & Clan culture Familiar Culture
	Also, this is a familiar company where there is still an archaic culture at human resources level and employee value proposition and career development".	

Participant	Quotation	Culture type
6	"The company culture as a mix of Hierarchical and Clan culture but, as the company is still a familiar company within the transportation sector, it is heavily connected to the founders and administration values when they were still within the family of founders, the big majority of the employees have more than 10 years working on the company.	Hierarchical & Clan Culture Familiar Culture Departmental Culture
	Also, the company is divided by areas, where in operational, manufacturing, commercial and administrative sector, there is a strong Hierarchical culture, but in technological, innovation, product and market intelligence areas, Clan culture is more emphasized."	

4.1.2 Alignment of Organizational Culture - Behaviors, Principles & Values

In this theme which came from the question "How does your company ensure that the behaviors, principles and values are shared among other employees?", considering the different statements from the participants, we can conclude that the first contact with the values and culture of the company is on Human Resources recruitment phases, where the culture is aligned in perspective with the candidate to the company in the interviews.

Once this is done, there is an initial onboarding program where the main values and behaviors are presented to the employees, along with transversal trainings to present the different departments/core activities of the company, to understand how the organization works in the overall perspective.

Also, there are several mandatory trainings on the intranet of the company, that are done periodically, to maintain the employee aligned with the values of the company.

Gathering this, along with the BAU (Business as usual), based on the constraints that the managers have in terms of the turnover, volumes and what is transmitted through the HR, managers will take some structural decisions.

Table 6 - Participants Quotations Alignment of organizational Culture.

Participant	Quotation	Keywords
1	"The key to guarantee that the culture, values, and behaviors are aligned within all the	1 2
	organization is the Human Resources, where they	

Participant	Quotation	Keywords
•	will share the main framework and employee value proposition, from the international Human Resources and core one, to the Local (within countries) human resources.	KPI's On-Boarding Programs
	Beginning with defining the kind of questions the want in the interviews, kind of values they want to attract, main values in the first day of the new employees and during the onboarding program though behavioral KPI's, maintaining this KPIs along the time within the organization.	On-going Trainings
	Gathering this, along with the BAU (Business as usual), based on the constraints that the managers have in terms of the turnover, volumes and what is transmitted through the HR, managers will take some structural decisions.	
	According with that, I have been in several offices of the company in different countries and the culture is aligned, the culture and respect are equivalent and common in every place."	
2	"From the very first beginning, we have several trainings, starting by the general training regarding the culture and the overall company strategy and technical trainings.	On-boarding Program On-going Trainings Performance Manager
	Besides that, there is a performance manager that evaluate the performance of the consultant in behavioral terms along the project, concerning the different situation that can occur. Weekly meetings occur to evaluate and control the quality that I have been deliver to the project.	Career Manager Career Development
	Also, there is another manager that evaluates and catch up with the consultant in every 2 weeks to see how the consultant is felling about the projects and his trajectory in terms of career."	
3	"There is a multicultural value, and it is felt a huge sense of inclusion. Company provides are several initial and on-going trainings in terms of work ethics to explain how they should behave in certain situations, to promote cooperation, teamwork, and transparency along all the employees.	On-boarding Program On-going Trainings Career Development
	Besides that, there is an initiative performed by the company, which is the following: company makes psychological tests to understand employee behaviors, to study how they behave in terms of cooperation, decision	

Participant	Quotation	Keywords
Turtopunt	making, risk, among others psychological and social behavior, to understand and help the employee being at his best and also, to see in what other areas of the company the employee could fit if there was a mutual interest between the company and the employee".	Ticy words
4	"The core values are heavily presented and transmitted during the interviews, onboarding programs and in the daily activity, where the main values are even referred in general meetings. It is a thing that is constantly mentioned, they even have emojis regarding the main values, so the employees remember and maintain the culture well present".	On-boarding Program On-going Trainings Daily Sharing of Main Values
5	"The company makes the new candidate go through the several departments of the company to better understand the processes or the organization. The company has a huge training on the processes, practices and management that are used in terms of activity, however, there is a poor strategy in terms of behavioral values, there is a huge focus on the values to provide the best quality to the client".	On-boarding program On-going Trainings Client Focus
6	"There is a recycling of the cultural values among the online trainings that are dome periodically to maintain the employee aligned with the companies' values. Also, there are suggested in the intranet several courses in terms of soft skills, hard skills, languages, etc."	On-boarding Programs On-going trainings

4.1.3 Knowledge Sharing, Creation & Storage

In this theme which came from the question "How does your company ensure that knowledge is effectively disseminated throughout the organization?", which, from the participants answers, we can conclude that there are several practices commonly used among the participants companies, and one of the main practices is the way that a project is managed.

Based on the information provided by the participants, every project that is being developed, it is organized following the same logic. For each project, a project manager with around 20 years of experience is selected, then, there are selected at least one expert per

team/department that will be impacted by the project. The project manager will lead the expert teams and connect the information and ensure knowledge is effectively shared among them to develop and increase the project efficiency, by conducting sections with experts to promote solutions and develop the projects, using tools such as Such as Agile Approach, Lean method, or Design Thinking during the sections.

During the project development, all the important information is documented, and a Postmortem is developed and analyzed, in this way, after the project being implemented, it is possible to understand the successes of the project and the main barriers involved on it, learning the most from it. In this way, once there is a new project, as the knowledge and lessons learned were documented from previous projects, this new knowledge created will be used in the new project, to be the most efficient possible and repeating the process along the lifetime of the company.

Finally, after the knowledge is created and stored, the important lessons learned and new practices that have raised are share among all the hierarchical levels, throughout the teams and departments. The knowledge that has been created and stored along the years of the company, is shared throughout the onboarding trainings and along the time of their career, there are technical trainings, online and offline, they have transversal trainings and departmental trainings on intranet, or even through workshops, so they can be aligned with the global company strategy.

Other common practice among the participants companies are the constant meetings that the participants have. All the participants have several meetings with their team along the week; they have one or two meetings with transversal teams among the project they are involved; and at least one meeting per month with the department they belong.

Participants have mentioned that most of the knowledge on regard to their main activity (the one that they do every day), is mostly obtained through the constant knowledge sharing among their teams/transversal teams, through one-to-one meetings with colleagues to take any doubts; cold calls that they made to other colleagues with more expertise; shadowing sessions to understand how they do their work and how this impact in the other teams, to eliminate any attract the might have in any process; by asking questions to their team leaders/managers.

All the participants mentioned that having other colleagues always available to share important insights, new information and knowledge is key to company's progress, this will

develop and increase the efficiency of the processes, methods, and information flows, resulting on an organizational innovation.

Table 7 - Participants Quotations - Knowledge Sharing, Storage and Creation.

Participant	Quotation	Comments & & Keywords
1	"The company has a follow-the-sun regime, meaning that the company works 24h due to the different time zones of their offices locations which makes the company a Systemic company – "To big to fail", where security measures are constantly developed, to keep them safe whatever happens (such as tragedies). This forces the company to develop sustainable models to success even in situation of extreme risk scenario, such as pandemics, earthquakes, etc.	This led us to what was said before in this theme, knowledge and information must be consistently shared throughout employees with trainings along the time so then they can be prepared to any situation.
	The company applies a "dual office" where there are several locations doing the same activity, so if one fails, the other sustain. To achieve this, it is necessary to guaranty that the information and knowledge is documented and shared effectively, so then the other locations can execute the activity normally.	Keyword: Systemic Company; Employee Value Proposition
	Every person assimilates the information in a different way, so we must ensure that they use different methods to shared knowledge among the group to reach everybody, even when it comes to the Employee Value Proposition".	
2	"Managers are always available to solve problems and to share knowledge, which is highly important as it is one of the main practices to execute our daily activity and increase our knowledge".	Managers are a pillar of the knowledge to execute the daily work.
3	"There is a huge use of user guides/work aids, that are developed by the employees to facilitate and improve processes, having some financial rewards by doing it if there is a reduction of costs for the company. This will of course keep us motivated to improve our efficiency on the work".	Financial rewarding based on performance to keep employees to develop their knowledge and input in daily activity.
		Keyword : User Guides

Participant	Quotation	Comments & Keywords
4	"There is a huge document storage of the daily tasks that are made, to understand what was done to have a better control of the work performed (workload).	Daily documentation of the work performed.
	Also, we storage many user-guides/work aids to increase efficiency on the future tasks. The company has well defined guidelines, depending on the sector, so then the information is well documented by following basic rules in each sector.	Keywords: User Guides, Guidelines, Informal Meetings; Data Documentation
	In terms of knowledge sharing among transversal problems or barriers, this happens more in informal meetings, where he shares his vision among other colleagues in a coffee break, or other informal meeting".	
5	"The employees that are involved in a project have meetings in the final phase of each part of the project with "Lessons learned" team, where they share difficulties or things that might be improved. This is helpful as it cuts the traction to start the following projects, providing higher efficiency and continuous improvement.	Data documentation regarding the "Lessons Learned" during project development.
	Other kind of knowledge provided by the company is for example, free post-graduation studies, that are attended inside the company, related to their filed of activity, which in fact I am currently doing. It saves a lot of time since we do not need to go to any school or move to other place, also, we do not need to spend our personal time after work, it is good".	Keywords: Data Documentation; Training On-site – Post Graduation.
6	"Our company has several weeks of events where there is presented the company culture; there are exhibited the impacts of the values, missions, and vision, on the company earnings, through KPIs as NPS (Net Promoter Score – metric to measure client loyalty), turnover rate, processes improved among others.	Senior managers are pillars of knowledge. Keywords : Seminars; KPI's; Heterogeneous Teams; CRM – Sales
	Other important this is, since the company has a lot of employees with many years within the company, these employees are the diffusers of knowledge, which are always reached when there is a need of knowledge and information in specific activities.	Force; Data Documentation
	The company also incentives that the times are composed by employees with different	

Participant	Quotation	Comments Keywords	&
	career time and different time within the company, to increase innovation by heterogeneous teams.		
	We also have CRM – Sales force, where there is documented, the problems faced by the clients and the respective solution provided by the company in such cases.		

4.1.4 Information Communication & Technology Systems

In this theme which raised from the question "What practices are used to share, create, and store knowledge?" by gathering participants answering, we can conclude that there is a common use of intranet (internal communication website provided for employees), where news, important information and communications, are made available to all the employees. Along with this, all the participants have mentioned that there is an online platform - Learning Center, where there are several trainings, such as offline (which are themes that are recycled), online and in person trainings, where all the employees have access to gain soft skills, hard skills and/or languages so the employees can increase their knowledge and be more valuable.

Other common system that is used among the companies of the participants interview is the used of "Real Time-Shared Tools, so then employees can create new documents, access several important documents related to projects that were implemented, and this tools also promote the work in the same space at the same time.

Participant 3 mentions: "This kind of tools need to be well managed in terms of people that have access, otherwise too many people having access to the same tools at the same time can be a little messy, stating that small groups work better".

4.1.5 Supporting Organizational Innovation

This theme was raised with the question "How does your company promote organizational innovation, and how do they measure it?", which from the participants answers, we can conclude that in every company there is always a continuous improvement department and innovation department. These departments are responsible to understand what is needed to be improved within the company in a consistent way. The feedback needed

to make improvements is sometimes gathered from several surveys that are made within the company to have enriched feedback from the employees on regard to certain theme.

Participants have also mentioned that along with the projects, sometimes the company spin-off departments, that are created due to a necessity among the organization.

Also, the projects that are being implemented have a defined objective, based on specific metrics that are defined based on the data that were evaluated along with the project, regarding the velocity of the implementation of the project, efficiency, and output.

Table 8 - Participants Quotations - Supporting Organizational Innovation.

Participant	Quotation	Keywords
1	"Following what was said previously, we define people to develop the projects that we know that have the knowledge necessary to provide valuable knowledge, we do not choose people randomly and then hope that they have the knowledge to do it."	Project Managers Specialists
2	"We have an innovation department that sees what the company does to realize what they can improve within the company through surveys that are made. They also have the KPI's, such as annual bonus – for performance, which is evaluated at the level of work and productivity, training they do and at the behavioral level."	Innovation Department KPI's
3	"There was a project that was supposed to have duration of 10 years, but since the project went really well, there were a department created to maintain the activity".	Spin-off Departments
4	"Imagine that there are 2 projects at the same time, within the projects there is a distribution of cases about some client, among the project managers involved to gather data. A new system was implemented and based on the data collected, the project was evaluated to see what kind of output was resulting, from data metrics such as speed, productivity, etc. The Project Managers basically set a goal based on the data collected, that they measure."	Project Development Project Managers KPI's
5	"R&D teams the company have partnerships with universities to increase the radical innovation".	R&D

Participant	Quotation	Keywords
		Universities Partnerships
6	"Innovation departments of the company innovate in every area of the company, which have autonomy, freedom to create, prototype and validate, and they are financially supported to achieve this. When the solutions found are well succeed, these solutions can be implemented into the business, shared with partners, or can even turn into a Spinoff company".	Innovation Departments Spinoff Company

4.1.6 Rewarding System

This theme came with the last part of the question before "How does your company promote organizational innovation, and how do they measure it?", where all the participants besides participant 5, have mentioned that the company has several KPIs to measure the individual performance, team performance, departmental performance, and global performance of the company in order to measure the innovation among the company and its output or financial return that might have.

There are different types of KPIs mentioned by the participants, which are the Behavioral KPI, Performance KPI and Training Accomplished KPIs.

- **Behavioral KPI** The employees are measured in the way the company's values are aligned, if they are collaborative and performs a great teamwork.
- Performance KPI Related to the daily activity, on regard to what is produced
 and what contributions they might have and the impact of this contributions to
 the company's performance, such as new methods, new practices, user guides that
 are developed, etc.
- Trainings Accomplished KPI Refer to the trainings that employees have from their own will, on regard to soft skills, hard skills, considering the Learning Center platform.

In this question, only *Participant 3* mentions a different practice used by the company, which is the fact that an employee can receive a remuneration based on the cooperation provided by other colleagues that helps the efficiency of the work, with high impact.

Participant 3 states the following:

"In the previous month, I have received a remuneration gift, since my colleague suggested to my team leader that I should receive a remunerated gift because, with my work and collaboration from the user guides/job aids developed by me, I have increased a lot of processes efficiency, which have helped a lot of colleagues, which had a significant impact. This is a practice that of course is evaluated by the team leader, so then he can understand if it makes sense to provide this gift or not".

4.1.7 Initiatives to Support Organizational Innovation

This theme raised from the question "Can you describe any specific initiatives or programs that your company has implemented to support innovation within the organization at your level?".

From the participants answers, we can conclude one of the initiatives that, a practice that is valuable and promotes innovation among the organization is the fact that there is an internal mobility among the company. Employees can candidate to different jobs among the company, if they have the interest to move and have a new challenge, in this way, the investment of knowledge and money made in the employee can be preserved and, more important than that, employees can add value to the new team they are moving to, by developing heterogeneous teams with different backgrounds and knowledge.

Table 9 - Participants Quotations – Initiatives to Support Organizational Innovation.

Participant	Quotation	Comments & Keywords
1	No quotation - It was answered on the previous question. "Following what was said previously, we define people to develop the projects that we know that have the knowledge necessary to provide valuable knowledge, we do not choose people randomly and then hope that they have the knowledge to do it."	Selection of experts capable to get the job done.
2	"Employees can experience a volunteering day with an interprofessional exchange, where he can experience what is to work in a different team/department. This will promote internal mobility and career development"	Keywords : Internal Professional Exchange, Career Development.

Participant	Quotation	Comments & Keywords
3	"There is a mensal meeting with a regional department, where every employee must think on a topic, such as employee well-being, company culture or some process or practice that is used in the company, and they must share their thoughts in this meeting to seek for solutions, and new positive things that can be implemented".	Departmental Meetings to discuss important topics and develop strategies/solutions to solve problems or improve something inside the company. Keyword: Departmental Meetings
4	"There is reorganization of the teams, where some teams are created or eliminated depending on the necessity of the company."	Keywords: Team reorganization
5	"Since there is a company in the industrial sector, the processes have a huge impact on the output. Every new process or method that is created in one group, it is implemented globally in the company, there is a huge open and efficient communication on regard to this".	Effective communication and implementation on regard to process/methods improvements. Keywords: Global Communication; global Implementation
6	"There are regular innovation workshops/committees, where there are proposed several ideas to be discussed, and if these are viable, these are developed and prototyped. Due to these activities, there were born 4 new companies in Spinoff model; innumerous innovations in work processes; engineer solutions shared with clients and suppliers".	Keywords : Innovation Workshops/Committees; Spinoff Companies; Open Innovation.

4.1.8 Barriers to Organizational Innovation Culture

This theme raised from the question "What are the main barriers to have an organizational innovation culture?", which from the answer of the participants, every participant mentioned that: **fear of risk; fear of change; and fear of mistakes,** are the main barriers to promote an innovation culture.

 Table 10 - Participants Quotations – Barriers to Organizational Innovation Culture.

Participant	Quotation	Comments & Keywords
1	"The fear of risk, love to the tradition and having the mindset of "we have always made like this" is one of the main barriers of innovation and can lead to the company's death. Also, the fear of the hierarchy, fear of saying wrong and fear of mistake by the employee is something negative for innovation within the company. Investing with fear of not having a financial return is also a big barrier. Also, there might exist a local/departmental resistance that is perturbing the international culture, and this must be managed in the best way."	Fear of Risk Fear of Investing Love to the tradition Matrix Management Fear of Hierarchy "We have always made like this" mentality. Resistance to change
2	"Resistance to change that is offered from the senior managers is a big barrier of innovation. Having a traditional and archaic mentality, supporting the mentality of "it has always been like this, we don't want to change" is a huge barrier.".	Resistance to Change Traditional and archaic mentality "It has always been like this" mentality. Resistance to change
3	"The fact that the deadline to accomplish some work is short makes that the risk must be really well calculated, and the lack of openness to change due to resistance to it is a big barrier"	Resistance to Change Short Deadlines
4	"The lack of cooperation and collaboration between the teams, working side by side, instead of thinking in its own teams but in a general department, is a huge barrier if not applied, because it makes the efficiency and improvement of both teams harder to accomplish. One team is pushing to one side and other is pushing to other side. Teams must be aligned with the objective, otherwise there is no innovation."	Lack of Cooperation & Collaboration Teams coworking
5	"The fear of risk and penalizing a person in a severe way for committing a mistake is one of the main barriers. If the company manages this this way, employees will be afraid to take risks and to commit mistakes. Also, looking for short term results with fear of investing in the company and in the employees is also a negative point for innovation".	Fear of Risk Severe punishment to mistake Short-term investment
6	"For being a business with more than 90 years, there are several senior employees with a lot of company time, which present resistance and discredit on innovation and changes until the results are shown."	Resistance to change, in specific in senior management. Discredit on Innovation

4.1.9 Strategy to Promote a Positive Culture of Innovation

This theme raised from the question "What strategy is more important to promote a positive innovation culture? Does your company promote team building events?".

On the scope the first question, participants mention that having a positive environment where teamwork is supported has a big impact on the innovation performance of the employees and, consequently, firms' performance.

Participants mentioned that being comfortable, working on an environment where there are no barriers in terms of communicating with other colleagues, where there is openness to share and ask questions between employees without judgement is extremely important for a culture of innovation.

On this kind of environment, there will be an increased knowledge on the strategies and processes of the company, since there is a huge contact and communication among employees. This is very important, bearing in mind that much of the knowledge related to the business activity, executed by the employees, is gained through the expertise shared and taught, from of the other colleagues.

Participant 3 states: "I believe that almost all my knowledge, and expertise, that I have regarding my daily activity, is heavily due to my colleagues and their teachings. I guess this is transversal to all other teams. In my personal perspective this is important, and I appreciate that, as I like to teach others".

In conclusion from what was said by the participants, this environment will promote a positive culture of innovation.

On the scope of the second question, "Does your company promote team building events?", apart from Participant 5, all the participants mentioned that there are several team activities and events provided and financed by the company such as volunteering days where employees can candidate and participate on their will; football tournaments; semestral parties where there is catering service and games that employees are able to play to increase their engagement with other colleagues but, this are all events promoted to big departments.

All the participants have mentioned that team building events are essential in every business area. With this kind of events, people can create stronger bonds and connect to each other, in this way, the communication flow will be more fluent and smoother, where people feel more engaged with the group. This makes them more comfortable in reaching

out other person to share ideas and ask questions, resulting in less resistance in the moment employee refer to other colleague.

On regard to financed team building events, only Participant 3 and 6 have mentioned that their company finance regularly team building events, such as "Escape rooms", lunches, or other activities. All other participants mentioned that there are no financed activities directly to the teams they are involved in.

Table 11 - Participants Quotations – Strategy to Promote a Positive Innovation Culture.

Participant	Quotation	Comments & Keywords
1	"There are the typical informal conversations and networking that is done during the meeting in public places such as the coffee zone where they interact among them during the coffee break.	International company should integrate local persons to align the global culture with the local one.
	Besides that, we do have team building events but are made on the intranet so then emploees can participate. On an international level, it is important to integrate a local person in an international culture, so then the local person can make the bridge from an international culture to a local country among the company, considering the different country and culture in it.".	Keywords: Informal networking; Local culture; Team Building Events
2	"The fact of having team building events where they meet colleague outside of the work environment is essential to have the openness to share knowledge and ask questions inside the company, this will promote innovation as we can instruct each other at ease. There is a department where the manager does team building events, but it is a practice used from this specific manager but there is no financing from the company, it is a personal strategy. This manager is trying to reach managers in higher hierarchical levels to implement these practices among the company, and to be financed by the company too.	Team building events outside working hours. Keywords: Team Events; Junior Top Management
	The company is trying to implement a group of young employees to be trained and	

Participant		Comments & & Keywords
	assume leadership positions to evaluate the way the senior leader act."	
3	"It is important to have a general knowledge where there exists professional exchange to understand the problems of other teams and departments and help to solve them.	Exchange knowledge among departments and team to understand problems and align
	Concerning the team building events, there are activities such as scape room, surf lessons, that happens every 3 months. These are general events that employees can participate.	rocesses. Keywords: Team building events; Employees Initiatives
	The team building events start the most from employee's initiative, for example, they have implemented an activity that is, every month, the persons that made birthday on that month will bring cake and there will be an event for everybody".	
4	"Having an environment where interpersonal relations to potentialize the knowledge sharing between the employees, trusting people on the projects, and having open communication is a strong positive point. It is very important to feel this since the beginning of onboarding programs, since it is contagious and will impact the way people act.	Controlling the organizational matrix by eliminating managers that works by severe authority, maintaining a positive culture.
	I believe that, not having managers that act with rudeness and supreme authority, without abundant power, lateralizing the hierarchy and instead, having with managers that act as a leader not as a chief, walking by the side of people and supporting them, but always having the power of the decision, will positively impact a culture of innovation.	Keywords: Matrix Management; Open Communication; Team Building Events; Employees Initiatives.
	On regard, to team building events, there are only activities such as having lunch outside of the company, but these activities are from employee's initiative.".	
5	"Open communication is super important, team building events are very important to promote communication flow among the employees and should be promoted and financed. We do not have any team building event in his company. Providing autonomy without severely	Team building events should be promoted to improve communication flow among employees. Good mistake handling by seeing
	Providing autonomy without severely guilt employees by their mistakes is a booster of	handling, by seeing mistakes as learnings.

Participant	Quotation	Comments & & Keywords
	innovation, otherwise they will create a resistance to innovate. Dealing well with risk, seeing the mistakes as learnings, and not guilting the employees by having a measured risk should be leveraged. There must be confidence on employees on the sense to innovate.	
6	"Having innovation in every sector of the company, with financial support, autonomy and distinctive background teams are strategies that promote a positive culture of innovation. When innovation happens in this way, the operation, reputation, brand, processes from the main business, stay protected from any risk related to innovation, which not always is well succeed. The failure makes part of the learning process and constructing of innovation, which sometimes, can contaminate the main business activity. Every department or teams are free to promote their own events of team building independently, accordingly with the necessity	Innovation failures can contaminate the main business activity. Team building events are mandatory to build connection and communication among employees. Keywords: Autonomy; Heterogeneous Teams; Mandatory Laisure; Financial Team
	of the employees, the company calls it the "Mandatory Laisure – ML", where every team is entitled to an amount and then decide independently what activity to do within their team. The company also does annual leadership conventions, where every leadership profile does workshops, seminars, and talks."	Building Events.

4.1.10 Desired Organizational Culture to Foster Knowledge Sharing

This theme raised from the question "What strategy would you like to see implemented in terms of organizational culture to promote knowledge sharing and impact innovation?", where the participants provided a more personal answer on regard to the overall theme that was explored on the interview. The participants answers are described below.

 Table 12 - Participants Quotations – Desired Organizational Culture.

Participant	Quotation	Comments & & Keywords
1	"I am perfectly aligned and in accordance with the strategies, practices and culture that is applied by the company to maintain a positive organizational culture, where people feel valuable and are stimulated to work as a team, to collaborate and cooperate with others".	Keyword: Positive Organizational Culture; Cooperation & collaboration Culture
2	"Besides the fact that there is a huge market focus and hierarchy that could be softened, I would suggest an internal forum where employees could share ideas of projects or processes that could be implemented by the company if these ideas where valid, in order to increase value for the company".	Keywords : Employee Perspective; Internal Forum to Share employees Ideas
3	"There should be more frequent meetings, every two weeks, where the main lessons learned, new processes and methods developed by the company should be communicated transversally. Besides that, I am happy with the culture, there is a huge sense of belonging and the company provide a sense of value for each employee. An interesting initiative the company has, is that they offer gifts from time to time for no specific reason. It is amazing when we go to the office and out of nowhere, we receive a gift. On a random day for no specific reason, they offered a sunflower. Also, I have a nice umbrella at home that they offered, in fact, the best I have. This makes us feel well and valuable, I believe that it also increases the engagement with the company and the sense of belonging".	Keywords: Valuing Employees; Engagement Initiatives; Global Communication
4	"A strategy that should be implemented is to talk about failures and lessons learned more often. The fact of sharing learnings between teams because it is only on our own initiative, but it should be something standardized to talk about problems, things that went wrong, things went well, to generate more discussion at a constructive level instead of sharing only new information".	Departmental Meetings or Seminars to discuss important subjects (problems and lesson learned). Keywords: Seminars; Departmental Meetings.

Participant	Quotation	Comments & & Keywords
5	"Promoting team-building activities would be something that should be implemented because it greatly facilitates the sharing of knowledge among employees. Paying attention to managers/positive matrix is essential to maintain a good environment, by ensuring that managers maintain the company culture. Also, promoting the well-being of the employee and work/life balance is essential, the lack of payment for overtime working hours cannot happen. It is necessary to invest in human resources and not only in projects, to keep employees satisfied and engaged with the company".	Keywords: Teambuilding events; Matrix Management; Work-Life Balance; Human Resources
6	"I deeply believe that each person can collaborate with the whole in terms of sharing knowledge. A "corporate university" should be developed, where teachers and learners were all collaborators and were guided, by education professionals, to extract and share the knowledge they hold, in an organized, measurable, and constant way, could be of great value for formal and informal knowledge to circulate among all, to raise the bar of the group."	Evey employee is responsible develop and promote knowledge sharing. Keywords: Corporate University, Knowledge Sharing; Employee Value

4.2 Themes Description

The data analysis was based on thematic analysis to interpret the interviews, using manual approach. To begin with the analysis, the first step was to get to know the data, reading the notes taken to get familiar with it. The second step was to code the data, where words, phrases, or sentences, to highlight and describe the most important insights from the interviews. Then, the data was analyzed to cluster the codes/subthemes in several themes preconceived raised from the interview design, that could be identified in the form of patterns. This would allow us to make a deeper analysis of the data collected.

There were uncovered 10 main themes regarding the impact on organizational culture on knowledge sharing to foster innovation within the multinational company, which are described on the **Table 13** presented below. The subthemes presented consider the subthemes that were presented commonly thought all the participants insights from the interview.

Table 13 - Themes and Subthemes made by the Author.

Question	Theme	Subtheme
1		Mixed Culture
1	Organizational Culture Types	Departamental Culture
	Alignment of Organizational Culture - Behaviors, Principles & Values	HR Interviews
		Onboarding Programs
2		Training Programs
		Transversal Training
		Culture Training
	Knowledge Sharing, Creation & Storage	Individual Meetings
		Team Meetings
		Transversal Team Meetings
		Interdepartmental Meetings
3, 4 and 5		Seminars
		Project Development
		Training Programs
		Technical Training
		Transversal Training
4	Information Communication & Technology Systems – ICT's	Intranet

Question	Theme	Subtheme
		Online Learning Center
		Document Storage - Products, Processes, Postmortem
		Real time-sharing tools
		Open Communication
		Financing Innovation Projects
		Interdepartmental Knowledge Sharing
6	Supporting Organizational	Innovation Dedicated Departments
U	Innovation	Cross-Functional Teams
		Positive Mistake Handling
		Promoting Autonomy & Controlled Risk
		Matrix Management
	Rewarding System	Behavioral KPIs
6		Training Accomplished KPIs
		Performance KPIs
		Fear of Risk
7	Barriers to Organizational Innovation Culture	Resistance to Change
		Reluctance to Invest
	Initiatives to Support Organizational Innovation	Internal Mobility – Job Exchange
		Team Reorganization
8		Creation of Spin-Off
		Departments
		Innovation Committees
	Strategy to Promote a Positive Culture of Innovation	Teamwork
9		Supportive Leadership
		Open & Efficient Communication
		Financed Team Building Events
	Desired Organizational Culture to foster Knowledge Sharing	Systematic & Consistent Knowledge Sharing - Mistakes & Successes
10		Financed Team-Building Activities
10		Positive Managerial Behavior
		Positive Work Environment
		Employee Value Proposition

5. Framework to Support an Organizational Innovation Culture

The framework to Support an Organizational Innovation Culture described below on **Figure 5** was developed, synthesizing the main themes, subthemes described on the previous table, together with the insights analyzed carefully from the interviews conducted with the 6 participants, conglomerating the main activities, initiatives, methods, and strategies, that are applied and developed daily by the multinational companies in the different business sectors.

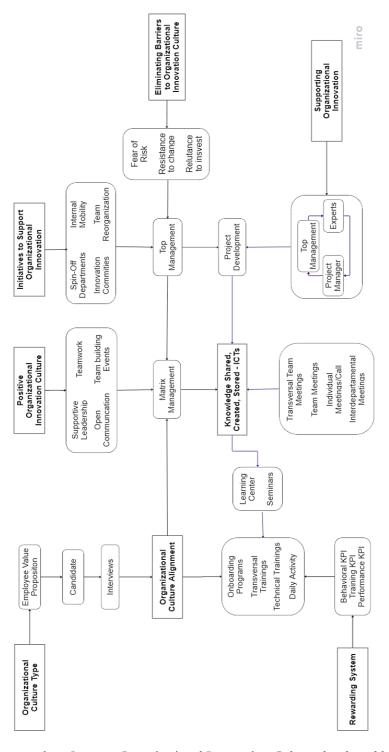


Figure 5 - Framework to Support Organizational Innovation Culture developed by the author.

5.1. Framework Description

Obviously, culture is something that was initially developed by the company's founders. However, as the company grows, becoming an organization with thousands of employees, the culture is molded and adapted through company lifetime. In the Framework shown above, it is possible to identify strategies to develop and maintain an organizational culture of innovation.

Observing the model, from left to right, we can identify strategies focused on human resources management and, practices used to align and instruct employees with the organizational culture present in the company.

Observing the model, from right to left, we can identify practices developed and used by the senior management of the company, who are responsible for impacting and implementing strategies at a global level (within the company context) through actions and decisions that will shape certain departments, the organizational matrix, and the future of the company.

Through the case study, it was possible to understand that companies promote their **Organizational Culture Type** through Employee Value Proposition (EVP) to candidates to attract talent. Following this, we can conclude that companies tend to align their culture straight from the initial screening and selection of candidates for their company, evaluating them through interviews, where they share and align the core values necessary to integrate in the company.

On the first months after the employee joins the company, he receives various initial training, including trainings in professional ethics, company culture, technical training, and cross-functional trainings, to gain a comprehensive understanding of the company. This is done cyclically and systematically to reach an **Organizational Culture Alignment,** in connection with the well management of organizational matrix.

Throughout the employee's lifetime in the company, they should be evaluated through several KPI's, including behavioral evaluation (maintaining a collaborative attitude towards colleagues, adhering to the code of conduct and company's core values), performance and, training received by their own initiative (which is provided by the company). Through these evaluations, employees should be motivated with benefits, whether monetary, career promotion or other type of benefit, to encourage them to achieve good results and be rewarded for them by keeping them motivated. This will maintain a healthy environment conducive to innovation, through a **Rewarding System**.

We can conclude that, to exist training programs in the company, there must be **Knowledge Shared, Created and Stored**, across the organization. Much of the knowledge created on the companies comes from practices that are **Supporting Organizational Innovation**, which much of them involves projects development, which are initiated and financed by the *Top Management*.

Along the time where projects are developed, regardless of their size, knowledge is always created and stored, including both positive and negative practices identified and the outcomes of the project. These learnings and knowledge created, will be processed, and shared across the organization, through seminars; online or offline trainings through the existing technology and information systems, such as the company's *Intranet* and *Learning Center*.

Another way of creating and sharing knowledge identified and present in the model is through daily meetings, including team meetings, departmental meetings, interdepartmental meetings, and cross-functional meetings. These meetings will help to eliminate any friction on ongoing projects or daily processes and methods that can be improved.

In the framework, we can observe that the connection of all the practices involved in the model is the *Matrix Management*, since it is the central point to align and maintain the company culture aligned. This must be done through **Initiatives to Promote Positive Organizational Innovation**, such as promoting a supporting leadership, having open communication through all the company, promoting teamwork and financing team building events for every team, to increase the engagement and inclusion of the employees within the company. Otherwise, this would result in departmental cultures, where some teams would only have team building events due to their manager's will.

Following what was said, the company can only survive and embrace innovation through project development if the company's *Top Management* Eliminate Barriers to Organizational Innovation Culture, by being willing to take risks and invest and not being resistant to change.

Through these practices, innovation is driven daily, supported by positive management, with managers and team leaders maintaining alignment with the company's culture of innovation. This promotes an environment of cooperation and open

communication, ensuring innovation and, eliminating any resistance in processes and/or methods within the company.

Finally, to retain employees in the company and add value to the company, preserving the investment made over their lifetime within the company, there must be **Initiatives to Support Organizational Innovation**. This can include innovation committees, internal mobility (changing job positions within the company), team reorganization and spinoff departments that arise from well-developed projects.

To conclude, the practices and strategies presented must be sustained, developed, supported, and managed by the company to build a strong organizational culture.

This framework expresses the knowledge raised and developed from the literature review, jointly with the insights and themes that were raised on the case study described before, which brought to life a **Framework to Support Organizational Innovation Culture.**

6. Research Results

6.1 Conclusion

In the present study, considering the literature review and the research methods utilized in this research, it was possible to have a deeper understanding of how companies develop an organizational culture to foster innovation by managing the internal communication processes and strategies implemented in the organization in terms of human resources, matrix management, and also the methods used to manage the knowledge and promote knowledge sharing, so then the knowledge is effectively disseminated and aligned throughout the organization.

Considering the case study, participants have confirmed that a healthy and positive environment, where employees feel valuable and engaged with the company and colleagues is essential to promote innovation and collaboration (Schuldt & Gomes, 2020; Pettigrew, 1979; Machado & Davim, 2021) where hierarchy is lateralized to promote the open discussion and shared vision among the employees (Shahzad, 2017), where the matrix of the company must be managed in a correct way, where leaders must be instructed to promote and align the culture within the company, eliminating the blocking points of a positive culture (Martins & Terblanche, 2003).

This case study has pointed out the fact that the most present culture in the participant's companies is the Hierarchical culture since we are in a multinational context, and the Clan culture, which seems to be the one that is aligned with the best practices and strategies that the company applies. Also, it was possible to understand that Market culture is one where there is less engagement by the employees and there is a lack of sense of inclusion and harmony among the employees.

Also, an interesting insight that arose from the case study was the practices that are common to every participant's company, is the way organizational culture is aligned, starting with what is transmitted by the company to the external people by the employee value proposition (EVP), in the moment where it is captured talent. Companies align the organizational culture from the very first interviews, onboarding process, technical training, and transversal training, until the employee's maturity in the organization.

Besides the fact that the organizational culture of companies where the participants of this study work is aligned, it was possible to understand that there is always a departmental culture within the organizational culture present in the companies, especially on those that

do not promote team-building events. This will result in departments that are dependent on the willingness of the team managers/leaders, to waste time and promote these kinds of activities. This confirms what Argote (2003) states, employees with closer ties are more willing to share knowledge and interact with each other if they have close ties, and these ties are stronger when team building activities are done, confirming what Sturdy (2006) states.

Another important point that was interesting to notice, is the fact that the knowledge sharing, storage, and creation is aligned in every company of the participants present in this study, ensuring that knowledge is effectively shared, stored, and created in the organization. It is impossible to maintain a company's long-term success, which aligns with what Lin (2007) states in his studies.

This study also came to confirm that knowledge sharing is essential to maintain firms' competitive advantage (Anand, 2007), and that knowledge sharing practices are present in the everyday activity of every company present in this study, turning the process of knowledge sharing and strategies that support these activities an important tool to be managed, developed, and implemented on an on-going basis.

This study suggests that the resistance to change of senior managers, the reluctance to innovation, and fear of risk by the management of a company are some of the main barriers to foster innovation in an organization, which can also lead to the death of a company. As Rhee (2022) states in his studies, senior managers have more knowledge but are more resistant and reluctant to change on the contrary of the young managers.

In conclusion, having an organization that effectively disseminates, creates, and shares knowledge throughout the company at all hierarchical levels is essential to maintain the efficiency and growth of the business.

Promoting a positive organizational culture, where the company rewards and supports their employees through positive matrix management that guarantees the culture alignment; inclusion and engagement from the employees is promoted; financing teambuilding events among the teams in the company so then employees develop close ties; is essential to maintain the long-term success of an organization. Having a positive organizational culture will promote the knowledge sharing among the employees throughout the organization and, subsequently, this will foster innovation.

6.2 Research limitations

There were some limitations found in this study, the first is the small number of interviews, 6 in-depth interviews, which does not allow us to make general conclusions under the theme in investigation.

The second is the fact that the participants have different levels of experience, which might limit the insight provided in some questions that were made due to the lack of knowledge under the topic and/or strategies applied in the company they work for.

The third limitation, although it was on purpose, is the fact that the participants work in different hierarchical positions, which might difficult the analysis of the information provided since the perspective and context presents some differences.

Further studies should be developed in the different business activities but within a larger sample and, selecting participants with similar hierarchical position to better understand the context and, align the information provided by the participants. In this way, there could be provided general conclusions on regard to the organizational strategies that multinational companies implement to positively impact knowledge sharing and foster innovation.

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Annex

"Dear Candidate,

I want to start by thanking you for being present in this interview.

Please note that this interview is made with the intention to complete the qualitative study for my dissertation for my master's degree in Innovation and Technological Entrepreneurship.

Bear in mind that the interview will not be recorded, and all your personal data will be confidential by not being disclosed. The only information that will be shared in my study is: years of experience; background; industry sector of your company; your position in the company; number of employees worldwide.

The interview will have 10 questions and will take about 1 hour. I will start the interview by introducing the theme under study, followed by simplest questions, and evolving to more complex ones throughout the interview.

Please don't hesitate to contact me if you need any further clarification after we complete this interview you can reach me using the e-mail that I have used to contact you.

Bear in mind that I will take notes during the interview so I can further structure the information provided by you. Do you have any question before we get stated?

Thank you for being part of this study."