



**Determinants in organizational culture for promoting organizational innovation**

Master's Thesis

Department of International Business Management

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<p>Abstract</p> <p>This study aims to provide an understanding about the determinants in organizational culture that promote organizational innovation. It is important for organizations to continuously engage in innovative activities to face the market competition and be successful in long term. Organizational culture acts as a backbone to support organizational innovation to take place efficiently. There are different frameworks used in literature to analyse organizational culture and this thesis will use four determinants which will be more suitable to explore the impact of them on organizational innovation. This thesis aims to develop the theoretical understanding about the organizational culture and innovation related concepts and analyse how these theories are practiced in businesses.</p> <p>This thesis is qualitative research and used the abductive research approach. The main research question of this thesis is “What are the determinants in organizational culture that promote organizational innovation?” and the sub research question is “How does organizational culture impact organizational innovation?”. Empirical data has been gathered from seven in depth interviews conducted with management level professionals of organizations in Finland which involve with innovations as their core business activity. In depth interviews provided detailed insights from the interviewees related to how organizational culture and innovation are practiced in real business world. The gathered data has been converted to text and analysed using the NVivo software to get better understanding and to explore relationships between different concepts.</p> <p>The research findings suggest that organizational culture promotes in achieving organizational innovation. Findings from this research mostly align with the existing literature and proves the validity of the literature defined. Key findings describe that teamwork, extensive communication, reward system and, training and development support in organizations to achieve innovation. The results of this thesis can be used by organizations to evaluate their own processes related to organizational culture and develop them to better support in innovation process. This study can be used generally to all organizations globally but sometimes the perceptions regarding organizational culture and innovation in different countries can be differ. This study was conducted by considering Finland market and further research is needed to identify impact of these four determinants on organizational culture in different countries.</p>			
Keywords Innovation, Organizational culture, Teamwork, Communication, Reward system, Training and development			
Additional information			

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## LIST OF ABBREVIATIONS

**SAPPHO** - Scientific Activity Predictor from Patterns with Heuristic Origins

**USA** – United States of America

## 1. INTRODUCTION

### 1.1 Background of the study

Ever-increasing global competition, changes in customer expectations, and the volatility of the markets make innovation an essential element of organizations (Fay et al., 2014). A successful product or process innovation bring vast opportunities and advantages (Kenny & Reedy, 2006). Successful innovations are also crucial for organizations to survive in the current globally competitive markets (Kenny & Reedy, 2006). Innovation plays a more significant role for organizations to survive competition (Kenny & Reedy, 2006). Organizations try to develop frameworks where innovation accepts as an essential cultural norm amid the change in other factors such as technological and other changes (Kenny & Reedy, 2006). Organizational culture has a more significant influence on how innovation stimulates an organization (Martins & Terblanche, 2003). Culture is a device used in organizations for different orientations toward organizational activities (Linstead & Grafton-Small, 1992). Managers can use this to predict and explain organizational effectiveness and measure performance (Linstead & Grafton-Small, 1992). All these indicators will lead to the goal of achieving innovation.

Büschgens et al. (2013) mention that the organizational culture has gained the attention of management scholars and practitioners since the publishing of books such as Deal and Kennedy (1982) and Peters and Waterman (1982). Above mentioned books provide an understanding of organizational culture and how the organizational culture shapes the overall organizational performance. Organizational cultures are resistant to change and subjected to continuous flux (Meyerson & Martin, 1987). Organizations that can create and commercialize new technologies reflect a unique organizational culture (Büschgens et al., 2013). Modern-day examples such as Apple, Google, and 3M can consider as organizations that reflect organizational cultures that promote innovation (Büschgens et al., 2013). Google announced a culture that consists of freedom and 3M based on a culture that considers people as family and cares for its employees in all life stages (Büschgens et al., 2013). There are different cultures adopted by various organizations that try to promote innovations. Chandler et al. (2000) argue that organizations build cultures to maintain parity with other firms in

the same industry. Some organizations perform activities that they consider economically valuable and adapt those to their culture to promote innovation and achieve objectives. Therefore, understanding the effect of organizational culture on promoting organizational innovation is essential in modern days.

## **1.2 Research gap of the study**

Literature on organizational culture does not sufficiently identify which ideal characteristics in the organizational culture promote organizational innovation (Hogan & Coote, 2014). Existing literature shows different organizational culture models: Rousseau's model, which depicts different layers such as outer and inner layers. These layers show visible and hidden signs of culture. Schein 2004 introduces a model to show the different levels of culture (Mihaela & Bratianu, 2012). Sharifirad and Ataei (2012) study develops a framework to illustrate the factors in organizational culture that support innovation. This framework defines most of the factors that the top management level can influence, such as vision, mission, and consistency. These models and frameworks define organizational culture from a broader perspective in the literature. The researcher aims to simplify the organizational culture's determinants by narrowing the determinants and explaining them to understand the impact on innovation.

Based on different literature reviewed, the researcher seeks to narrow down determinants in the organizational culture that can benefit organizational innovation. This research aims to fill the gap to identify which determinants can be most successfully implemented in the organizational culture to promote innovation. The researcher seeks to identify determinants that can improve innovative behaviour while improving employee motivation and commitment to achieving innovation.

According to the Global Innovation Index, Finland ranked 7th place among 132 economies featured in the 2021 list (wipo, 2021). Due to the reputation of Finland in the sector of innovation, this research aims to carry out by analysing data from organizations based in Finland. This study will be significant as the results can use by the organizations in Finland to identify which determinants need to be taken into consideration in organizational culture to promote innovation.

### 1.3 Objectives of the study and research problem

Innovation plays a vital role in the success and long-term growth of an organization (Shahzad et al., 2017). Creating an innovation-based environment and promoting innovation within organizations might feel hefty. The research objective is to explore the impact of organizational culture on organizational innovation. This research aims to develop a study to identify the determinants in organizational culture that impact innovation. There is also a personnel motivation for this research. The researcher is passionate about the field of organizational innovation and aims to carry out further academic research in this field. The researcher also combines practical experience of working in organizations to identify the impact of organizational culture on organizational innovation. This research will be a starting point for the researcher to enter the academic's field and explore more on the field of organizational innovation.

Organizational culture is a vast field of study, and it is difficult to cover the scope in this research. Therefore, the researcher has chosen four determinants in the organizational culture which can examine to promote organizational innovation. The study examines managerial and human resources practices associated with the culture that supports innovation.

To achieve the research objectives, the study is conducted with the central research question "What are the determinants in organizational culture that promote organizational innovation?". The sub-research question is "How does organizational culture impact organizational innovation?"

This research has used the gap spotting technique to develop the research question (Alvesson & Sandberg, 2010). There are different methods of gap spotting, such as confusion spotting, neglect spotting and application spotting. The researcher has used the application spotting to construct the research question in the study (Alvesson & Sandberg, 2010). Application spotting aims to provide an alternative perspective or extend or complement a specific study (Alvesson & Sandberg, 2010). Reviewing of current studies has explored different aspects of organizational culture to promote innovation at the organizational level (Amabile et al., 1996; Damanpour, 1996;

Hofstede, 2011; Ouchi & Wilkins, 1985). The researcher has used existing literature to develop the research questions.

#### **1.4 Contribution of the study**

Abdi and Senin (2014) mention in their study that the organizational culture plays a significant role in organizational innovation. Further Abdi and Senin (2014) suggest that it is important for professionals in organizational culture and innovation to understand the relationship between these two concepts. Value capture from organizational culture and innovation can contribute for the success of organizations and in sustainable performance. The results of this research can contribute to the corporate sector in their decision-making regarding innovation and promoting an innovation-based organizational culture. The results of this study can also be used in corporate environments regardless of the outcome to understand what determinants in the organizational culture affect innovation positively or negatively. These studies can also use by start-up or established business organizations to promote innovation within their organizations.

#### **1.5 Research methodology**

The research aims to be carried out as qualitative research as the study does not evaluate statistical results. This research aims to study the internal organizational functions and sensitive areas, and qualitative research will be well suited to obtain information while protecting confidentiality. Golafshani (2003) explains qualitative research as any kind of research that derives findings not by any statistical procedures but by analysing the real-world settings where the phenomenon of interest unfolds naturally. A systematic literature review was carried out during the study, referring to the academic databases recommended by the University of Oulu. The empirical data was collected via in-depth interviews conducted with company representatives who are involved with organizational culture development and initiating innovations. A detailed research methodology will be discussed in chapter 3 of this study.

## **1.6 Structure of the study**

The study follows the basic guidelines for writing a thesis published by the University of Oulu. The study consists of the following sections to cover the subject matter critically and to examine the empirical findings. The first chapter aims to provide a background for the research topic and objectives of the study. The second chapter provides a theoretical background of the subject in deep. The theoretical part is divided mainly into four sub-sections as innovation, organizational culture, determinants in organizational culture, and the relationship between organizational culture and innovation. Determinants in organizational culture comprise the main four determinants which will be considered to identify organizational culture's influence on innovation. The four defined determinants are teamwork, extensive communication, reward system and training and development. The theoretical section will provide the reader with a solid understanding of the subject area and research questions. The third chapter will explain the research methodology using the selected research method, data collection, and analysis methods. The fourth chapter provides the findings and discussion of the study with reference to the theoretical review. Chapter five, as the last consists of the conclusion, managerial implications, limitations, and suggestions for future research.

## 2. LITERATURE REVIEW

### 2.1 Innovation

This research focuses on studying innovation in organizational level. Innovation can be considered as the backbone of the business that helps in the long- term survival in the market. It is of utmost important for businesses to focus more on innovation that would lead towards market success.

#### 2.1.1 Definition of innovation

The term "Innovation" has been researched in the academic literature using different perspectives. Innovation can be defined as a process with the aim of aggregating value by developing and improving products, processes, and markets (Abdi & Senin, 2014). According to Amabile et al. (1996) creative ideas are the basis for innovations to exist. Innovation can also be identified as the process of developing management practices apart from introducing and improving existing processes and technologies (Johannessen et al., 2001). Daher (2016) introduces innovation as the process which involves the capabilities of an organization to innovate and the initiating of capabilities to create new ideas and develop products or technologies. All these definitions have been based on the fact that innovation involves creating something new or involving creative ideas.

Damanpour (1996) mentions that innovation acts as an agent of change in an organization. This can happen by responding to the changes in the external environment or by the action towards influencing the environment. Damanpour (1996) also highlights different types such as new products and services, new processes, new organizational structures, or new plans as organizational innovations. In contrast with the traditional view of innovation, which develops in terms of new ideas or the development of existing products, Wang and Ahmed (2004) use a behavioural approach in the definition. The authors mention that use of strategic orientation by combining with innovative behaviour and processes would improve an organization's overall innovative capability of introducing new products to the market or exploring

new markets (Wang & Ahmed, 2004). Daher (2016) further highlights that the organizational member's perceptions can be utilized to recognize organizational innovation as an overall capability and climate-related concept.

Many types of research have focused on the correlation between innovation and several variables such as formalization, specialization, organizational size and resources, complexity, centralization, technical knowledge resources, administrative intensity, internal communication (Damanpour, 1996; Kimberly & Evanisko, 1981 cited in Daher,2016). These variables are analysed to explore the impact of various organizational, individual or environmental factors which promote or limit innovation. Claver et al. (1998) argue that the existing innovation models mainly focus on the structural and environmental explanations while neglecting the factors related to the human role in the innovation process.

This research will be based on the definition of Abdi and Senin (2004) as a process with the aim of aggregating value by developing and improving products, processes, and markets.

#### 2.1.2 Different studies on organizational innovation

Joseph Schumpeter, who is an Austrian-American social scientist, conducts extensive research on innovation based on social science perspective. Schumpeter combines insights from economics, sociology, and history to study the long-run economic and social changes focusing on the key role played by innovation and the factors influencing it (Fagerberg & Verspagen, 2009).

USA established the Research and Development Corporation by the United States Air Force during the period of the cold war. The institute focused mainly on the technological field. The institute is also concerned with understanding the factors affecting the success and failure of innovations and Research and Development. As a result, many researchers started to begin in this place to study the innovation, and also the results of studies contributed to well-known publications in the field of economics, research and development, and innovation in the early periods (Fagerberg & Verspagen, 2009).

"The Rate and Direction of Inventive Activity," edited by Richard Nelson, was a prominent source to which most the United States researchers contributed. The volume consisted of several topics which continued to be the central research focus, such as sources of invention, allocation of resources to the generation of new knowledge, and the role of science in industrial research and development (Fagerberg & Verspagen, 2009).

Most of the early research in innovation, such as the sources of innovation (Schmookler, 1962), the role of science for industrial R&D (Nelson, 1962) were conducted in the United States of America, and later it was shifted to other countries as well (Fagerberg & Verspagen, 2009). An important milestone in the field of innovation occurred with the establishment of the Science Policy Research Unit (SPRU) at the University of Sussex in 1965, with Christopher Freeman as its' first director. The research initiated at this unit opened pathways to reach new insights in innovation by conducting a large number of conferences, projects, and publications. SAPPHO project was conducted to focus on the factors which explain the success and failure of innovation. Christopher Freeman also published a book, "The economics of industrial innovation," which summarized the research conducted on innovation. Another book was published in 1974, "Unemployment and Technical Innovation," which can be utilized to apply a systematic approach to the role of innovation played in long-term economic and social change (Fagerberg & Verspagen, 2009).

### 2.1.3 Importance of organizational innovation

Innovation can be identified as the most systematic method of achieving competitive advantage, sustainable performance, and development of businesses in the market context (Shahzad et al., 2017). Shahzad et al. (2017) further state that innovative firms are more flexible to easily adapt to market and technology changes. Factors such as the rapid development of technology, the short life cycle of products, higher rate of product development boost the rate of speed of innovation (Shahzad et al., 2017). Karabulut (2015) suggests that innovation can be considered a strategic tool used by firms to survive and obtain a competitive advantage to enter the global marketplace.

Karabulut (2015) also highlights that innovative firms can improve performance, defend competitors, and finally provide value to stakeholders.

Damanpour and Gopalakrishnan (2001) suggest that innovation can be identified as a major factor that is essential for the long-term success of corporations in dynamic markets. Previous researches show that organizations must deal with increasing complexity and high-speed change in order to deal with a turbulent external environment (Jiménez-Jiménez et al., 2008 cited in Naranjo-Valencia et al., 2016). Moreover, companies that show high innovative capabilities have the power to respond to challenges quickly, produce new and improved products and explore better market opportunities faster than non-innovative corporations.

The theoretical section explains the definition, different studies, and importance of innovation. This research aims to apply these theoretical concepts to practical business world to identify how innovation is practiced. This research is positioned to identify the innovation strategies practiced at organizational level.

## **2.2 Organizational culture**

Organizational culture can immensely influence the organizational decisions and actions. An organizational culture depends on the ideas, values, beliefs which guide the employee actions and feelings (Tharp, 2009). Therefore, understanding the term “organizational culture” deeply is essential for the analysis of organizational phenomena. Organizational culture can also be used as a metaphor such as it is the “glue” that holds an organization and, in another way, it is the “compass” that provides direction to an organization (Tharp, 2009).

### **2.2.1 Origin of organizational culture**

The field of organizational behaviour has initiated the research to investigate organizations in terms of culture runs back to the 1930s. The final phase of popular Hawthorne Studies at the Western Electric Company can be identified as one of the first systematic attempts to understand the work environment by analysing the culture (Tharp, 2009).

In the 1980s, the concept of organizational culture started to become popular as the managers in the corporations experienced the ways in which organizational culture can affect employees and the organization (Lund, 2003). During the period of 1983, three major collections of articles related to organizational culture were published. There have been less than seven review articles published regarding this topic since 1979 (Ouchi & Wilkins, 1985). Later, organizational culture has become one of the most active topics in organizational research, which succeed studies of formal structure, organizational environment research, and bureaucracy (Ouchi & Wilkins, 1985). There have been observations that the rise of study on organizational culture during the 1970s and 1980s was influenced by the superior operating characteristics of the Japanese firms (Ouchi & Wilkins, 1985). Another reason was the rapid increase in international competition and the start of more foreign factories in the United States (Tharp, 2009). The research was focused on the formal structures and failed to discover any differences between Japanese and western companies. As a result, researchers were more focused on identifying the impact of national cultures on modern corporations. Case studies between different corporations in two cultures were conducted, such as Nissan vs. General Motors. These studies created an approach to the study of local differences in a national culture, such as Hewlett-Packard and ITT (Ouchi & Wilkins, 1985)

### 2.2.2 Definition of organizational culture

Schein (1990) defines organizational culture as the ways in which problems related to external adaptation and internal integration are solved by shared basic assumptions by a group of members. These assumptions can be considered valid when worked well in those problems and can be used to teach new members the correct ways to perceive, think, and feel in relation to similar problems. Schein (2010) further elaborates that the shared assumptions determine the behaviour of a group while the rules and norms are passed to newcomers through a socialization process that reflects the culture. Organizational culture can be defined as the factors which influence the behaviour of members in an organization via a set of values and beliefs shared by the members in the same organization (Miron et al., 2004). Sun (2008) provides an interesting definition as; the organizational culture is considered as software and the organization

as a Hardware. This implies that the managers of an organization are supposed to study in deep about each element of the software (organizational culture) and how it works based on Hardware (organization).

From the definitions of organizational culture, it can be summarized that the organizational culture consists of deep-rooted values and beliefs which are shared by the members of an organization. It is evident that organizational culture can be visible via typical characteristics of an organization (Martins & Terblanche, 2003). Culture in an organization represents the expressive characteristics such as feelings, behaviours, physical settings and artifacts, interpersonal relationships, and processes (Martins & Terblanche, 2003). According to Martins and Terblanche (2003), different processes and resources are used by organizations to guide behaviour and change. Organizational culture plays a critical role in supporting managerial tools which are used in influencing behaviour.

The research will be based on the organizational culture definition of Schein (1990) as the ways in which problems related to external adaptation and internal integration are solved by shared basic assumptions by a group of members. This will provide a basis for the research to identify the ways in which shared assumptions by organizational members support the creation of a culture that promotes innovation.

### 2.2.3 Different studies of organizational culture

Ouchi and Wilkins (1985) mention that the contemporary study of organizational culture can be best understood as a continuation of the mainline of organizational sociology. This focuses on the normative-based and shared understandings that regulate the social life in organizations. The study of organizational culture can be seen more deeply in sociology rather than in any other intellectual tradition. The sociological perspective of organizational culture can be critiqued in two sectors as the consideration of organization as a social phenomenon that has its own features that can be differentiated from an environment and the desires of individuals and member predispositions as the other (Ouchi & Wilkins, 1985).

White (1959) mentions that the anthropologist Edward Burnett Taylor defines culture from the anthropology view as the knowledge, beliefs, morals, law, custom, or any other capability or habits which prevail and those acquired by humans as members of the society in which they live. The study of Adewale and Anthonia (2013) argues about the impact of organizational culture in the Human Resource Management Perspective. The study reveals the direct relationship between the recruitment process, training, and development with organizational culture. Being familiar with the organizational culture (values, beliefs, and practices) supports employees (new and old) to understand organizational events better and to focus on tasks without trying to waste time by figuring out what is expected of them (Adewale & Anthonia, 2013).

#### 2.2.4 Hofstede's cultural dimensions

The cultural dimensions introduced by Geert Hofstede can be considered as one of the highly researched frameworks to study work-related cultures among different cross cultures (Wu, 2006). Hofstede has concluded in the study that "Organizations are cultural-bounded" (Wu, 2006). Different national cultural differences need to be taken into consideration in conducting business (Hofstede et al ,2005). Six independent dimensions have been presented from the sociology point of view to differentiate differences in organizational practices. These dimensions can be considered to study organizational cultures (Hofstede, 2011).

The first dimension explains the Process-oriented versus Result oriented. A process-oriented culture deals with more technical and bureaucratic characteristics, while a result-oriented culture focuses on the outcome of work (Hofstede, 2011). In a result-oriented culture, everyone follows similar kinds of practices, while in a process-oriented culture, there seem to be differences in practices among different units (Hofstede, 2011). In summary, a process-oriented means individuals are not willing to take risks or go beyond their expected roles and make a limited effort for the job. A result-oriented culture deals with individuals who go beyond expectations and are willing to face challenges and unfamiliar scenarios during work.

The second dimension is about the job-oriented versus employee-oriented. A job-oriented culture assumes that the job is the priority and nothing more. An employee-

oriented culture broadens their responsibility to be concerned about the employee's welfare apart from their work performance (Hofstede, 2011). It can be concluded that a job-oriented culture concerns on getting the work done by the employees at any cost without concerning the feelings of employees, and an employee-oriented culture is more focused on the personal problems of employees during the work and tries to provide an environment which supports both personal and work-life balance.

The third-dimension views professional versus parochial. The members of a professional culture view their identity with the profession, and the parochial culture suggests that the members of an organization gain their identity from the organization in which they work (Hofstede, 2011).

The fourth dimension elaborates on the open systems versus closed systems. This cultural dimension provides details about the differences between external and internal communication and the ease of admitting newcomers and outsiders (Hofstede, 2011). In summary, an open system of culture welcomes both outsiders and newcomers easily, but in contrast, a closed system consists of members who do not like to be open in communication, and they try to be secretive even among insiders.

The fifth dimension mentions tight versus loose control. Tight control culture is about strict rules and more formalities. A loose control culture deals with more flexible procedures in the workplace (Hofstede, 2011).

The last dimension focuses on the pragmatic versus normative dimension. This dimension measures the customer orientation in an organization. A normative culture believes that the organizational procedures play a significant role in achieving the outcomes. Pragmatic culture works toward achieving results rather than sticking to organizational procedures (Hofstede, 2011).

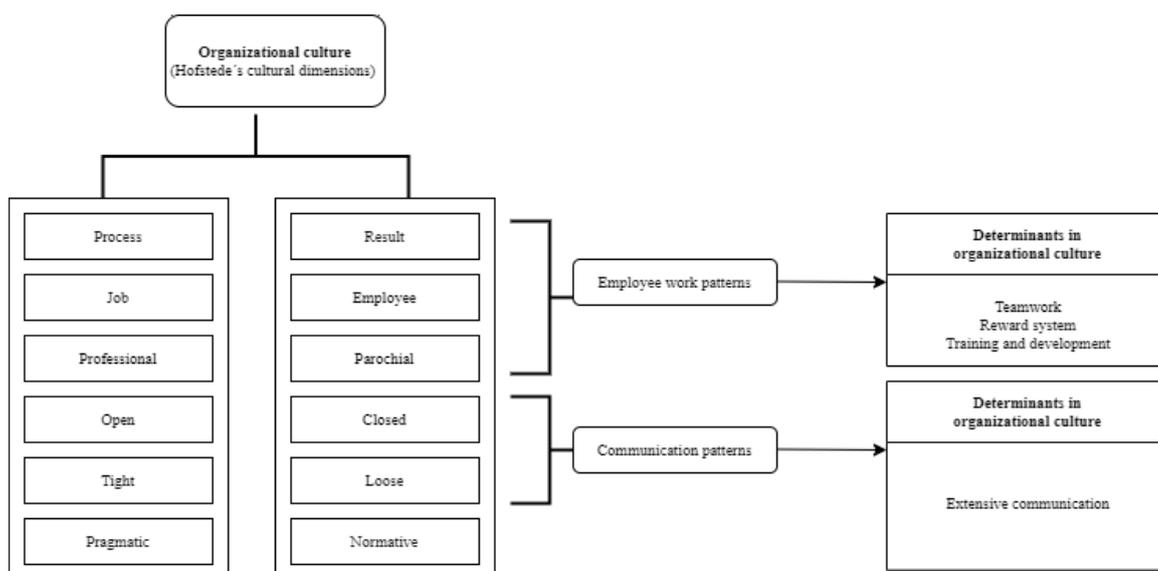
## 2.3 Determinants in organizational culture

### 2.3.1 Relationship between Hofstede's cultural dimensions and determinants in organizational culture

Hofstede's organizational cultural dimensions have been used as the basis to determine the organizational culture in this research. The most relevant dimensions have been chosen by the researcher to explore the determinants in organizational culture that promote organizational innovation. The first three dimensions, process-oriented vs. result-oriented, job-oriented vs. employee-oriented, professional vs. parochial cultures, define the work patterns in organizations. Since these dimensions deal with employee work patterns, the researcher has considered the impacts of teamwork, training and development, and reward system on innovativeness. The main basis for using these determinants is that organizational innovation happens because of employee contribution to work tasks. Ghorbanhosseini (2013) mentions that teamwork is an essential element in the organizational culture to achieve key capabilities in the competitive markets. Further, Ghorbanhosseini (2013) highlights that training can be used to enhance teamwork. De Clercq et al., (2014) show that rewards also play a significant role in motivating employees to provide innovative ideas. A combination of above mentioned three determinants will be suitable to define employee work tasks in organizational culture and how those impact organizational innovation. Therefore, these three determinants will be appropriate to evaluate the impact of the innovations at the organizational level.

The last two dimensions, open systems vs. closed systems and tight vs. loose control, describe the patterns of communication and structures. The researcher has used extensive communication as a determinant to cover the above-mentioned dimensions and to identify its impact of it on organizational innovation (Fu, 2020).

The following figure summarises the relationship between Hofstede cultural dimensions and determinants in organizational culture.



**Figure 1: Summary of relationship between Hofstede's cultural dimensions and determinants in organizational culture**

### 2.3.2 Teamwork

Organizations demand more teamwork as the business strategies change to face the market forces and be innovative to meet the customer demands (Jackson, 1996). The wide use of teamwork-based organizational culture reflects the shared belief that teamwork brings out the potential which could not be achieved by individuals in isolation (Jackson, 1996). A team can be defined as a platform where individuals work independently to reach their goals, and they are collectively accountable for the outcome of work where members of the team and outsiders see it as an intact social identity (Fay et al., 2014). Lloréns-Montes et al. (2005) define teamwork as a formation of a group of individuals who possess complementary skill sets, are committed and responsible for their actions, achieving objectives and purposes that are common to all. The study of Fay et al. (2014) proposes that teamwork supports in escalating innovation of organizations in two folds. Firstly, teamwork plays an important role in changing the experience, cognition, and attitudes of individuals. This process supports improving the creative skills and the ability to solve problems creatively, which could result in innovations. Secondly, teamwork creates a structural change for the organizations in which enhancement in the flow of ideas and knowledge takes place and creates a flexible organization.

Naveh and Erez (2004) explain that the self-directed teams foster cross-fertilization of ideas which increases the variance of ideas and results in more innovation rather than an individual working alone. The use of more teams in the organizational culture tends to flatter the organizational structure because of the change in relationships in reporting (Harris & Beyerlein, 2003). Flatter organizational structures enable teams to escalate innovative ideas quickly to key members of the organization and allow them to make decisions quickly. This would transform innovative ideas into innovations before they become outdated (Fay et al., 2014). Further, Lloréns-Montes et al. (2005) verify that team formation can improve organizational learning, and it can result in innovations. Team works are also capable of bridging organizational and individual learning (Lloréns-Montes et al. 2005). Organizational learning supports creativity, generation of new ideas and knowledge, increases the possibility to understand and apply them practically (Lloréns-Montes et al., 2005). To achieve a high level of organizational learning, the decision-makers of organizations should provide more attention to the formation, coordination, and management of teams (Lloréns-Montes et al., 2005).

The study of Caldwell and O'Reilly (2003) explains a normative influence on teamwork and innovations. The employees are motivated to propose new solutions to problems and try out tasks beyond their comfort zone when the teams develop norms that accept and encourage taking risks, and mistakes are expected in trying new ways of solving problems. When norms of team support in coordination and exchange of information, providing a sense of the need to accomplish goals quickly will lead to converting innovative ideas into reality sooner. The study of Caldwell and O'Reilly (2003) can be used to identify two important factors, namely a sense of urgency and tolerance for mistakes which are essential in a culture that promotes innovation.

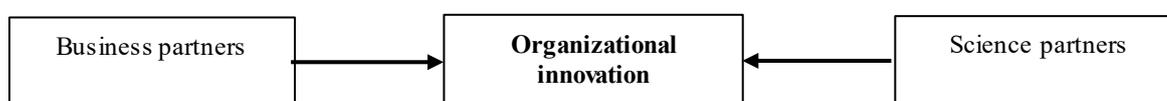
### 2.3.3 Extensive Communication

Organizational and communication studies have researched that the internal and external communication systems in organizations can highly impact organizational innovation as it supports recombining existing knowledge into new ideas (Fu, 2020). Organizational innovation includes the process of generation of ideas, implementation, and routinization, where each of these phases involves extensive communication

(Crossan & Apaydin, 2009; Lewis et al., 2003). Damanpour (1991) proves in the study about "Meta-analysis of effects of determinants and moderators of organizational innovation" that both internal and external communications have a positive relationship with organizational innovation. The study further argues about the effects of internal communication as it supports the dispersion of diverse ideas that support innovation. Circulation of information in a proper manner can support organizations in developing innovative ideas. A high level of internal communication can result in achieving innovations in the development process of the organization, such as effective internal communication can enable the distribution of ideas within an organization, thus increasing the amount and diversity and finally resulting in cross-fertilization of ideas (Kivimäki et al., 2000).

Internal communication can be divided into two clear types of interactions and collaborations. The first type can be defined as the various formal communication methods carried out between employees, departments, and different levels of staff in forms such as meetings and other information transmissions (Kivimäki et al., 2000). These kinds of interactions are also a supporting factor for the organizational innovation process (Kivimäki et al., 2000). The second type is the work activities between different groups with a mutual understanding, sharing of resources, clear vision, and aim towards a common goal (Kivimäki et al., 2000).

Different external partnerships allow organizations to obtain knowledge and implement them in the innovation process (Barroso Simao et al., 2016).



**Figure 2: External organizational relationships in organizational innovation (adapted from Barroso Simao et al. 2016).**

These partners can be divided into business partners such as clients, suppliers, other firms of the group, and competitors. The next type is the science partners, which include universities, higher educational institutes, research institutions, and other consulting firms (Barroso Simao et al., 2016).

The continuous share of information between suppliers and organizations enables the interaction between both parties. The suppliers must understand the needs of the organization, and the organization should understand the requirements of suppliers (Barroso Simao et al., 2016). This kind of effective understanding between both parties supports the organizational innovation process to be successful (Barroso Simao et al., 2016). The clients also contribute valuable information for organizations to operate. The wishes and needs of clients and information shared by clients are essential for organizations to adopt new practices and to get encouraged to create innovative solutions to client needs (Barroso Simao et al., 2016). Knowledge of competitors is also required for the organizational innovation process (Barroso Simao et al., 2016). Obtaining information about rivalry products, markets, and practices can shape the organizational innovation strategy to be different and unique from competitors (Barroso Simao et al., 2016). In summary, business partners provide the operational knowledge, which is required to improve management processes, generate new ideas, and change strategies that provide a pathway to innovations (Barroso Simao et al., 2016). Organizations access science partners to obtain cutting-edge knowledge from research which is required in the innovation process (Pippel, 2014). Therefore, organizations aim to receive scientific knowledge, technical support, or new technical options, which are essential to develop new skills, reduce costs, and finally achieve innovations (Pippel, 2014).

#### 2.3.4 Reward system

Rewards are a significant force that drive innovation within an organization (Baumann & Stieglitz, 2014). Research suggests that rewards are one of the factors which motivate employees and create a sense of excitement and leading to develop an innovative culture within organizations (De Clercq et al., 2014).

Organizational innovation can be improved via financial rewards, which are provided to employees in terms of monetary rewards (Hogan & Coote, 2014). There can also be other rewards, such as intrinsic rewards, which include praise and recognition for the outcome of work by employees (Darmaki et al., 2019). According to Darmaki et al. (2019), it is important for organizations to identify which stages of innovations should be rewarded and how they should be implemented in an effective manner. Innovation

rewards systems can be ineffective if the rewards are contributed only to a particular section of the innovation process. In most cases, the rewards systems target the idea generation stage. Darmaki et al. (2019) further elaborates that the organizations should not develop rewards systems for different stages of innovation but focus on different reward systems for different stages in innovation. The degree of rewards should increase with the results of the innovation. This will produce a fair reward system within the organizational culture that balances effort and outcomes of innovation. Extrinsic incentives can be used by organizations to motivate employees toward innovation if they are combined with strict wage rules (Haucap & Wey, 2014), support organizational goals and objectives, are fair and understandable, are in line with performance and expected behaviour, encourage creativity and personal initiative (Lukes, 2012).

Sheikh (2012) elaborates that the incentives should be provided based on the performance and not based on the activity to provide the best effects of the reward system. When the reward systems aim to provide incentives based on the group level, it increases the team efficiency and spirit, support for each other, and sharing of new ideas (Drake et al., 2001; Lukes, 2012). But when the rewards are based on tournament incentives, employees tend to aim toward maximizing their own profits and which could lead to lower organizational profits (Drake et al., 2001).

Meanwhile, organizations should also be concerned about the type of rewards system, which is extrinsic or intrinsic. This can be decided based on the employee feedback by defining the types of rewards that would be meaningful for them (Darmaki et al., 2019).

### 2.3.5 Training and development

Training and development can be defined as the process to obtain or transfer knowledge, skills, and abilities which are required to perform a specific task. The advantages of training and development are strategic in nature for both employees and employers (Niazi, 2011). Investments in training and development create a climate for continuous learning, which could result in the exchange of ideas and knowledge that promotes the generation of new knowledge and innovative ideas (Lau and Ngo, 2004).

Traditional training and development programs which focus on general training, social skills training, conference attending, and other kinds of training are not sufficient to stay ahead of the competition and provide innovative solutions. Innovative practices of training which stimulate employee performance, improve learning capabilities, and result in better decisions and actions need to be implemented in organizations (Manresa et al., 2019). A comprehensive training and development program requires knowledge, skills, and attitudes, which enable to achieve organizational goals and innovative performance (Niazi, 2011).

Human capital for organizations recruits is based on formal education and the training, mainly on-the-job training, which is provided during the job (González et al., 2016). Blundell et al. (1999) claim that highly educated and skilled employees are easily adaptable to organizational processes and a direct source of innovation. Apart from education, other informal training has also been found to increase employee innovativeness in the job.

Corporate training is one of the internal training and development programs implemented by organizations. The main aim of corporate training is to conduct firm-specific internal training that supports achieving immediate skills and performance gain (Sung & Choi, 2014). Corporate training is designed in various methods such as lectures, workshops, site visits, case analyses, collective face-to-face training, and online personalized training (Sung & Choi, 2014). As this training builds firm-specific human capital, it speeds the rate at which employees learn the firm-specific skills and tasks and improves productivity (Hatch & Dyer, 2004). Apart from new skills and tasks, corporate training supports promoting employee openness to new ideas and the ability to initiate constructive proposals for change which may not learn during daily routines (Chen & Huang, 2009). Another form of training and development is to provide financial assistance for employees to choose their own educational and professional development pathways (Jacobs & Washington, 2003). These financial assistances provide as a part of the employee benefits package. According to Jacobs and Washington (2003), management assumes that selecting their own educational and training needs will benefit employees in career growth, and it has a positive impact on organizational development. These financial assistances in education programs have shown to be the easiest and most effective methods for companies to invest in their

own human capital to be more knowledgeable and educated, which could finally support in achieving innovations by the organizations (Jacobs & Washington, 2003).

Innovative training and development not only improve employee performance but also encourages career development. These approaches support employees to respond to challenges in unique ways, adapt to unstable environments, and feel comfortable with ambiguity. Effective training programs should fit with the company strategy, culture, and work processes. These practices can lead to creating innovative business solutions (Schmelter et al., 2010).

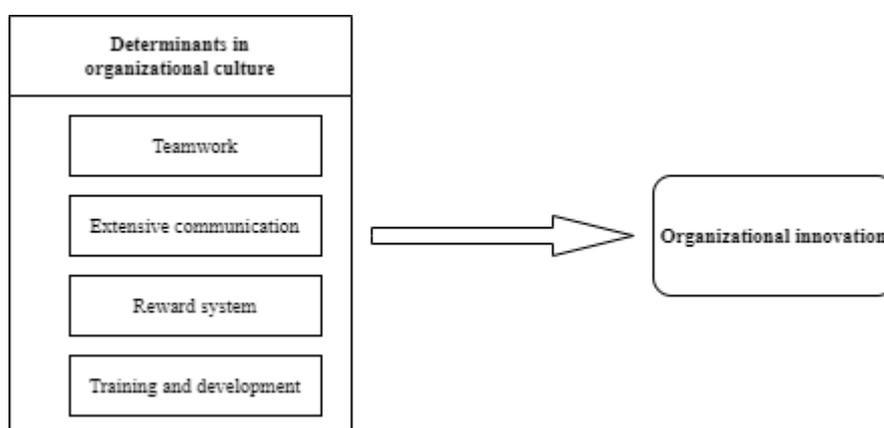
#### **2.4 Relationship between organizational culture and organizational innovation**

An organizational culture that promotes innovation can be visible with characteristics of dynamism, flexibility, quick adaptation to changing environments, and non-stereotypes (Szczepańska-Woszczyzna, 2014). A key feature of an organizational culture that promotes innovation is the support and encouragement provided to every employee to discover unconventional and new ways of performing tasks and achieving goals (Szczepańska-Woszczyzna, 2014). A culture promoting innovation is important as it strengthens cohesion, loyalty, clear rules and regulations, and behavior that is appropriate (Dobni, 2008). According to Dobni (2008), organizational culture can be categorized into four sections, namely intention to be innovative, infrastructure to support innovation, behaviour to influence market orientation, and an environment to implement innovation. This categorization proves the multi-dimensional approach of organizational culture in promoting innovations in organizations. Furthermore, Sharifirad and Ataei (2012) explain that creativity and novelty are also prominent sources of innovation, and those can be motivated by the organizational culture.

Several researchers have argued about the positive relationship between organizational culture and innovation. Kenny and Reedy (2007) mention that organizational culture can support, implement and encourage creative solutions within an organization which could lead to innovations. According to Martins and Terblanche (2003), innovative solutions can be generated for problems by a culture that supports in creative ideas. Mumford and Gustafson (1988) argue that even though individuals in an organization take initiatives for innovative ideas, those can be conditioned by the beliefs in

organizational culture about the consequences of actions. Individuals in an organization can be discouraged from performing innovative tasks in a culture that concerns reliable and efficient operations without errors and does not provide priority for innovative initiatives. Individuals will not be willing to involve in creating innovative ideas in such an environment even if autonomy is provided. This is due to the fear of individuals of the negative consequences of actions involved in risky decisions. Önhon (2019) further highlights that the top management of an organization should focus more on promoting employees to face positive challenges, support, openness, and reduce formal structures. These types of actions support an organization to implement a culture that motivate employees to take part in innovative tasks. According to Abdul-Halim et al. (2019), organizational culture is a prominent instrument and acts as a control mechanism in organizational commitments and supports to deal with the external changes. Overall, it can be mentioned that the organizational culture is a core for innovative activities of an organization.

The following figure provides a summary of the relationship between determinants in organizational culture and organizational innovation



**Figure 3: Relationship between determinants in organizational culture and organizational innovation**

### **3. METHODOLOGY**

This Chapter aims to discuss the research methodology selected to discuss the research questions which aim to examine the “Determinants in organizational culture for promoting organizational innovation”. The research method will be justified by explaining the methodological considerations, data collection methods and data analysing methods.

#### **3.1 Research method**

##### **3.1.1 Methodological considerations**

This research aims to understand the principal research problem, “What are the determinants in organizational culture that promote organizational innovation?” This principle research question is supported by the sub-research question, "How does organizational culture impact organizational innovation?". This study is conducted using a qualitative research method to provide answers to the research questions. Qualitative research is used in social sciences to study social and cultural phenomena (Toloie-Eshlaghy et al., 2011). Qualitative research can be used by researchers to understand human beings and their social and cultural interactions (Toloie-Eshlaghy et al., 2011).

Qualitative research provides an understanding of how things come to be in the way they are in society (Hancock et al., 2001). Qualitative research focuses on description and interpretation, and this might lead to the development of new concepts and theories or evaluation of organizational processes (Hancock et al., 2001). Hancock et al. (2001) further elaborate that qualitative research can provide answers to questions such as why people behave the way they do, how people are affected by different events, and why cultures and practices develop the way they are.

The purpose of gathering data in qualitative research is to provide evidence and justify the investigation of the study (Polkinghorne, 2005). The data stand as a foundation on which research findings are based (Polkinghorne, 2005). The most common modes of data gathering in qualitative research are interviewing, focus groups, and participant

observations (Fossey et al., 2002). Qualitative interviews focus on understanding the views of participants on the research phenomena in terms of their experiences as portrayed in their stories (Fossey et al., 2002). These interviews can be conducted in structured or unstructured methods (Fossey et al., 2002).

The main goal of this research is to use the existing theories of literature described in the literature review to understand the practicality of determinants in organizational culture that promote organizational innovation. The existing theories act as a supportive role in building up the research. A systematic literature review was carried out to understand the existing literature on organizational culture and organizational innovation using journals, books, and databases in the University of Oulu library "Oula Finna" and "Google Scholar." The research data was collected via interviews conducted with management-level personnel of organizations in Finland whose main business operations are carried out with innovations.

### 3.1.2 In-depth interviews as the data collection method

In-depth interviews are a useful technique in qualitative research to obtain data (Guion, 2001). In-depth interviews can be beneficial to ask open-ended questions and retrieve information in depth from relatively few people (Guion, 2001). Guion (2001) further suggests that in-depth interviews are discovery-oriented, which allows the interviewer to understand the participant's feelings and perspectives on a specific subject in more depth. In-depth interviews can use semi-structured interviews to design questions based on identified themes in a more consistent and systematic manner to obtain the responses (Qu & Dumay, 2011). Semi-structured interviews support the interviewer in obtaining hidden information about human and organizational behaviour. This can be possible due to the flexible nature of the questions (Qu & Dumay, 2011).

Boyce and Neale (2006) explain that in-depth interviews provide more detailed information about a particular phenomenon when compared to other data collection methods such as surveys. In-depth interviews also provide a relaxed and comfortable atmosphere for the interviewer and interviewee to have conversations which lead to deep insights into the themes in the interview (Boyce & Neale, 2006). In-depth interviews can also have limitations, such as being time-intensive based on factors

such as time taken to conduct the interviews, transcribe the interviews, and analyse the data (Boyce & Neale, 2006).

The researcher uses the semi-structured interview methods elaborated by Qu and Dummay (2011) in designing the interview questions. The interview questions are divided into four sections based on the themes provided in the literature review section. Qu and Dummay (2011) further explain that structured and unstructured probes can be used as a technique in the interview process to draw out more narratives from the interviewees to understand further a particular topic or a theme. This research aims to explore the determinants in organizational culture that promote organizational innovation. The researcher aims to provide questions to the interviewees in a manner where more deep information about organizational culture can be revealed and to obtain personal opinions from the interviewees as they are experienced professionals in the fields of innovation-oriented organizations. The research only focuses on the perspectives from the organizational point of view, and views of parties not related to the organizations are not considered in the study. Therefore, the use of in-depth semi-structured interviews is justifiable to conduct this study.

### 3.1.3 Interviewee selection

Selecting the most suitable interview sample is a critical area in conducting qualitative research. This research uses the purposeful sampling technique explained by Shaheen et al. (2019). The purposeful sampling technique chooses the participants of the study based on the needs and objectives of the research. The researcher selects the participants based on their knowledge and expertise level of the phenomena of study (Shaheen et al., 2019).

In order to select interviewees to gather relevant information to analyse the research questions, interviewees who have direct experience of innovation and organizational culture have been selected from online databases and personal networks. The interviewees are currently working in organizations inside Finland. The interviewees were contacted via emails and LinkedIn connections. All the interviewees have been provided with the basic interview questionnaire through electronic mail to have a better understanding of the interview process prior to the real interview.

All the interviewees work in organizations in Finland that are mainly engaged in innovative business activities. Shaheen et al. (2016) describe selecting participants based on expertise level relevant to the study. Proving the point of Shaheen et al. (2016), interviewees hold professional experience in the field of innovation and have an overall understanding of organizational culture and its influence on organizational innovation.

### 3.1.4 Conducting the interviews

Due to the current restrictions of COVID 19, interviews were conducted online on Zoom during the period of February-March 2022. The interview questionnaire was delivered to all the interviewees via electronic mail before the actual Zoom interview. All the interviews were recorded in video and audio formats on the day of the interview and later transcribed to text format. The video interviews were beneficial for the interviewer to better connect with the interviewee and talk in-depth about several areas of the interview. All the interviewees were explained in detail about the interview questions presented. Interviews were conducted in the English language. The themes and the interview questions were drafted according to the Literature review (Section 2) of this research. All the interviewees were presented with the same basic questionnaire format, and the style of asking questions was different based on the answers provided by the interviewees. Summary of the conducted interviews is presented in Table:1

**Table 1: Description of interviewees**

<b>Interviewee</b>	<b>Type of organization</b>	<b>Position</b>	<b>Duration of the interview</b>	<b>Date</b>
1	Technology and Research Organization	Strategy Manager	55 minutes	21.02.2022
2	Technology and Power Organization	Global Transformational Leader	50 minutes	23.02.2022

3	Software Organization	Senior Research and Development Manager	53 minutes	28.02.2022
4	Telecommunication and Technology Organization	Development Manager	1 hour and minutes	03.03.2022
5	Energy, Paper, and Technology Organization	Research and Development Director	56 minutes	07.03.2022
6	Technology and Marketing Organization	Growth and Marketing Director	43 minutes	10.03.2022
7	Engineering Services Organization	Head of Business Development	40 minutes	17.03.2022

### 3.2 Data analysis method

There are three methodological approaches defined as inductive, deductive, and abductive in the qualitative research literature (Graneheim et al., 2017). The inductive approach is a data-driven approach and searches for patterns. The inductive approach turns data into a theoretical understanding by identifying similarities and differences in data by interpreting them into themes and categories. This approach is suitable when data is used to build a theoretical understanding (Graneheim et al., 2017). The deductive approach can be called concept-driven, as this is used in testing the existing theories with the generated data. In this method, the theory is used to understand the data (Graneheim et al., 2017). The Abductive approach is a combination of both inductive and deductive approaches (Graneheim et al., 2017). This research is

conducted using the methods defined by both inductive and deductive approaches, and hence an abductive approach well defines the methodological approach.

The generated data from the interviews need to be analysed and organized in a systematic manner to present the findings in the research. All the digitally recorded interviews were transcribed in text format. Widodo (2014) mentions that the first step of organizing and analysing verbal data is by transcribing. This process involves careful observation of verbal data by closely listening to the conversations. Widodo (2014) further highlights that the transcribed data should be presented in a manner that is easy for the researcher to better analyse and further use to analyse different themes. Widodo (2014) also suggests that it is important to keep the natural language of the verbal talks when transcribing the data. Grammatical mistakes should not be corrected as the verbal form can have grammatical errors, and it is natural. In this research, the researcher transcribed all the digital interviews into text format and stored them as Microsoft Word documents.

The computer assistant program NVivo is used in the data analysis process of this research to organize all the data generated from in-depth interviews. NVivo software provides an accurate and transparent view of data entered into the system and enables the researcher to audit the data based on different tools in the system (Welsh,2002). All the interview transcript files are uploaded to the NVivo system and analysed based on the themes specified in the research. Then, codes are created to identify the themes based on the interview data. Interview data is transferred to the codes to better analyse the themes. Finally, the data generated from the codes are compared with the theoretical section to validate the literature with practical evidence. This provides the necessary findings and discussion for the research to conduct conclusion and answer the research questions at the end.

## **4. FINDINGS AND DISCUSSION**

This chapter aims to provide the findings from the empirical research with comparison to the theory presented in the literature review section in this research.

### **4.1 Introduction to the interviewees and the company background**

#### **Interviewee 1:**

Interviewee 1 is a strategy manager in a technological research organization in Finland. The interviewee has extensive knowledge in electrical engineering and measurement sciences and worked in research scientist roles before joining the current position. The job responsibilities as a strategy manager include developing a research framework of the company and making decisions regarding different strategic choices. The interviewee also manages an early-stage innovation program of the organization. Innovation plays a key role in the core activities of the organization, and the interviewee is constantly engaged in innovation-related decision-making. The interviewee also mentioned the involvement in the cultural development activities of the organization.

#### **Interviewee 2:**

Interviewee 2 is a global transformation leader with professional experience in a master of finance and a doctorate in management accounting. Interviewee 2 works in a leading technological organization located in Finland and runs businesses around the world. The main job responsibilities of the interviewee include transforming finance and controlling functions of the organization to better respond to a competitive situation. The interviewee also has 20 years of experience working as a chief financial officer and in global controller positions. Innovation is used in the day-to-day business activities of the organization, and the interviewee engages in decision-making related to different innovative activities of the company.

**Interviewee 3:**

Interviewee 3 has 20 years of experience in the software industry and currently works as a senior research and development manager at a leading software organization in Finland. The organization is mainly engaged in providing innovative solutions for its customers. The main activities of the organization include designing frameworks for designers and coders to make cross-platform applications faster. The interviewee has a professional background in information processing science. Current job responsibilities of the interviewee consist of line management of team members, managing technical projects, subcontracting, and implementing technical work. The interviewee has experience in leading innovative projects of the organization and also participating in culture-building activities of the organization.

**Interviewee 4:**

Interviewee 4 has an educational background in industrial engineering and management, specialising in manufacturing technology. The interviewee currently works as a development manager in a major telecommunication organization in Finland. Prior to the current position, the interviewee has a vast amount of experience in roles such as a line manager, project manager, and resource and competence manager. The interviewee has job responsibilities in new product development programs and ensuring those products are suitable for the supply chain. The interviewee also mentioned the job role being more holistic in recent years with responsibilities also in developing employer brand, employer image related topics, internal employee satisfaction, and internal communication competence development areas. Interviewee 4 has a background in both working directly related to company innovation and in culture building.

**Interviewee 5:**

Interviewee 5 is a research and development director in analysers, measurements, and performance solutions in a leading paper and energy organization in Finland. The organization produces different kinds of process industry devices, information systems, and automation systems. The interviewee has an educational background in

information technology and started working in the current organization as a technical writer. Interviewee 5 has 33 years of experience in the organization working in different departments from customer documentation, IT department, and currently in the research and development department. The interviewee currently handles the research and development function and is responsible for application research, measurement technology, and product realization. The interviewee has extensive experience in handling different teams, collaborating, and leading various innovative projects in the organization.

### **Interviewee 6**

Interviewee 6 is a growth and marketing director in a technological organization in Finland which is specialized in digital marketing and communication software. The interviewee has pursued professional qualifications in marketing management. The interviewee has extensive experience in leading the growth and marketing team of the organization. The current job role includes responsibilities in creating demand for the product line of the organization. The organization is mainly engaged in providing technological solutions for the marketing needs of the customers. Marketing is a field that requires a lot of new and creative ideas to be unique in the market. The interviewee is actively involved in the innovation-related activities of the organization and leads teams in achieving the goals.

### **Interviewee 7**

Interviewee 7 works as a head of business development, innovation, and business platform in a leading engineering services organization in Finland. Interviewee 7 has an educational background in chemical engineering and business management. This has supported the interviewee to achieve both the technical as well as the management knowledge, which supported them in working in different innovation-related roles in leading organizations. The interviewee has job responsibilities in the commercialization of novel technologies utilizing municipal solid waste and other innovative solutions for low carbon intensity, creating new business globally, and producing sustainable fuels and chemicals. The interviewee also engages in

organizational team-building activities and promotes organizational culture to support innovative activities.

## 4.2 Innovation

This chapter discusses the definitions of innovation and the importance of innovation from the perspectives of the interviewees. Theoretical sections have been defined in the literature review of this study. Therefore, this chapter aims to validate the theoretical section with the collected data from the in-depth interviews.

Fay et al. (2014) mention that innovation plays an important role for organizations when dealing in the current competitive markets. All the interviewees agreed to the fact that innovation is an important element in their business operations. The term "innovation" is practiced and defined with different perspectives by all the interviewees. However, they all validated the importance of innovation, as mentioned by Fay et al. (2014).

“It's really one of the main pillars and areas in our company. It's not only what we usually linked to technological innovations, engineering innovations, but it's a wider concept for us.” (Interviewee 2)

“So. innovation is in the core of our doing, and of course our investments to research and development are vast.” (Interviewee 4)

Most of the interviewees highlighted the importance of innovation by providing interesting statements. All these statements reveal the importance provided to innovations by modern-day organizations as a part of their strategy.

“I would say that the innovation is our bread and butter.” (Interviewee 4)

“(…) it's really, about being innovative, creating new all the time. It's really something which is in our DNA.” (Interviewee 2)

“The innovation is one of the core values of the X company as well. So, it's part of the value structure (….)” (Interviewee 3)

Abdi and Senin (2014) introduce innovation as a process of aggregating value by

creating, developing, and improving products and processes. Interviewee 1 specifically mentions the value creation by innovative activities in the organization. According to interviewee 1 economic value created by innovation provide benefits to the organization as well as to the stakeholders.

“(..)something new, an invention or a business model that is new and that creates economic value. So it needs to be taken over by the customer, and it needs to create additional economic value” (Interviewee 1)

Daher (2016) also holds a similar definition of innovation as the use of capabilities to create new ideas and improve and develop new products and technologies. Interviewee 4 agrees with the fact that innovation happens by mixing different capabilities and ideas.

“I think the innovation is creating something new. And I think it usually happens when different perspectives come together and, some radical or even crazy ideas get under their wings.” (Interviewee 4)

Daher (2016) highlights the importance of organizational member perceptions towards implementing innovation. Further adding to this statement Claver et al. (1998) argue about missing the involvement of human role in the innovation process in organizations. According to Claver et al. (1998) human factors enable organizations to provide new ideas, shared behaviour, and in accepting change. Interviewee 2 clearly mentions the importance set for different human factors in organizations in achieving innovation.

“(..)And I'm part of the diversity as a way to respond to this. So, in order to have an innovative environment, we would like to have also these diverse thoughts and diversity in people. And so not only gender but various backgrounds. And so we really share innovation and innovativeness in our companies.” (Interviewee 2)

Shahzed et al. (2017) discuss the ability of innovative organizations to face the market competition and achieve sustainable performance. Interviewee 1 agrees with the statement by Shahzed et al. (2017) and mentions that innovation supports the

organization to achieve sustainable performance. The main aim of the organization is not only profit maximization but also to provide benefits to the society and in return by achieving its own goals and profits through innovative activities. Interviewee 2 also agrees with the achievement of sustainable performance when an organization initiates innovations. Therefore, sustainable performance can be considered as one of the advantages of innovations, as mentioned by both interviewees 1 & 2.

“Yeah, so kind of, it is our reason for existence to innovate, but also we are here to, and our purpose is to create sustainable growth and jobs, wellbeing in Finland and in Europe. So that kind of innovating is pursuing our purpose.” (Interviewee 1)

“Innovation is a driving force for success. It really enables us to compete for the future response, also the sustainability and social responsibility topics.” (Interviewee 2)

Karabulut (2015) shows that innovation is an essential strategic tool for organizations to survive in the markets and enter the competitive markets. Most of the interviewees share a similar idea as innovation is helpful for them to survive in the market, and it is essential for them to be ahead of their competitors.

“So, in order nowadays for a company to survive, this is really kind of a prerequisite. You cannot have a chance to stay and lay back, but you need to be very active trying to figure out something new.” (Interviewee 2)

Interviewee 3 says that their company has a well-structured innovation strategy that aims for the long-term performance of the company. Agreeing with Karabulut (2015), interviewee 3 opens about the innovation strategy and how innovation supports entering the competitive markets and fulfilling the exact needs of their customers.

“We do have a strategy. That's, I guess, somehow confident. So, I cannot open it up that much (...) Have a strategy for a few years, let's say five years ahead. And then that split for three or four, and then those are split to quarterly things that we are aiming to actually (.....) they make people life easier, faster, and they can spend less time for some.” (Interviewee 3)

Based on the discussions, most of the interviewees show that innovation supports in creation of value. This proves the statement by Abdi and Senin (2004) as a process with the aim of aggregating value by developing and improving products, processes, and markets.

### 4.3 Organizational culture

Tharp (2009) explains that an organizational culture consists of ideas, values, and beliefs which guide employee actions and feelings. Interviewees have similar comments to the statement of Tharp (2009) and mention that the values and beliefs highly influence organizational culture. Interviewee 2 explicitly highlights how the employees are deeply rooted in the organizational culture with the long tenure in the organization.

“In organizational culture, like you said, is an extremely wide concept and of course, when you have been a very long time in a company, you have certain values, you have certain beliefs, ways of acting, thinking, and your roots are in the company. So I would say that it's kind of having the roots in certain way and certain areas and certain ways of thinking. So I'm thinking that it is the culture” (Interviewee 2)

“Basically, the culture is the people and the way of working and also the surroundings a little bit. And it also reflects the values.” (Interviewee 3)

Miron et al. (2004) also provide a similar definition for organizational culture as a set of factors that influence the behaviour of members of the organization. Interviewee 1 believes that organizational culture is an element that cannot be influenced, and it happens naturally within the organization. Interviewee 1 further states that organizational culture happens because of day-to-day activities, and it cannot be specifically created.

“(.....) that organizational culture is something that happens when no one is watching. So, it is kind of this routines and daily activities that you do, without really thinking and that you get kind of immersed into. and that is also something that it is not easy to influence in,(.....)” (Interviewee 1)

Statement by interviewee 1 agrees with the definition of Miron et al. (2004) as organizational culture is a factor that can influence employee behaviour, but organizational culture cannot be influenced. These two statements provide an exciting connection of how organizational culture is defined in the literature versus the organizational culture seen by a professional with practical experience.

Schein (1990) provides a slightly different definition of organizational culture, including internal integration and external adaptation. Interviewee 6 shares a similar idea to the definition provided by Schein (1990). According to Interviewee 6, the organizational culture changes rapidly with the external changes, and it is a dynamic process. Interviewee 6 mentions that organizational culture needs to be constantly changed according to the different situations and culture cannot lie only based on a specific set of activities practiced in the past.

“We are dynamic, and you know, this kind of constantly changing and evolving company. So if you work with us, you need to know that tomorrow the processes might be a little different already, so we can be too keen of what, how have we done beforehand. And I think when you're working this kind of landscape where they are (...), so you cannot be, you know, too strict about that. We are going to this kind of direction.” (Interviewee 6)

Martins and Terblanche (2003) state that organizational culture consists of different expressive characteristics that are visible. Based on the interviewees, all the interviewees agree that organizational culture consists of different visible characteristics. "Openness" is one of the characteristics that interviewees mostly highlighted when discussing the organizational culture.

“We talk about essentials, and our essentials are open, fearless, and empowered. And this open means that people feel that they have an open mindset to opportunities. They're open to inspiration, diffuse new approaches, new ways of doing.” (Interviewee 4)

So that's the principle and basically guides decision making. So the organization culture in the project itself is also open-source based. So that's also impact to support the culture. Basically, the culture is pretty open.” (Interviewee 3)

The literature review in this research uses Schein (1990) definition of organizational culture as the ways in which problems related to external adaptation and internal integration are solved by shared basic assumptions by a group of members. The whole discussion about organizational culture validates that organizational member values, beliefs, attitudes, and shared assumptions support creating an organizational culture. Open culture provides opportunities for employees to share ideas freely and develop innovative solutions. Both Interviewees 4 and 3 give facts on how an open culture is an essential characteristic in the organizational culture. Based on these characteristics, it opens the discussion towards identifying determinants in organizational culture that promote innovation,

#### **4.4 Teamwork**

Jackson (1996) points out that teamwork is an essential part of organizational culture in deciding business strategies to face market changes and customer demands which result in innovations. Most of the interviewees explained that teamwork is a typical day-to-day function in the organizational culture. It helps achieve goals by sharing different ideas and combining various competency levels.

“but all work and daily actions are done in teams; those teams can be official project, teams or unofficial, professional teams and all those teams are working together to getting some targets achieved.” (Interviewee 5)

“We are organized in teams and the researchers work in teams and, basically the kind of working mode for us is project.” (Interviewee 1)

“Yeah, I would say that teams have a very, very big influence.” (Interviewee 6)

Fay et al. (2014) propose that teamwork enables organizations in generating new and creative ideas for innovation and also create structural changes which enhance the flow of ideas and knowledge. Interviewee 2 discusses that their business operates globally, and different countries have different structures. From the perspective of operations in Finland, interviewee 2 describes that the organization has a flat organizational structure where ideas can be transmitted quickly.

“(....) in general we can see that, it varies from country to country, even business to business, but you can see that we have very flat countries or nations. So to say, where there are no point varies, but still, we can see that certain areas in the globe, we see these ladders or steps or something, more hierarchical also in our organization” (Interviewee 2)

Teams can work together with their members in developing new ideas, and those ideas can be quickly transmitted to the higher levels of the organizations to implement them without delay.

“(....) that we are not necessarily limiting these ideas to come on the surface. So to say, I think we have worked so long time together and so that these ideas can be brought on the surface quite easily.” (Interviewee 2)

Interviewee 6 shares that the hierarchical structure in their organization is flat, and the teams can contact the necessary parties responsible for initiating ideas without delay.

“I think it will, you know, go at that. If it's good, that there's no reason to be holding up that or waiting for certain meeting to be giving that idea. But they're just conducting, if, you know, if you create an idea, for example, related to one of our products, you can just yourself strictly contact the product manager of the current product rather than, you know, asking from several people that, is this a good idea, or should I take this further? So rather, you know, just throw those ideas all the time.” (Interviewee 6)

Based on the above discussions, it proves the statement of Fay et al. (2014) and most of the interviewees mention the statement practically. It is evident from the discussion that flat organizational structures enable teams to perform better, and it improves the chances of innovation to implement successfully and promptly.

Lloréns-Montes et al. (2005) point out that teamwork in organizations supports bridging the gap between the organizational and individual learning. Organizational learning is prominent for organizations to achieve innovations, but this can happen when individual learning is also provided at the same time. Interviewee 1 agrees with the impact of teamwork on organizational and individual learning. Interviewee 1

discusses how teamwork supports the learning process with examples from their organization. The organization involves professionals from different fields in their projects where everyone can input their ideas and continue experiments to achieve a successful final output. Interviewee 1 especially highlights the term multidisciplinary teams in the organizations and the advantage of those teams in bridging the knowledge gaps and finally achieving the innovative solutions.

“(.....)if I give one example, last year we developed,(..) artificial intelligence, based biomaterial design which and the team then composed of biomaterial experts, artificial intelligence experts, and then also material modeling experts. So, kind of bringing different disciplines together.” (Interviewee 1)

Interviewee 5 shares about the involvement of people from different expertise levels in teams to develop innovations. Organization of interviewee 5 engages in the technical field, and the involvement of different knowledge levels is essential for the successful innovations

“(..)professionals because we are doing, measurement technology, related actions. there are a lot of measurement technologies specialists working in my organization as well. There's mechanical designers, hardware designers, software designers, electrical designers and, testing engineers and all those people are bringing to get some different kind of point of views of technologies or products or some problems which we face in daily life.” (Interviewee 5)

Interviewee 3 also shares a similar experience when dealing with multidisciplinary teams in their organization. Interviewee 3 emphasizes the importance of teamwork, especially in a pandemic where people work remotely with limited face-to-face contact. The organization engages in the software business, and hackathons are organized to generate new and innovative ideas. Since these hackathons involve people with different expertise levels and fields of experience, it enables the organization to come up with innovative and successful ideas which can be implemented.

“here is different kind of innovation or innovating happening when people meet face to face (...) and those hackathons, they usually are teamwork. So somebody shows up the idea, and then others join to contribute. And then on the other hand development teams in here, they work-friendly” (Interviewee 3)

Hackathons are considered a continuous process by interviewee 3 where it needs the contribution from different teams to implement the ideas into action. Therefore, these activities increase team morale and benefit the organization in coming up with innovative solutions.

Interviewee 2 opens about the involvement of self-directed teams in the organization when discussing teamwork. According to interviewee 2, self-directed teams work more independently, and it contributes a lot towards achieving innovation goals.

“Well, already 20 years ago, we started to talk about self-driven teams. So, very independent teams, driving their things, so I'm still thinking that we are in the right path with that one. So self driven teams, not, followed or controlled or, you know outside so much, but very flat self driven teams” (Interviewee 2).

This statement of interviewee 2 justifies the theory contributed by Naveh and Erez (2004), which describes the importance of self-directed teams in achieving innovation.

The study of Caldwell and O'Reilly (2003) provides an understanding of the normative influence on teamwork and innovation. The norms of an organization should be cultivated in a way where employees feel motivated and safe in accepting risk and failure. When organizations implement norms in teams that support in success and failure, employees feel the sense to accomplish their tasks and contribute toward organizational goals. Most of the interviewees agree with the statement of implementing supportive norms in teams when achieving innovations. Interviewee 4 explains in detail about the support provided within teams and by the management when employees create new ideas and in managing the failures. The key term mentioned by interviewee 4 is the importance of psychological safety. It is important for teams to feel safe when they implement their tasks, and interviewee 4 mentions that the leaders always back up the teams in either success or failure and provide all the support required. Implementing psychological safety can be considered a prominent characteristic of a culture that will support innovation from the discussion with interviewee 4.

“(..) taking these ideas further with your colleagues with your team, requires this support and feeling safe. So, I think this psychological safety is very important. And if you feel support from the others, you feel more secure to take risk. Or if the proposal or something is kind of a co-worker from the whole team or a group of colleagues, then you feel that you are not alone in taking this risk for instance. And then, that you feel that your leader is there to pack you up to defence you, or stand by you. If something goes, then if it doesn't apply or work. So, I think the teamwork is really, really important here.” (Interviewee 4)

Interviewee 2 also shares a similar idea regarding the support for failures. Failures can be considered a learning opportunity, and the lessons can be used to improve better. Interviewee 2 shows that mistakes that are not with severe consequences are regarded as acceptable, and the failures are constantly evaluated based on the effect of consequences. Overall, the organization of interviewee 2 supports the teams and encourages them to do more successfully in failures.

“(..) respond to this kind of situations rely on what kind of failures we are talking about. There are failures, which are not so serious, and you can learn from your mistakes, and you continue, with a certain path, and you learn and you are courage to do it, it's okay to make mistakes.” (Interviewee 2)

Interviewee 1 shares interesting facts about their organization in reacting towards failures. The organization celebrates failure with an annual event.

“We do have a gala of failures, so, where we try to celebrate the failures.” (Interviewee 2)

This event identifies failures, setbacks and has a moment to laugh and enjoy. The main aim of this event is to create a culture where employees feel safe in being failed and accepting risk. This event can also be linked to the statement of interview 4 where psychological safety is mentioned. These events support teams and employees to embrace a supportive culture that believes in employee efforts and encourages them to do more.

Based on the interviews conducted, all the interviewees agreed on the influence of

teamwork on the organization's innovation activities. They validated the point that teamwork enables one to develop more innovative ideas rather than working in isolation. Interviewees were interested in discussing the theme "teamwork," It also provided some insights to think about improving their teamwork strategies towards achieving innovation.

#### **4.5 Extensive communication**

Communication plays a huge role within and outside the organizations in supporting innovation-related activities. All the interviewees agree with the importance of implementing a proper communication system to promote the generation and transmission of innovative ideas.

Damanpour (1991) proves the effect of internal communication in the dispersion of ideas that support innovation. Interviewees mention the implementation of different formal and internal communication methods within the organization to promote innovation. Interviewee 1 says that the organization mainly deals with informal communication methods in sharing ideas. Interviewee 1 also shares that there are formal communication tools in use but those are not that much used in sharing ideas.

“I think the communication mostly relies on, informal channels. So, chat at coffee tables or team and research area meetings, some well project meetings.”  
(Interviewee 1)

Interviewee 6 shares a similar statement to interviewee 1, mentioning informal communication structures inside the organization.

“So once the idea is good, you know, they can just contact whoever they want in the company.” (Interviewee 6)

Interviewee 6 highlights those whatever ideas generated by the employees are shared with the responsible parties to validate the idea. Interviewee 6 further mentions the use of formal systems in sharing ideas and making decisions regarding those ideas. When analysing the statement of interviewee 6, it is visible that the organization practices

both informal and formal internal communication methods in sharing innovative ideas. In contrast, interviewee 1 agrees with the higher effectiveness of informal communication methods.

Kivimäki et al. (2000) explain the use of different formal communication methods to transmit innovative ideas inside the organization. Several interviewees share the use of formal communication methods as internal communication tools in sharing ideas. Interviewee 4 engages in a business where global innovation takes place. Therefore, the organization uses a formal communication method to evaluate the ideas and implement those ideas into a product, resulting in innovation.

“We do have a global innovation where people can kind of look, put and send their idea, and then they are being kind of scanned and evaluated. so, we do have such a kind of system.” (Interviewee 4)

Further, interviewee 2 adds to the statement of interviewee 4 by describing a common, professional structure practiced in their organization. According to interviewee 2 employees are encouraged to provide ideas to the system even if it is not in their responsibility area. The organization tries to promote a culture where each idea is respected and reviewed which provides a sense of encouragement for employees to involve in the idea generation process.

“It's a common, professional structure. And then there is a team viewing all the ideas. And, openly then describing that, okay, these are that idea and how it is flying. And sometimes they are also in not a product innovation, so to say, available from those, but then it can be also something related to production layout, or it can be something (...).” (Interviewee 2)

Interviewee 3 works for a software business organization and shares details about implementing formal communication methods in internal communication. Teams have specific communication tools to transfer and share ideas. Software development requires the involvement of different experts, and the organization uses formal communication tools in the communication. Interviewee 3 states about using mailing lists to share information within the organization to share details about hackathons.

The organization considers hackathons as an important idea generation event and communication tools related to this are highly prioritized by the organization.

“We used the communications tools that we have for communication mailing list. There's a X developer mailing list for the mainstream X development innovation for hackathons.” (Interviewee 3)

All the interviewees share detailed information about the implementation of different external relationships which support innovation. Barroso Simao et al. (2016) define the importance of an effective relationship with suppliers in the innovation process. Interviewees 4 and 2 mention that their organizations try to maintain effective relationships with the suppliers to determine a better production process. Suppliers are key stakeholders in the organization responsible for the supply of quality materials, and implementation of effective communication result in a smooth flow of this process.

“(...) people, designers and manufacturing people meet these suppliers and they together can, have this kind of innovation events that they kind of both benefit, improvement made in so many different type of ways.” (Interviewee 4)

“We have various initiatives, various projects. We are working very close together with suppliers, for example, with aiming to have better materials, advanced engineering in the materials, improving efficiency in the shop floors. So we are willing all the ideas from the suppliers and working close together.” (Interviewee 2)

Barroso Simao et al. (2016) further argue the importance of maintaining a customer relationship regarding innovation. The majority of interviewees agree on conducting effective communication with customers for the overall organizational success. Interviewees mention that obtaining customer ideas supports them in coming up with innovative ideas and understanding exact customer requirements.

“We are working very close cooperation with our customers and because customers have also those research departments, they have their own innovation process. and we are seeking to get a new (...) it's offering a lot of communication and support to find out good and this kind of innovations which can support our business.” (Interviewee 5)

“So, we constantly ask from the customers with this kind of surveys and of course in all of the key points or these meetings that we have with customers that, do you have any ideas how we could do it better than if you go to our product (...).” (Interviewee 6)

“We discuss constantly with our partners, our customers, to come up with innovative ideas.” (Interviewee 1)

“Yeah. I think we at least aim to hear their feedback and act based on the feedback.” (Interviewee 3)

Based on the interviewee's responses regarding relationships with suppliers and customers, it is evident that two-way communication is involved in all these organizations. Interviewees specifically mention that two-way communication benefits both parties in idea sharing, and it leads to innovative solutions to problems.

Pippel (2014) points out the involvement of science partners in the organizational innovation process to access new knowledge and develop existing strategies. Most of the interviewees agree with conducting relationships with universities and research institutes to obtain useful knowledge which can use in innovation.

“Typically, we are working together very close cooperation with research institutes, universities in Finland.” (Interviewee 5)

Interviewees further discuss the involvement of university students as trainees and in different early-stage innovation activities. This type of external partnership in the organizational culture supports a win-win situation for both the organization and universities. The organization can gain new knowledge from a young, educated community while the organization can provide the practical experience of innovation-related activities for universities.

“(...) but we do operate with universities or applied science organizations, especially, maybe to improve the employee brand and also to get new employees or trainees from there.” (Interviewee 3)

When discussing the impact of extensive communication on organizational innovation, interviewees share more details about the external communication methods that promote innovation than internal communication. Overall, everyone believes that extensive communication in the organizational culture plays a critical role in innovation.

#### **4.6 Reward system**

Rewards provide a sense of motivation and excitement for employees to involve in organizational innovation (De Clercq et al., 2014). Interviewees share their ideas on the reward system in their organizations as encouragement for the employees to recognize their achievements. Interviewee 1 shows that their organization aims at rewarding the employees who achieve exceptional performance. Interviewee 1 works in a research institute, and innovations are a core function in the daily routines. The organization always aims at identifying methods to encourage employees to be innovative as part of their organizational culture that supports innovation.

“Let's say kind of free, that's a free form of rewarding system, but, if an employee does something exceptional or exceeds the performance, one can get a reward.” (Interviewee 1)

According to Hogan and Coote (2014), monetary rewards enable organizations to improve innovations.

“If someone makes some remarkable invention or find a solution to some customer problem, then we have this kind of spot rewards and special rewards, which can be paid on next month. And those are few hundred euros to 5,000 euros, depending on how remarkable.” (Interviewee 5)

Interviewee 5 agrees with Hogan and Coote (2014) and mentions about the monetary rewards provided to innovative ideas. Interviewee 5 specially discuss the amounts of monetary rewards offered to employees. The organization also provides other rewards such as movie tickets, lunch, or other types of gifts for innovative ideas. The

organization operates an encouraging culture for innovation by providing different rewards to value employee contribution to support innovation.

Darmaki et al. (2019) describe the impact of intrinsic rewards in the organizational culture to promote innovation. Most of the interviewees were open about the different intrinsic rewards presented in their organizations.

“especially, there are non monetary topics for recognitions like, distinguished member of technical staff. So we can recognize people who have this kind of technical excellence.” (Interviewee 4)

“We have the employee of the month and team of the month also. So this kind of, but then we have this slack channel that where we can raise people all the time for doing, you know, certain connections. So we don't have to be waiting always at the end of the month with something coming ahead (...) (Interviewee 6)

“this one example that I mentioned was this CEO award.” (Interviewee 7)

Interviewees 4, 6, and 7 share the intrinsic rewards presented to employees. These rewards are present in terms of recognition and praise. Interviewee 7 describes about the CEO award and that is presented in team level. So, the aim is to encourage a whole group of individuals to their contribution to innovative performance. This goes the same with other organizations as there are individual recognition and team level recognition. When discussing the reward system, interviewee 5 previously explains the implementation of monetary rewards. When coming to the intrinsic rewards interviewee 5 shows that the cultural factors affect in deciding the intrinsic rewards.

“I think that it's not so easy in Finland because in Finland we have this kind of culture that people wouldn't like to be in spotlight” (Interviewee 5)

This opens an exciting discussion on the impact of culture on the reward system. This research aims to identify determinants in organizational culture to promote organizational innovation and cultural impacts will not be covered in this research scope. From the statement of interviewee 5 it is visible that cultural differences can affect deciding the reward system that will promote innovative ideas.

Darmaki et al. (2019) further elaborate on implementing a proper mechanism to identify which stages of innovation should be rewarded. All the interviewees agree with the monetary and intrinsic rewards provide by the organizations. When discussing a systematic structure for the reward system, many interviewees were quite unclear about the process. All the interviewees agree that the rewards are provided for the innovations, but a systematic structure was not much seen during the interviews. Interviewee 2 describes that the idea generation stage is rewarded in the innovation process.

“Usually it's in the beginning, if somebody has a very good idea, idea is rewarded and then you take it further.” (Interviewee 2)

Interviewee 2 also discusses about the ways in which rewards are decided in the organization. The organization follows a traditional structure in deciding the rewards.

“So we are representing quite traditional way of handling this in Finland. So, and it is like you mentioned appraisal, reviews and you are reviewing your team members and then there will be different judgmental elements involved and impacting the payment.” (Interviewee 2)

Sheikh (2012) suggests that employees should be rewarded based on performance to provide the best effects of reward system. Interviewee 4 agrees to this statement, mentioning implementing a performance-based reward system.

“line manager is evaluating the performance of a person and then this performance is one factor. and then this results into incentive payments once a year. So, these kind of incentives overly depending on the company and the employee performance.” (Interviewee 4)

Overall, all the interviewees agree that having a systematic reward system in the organizational culture can promote innovations in the organization. Interviewees mention that reward system entirely depends on personal attitudes and deciding an intrinsic or monetary reward system is challenging. All the organizations are constantly collecting employee feedback to determine employee satisfaction with the reward system.

## 4.7 Training and development

Lau and Ngo (2004) describe that training and development in an organization support continuous learning and the generation of new ideas and knowledge. All the interviewees agree that training programs support their organizations in the innovation process. Creating training programs to develop continuous learning is a part of an innovative supportive organizational culture. Interviewee 1 discusses that their organization aims to encourage continuous learning and the training workshops to provide the necessary guidance for the innovations. Interviewee 1 further mentions that a single training program cannot create a difference, but these trainings should be provided continuously to develop the learning system in the organization.

“One single training's impact is a little bit limited. But of course, we kind of encourage in this continuous learning and it can be seen that actually carrying or participating in a commercialization workshop or innovation program actually does support the innovation work.” (Interviewee 1)

According to Sung and Choi (2004), corporate training is one of organizations' internal training and development programs. Interviewees express a positive attitude towards the impact of corporate training in supporting innovations.

“X program is something that we help our people to develop their innovation capabilities”. (Interviewee 1)

Interviewee 1 specifically provides evidence about a program that the organization implements to promote employees' innovative ideas. The organization mainly focuses on training in the research field, which supports finding new solutions to problems. This specific program encourages the employees to learn and develop new knowledge and apply them practically. Interviewee 1 states that the organization is deciding to implement this program in a broader scale in the future to develop the learning process.

Sung and Choi (2004) also describe different corporate training programs that can be implemented in organizations. Interviewees share about various programs carried out in their organizations to develop employees' skills.

“We also have regularly, these kind of info session and trainings about the innovation process tools and also how to apply a patent and how to ensure that. because patent managing is also a specific area and then it's also important to always kind of make sure our people also understand” (Interviewee 4)

“We are every year having two or more these kind of innovation workshops. When we are practicing those tools, people are getting together and having some specific problem. We are trying to find solutions using some innovation method. we have, this kind of innovation manager and innovation department, and those people are professionals in this field, and they are leading those workshops.” (Interviewee 5)

Interviewees 4 and 5 share similar programs conducted in their organizations to promote innovation. These training programs are conducted to uplift the employee's skills and help them change their thinking directions, leading towards supporting innovative ideas.

“We have a specific training, we call them entrepreneurship trainings where you form a team with some people and then you work around the practical problem or some idea where you get the help from the consultant.” (Interviewee 7)

Interviewee 7 shows that the training programs also support in team-building culture. The organization of interviewee 7 tries to promote a culture where training can be implemented in a team setting. This shows a connection between teamwork and training and development as determinants in organizational culture to encourage innovations. The organization values generating new ideas with the support of others as collective idea generation consist of mixed knowledge, and those can be more successful.

“We have a lot of trainings in last year. We have built up this kind of learning parts also to innovations and, there's one mandatory course for everyone who is working in development (...) basic instructions of how to make those invention enclosures.” (Interviewee 5)

Interviewee 5 further states that the organization initiates training where there are

mandatory courses for employees. This shows that the organization considers innovation as a core function, and the management tries to provide the necessary support for employees to achieve the innovation goals. These mandatory courses are mainly initiated in the research and development departments where innovation plays a key role.

Interviewee 2 explains that their organization provides training about the technical needs of employees, and the organization does not specifically provide any training with the motivation of promoting innovations.

Yeah, there are a number of various trainings in our company, but we are really kind of pushing towards our teams and people that they should take technical ones or some other ones. but your question regarding, whether we have training regarding to be innovative and embrace innovativeness as such, that kind of, I'm not sure whether we have." (Interviewee 2)

Interviewee 2 shows that the current training programs of the organization do not mainly aim at promoting innovativeness. The main goal of these trainings is to increase efficiency and achieve competitive advantage. By analysing this statement, it can be visible that the organization of interviewee 2 does not directly aim for innovations via training. Still, these trainings have a direct influence on promoting innovations by improving the technical competencies of employees.

"So, I think that your question is very good, but we are not at the moment having that kind of tone in our trainings. I think it's more like we are training so that people are not necessarily doing any faults or errors or causing any defects, how to say, and kind of doing the right thing, but not necessarily fostering innovativeness with one exception. And that is this unconscious bias training, what we are having that you should really think through and have a diversity of thoughts." (Interviewee 2)

Cheng and Huang (2009) show that training programs should also support employees to learn tasks that are not in their daily routines and to be open to new ideas, and provide constructive proposals. The statement of interviewee 2 quite agrees with the statement of Cheng and Huang (2009) as the training programs support technical competencies and these learnings provide employees with knowledge not gained in

daily routines. Further, being knowledgeable in specific areas encourage employees to be open to new ideas and offer new ways of solving issues.

Interviewees also mentioned about the structure of the training programs. Most of these training and development programs consist of a schedule.

“Basically, we have these yearly reviews and, and discussions where we also go through the development thoughts, ideas, what you would as a employee would like to do and learn. And we are really supporting to our colleagues in order to have those, of course, sometimes it can happen that somebody would like to have a very high, expensive education in a very nice location abroad. Then we discuss about whether this is really needed for the work or not needed” (Interviewee 2)

As Interviewee 2 mentions, the training needs are decided based on employee feedback and discussions. The organization of interviewee 2 develops an organizational culture where employee feedback is considered in determining the training requirements. This also motivates employees to develop a feeling of belongingness to the organization as the organization values their ideas and requirements. This will ultimately lead the organization towards achieving innovations.

Some interviewees also provide examples of the time frame of these training programs. Some training programs are scheduled on a fixed time interval, while some are decided based on the requirement.

“(.) typically in fixed intervals, so something twice a year or once per year or something. but also I believe things can be arranged upon need” (Interviewee 1)

“We are targeting that we have this kind of workshops twice per year.” (Interviewee 5)

“so currently we have this kind of five hours for every month. Everybody can go as they have planned for all the months that they learn something and then they should have the goal to implement those introduced for the next month.” (Interviewee 6)

Jacobs and Washington (2003) assume that deciding own training requirements by employees support in career development as well as benefit in organizational development. Interviewees mention that some employees of their organizations are engaging in external educational activities and the organizational culture provides the necessary support for them to balance their educational and professional life.

“For example, we can arrange study leaves, which could mean that the person he, or she wants to study for full time. We can arrange a full study leave, or then we can do a shorter week, like, let's say 60% week only or 80% week. And then it could be also so that you can use let's say one day every week for your studies and company still pay your full salary. It depends.” (Interviewee 3)

“But of course, we as a company, want to support is that flexible arrangements can be made possible for the employees to take this kind of external education. So, we have quite many people who are kind of studying along with the job.” (Interviewee 4)

“We try to support people and we try to enable these studies. So there are then ways to help them to take some and if there is something important that they need to be present.” (Interviewee 7)

Interviewees 3,4 and 7 agree with the statement of Jacobs and Washington (2003) by mentioning the support provided for employee external education requirements. Interviewee 7 also highlight the ways in which employee can be benefited from external learnings and the ways in which employee can contribute those learnings to organizational processes. Interviewees 3, 4 and 7 show that the organizational cultures are very flexible for employees seeking external educational needs. The organizational culture promotes a positive attitude when employees need to learn more and provide their knowledge to uplift the innovation process.

Interviewees discuss the evaluation of the effect of training programs on the innovation process. The main aim of these training and development activities is to uplift employees' skills levels and use them to find innovative solutions. Interviewee 7 mentions that the organization's management requests the employees to demonstrate how the learnings from the training programs can be effectively used in daily tasks. This allows the employees to practically implement the learnings in their daily

routines. This also allows the management to identify the training gaps and provide better programs in the future.

“So, what I typically do is that I ask the person to explain to the team what did he or she learn in there and trying to explain how is that link to your daily work or which parts of this would you should implement. Or is there something to change for us as a team or individuals or what kind of learnings there are.”  
(Interviewee 7)

Schmelter et al. (2010) show that effective training programs should fit company processes, culture, and strategy. Interviewee 4 describes that the training programs of the organization are conducted with the aim of supporting innovation. Innovation is a crucial strategy of the organization, and these training programs allow the organization to prepare their employees better to achieve organizational goals of innovations.

“We develop for the world. So, we kind of need to learn the new things all the time. And, in that sense of course support innovation, because all this learning and education might kind of give you more building blocks for new things.”  
(Interviewee 4)

Overall, all the interviewees highly agree that implementing proper training and development programs in the organizational culture can promote innovations. All the interviewees discussed the structured training programs implemented in their organizations to support the innovation process.

## 5. CONCLUSION

This thesis aims to explore determinants in organizational culture that promote organizational innovation. This chapter includes answering the research question using the discussions conducted in chapter 4. The discussions act as a basis to answer the research questions concisely. Next, managerial implications and evaluation of the study will be discussed, and at the end, limitations and suggestions for future research will be conducted.

### 5.1 Answering the research questions

As mentioned, this research aims to explore the determinants in organizational culture to promote organizational innovation. The following research questions are formulated to reach the goal of the research.

RQ 1: What are the determinants in organizational culture that promote organizational innovation?

RQ 2: How does organizational culture impact organizational innovation?

*The first research question explores the organizational culture determinants that promote organizational innovation. The first determinant is teamwork and its impact on organizational innovation. Discussions reveal that teamwork is an essential element in the organizational culture now a days validating the statement by (Jackson, 1996). All the organizations that participated in this research organize teamwork as part of their organizational culture. The main characteristic visible is that teamwork provides the required capabilities to achieve innovations that cannot be achieved in isolation. Teamwork offers a sense of encouragement and support for the members to work on their daily tasks. Teamwork initiates with the aim of combining different talents to bring out a more successful output. Discussions also reveal that teamwork supports employees' mental wellbeing when working alone at homes during the pandemic. Teamwork provides interactions with a group of people, and it always provides a feeling of belongingness towards the organization by employees. Teamwork also*

provides the necessary support for the employees by combining different knowledge levels, which results in an effective exchange of ideas. The research reveals that the employees feel safe when working in teams as they are backed up by the team members and supervisors in both success and failures. Implementing supportive teams in the organizational culture promotes effective idea generation, resulting in innovations. When discussing team works, organizations also plan on methods to bring different disciplines together in a more efficient manner that could contribute to innovations. This research also points out that implementing teamwork does not always guarantee success. Organizations should decide on teams based on work tasks, processes, and functions. Overall, a team-based organizational culture supports more effective idea generation and work tasks, which positively impacts organizational innovation.

The second determinant is the extensive communication that promote organizational innovation. Proving the statement of Fu (2020) this research found out that extensive communication plays a huge role in organizational culture and can promote organizational innovation by proving the statement. Communication is essential for the effective exchange of ideas within and outside the organization. All the interviewees agree that the organizations pay special attention to implementing effective communication strategies. Flexible communication modes are essential to establish an effective communication strategy. All the interviewees mention the two-way communication between different parties, which supports exchanging productive ideas. Internal communication supports the organizations to build a culture where every voice is treated equally. This allows employees to present their ideas and suggestions without hesitation. External communication is also essential to build relationships with outside partners which support in innovations. Business partners support the organizations to gain knowledge about the market requirements and other business-related functions. Interviewees mentioned that the organizations always try to obtain feedback from business partners for their services. Science partners are essential to obtain knowledge that is not available within the organizations. This is beneficial for organizations to develop their capabilities to achieve innovations. Therefore, extensive communication is a prominent determinant in the organizational culture, which promote organizational innovation.

The third determinant is defined as the reward system and its impact on organizational innovation. This research reveals that organizations implement monetary and intrinsic benefits in the reward system. According to data analysis, it is hard to suggest which types of rewards should be given for innovative ideas. Organizational culture highly affects deciding the reward system. Some organizations have cultures where employees value intrinsic rewards such as public recognition, while some employees do not like to be in the spotlight. The research also reveals that cultural factors related to different countries can also impact the reward system. All the organizations try to build up a culture that guarantees fair pay for employee ideas and contributions. Organizations should obtain continuous feedback from employees about the reward system. This allows an open organizational culture where employee feedback is used to decide the best suitable reward system.

The fourth determinant discusses training and development. This research found that training and development programs implemented in the organizational culture directly promote organizational innovations. Interviewees mentioned different corporate training programs implemented to provide the required knowledge and skills to uplift the organizational innovation process. This research proves the statement of Niazi (2011) explaining the strategic nature of these training and development programs for both employers and employees. These programs also share a direct relationship with the other factors in the organizational culture, such as teamwork and extensive communication. Implementing an effective training and development program results in team-building and efficient communication. Discussions also verify that organizations seek external knowledge in training and development, which further enhances organizational learning. Providing opportunities for employees to choose their own training needs shows the flexibility of the organizational culture. Training and development programs need continuous employee feedback to understand the knowledge gaps. This research also found that organizations are using different methods to evaluate these programs to decide whether the employees have received the required knowledge and skills. Overall, implementing training and development in the organizational culture supports employees to develop themselves and for an organization to achieve innovations.

*The second research question aims to understand the impact of organizational culture on organizational innovation.* Discussions from the interviews reveal insight into the consideration of organizational culture on innovation from the selected organizations. This reveals that all the organizations consider organizational culture as a critical factor when deciding the organizational innovation. The main characteristics highlighted by the interviewees related to organizational culture are openness and flexibility. This validates the statement of Szczepańska-Woszczyńska (2014), which shows that an organizational culture that consists of flexibility and openness promotes organizational innovation. The discussions further reveal that all the organizations practice openness and flexibility in different aspects such as decision-making, employee satisfaction, managing employees, communication, reward system, team management, and training programs. Implementation of organizational culture with openness and flexibility supports the organizations to provide the freedom for employees to expand their decision-making power and explore new dimensions in work tasks, resulting in innovative idea generation. The interviewees who are in management positions of the organizations reveal that they are always open and flexible with employee ideas and suggestions, and they always aim to promote these characteristics in the organizational culture. The discussions reveal that organizations practice flat organizational structures where it is easy and flexible in the idea exchange process. This provides opportunities for the generated ideas to implement quickly and successfully. Continuous feedbacks from employees about different processes and functions of the organization provide the environment for employees to suggest their genuine feedback. These feedbacks are considered by the management to decide changes or further improvements that impact in the organizational culture and innovation. Implementing an organizational culture with openness and flexibility can positively affect in the organizational innovation.

Szczepańska-Woszczyńska (2014) further reveals that organizational culture which promotes encouragement for employees support in organizational innovation. Proving this statement, interviewees mention the continuous support provided in the organizational culture for employees to try unconventional ways of doing work. Employees are encouraged always to try new avenues of performing work tasks. Encouragement can benefit in two ways: it supports employees to develop personally

and professionally. When employees develop themselves, they can better contribute to organizational innovation. According to interviewees, failures are considered learning points in most organizations. Employees are always encouraged to try again after failures, and they are motivated to try new ways of solving issues. Some organizations even celebrate failure as a part of their organizational culture, while others try to promote learnings from their mistakes. Therefore, an organizational culture with continuous encouragement supports organizations in achieving innovations more successfully.

An organizational culture that promotes accepting risk is considered supportive of organizational innovation. The discussions reveal that the organizations always try to accept risk and overcome it by being confident and getting support by the organizational culture. Organizational culture is essential in accepting risk as it provides the necessary environment for people to work with risk by providing the required facilities. Organizational culture can provide emotional support such as encouragement and flexibility when dealing with risk. These continuous support in an organizational culture provides the mindset for employees to get motivated towards facing risk and provides a sense of belongingness for the organization. When the organization values employee work tasks, it motivates employees to engage in unconventional ways of performing work tasks and working beyond capacity. An organizational culture that accepts risk and provides value to employees encourages achieving more innovative solutions in organizations.

## **5.2 Managerial implications**

This chapter discusses the managerial implications of this research apart from the literature. This study is based on the empirical data gathered from managerial level professionals employed in organizations based in Finland. The study compares and evaluates the thoughts of interviewees to understand the theories in practice better. Therefore, the knowledge gained from this study will support other organizations to evaluate their own processes and further develop activities related to organizational culture and organizational innovation.

This research proves that organizations choose innovation as a core activity. All organizations believe that innovations are essential to survive in the market and guarantee long-term success. A well-planned innovative strategy should be implemented to decide the steps taken to achieve innovations. Having a planned innovation strategy supports organizations to identify risks in advance and determine the next steps accordingly.

Results of this study prove about the ways in which organizational culture directly impacts organizational innovation. Each organization practices its own organizational culture. It is also important to understand that organizations cannot imitate the organizational culture practices of others. Imitating can sometimes be successful if it is adapted according to own cultural needs. Therefore, organizations should first evaluate their own organizational culture to identify which areas need improvement and then compare it with other organizations that conduct better.

When considering the reward system, it is not clear the ways in which innovations or innovative ideas should be rewarded. Some interviewees share that this should be taken into consideration based on the questions provided during the interview. This study shows that implementing a proper reward system is beneficial for organizational innovations to happen, and it gives employees a sense of motivation and encouragement. In this case, organizations should consider employee feedback and evaluate which stages of innovations should be rewarded and how it can affect the final output.

This research also provides insights into the benefits of implementing teamwork, extensive communication, and training and development in the organizational culture. These determinants have a direct influence on promoting organizational culture. This research shows that all the four determinants discussed can be interrelated and benefit in creating a flexible organizational culture. These four determinants are more suited for organizations as these can be practically implemented quickly within the organizational culture. These determinants can be beneficial for start-up organizations

as implementing an organizational culture that promotes innovation is essential. Medium and large-scale organizations can also use these learnings to improve their processes better.

### **5.3 Evaluation of the study**

The challenges of qualitative research are to prove to the readers the scientific nature of the study, and quality and make them trust the results (Eriksson and Kovalainen 2008). The use of transparent evaluation criteria supports the researcher to prove the strengths of the study and recognize the limitations of the study. Eriksson and Kovalainen (2008) provide three evaluation criteria for qualitative research used in social science and business research: reliability, validity, and generalizability. Reliability defines to which extent the study can support another study to come up with similar findings. This shows the consistency of the research where another can replicate it to obtain similar findings. Validity shows that the study's conclusions and results reveal what happened during the research process. This shows that the research results are true and can be accepted. Generalizability aims to provide the path to extend the study's results to a broader context (Eriksson and Kovalainen 2008).

This research uses data from interviews conducted with organizations in Finland that engage in innovation activities as their core business. All these organizations are leading business organizations in Finland and proved by their achievements in implementing innovation. The selected interviewees work in management positions of the organizations where they engage in decision-making related to innovation and organizational culture. Therefore, the data gathered for this research are reliable and valid to prove the research questions. This research also shows that interviewees provide their ideas related to innovation and determinants in organizational culture by defining their own practices. The results support the theoretical analysis and make the research generalizable. All the discussion topics are analysed with views of more than one interviewee and hence it also proves the generalizability of this research. The results of this cannot be generalized in a worldwide context as the practices can be different based on one country to another. However, the research findings support

organizations to evaluate their own practices and improve their existing practices to promote innovation with the help of organizational culture.

Dempsey et al. (2016) highlight the ethical considerations in the qualitative research process. The researcher should not disclose the personal identity of interviewees to outsiders, and the data obtained from the interviews should only be used within the research team. Interview data and the transcripts of this research will only be provided to the principle supervisor upon request to protect the confidentiality of interview data. The data obtained should be disclosed with anonymity as agreed by the interviewees. This research is conducted by following the ethical guidelines which are required in a research process. Interview information is disclosed in this research anonymously without revealing personal information and protecting confidentiality. All the interviewees have been informed before the interview about the research process and the ways in which data will be used. The researcher has provided a consent form to agree with the interview conditions to comply with the ethical guidelines in research.

#### **5.4 Limitations and suggestions for future research**

This chapter provides the limitations and suggestions for future research based on the research conducted. This research was conducted based on organizations in Finland, and the results cannot be generalized. Other companies can use the results to evaluate their own organizational culture and innovations. Sometimes the results can be similar, but they can also vary depending on the cultural factors in countries. Especially the determinant; reward system can have changes when compared with different country contexts. Interviewees who participated in this research also mentioned the changes in the reward system based on countries and cultural differences.

This research was also based on organizations in Finland that engage in technology. There can be differences in organizations that involve in other fields towards organizational culture and innovations. Therefore, future research can also target identifying organizations in other fields such as those involved in producing consumer products. This can also enable identifying the differences in how technological

companies view innovation and how organizations in other fields practice innovation and strategies to create an organizational culture that promotes innovation.

This research analyses four determinants in organizational culture which promote organizational innovation. The four determinants have been explained based on literature and analysed based on interviewee ideas. Each determinant does not explore in depth due to the limited scope of the research time. Future research can also focus on studying each of these determinants individually and examine the effects on promoting organizational innovation. Teamwork can be a possible determinant to explore in depth as all interviewees in this research highly accepted teamwork in their organizational cultures.

This research was conducted based on the managerial level views of the selected organizations in Finland. These interviews do not examine the different levels of employees and their opinions on the research topic. Future research can aim to conduct the data analysis based on the views of lower-level employees and compare the results with this research. It will be beneficial to understand the possible gaps in perceptions of different levels of employees in organizations regarding organizational culture and innovation.

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## APPENDICES

### APPENDIX 1

#### Interview questionnaire for “Determinants in organizational culture for promoting organizational innovation”.

##### General Questions

1. Can you briefly explain your professional background and the background of the company?
2. What is your present position and responsibility area?

##### Theme 1. Innovation

1. Tell us about your company’s approach to innovation
  - 1.1 What I want to know: Innovation definition according to you, strategy, activities, and advantages

##### Theme 2. Organizational culture

1. Tell us about your company’s organizational culture
  - 1.1 What I want to know: about how the company culture support innovation, advantages of an innovation support culture

##### Theme 3. Determinants in organizational culture

###### 1. Teamwork

- 1.1 How does teamwork affect in: innovation, efficiency, new ideas and creativity, risk taking?

###### 2. Extensive Communication

- 2.1 What are the types of internal and external communication methods to promote innovation?

###### 3. Reward system

- 3.1 What kind of reward system is implemented in your company (Intrinsic and Extrinsic rewards) Is there a proper mechanism to monitor the reward system?

#### **4. Training and development**

4.1 What I want to know: about corporate training, employee external education, impact of trainings on employee performance.