VILNIUS UNIVERSITY
BUSINESS SCHOOL

INTERNATIONAL PROJECT MANAGEMENT PROGRAMME

Agneta Zubaitė

MASTER`S THESIS

Organizacinės kultūros įtaka projektų sėkmei: įgalinimas	**The Impact of Organizational Culture on Project Performance: Empowerment Perspective**

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SUMMARY

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STUDENT AGNETA ZUBAITĖ

THE IMPACT OF ORGANIZATIONAL CULTURE ON PROJECT PERFORMANCE: EMPOWERMENT PERSPECTIVE

MA thesis supervisor – prof. dr. Saulė Mačiukaitė - Žvinienė

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Organizational culture can notably affect organizational outcomes, assuming that culture can be utilized as a resource to impact employees' actions, differentiate companies from each other, and grant competitive advantages for those with exceptional cultures (Glynn, Giorgi and Lockwood, 2013). Successful project management performance and organizational excellence could be reached by empowering project managers to use internal organizational and project team culture as a tool for seeking better results (Chipulu et al., 2012; Morrison, Brown and Smit, 2006). The purpose of this thesis is to investigate the organizational culture from an empowerment perspective, its` effect on project performance. Extensive literature review and analysis of organizational culture, empowerment and relationship with project performance allowed to develop conceptual research model for measuring organizational culture relationship between empowerment and project performance. Primary data for the quantitative research was gathered from survey results that were provided by employees from project-based companies in Lithuania. Results of the survey revealed that empowerment could significantly improve project performance in power-driven and task-driven organizations. The research results proved that empowerment has a positive relationship to the correlation between both: self-management and project performance, and decision-making and project performance. The main conclusion is that there is a positive relationship between an empowering organizational culture and project performance.

SANTRAUKA

VILNIAUS UNIVERSITETO
VERSLO MOKYKLA
TARPTAUTINIŲ PROJEKTŲ VALDYMO PROGRAMA
STUDENTĖ AGNETA ZUBAITĖ

ORGANIZACINĖS KULTŪROS ĮTAKA PROJEKTŲ SĖKMEI: ĮGALINIMAS

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Teigtina, kad organizacinė kultūra gali reikšmingai paveikti organizacijos rezultatus, darant prielaidą, kad kultūra gali būti įvardijama kaip veiksnių šaltinis, darantis įtaką darbuotojų veiksmams. Įmonės pasižyminčios išskirtine kultūra gali būti siejamos ir išskiriamos kaip turinčios tvirtą konkurencinį pranašumą (Glynn, Giorgi ir Lockwood, 2013). Sėkmingas projektų valdymo efektyvumas ir organizacinis meistriškumas gali būti pasiekiamas įgalinant projektų vadovus naudoti vidinę organizacijos ir projektinės komandos kultūrą kaip įrankį, siekiant geresnių projekto rezultatų (Chipulu ir kiti, 2012; Morrison, Brown ir Smit, 2006). Pagrindinis šio baigiamojo darbo tikslas – ištirti oganizacinės kultūros įtaką projektų sėkmei kartu su įgalinimo sąsaja. Išsami literatūros apžvalga bei organizacijos kultūros, įgalinimo ir santykio su projekto vykdymu analizė, leido sukurti konceptualų tyrimo modelį, skirtą įvertinti organizacijos kultūros ryšį tarp įgalinimo ir projekto veiklos rezultatų. Kiekybinis tyrimas, naudojant pirminius duomenis, surinktus apklausiant įvairias projektines įmones Lietuvoje, atskleidė, kad įgalinimas gali ženkliai pagerinti projektų našumą tose organizacijose, kurioje vyrauja valdžios ir užduoties kultūros. Tyrimo rezultatai taip pat įrodė, kad darbuotojo įgalinimas turi teigiamą ryšį su dvejomis koreliacijomis tarp: projektų rezultatų sėkmės ir darbuotojo savarankiškumo bei projektų rezultatų sėkmės ir darbuotojo sprendimų priėmimo. Pagrindinė šio darbo išvada taikoma, kad egzistuoja teigiamas ryšys tarp įgalinančios organizacijos kultūros ir projektų vykdymo ir rezultatų sėkmės.

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INTRODUCTION

Relevance of the topic. The importance of organizational culture in the companies is acknowledged and widely analyzed by scientists from various perspectives as project success (Stare, 2012; Yazici, 2009; Eberlein, 2008) and from a theoretical perspective in general (Cacciattolo, 2014; Ahmadi et al., 2012; Morrison, Brown and Smit 2006). Organizations themselves are seeking to explore, identify, develop, change and maintain internal culture. Due to these actions, companies gain better financial results, complete projects successfully, and in addition to that, they increase employee loyalty, involvement and engagement. Exceptional project management performance and organizational excellence could be reached by empowering project managers to use internal organizational and project team culture as a tool for seeking better results (Chipulu et al., 2012; Morrison, Brown and Smit, 2006).

Research gap. The majority of the conducted studies concentrate on specific projects as IT, construction and do not put into consideration the organizational culture from the empowerment perspective (Eberlein, 2008) while evaluating the correlation between culture and project performances. Furthermore, there is a lack of studies that would conclude the empowerment culture framework (Jo and Park, 2016) and its` importance to project outcomes in general, particularly from a national Lithuanian culture perspective. In previous studies, the importance of understanding organizational culture was acknowledged, although the organizational culture role in project management is mostly under-examined. Project management processes, leadership, performance correlation to organizational culture role in project performance success is not comprehensively characterized (Yazici, 2011).

Problem. Majority of the companies in which projects are already being performed have strong organizational culture types implemented and do not focus on the empowerment aspect of culture even though it could help to achieve better project results. Empowerment itself could be described as providing the power to employees in decision-making and contribution of organization improvement implementation. The importance of this will be defined by investigating how empowerment is perceived in the organization and how it influences project performance from an organizational culture perspective.

The object of the thesis. Organizational culture correlation between empowerment and project performance perspective.

The aim of the thesis. Investigate the organizational culture from the empowerment perspective and its` effect on project performance.

The objectives of the thesis:

1. Analyze organizational culture types and its` relationship to project management performance.

2. Evaluate empowerment, its` culture profile within organizations and correlate it with project performance and success.
3. Based on academic literature review, develop the conceptual research model for measuring organizational culture relationship between empowerment and project performance.
4. Conduct quantitative empirical research and evaluate the relationship between empowerment and organizational culture, the impact it has on project performance outcomes based on the conceptual research model.

Research methods of the thesis. Narrative literature analysis was applied in order to achieve the objectives listed above. A quantitative research method was selected to conduct this research, which aims to evaluate the relationship between organizational culture, empowerment and project performance. The method was selected due to the possibility to use quantitative research techniques that can be applied in replicating and analyzing the dataset, which helps in gathering objective and accurate information (Frechtling, 2002). Quantitative methods provide an opportunity to improve the objectivity, reliability and generalization of the results and guide to general conclusions about characteristics of a population (Conrad & Serlin, 2011). The research findings can be used in organizations for theoretical and supervisory implications. The standardized survey data collection method was used for the research, as this method is specifically useful for non-experimental descriptive projections that aim to describe facts. Additionally, the survey method was selected for the capability to draw conclusions to the general population by effectively using a relatively small sample size.

Difficulties and limitations. Due to the current ongoing COVID-19 pandemic, the research scope and data are continuously changing and creating a challenge for the organizations to adopt empowering organizational culture especially applicable to remote work conditions. This study is looking to continue the discussion and further research of the importance of empowering organizational culture and its impact on project performance to be positive and successful through crises like COVID-19.

1. ORGANIZATIONAL CULTURE

1.1. Background and definition of organizational culture

In this section, academic literature relevant to organizational culture and its background will be overviewed. This will allow to specify how organizational culture is comprehended in the research and analysis that will be conducted.

Organizational culture can notably affect organizational outcomes, assuming that culture can be utilized as a resource to impact employee actions, differentiate companies from each other, and grant competitive advantages for those with exceptional cultures (Glynn, Giorgi and Lockwood, 2013). Therefore, an understanding of organizational culture has been established as an approach for equipping top executives with the instruments needed to enable efficient performance via the creation and guidance of a suitable culture.

Heidrich and Chandler (2011, 667 p.) indicate that organizational culture can be described as "organizations have their distinctive ways of solving problems, treating employees, passing the traditions". Furthermore, Cheung, Wong and Wu (2011, 33 p.) add that "organizational culture gives identity to an organization". Schein (1990) considers to believe that all new members of an organization need to be introduced in the current organizational culture and have to operate accordingly to the shared values and beliefs that guide behavioral norms in the organization. In addition to that, Kono (1990) also expresses the significance of shared values and excludes them as one of the three key elements of organizational culture apart from decision-making and overt behavior patterns.

One of the features of organizational culture is a pattern of basic assumptions which a corporation acquires over time as it learns how to successfully deal with both internal and external organizationally relevant problems (Schein, 1990). Organizational culture is an important dimension of the working environment and climate, in addition to that, being one of the pivotal pillars of a successful business. It can be seen in the way people are being led toward achieving the set of goals, how the goals are established and reflected in the realization of tasks within the organization (Stare, 2012). Culture influences decision-making, thinking, feeling, the response to opportunities and threats, additionally affecting how people are assigned to particular tasks, which in return influences performances and decision-making.

Another feature of organizational culture is mutual beliefs that steer behaviours (Ravasi and Schultz, 2006). Additionally, being the pattern of these accumulated behaviours and assumptions that are passed on to new organizational members as a means of perceiving, thinking and feeling (Schein, 2004). Therefore, organizational culture influences how people and groups cooperate with each other,

including clients and stakeholders. Organizational culture can impact how much employees associate with an organization (Schrodt, 2009).

It is common for companies to establish a distinct organizational culture which can branch out to unique groups or subcultures (Schein, 2004). In addition to a unique organizational culture, some institutions have coexisting or contradictory cultures in separate departments due to the latter being led by separate management teams (Selart and Schei, 2011). According to Flamholtz and Randle (2011), organizational culture can be viewed as corporate personality. According to their definition, it consists of beliefs, values and norms which impact the behaviour of people as members of an organization (Flamholtz and Randle, 2014).

The organizational culture affects how employees cooperate with each other, the conditions in which know-how is formed, the opposition they will show to implementation of changes, and lastly how knowledge is shared. Allaire and Firsirotu (2016), Ravasi and Schultz (2006) state that organizational culture characterizes the general values and principles of organizational members.

Madan and Jain (2015) state that culture may be affected by historical events, the type of production, market circumstances, technological possibilities, organizational strategy, people, the approach of top management, or even by culture on a national level. It contains the companies' values, language, norms, vision, believes and habits (Denney, 2019).

As the global competition keeps on growing, many scholars started investigating the cultural disparities in organizations and analysing them as a possible source of effectiveness and strategic advantages (Titov et al, 2020). Organizational culture is undeniably accepted as a meaningful corporate asset and as an effective management tool. It is agreed that an organizational culture inherits the fundamental characteristics of national culture (Drenth and Den Hartog, 1999). This concept is implemented in the model of Hofstede (1980) who proposed a 5-dimensional framework for evaluating and comparing organizational cultures in various countries. Due to the capability of analysing cultures quantitatively, Hofstede's model became acknowledged and shaped the basis for the GLOBE framework which includes 9 dimensions of organizational culture (power distance, uncertainty avoidance, humane orientation, collectivism I and II, assertiveness, gender egalitarianism, future orientation, performance orientation (Wolf, 2006)).

It could be concluded that organizational culture is the identity of the company which shares common values, beliefs and is described to be an important dimension of the working environment and climate. Culture influences decision-making, performances, behaviour and interactions. Based on Titot et al. (2020) organizational culture is the source of effectiveness and strategic advantages.

1.2. Organizational project culture development within the companies

In this section, academic literature relevant to organizational project culture development and its difference with general organizational culture will be overviewed. This will allow to specify how organizational project culture is formed, comprehended and differs from the general organizational culture in the research and analysis that will be conducted.

Project culture is one of the main elements of successful project implementation in companies and an important share of the organizational culture (Stare, 2011). Project culture shows the established approach towards projects within the organization. The majority of projects are not able to function in isolation; they have to run within a business environment that can provide the support and requirements of solid project management (Cleland, 2007). The culture impacts strategic planning and implementation, project management, etc. In addition, due to the project team being gathered temporarily the project organization may develop its separate culture (Szabó and Csepregi, 2015).

Organizational culture can influence project management in four ways (Pinto, 2016):

1. It impacts how departments are expected to cooperate and support each other in achieving the project goals.
2. It affects the involvement of employees in regard to balance the objectives of the project with additional possibly colliding assignments.
3. The organizational culture has an impact on project planning procedures by affecting the project via work requirement assessment or resources allocation.
4. The organizational culture influences how both the project team performance and the projects' results are being viewed by the management.

Morrison, Brown, Smit (2006) in their study discovered more ways how project management could be supported by an organizational culture (Figure 1) that includes the ways that are mentioned by Pinto (2016) and determines the influence in the relation to supportive system and processes, organizational focus on training, flexibility and innovation, sharing the knowledge, etc.

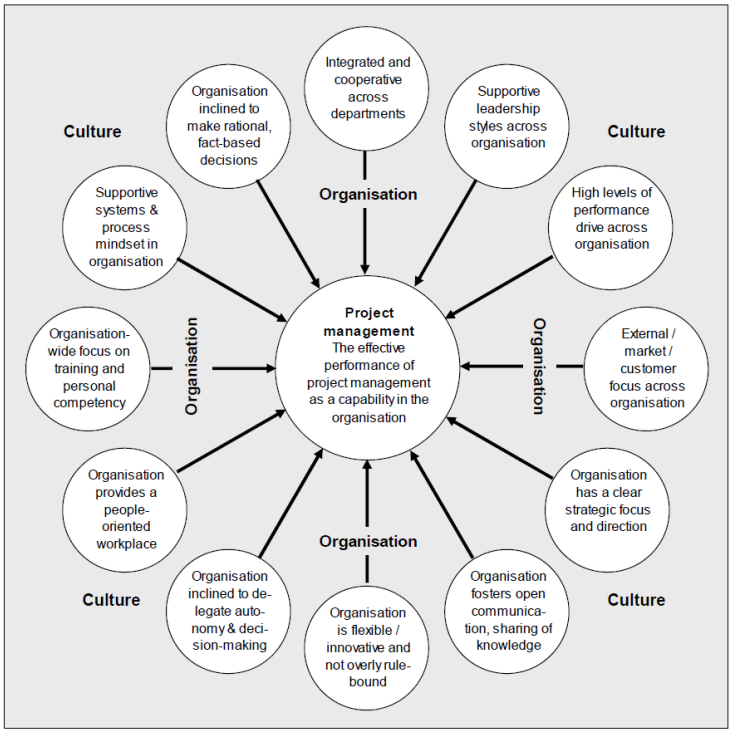


Figure 1. The proposed dimensions of a project management supportive organizational culture

Source: Morrison, Brown, Smit (2006), p. 48.

Organizational culture from the perspective of project management may be viewed as a separate culture of the project management profession or the project management team, or corporate culture for project management. Titov, Birukov and Vichodtseva (2020, 602 p.) suggest that the project management culture definition could be built by transforming the British anthologist Tylor's definition to the project management domain: "taken in its cultural context, project management is a complex whole that includes knowledge, beliefs, skills, attitudes, and other capabilities and habits acquired by people who are members of some project society". National cultures significantly affect various aspects of the project management system, as it was proven by Amy and Pulatov (2008). By influencing project management culture, national culture additionally has a notable impact on the systems of project management.

It could be concluded that an important share of the organizational culture is the ability to develop a separate culture within the projects' implementation. This leads to the fact that culture can influence not only project management but also project performance. The main ways how the project management can be supported by organizational culture: supportive system and processes, organizational focus on training, flexibility and innovation, sharing the knowledge, etc.

1.3. Organizational culture typology based on the Charles Handy model

In this section, academic literature relevant to organizational culture types by Charles Handy will be overviewed. This will allow to identify the differences between specific cultures and create hypotheses for the research and analysis that will be conducted.

Organizational culture should be analyzed and connected to other processes that result in organizational strategy (Vertel, Paternina, Riano and Pareira (2013). If the company is seeking to create a successful plan of implementing changes in the company – organizational culture should be revolved; e.g. introduce brand new working methods, multiple dimensions. In order to achieve the success of intended innovation - culture should be considered as the main criteria (Tolfo, Wazlawick, Forcellini and Ferreira 2010).

The evolution of organizational culture element was developing with some reluctance. In 1960 it was described as a great instrument for organizational improvement, but simultaneously it was not viewed as a factor to gain competitive advantage. Silva and Simoes Gomes (2019, 42 p.) state that in "1980 it was observed the discussion of organizational culture as a variable of managerial strategy and competitiveness, that led to new models in organizational theory, and in the 1990s organizational cultures typologies entered pragmatically in the company' strategic analysis". Conflicting approaches were submitted by Taylor and Fayol, debating whether cultural factors describe particular approaches that are corresponding to where the organization fits (Lacerda, 2011). Charles Handys` typology example identifies four organizational culture categories in which organizational ideologies are being affected as the objectives (Russo et al., 2012).

The organizational culture approach described by Charles Handys` method encouraged researchers to use it in order to connect and relate structure to culture (Cacciattolo, 2014). The main culture types: Power, Role, Task and Person Culture. This typology is also known as coming from the Greek mythology characters of gods: Zeus, Apollo, Athena and Dionysius that were chosen for their extraordinary vivid personalities who would be the basis for describing organizational cultures. Silva and Simoes Gomes (2019) emphasize that Charles Handy pointed the clear statement that no culture is better than the other, and various cultures could coexist in the same organizational environment. In this cooperation of cultures in an established environment, one should stand out as a leading culture.

The Zeus culture (also known as the culture of power) is visualized by using a spider web where all of the authority is concentrated in the middle. This type of culture is completely decentralized and usually has no regulations – or if it does, they adapt in accordance to the needs of the leader, who does not function according to any processes. Zeus is the sole figure that can assess employees. Due to volatile decision-making and predisposition of the team, projects managed under Zeus usually do not end and become programs.

The temple of *Apollo's* culture (also known as the culture of role) lays on the operational personnel as the foundation and the top of the pillars are represented by the management. High formalization and centralization can make implementing changes difficult and lengthy. Nonetheless, changes can be implemented from arising needs of the operational personnel as it is the foundation that holds the pillars of the temple. Clear communication is key in this culture as miscommunication might lead to the division which can make the temple crumble due to divided values and segregation of departments or divisions.

The *Athena's culture* (also known as the culture of task) can be depicted by a fishing net which consists of connections among the teams or departments of the company which are located at the gaps of the net. Due to the focus on communication, strategy and competitiveness, the culture by itself is entrepreneurial, where the product or the service is in the spotlight as it is the main focus compared to the other projects and products being developed in the company. Athena's culture focuses on independence but must control competitiveness, to avoid the separation of individualism from the collective.

Dionysius/Dionysus' culture (also known as the culture of person) or the existential culture is represented by a cluster, that praises the individual bringing value to the company and the approach that company does not determine the importance to the individual. Individualism stands above collectivism and the one who stands out is rewarded disregarding the values of the individuals. In case of the individual leaving the company becomes dependent, on finding a new replacement from internal resources or external recruitment in order to maintain the current strategy.

Figure 2 represents the depicted cultures in order from low to high centralization of authority with the cooperation of cultures between departments or individuals in the organization via a schematic introduced by Charles Handy.

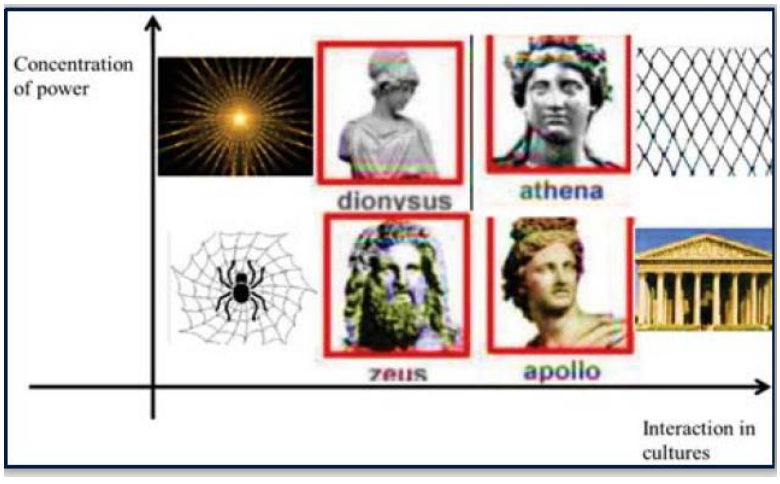


Figure 2. Culture typology by C. Handy

Source: Silva, Gomes, 2019, p. 43.

It could be concluded that in order to achieve successful innovation (initiation, implementation) - culture should be considered as the main criteria. Organizational culture typology based on Charles Handy's method encourages using it to connect and relate structure to culture: Power, Role, Task and Person. This method directly connects the centralization of authority with the cooperation of cultures between departments or individuals.

1.4. Main factors and mechanisms of organizational culture

In this section, academic literature relevant to organizational culture mechanisms will be overviewed. This will allow to identify variables that influence organizational culture and create hypothesis for the research and analysis that will be conducted.

Scientific literature classifies and describes the factors that influence and shape organizational culture in various groups. Investigation of different articles by Kulvinskienė and Šeimienė (2009, 28 p.) indicates that the latter factors can be grouped into three main categories:

1. "Factors indirectly influencing organizational culture (macro-environment of an organization).

2. Factors directly influencing organizational culture (micro-environment of an organization).

3. Factor of leader's impact (primary and secondary mechanisms, methods for change of the organizational culture)."

Factors having an indirect effect on the organizational culture consist of the macro-environment in the organizations – economic, social-cultural, political-legal, scientific-technological, natural setting and international incidents. On the contrary, the direct factors impacting the organizational culture consist of the companies' micro-environment, compiled from consumers and customers, partners and other companies (Driskill and Brenton, 2014). The third factor impacting the organizational culture formation and development are the front-runners of the company – values, beliefs and their foundation created by the founders of the company and subsequently by the upheld management.

Some companies can have different long-term operational objectives and organizational cultures disregarding that they operate in the same sector, manufacture comparable products by using the same machinery and have familiar origins (Schein, 2004). The main factors leading to these conditions are different values, goals and approaches set by the companies. The fundamental principles used while forming the organizational culture of an organization are paved by the founders of the company (Driskill and Brenton, 2014). In addition to creating the objectives of the company, they choose their team and guide it towards the direction they have envisioned for the company. Some managers set up a company and develop the organizational culture by using their personality and charisma as characteristics (Schein,

2004). Some leaders are unable to utilize their charisma, consequently, they employ different mechanisms in creating and developing organizational culture.

Table 1.

Culture mechanisms: consolidation of beliefs and values of the leaders

	Primary culture mechanism determination	**Secondary culture mechanisms consolidation and expression**
1	Paying attention, measure and control point of the leader	Structure and design of the organization
2	Leaders reaction to critical incidents	Systems and procedures of the organization
3	Observation of the criteria by which leaders allocate scarce resources	Rites and rituals of the organization
4	Role modeling, teaching, and coaching	Design spaces, facades and buildings
5	Observation of the criteria by which leaders allocate rewards and status	Stories, legends, history and myths about people and events
6	Observation of the criteria by which leaders select, recruit, promote, retire organization members	Organizational philosophy, values and creed formal statements

Source: prepared by the author on the basis of Schein, 2004, p. 246-271.

Strengthening the company's management beliefs and values can be accomplished by using major (cultural formation) and minor (cultural realization and support) mechanisms as primary and secondary. (Schein, 2004). The first mechanism is the key instrument that the companies' management can utilize for aligning the employees' values, beliefs and behaviors with their own.

The first mechanisms used in reinforcing the organizational culture are closely connected and impacted by each other. According to Schein (2004), separate training or courses for new employees are not necessary as they should acquire the understanding and knowledge of the cultural values by carrying out their routine tasks. Second mechanisms (organizational structure, systems, procedures, routine) are utilized in preserving and reinforcing the major mechanisms for startups and expanding organizations. In comparison, sizable and established companies use secondary mechanisms as the major instruments of forming organizational culture (Schein, 2004).

It could be concluded that factors that make an impact on organizational culture could be divided into direct, indirect and related to the leader's values and beliefs impact. None of the companies could be considered to be identical even if they are operating in the exact same field with the same conditions

as the main differences are usually formed from different values, goals (primary culture mechanism). Secondary culture mechanisms could be associated with the realization and support of organizational culture.

1.5. Organizational culture change and implementation

In this section, academic literature relevant to organizational culture changes will be overviewed. This will allow to identify variables that influence organizational culture and create hypotheses for the research and analysis that will be conducted.

Organizational culture has to be periodically modified due to regular changes in the company's macro and microclimate and core values which are not able to assure the success of its operating and competitive activities (Luthans, 2011; Burton and Obel, 2004). Changes in organizational culture occur when the companies' internal indexes reveal a decrease in effectiveness and incur a financial loss (Driskill and Brenton, 2014). As follows, adjustment to the new status quo becomes key to the organization`s existence. In some cases, the organization may have founders or management who are unable to create a well-developed organizational culture, in such cases, a new leader should be appointed to set up a strong organizational culture to ensure the success of the company (Robbins, 1993). In general, it is easier to replace a weak organizational culture in comparison to a strong one, as the latter usually has a strong foothold in the companies' employee mindset and is supported by procedures, structure, etc.

The leaders responsible for implementing the changes in the organizational culture must be the representatives of the transformation and have the capabilities to pass on the new values and conduct to the organization (Schabracq, 2007; Cameron and Quinn, 2011; Driskill and Brenton, 2014). According to Schein (2004), the role of the transformation process leader in the organization`s culture relies on the stage of the organizations' development.

Implementing changes in an organization's culture is a very difficult challenge for management. The challenge arises due to the tight connection of goals, roles, processes, values, communications, practices, attitudes and assumptions. These specific organizational culture changes are often started by evaluation of the current culture and identification of its strong and weak sides. One of the assessment models for evaluation is developed by Denison, Janovics, Young, Cho (2006) and relies upon the four cultural traits of Involvement, Consistency, Adaptability and Mission. In addition to that, the model determines three indicators of managerial practice for each of the traits and then measures these twelve indices (See Figure 3) that have an impact on organizational decisions and effect project performance as it is directly connected to the goals of the organization.

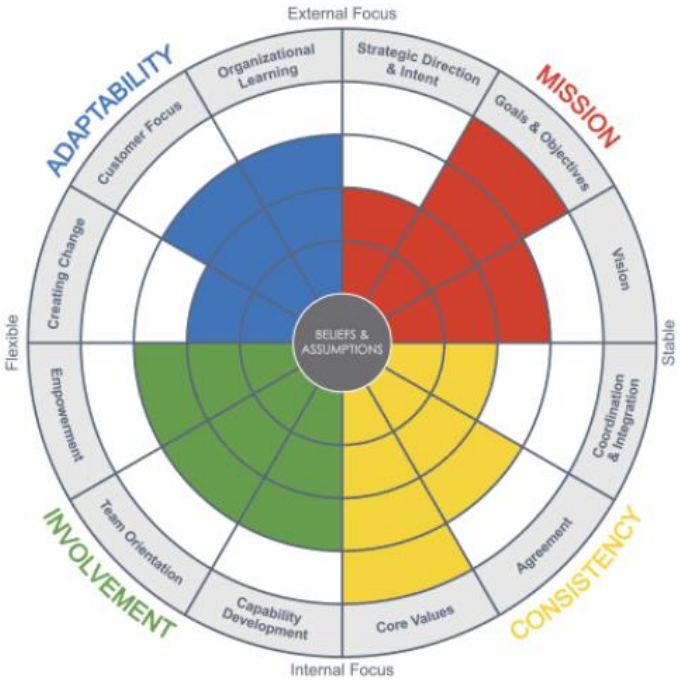


Figure 3. Denison organizational culture model

Source: Denison, Janovics, Young, Cho,2006, p. 36.

According to the model, it is acceptable to link the companies' culture, policies and strategy to a core of unified beliefs and assumptions within the organization and its environment. The beliefs and assumptions are encapsulated in 26 subgroups of the four cultural traits that influence organizational performance and are considered to be the core of an organization's culture. Every trait is measured with three indexes each that contribute to identifying the strongest trait in organizational culture.

If an employee at any level feels that they have at least some input into the organizational decision that is affecting their work in the project and its management – the involvement would be higher (Zaichkowsky, 1986). This allows to establish a sense of direct connection to the goals of the organization. In addition to that, the organizations that are considered to be high in employee involvement rely on informal, voluntary and implicit control systems, rather than formal and bureaucratic ones. In the Denison model, involvement is measured with three indexes (Denison, Janovics, Young, Cho, 2006):

- *Empowerment*. Having the ability to manage their own projects and the possibility to have authority, initiation chance creates a sense of ownership towards project performance and responsibility toward the whole organization.
- *Team Orientation*. The importance of cooperative work in order to cooperatively reach a common goal for which all employees feel accountable. The organization itself relies on team effort to succeed on project performance and final goal.

- *Capability Development*. The organization continually initiates investments into training and development of employee skills in order to stay competitive and meet ongoing business needs.

It could be concluded that organizational culture has to evolve and change due to regular changes in the company's climate and adjustment to the new status quo becomes essential to the organization`s existence. Implementing changes in an organization's culture is challenging due to the connection of goals, roles, processes, values, communications, practices, attitudes and assumptions. The involvement trait allows to establish a sense of direct connection to the goals of the organization and creates a sense of empowerment to the project performance and responsibility toward the whole organization to achieve it.

1.6. COVID-19 impact to Organizational Culture

In this section, academic literature relevant to organizational culture changes during COVID-19 will be overviewed. This will allow to identify changes that influence organizational culture during this period for the research and analysis that will be conducted.

Companies had their cultures notably change and transform around the world which was caused by the high level of economic and social impact of COVID-19 (Spicer, 2020). It is important to keep in mind that such macro-level changes could even create situations where the critical issues in stagnant organizational cultures differentiate from more extensive society-level cultures (Strand and Lizardo, 2017).

Corporate lifecycle was not stopped during the pandemic; instead, it adapted and changed the way of performing its operations. As a consequence, the model of geographically dispersed delivery teams emerged and rose considerably. Regrouping the new approach and adoption of digital tools really accelerated and allowed this newly changed culture environment to thrive by connecting stakeholders and allowed having long distance online meetings, video conferences, screen sharing, multi-authoring and allowed accessing live changes to any type of documents, digital whiteboards, etc. (Thomas, 2021).

This new technology-based communication direction by being considered as a primary communication trend resulted in many issues like Zoom fatigue. In addition to that, new hires in organizations faced difficulties while being onboarded and during the assimilation period not only into the new roles but also into the team due to the remote environment. Klynn (2021) described how culture was negatively affected by employees feeling disengaged, rejected, disposable rather than essential.

Most common issues were lack of communication, advancement of the organizational strategies or struggles to maintain employees in line with the organizational values and goals or even being appraised, heard were encountered. Quite a few solutions for solving these main issues were suggested

by Klynn (2021), in order to create equity for all team members, it was suggested to communicate thoroughly, initiate proactive conversations, in alignment with identification and elimination of inefficient previous habits, establish most recent new practices that demonstrated value in designing and creating the new project or team culture in addition with new norms, and forming explicit change. Stoller (2020) pointed the necessity to highly invest in dissemination media and technology in order to develop and implement consistent communication and necessary policies.

Research showed that following remote work analysis which provided possible issues and solutions to it, employees assessed some measures during the pandemic on the contrary as expected (C. Sull and D. Sull, 2020): leadership was based mainly on integrity and honest communication with even more transparency than in pre-pandemic years. All stakeholders (project teams and the leaders) provided more attention to employee wellbeing and mobility during this period. This kind of change was concluded as a positive outcome and impacted newly created organizational cultures and their values. This *new normal* and changes along with it would be incorporated into the internal culture by organizations in the future to transform the organizational culture on its basis.

During COVID-19 employees established a sense of inspiration, purpose and contribution. In addition to that, leaders became more tolerant towards team failures that were mostly caused by the tremendous increase of experimental and individually performed actions, which has basically led to higher levels of productivity. In addition, the culture of accountability has thrived simultaneously by losing hierarchy and is driven by expanded policies of agility and flexibility. Furthermore, organizational culture could be described as the main and precise forecaster of innovations (Castro and Meneses, 2020).

The sense of purpose does not apply to the company goals and productivity; alternatively, it is related to the whole society, people and customers to which the employee belongs (Daum and Maraist, 2021). Although, this value might be different depending on the sector, e.g. hospitals and retail business. It is quite explicit to state that hospitals shared higher sense of purpose during the pandemic in comparison with the retail sector. Daum and Maraist (2021) also state that during COVID-19 companies distinguished into two categories: redefined or even expanded their objectives in order to suggest emergency help to society or remained stagnant.

Furthermore, the remote work from home environment in connection with the primary communication tool being the technologies - evolved into the creation of new subcultures within the main organizational culture. Spicer (2020) points out that subcultures originally existed in the traditional working environment and were considered to be a part of a cohesive environment in the larger culture itself.

It could be concluded that corporative lifecycle was not stopped during the pandemic and adapted, evolved instead. Recreating the approach and adapting digital tools really accelerated and allowed this new changed culture environment to thrive but at the same time created Zoom fatigue and raised difficulties of the onboarding processes. Although, it also initiated more attention to employee wellbeing and mobility for the future.

2. ORGANIZATIONAL CULTURE RELATIONSHIP WITH PROJECT PERFORMANCE AND EMPOWERMENT IMPORTANCE

2.1. Organizational culture effect on project management and performance

In this section, academic literature relevant to project performance and its impact on organizational culture will be overviewed. This will allow to identify the possible relationship that could be tested and analyzed during the research and form the hypothesis accordingly.

Project execution and results being influenced on a company scale by organizational culture are broadly accepted (Brown, 2008; Andersen, Dysvik and Vaagaasar, 2009). An environment that is essential for effective project management has been established by researching and investigating various aspects of organizational structure, such as, the business strategy, structure, culture, systems, processes and behaviour patterns. Based on extensive literature analysis (Stare, 2011), three ways of influencing organizational culture could be defined:

- *Corporate culture* (indirect influence) – employee engagement, shared values, mission and vision, adaptability to the environment (Kuo, 2010); the way the decision-makers respond to complexity, ambiguity and uncertainty (Shore, 2008); competitive orientation, organizational direction, philosophy of communication, rationality of making decisions, cross-functional integration, managerial style of the managers, flexibility and adaptability, people-oriented philosophy, personal competency, internal tools and processes support, performance management (Morrison et al, 2008; Brown, 2008; Aronson and Lechler, 2009); work environment based on positivity, leadership of executives, result-oriented atmosphere, commercial and technical success, satisfaction of customers (Belassi et al, 2007); strong management and control capabilities or more empowered working style (Moore, 2002); mild attitude of friendly relationship or extremely formal buttoned-down culture (Snedaker, 2006); clan, hierarchy, market and ad hoc culture (Fong and Kwok, 2009);
- *Project organizational culture* (direct influence) – prioritization, project hiring and supporting attitude of upper and production management (Kerzner, 2009); official and unofficial roles, as well as organizational principles, strategy, procedures (Cleland, 1999); assistance from the department in order to strive in reaching project goals, stakeholders commitment to achieve project goals simultaneously trying to balance in between other possibly competing objectives, project planning – especially the way of estimation of the resources that are assigned to the projects and performance of project

teams itself – methodology how managers evaluate, foresee and analyse outcomes of the projects (Pinto, 2010);

- *Subculture in project teams* (direct influence) – effectively performed communication, trust, cooperation and teamwork (Kerzner, 2001), intention to openly share ideas, problems and issues among colleagues in the team, a social aspect that include commonly shared activities in the team, ability to address teammates using first names or even nicknames, formality level that could be sensed within the team (Cleland, 1999).

In order to choose the best project management practice for the project itself, it is essential to identify the position of organizational culture and where a project is executed (Silva and Simoes Gomes, 2019), since the success of project knowledge management is highly related to the company culture (Castro and Filho, 2013).

According to Szabo and Csepregi (2015), the main notions of time, task, team and transition, clarify how projects could vary from other organizational types. From an organizational viewpoint, projects could be identified as a non-linear process within which actions occur between beginning and finishing the project (Lundin & Söderholm, 1995). The project itself could be considered to be unique in having an uncommon and unique task, solution, therefore, it has no premade solutions and this could cause uncertainty in projects (Hällgren & Maaninen-Olsson, 2009).

Kerzner, (2006, 2 p.) raised the importance of project objective when defining a project which "can be considered to be any series of activities and tasks that have a specific objective to be completed within certain specifications (time, cost, quality)" while Gareis (2006, 41 p.) indicates that a "project is a temporary organization for the performance of a relatively unique, short-to medium-term strategically important business process of medium or large scope".

Any project in the organization has a purpose of contributing to organizational strategy realization and the aim to accomplish strategic goals. There are several factors that explain the necessity to operate particular projects on the strategic level: shortening product life cycle, narrowing product launch window, increasing complexity, navigating in global markets (Pinto, 2016).

Methods and tools, such as project management, are being used by companies increasingly more in order to stay in the competitive market side and achieve goals. The concept of the projects became multidimensional and this is mainly caused by different approaches of the project`s phases by various stakeholders. In addition to that, defining project management in an efficient and transparent way from the communication scope becomes a critical success factor (Vezzoni, Arruda, Banzi and Luis, 2013). Wang, Keil, Oh and Shen (2017) imply the significance of investigating culture-related factors scope that may influence individuals' willingness from a research and practice perspective.

Project management practices could be split into pragmatic and humanistic approaches. In addition to that, practices in operational performance are also considered to be divided by performance criteria; (Silva and Simoes Gomes, 2015) these definitions of external projects are the organizational environment, that is specifically related to the operational performance. Moreover, strategic performance criteria that express external definitions for conducting projects are also applied (e.g. the organizational environment in which the project is being performed) (Patah and Carvalho, 2012). So it is essential to follow and track if changes initiated by managers in the organizations are considered to be complex and important because it is directly connected with the demand for effective strategies and achieving goals (Vasconcelos Neto, Oliveira and Leite, 2013).

Yazici (2011, 20 p.) states that "an organizational culture that nurtures project visibility and enhances communication is crucial for project performance. Organizations which encourage collaboration and strong communication among project team members are expected to perform better."

If the organization aims to be successful and perform properly and competitively - organizational culture and other organizational features are essential for the organization (Trus et al, 2019). Additionally, it is instantly linked with other features such as quality of the service, turnover of personnel, positive results and organizational effectiveness (Glisson, 2015). Organizational culture forms the organizational framework and provides a complex perception of organizational factors, e.g. empowerment (Pradhan, Panda and Jena (2017); Sinha, Priyadarshi and Kumar (2016)).

It could be concluded that all projects in the organization have a purpose of contributing to organizational strategy realization and strategic goals. The organizational culture that develops visibility and communication is significant to project performance. Encouragement of collaboration and strong communication is expected to help project teams to reach better project performance.

2.2. Background and definition of empowerment

In this section, academic literature relevant to empowerment, its background and its impact on organizational culture will be overviewed. This will allow to identify the possible relationship that could be tested and analyzed during the research and form the hypothesis accordingly.

One of the main Total Quality Management (TQM) components is employee empowerment (Sigler and Pearson, 2000). Meanwhile, TQM itself is defined as "a set of organizational strategies, practices, and tools for organizational performance improvement"' (Lawler, Mohrman and Ledford, 1995, 45 p.). Promoters of TQM state that it is beneficial to include employee involvement without which TQM could not be successful (Deming, 1986).

Empowered employees are being encouraged by TQM and this could be shown by paying attention to any problems that occur in the workplace environment; constantly trying to improve the

processes of task execution. Empowerment supports these goals and helps in providing power to the project teams in order to make decisions that were made by managers beforehand. This could be achieved by providing the right information which is basically required to make the correct decisions; and by providing training that is essential in order to comprehend the business environment in which the organization is operating; by making a direct connection between the rewards and performance results (Lawler, Mohrman and Ledford, 1995).

Sigler, Pearson (2000, 28 p.) states that "organizations that aspire to involve employees in organizational decision-making; value the mental labor of all employees and, work under the assumption that all employees can contribute to improving the organization - might take comfort in being on their way to creating an *empowering culture*, and, thus, ready to reap the associated benefits regarding quality".

There are various ways to describe employee empowerment. As Honold (1997) describes employee empowerment on the basis of these categories:

1. Leadership' function in providing an empowering environment;
2. Personnel' point of view of the empowering environment;
3. Empowerment through collaboration;
4. Empowerment through structural or procedural change;
5. A multi-dimensional position on empowerment.

Employee empowerment consists of (Wilkinson, 1998): sharing of information (horizontal, upward and downward communication), upward problem-solving (responsibility and autonomy), task autonomy (self-managing teams), formation of attitudes (roles and relationships), self-management (involvement and authority) – validated with the assumption that all stakeholders' interests are closely related. Spreitzer (2017) described psychological empowerment as inner motivation and engagement for tasks in which a person feels not only a sense of control in the work environment but also the meaning, competence (self-efficiency), self-determination and impact.

Quite a few studies have been performed in order to analyze employee empowerment, however, the evaluation of the employee empowerment impact on performance has been inconsistent and provided inconsistent results (Jo and Park, 2016). This inconsistency mainly occurred due to confusion between the power and empowerment concepts of the stakeholders. Some researchers have revealed that one of the main effects related to employee empowerment are changes in employee attitude (Fernandez and Moldogaziev, 2013; Kemelgor, 2000; Freeman and Kleiner, 2000). A great example could be found in Fernandez and Moldogaziev (2013) research that describes empowerment as playing a significant role in consolidating innovative behavior, work and company satisfaction from the team or organizational levels. Freeman and Kleiner (2000) performed the survey to establish the advantages of

employee involvement practices which could be described as including self-managing project teams, working involvement, TQM, sharing the information between stakeholders and opinion surveys. The conclusions of these studies stated that employee involvement is leading to positive changes for the employees, e.g. improvement in the satisfaction of work, attitude toward work assignment and tasks, although no effect on organization-based productivity was identified. Kemelgor (2000) highlighted that employee empowerment could effectively contribute to organizational goal accomplishment only from a small business perspective, particularly by allowing employees to have overall control over significant tasks or aspects of their work.

Other researchers identified contrary results of employee empowerment practices. Cunningham and Hyman (1999) debated empowerment impact in comparison of employee and line manager views. Both recipient groups of employees and managers had negative insights about empowerment programs at the organizational employee level and defined four main reasons:

1. Training and development deficiency in order to support the empowerment program;
2. Initiative for empowerment is perceived as operating pressure;
3. Decreasing importance of personnel department role;
4. Lack of cultural changes.

Heller (2003) indicated that empowerment programs in organizations that mainly focus on the quality of working life, circle of quality, representatively expressed participation and work improvement - have not always been considered to be effective and in particular, it provides quite a big challenge to assess the effectiveness of these programs. In addition to that, it was also stated that a positively expressed correlation between employee participation and psychological, behavioral outcomes are also possible and could be expressed by job satisfaction and lower turnover (Heller, 2003).

Successful leaders can create an empowering environment for their employees that can foster motivation, engagement in the company and personal fulfillment that in return increases workplace satisfaction (Lipinskiene, 2015). Empowerment focuses on motivating employees to improve their skills and performance. Employees who believe in their abilities and are motivated to carry out their tasks and want constant development are the result of empowerment.

After extensive analysis of these scientific articles, it was concluded by the author to use Sigler, Pearson (2000, 28 p.) empowerment definition for the research purposes further. **Empowerment** – giving the power to employees in decision-making and contribution of organization improvements implementation. This particular definition was chosen for its close relation to organizational culture and its effect.

It could be concluded that empowerment is motivation, engagement and self-efficiency for tasks and initiation of process execution improvements which are self-managed by employees individually and fully supported by the company`s management in developing organizational culture and creating conditions for consolidating innovative behavior, work and company satisfaction.

3. RESEARCH METHODOLOGY

3.1. Research Aim and Objectives

This research aims to measure the relationship between organizational culture, empowerment and project performance based on the conceptual research model. The research objectives are the following:

1. Develop the conceptual research model that measures the organizational culture relationship between empowerment and project performance.
2. Conduct quantitative empirical research and evaluate the relationship between empowerment and organizational culture, the impact it has on project performance outcomes based on the conceptual research model.

3.2. Research Design

A quantitative research method was selected to conduct this research, which aims to evaluate the relationship between organizational culture, empowerment and project performance. The method was selected due to the possibility of using quantitative research techniques that can be applied in replicating and analyzing the dataset, which helps in gathering objective and accurate information (Frechtling, 2002). Quantitative methods provide an opportunity to improve the objectivity, reliability and generalization of the results, guide to general conclusions about characteristics of a population (Conrad & Serlin, 2011). Such research findings can be used in organizations for theoretical and supervisory implications. There are two types of quantitative research, experimental and non-experimental, of which both present separate data collection and analysis methods. Experimental research assists in finding the cause and effect relationship, whereas non-experimental allows to test for significant association between factors, which in this research are organizational culture, empowerment and project performance, therefore, the non-experimental design was chosen. Data used for performing quantitative research can be grouped into primary and secondary data research. This research will be made using primary data as the respondents providing the data have been questioned directly.

The standardized survey data collection method was used for the research, as this method is specifically useful for non-experimental descriptive projections that aim to describe facts. As the survey approach allows the creation of a realistic view towards the research of the problem, additionally, it is periodically used to gather information on attitudes and behavior. The survey method was selected because it provides the possibility to draw conclusions for the general population by effectively using a relatively small sample size. The type of survey used in this paper is correlational as the data gathered from the respondents will be used to analyze relationships between various variables.

3.3. Conceptual Research model and variables

The conceptual research model with variables is represented in Figure 4. Based on the analysis of the literature, organizational culture will be measured through four independent variables, namely Information sharing, Management support and Trust, Training, Innovations, while project performance will be measured through dependent variables: Decision-making, Self-management, Involvement. Empowerment will be considered as mediating variable between organizational culture and project performance.

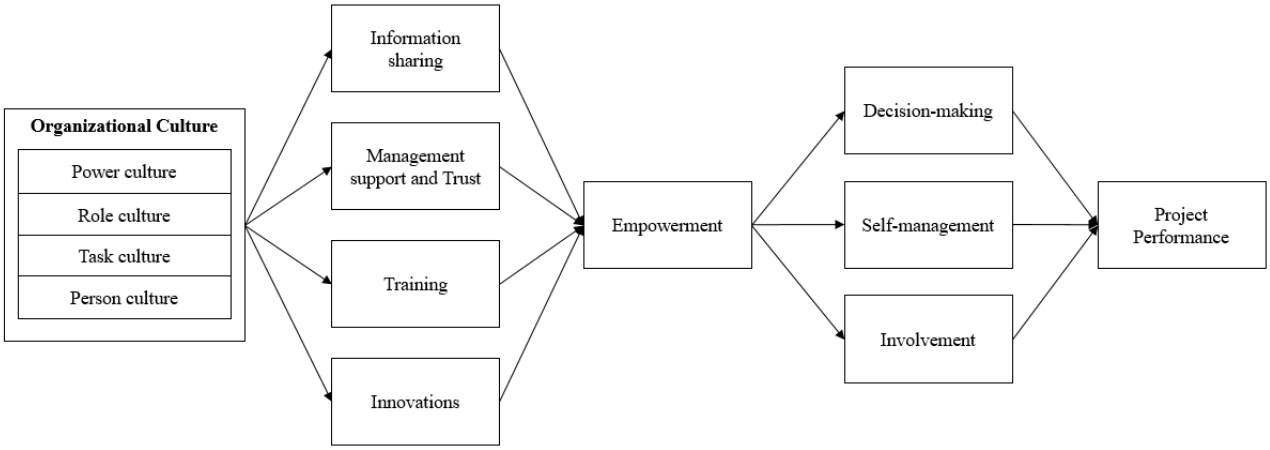


Figure 4. Conceptual research model.

Source: Created by the author.

Organizational culture will be measured through four independent variables:

- *Information sharing* is defined as fostering open communication and openly sharing information within the company.
- *Management support and Trust* – supporting employees to develop and use the skills, abilities, knowledge to perform in the work environment.
- *Training* is defined as proactive action of the company to develop employees` knowledge, skills on a continuous basis in order to support the development and achieve organizational goals.
- *Innovations* – encouraging environment for innovative ideas and changes that provide flexibility and motivation to challenge the status quo.

Project performance will be measured through three dependent variables:

- *Decision-making* is defined as the ability to decide how to pursue organizational goals, plan resources and assign tasks in the team and deal with any problems or deviations.

- *Self-management* – performing and implementing tasks/projects in autonomy without excessive direct support from a direct manager/management.
- *Involvement* is defined as allowing employees to participate and be directly involved in changes of the organization in order to fulfill its mission.

Additionally, one mediating variable: empowerment – giving the power to employees in decision-making and contribution of organization improvements implementation. This particular definition was chosen for its close relation to organizational culture and its effect on it (Sigler & Pearson, 2000).

3.4. Hypotheses Development

Based on the literature analysis and created conceptual research model, hypotheses were formulated for further research analysis. Each of the hypotheses are developed with the aim to measure the relationship between organizational culture, empowerment and project performance in the organizations.

H1: There is a positive relationship between empowering organizational culture and project performance.

H2: Different types of organizational cultures are associated with different levels of employees` empowerment. Levels of empowerment will be the highest in organizations with a **role** culture, reasonably high in organizations with **task** and **person** cultures, and lowest in organizations with **power** culture.

H3a: There is a positive relationship between high empowerment and correlation between both Self-management and project performance.

H3b: There is a positive relationship between high empowerment and correlation between both Involvement and project performance.

H3c: There is a positive relationship between high empowerment and correlation between both Decision-making and project performance.

3.5. Research instrument

The research instrument was developed as a structured questionnaire based on the results of the studies found during literature analysis (identified in Table 2). The first part of the questionnaire consisted of ten demographical and control questions whose main goal was to define respondent characteristics such as employment duration, role title, organization size, etc. These questions were prepared as multichotomous with 4 answers to choose from.

The second part of the questionnaire was designed to explore organizational culture typology and what practices are being applied in the organizations. It is composed of 10 items (organizational culture typology: power culture, role culture, task culture, person culture, and organizational culture itself: Information sharing, Management support and Trust, Training, Innovations).

The third part of the questionnaire was designed to evaluate employees` empowerment and project performance as a related variable. It is composed of 5 items (Project performance: Decision-making, Self-management, Involvement, project performance, and Empowerment). The second and the third part of the questionnaire were chosen to be measured on the Likert scale (from 1 – strongly disagree, to 5 – strongly agree). Respondents were asked to evaluate and choose their level of agreement on a specific statement. The research instrument that was designed for this thesis is presented in Table 2 below.

Table 2.

Research instrument

Construct	**Questions**
Demographic questions	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Organizational culture types (adapted from Silva and Simoes Gomes (2019); Titot et al. (2020); Schein (1990))	11, 12, 13, 14, 15, 16
Power culture	11.a, 13: a, b, c, d
Role culture	11.b, 14: a, b, c, d
Task culture	11.c, 15: a, b, c, d
Person culture	11.d, 16: a, b, c, d
Organizational culture (adapted from Sashkin and Rosenbach (2013))	17, 18, 19, 20
Information sharing	17: a, b, c, d, e, f
Management support and Trust	18: a, b, c, d, e, f
Training	19: a, b, c, d, e, f
Innovation	20: a, b, c, d, e, f
Empowerment (adapted from Sashkin and Rosenbach (2013); Sigler and Pearson (2000))	21: a, b, c, d, e, f

Table 2 Continuation.

Construct	**Questions**
Project performance (adapted from Sashkin and Rosenbach (2013); Kerzner (2009))	22, 23, 24, 25
Decision-making	22: a, b, c, d, e, f
Self-management	23: a, b, c, d, e, f, g, h, i, j
Involvement	24: a, b, c, d, e, f
Project performance	25: a, b, c, d, e, f, g, h, i

Source: Prepared by the author

Following further, the reliability analysis was conducted. In order to adequately measure organizational culture and project performance, the research instruments should be valid and their scales should be internally consistent.

In order to test the internal consistency of the scales, the Cronbach alpha statistics were computed. The results suggested that the internal consistency of organizational culture and project performance scales are valid as Cronbach Alfa is way above 0.6. While the scales measuring employee role (0.54) and task culture level (0.57) have Cronbach Alfa less than 0.6 (Table 3). Although, it also has Cronbach Alfa close to 0.6 which means these scales could be used as well but with greater attention while interpreting results. Looking at the overall internal consistency of the research instrument it should be noted that it could be used for measuring employees' organizational culture, project performance and its effect on one another.

Table 3.

The reliability results of the research instrument

	Scale	**Cronbach's Alpha value**	**No. of questions**
Types of culture	Power culture	0.67	4
	Role culture	0.54	4
	Task culture	0.57	4
	Person culture	0.68	4
Organizational culture	Information sharing	0.88	6
	Management support and Trust	0.83	6
	Training	0.89	6

Table 3 continuation.

	Scale	Cronbach's Alpha value	No. of questions
Organizational culture	Innovation	0.89	6
	Empowerment	0.80	6
Project Performance	Decision-making	0.90	6
	Self-management	0.86	10
	Involvement	0.82	6
	Project performance	0.75	9

Source: Prepared by the author

One of the key steps prior to any statistical data analysis is to test data normality assumption. In this section, the data normality assumption was tested using the Shapiro-Wilk test. For each scale measuring type of culture, organizational culture, and the level of project performance the Shapiro-Wilk test has been employed. The results suggested that scales representing organization level of role culture, task culture, and person culture, do follow a normal distribution. While for power culture scale, data normality assumption is not met ($p = 0.014 < 0.05$).

Table 4.

Data normality test results

	Scale	Shapiro-Wilk test statistics	p - value
Types of culture	Power culture	0.948	0.014
	Role culture	0.965	0.083*
	Task culture	0.975	0.269*
	Person culture	0.976	0.286*
Organizational culture	Information sharing	0.935	0.004
	Management support and Trust	0.957	0.035
	Training	0.936	0.004
	Innovation	0.965	0.084*
	Empowerment	0.943	0.008
Project Performance	Decision-making	0.889	0.000
	Self-management	0.922	0.001
	Involvement	0.908	0.000
	Project performance	0.95	0.016

Source: Prepared by the author

Taking a closer look at the data normality properties of organizational culture scales the Shapiro-Wilk test results confirmed that all scales except the innovation scale ($p = 0.084 > 0.05$) do not follow normal distributions as $p < 0.05$. Also, the data normality tests suggest that all project performance proxies do not distribute normally according to the Shapiro-Wilk test, $p < 0.05$ (Table 4). These findings led to the conclusion that parametric statistical methods will be used for the analysis of role culture, task culture, person culture scales. Also, parametric statistical methods will be applied for the analysis of innovation levels in a company.

3.6. Research Sample and Data Collection methods

In this research, the non-experimental sample was collected using an online survey. This method of data collection was chosen due to its convenience and speed as the research was limited in time. The questionnaire was shared with various project-based companies in Lithuania. A total of 130 respondents were questioned. Looking at the distribution by age, most of the respondents are 21-30 (52.3 %) and 31-40 (40 %) years of age. Regarding respondents' education: 44.6% of the respondents have higher than postgraduate education while 40 % of respondents are postgraduates. Referring to the company size in which the respondents are working, the distribution is proportional. 32.3% of respondents work in a small company (<100 employees), 30.8 % work in a big company with 1000+ employees. The remaining 36.9 % work in companies of size 501-1000 employees.

Distribution of work experience divided: the majority of respondents have 3-5 years of experience in a company (55.4%). Also, 40 % of respondents work in a company that has a dedicated projects office. Taking a closer look at the successfully delivered projects, within 3 years, the majority of respondents noted their company successfully completed more than 20 projects within 3 last years (47.6 %). With this relatively high project completion rate, 62.9 % of companies have quite a low number of projects started and not completed successfully. Only about 20% of all respondents pointed out that their company had more than 20 projects started and not completed successfully. Regarding the position in the last finished project, the majority of respondents work as project managers (65 %). While the team size they are working is inclined towards smaller team size as 34.9 % work in a team of <5 and 36.5% of respondents taking part in a team of 6-10 employees (Table 5).

Table 5**.**

Socio-Demographic characteristics of respondents

		Number of respondents	**Percent, %**
Number of employees in a company	Less than 100	42	32.3
	101 – 500	30	23.1
	501 – 1000	18	13.8
	Above 1000	40	30.8
Work experience in a company	Less than 3	72	55.4
	3 – 5	26	20.0
	5 – 10	30	23.1
	More than 10	2	1.5
Dedicated project office	Yes, my company has projects office	52	40.0
	No, my company does not have project office	20	15.4
	No, but projects are led by specific team (e.g. IT Team)	16	12.3
	No, projects could be conducted by any team	42	32.3
Number of projects started and completed successfully	1 – 5	26	20.6
	6 – 10	24	19.0
	11 – 20	16	12.7
	More than 20	60	47.6
Number of projects started and *not* completed successfully	1 – 5	78	62.9
	6 – 10	12	9.7
	11 – 20	10	8.1
	More than 20	24	19.4
Position in the last finished project	Project manager	78	65.0
	Team-member	12	10.0
	Other	30	25.0
Team size in the last finished project	Less than 5	44	34.9
	6 – 10	46	36.5
	11 – 20	18	14.3
	More than 20	18	14.3

Table 5 continuation**.**

		Number of respondents	**Percent, %**
Age	Less than 20	2	1.5
	21 – 30	68	52.3
	31 – 40	52	40.0
	41 – 50	8	6.2
Education	Higher than Postgraduate	58	44.6
	Postgraduate	52	40.0
	Undergraduate	20	15.4
Gender	Female	76	58.5
	Male	54	41.5
Organizational culture	Power	26	20.0
	Role	42	32.3
	Task	52	40.0
	Person	10	7.7

Source*:* Prepared by the author

3.7. Data Analysis methods

In order to estimate the effect of organizational culture and empowerment on project performance, statistical data analysis has been conducted. Following statistical analysis, firstly the data normality assumption and research instrument validation should be checked prior to data manipulation and statistical estimation. Having the empirical evidence on data normality the research design and the toolset on statistical methods will be picked. If the data does not follow normal distribution the non-parametric statistical methods will be employed.

Data normality assumption will be tested using the Shapiro-Wilk criterion as the research sample is relatively small ($N < 200$).

The research instrument reliability will be tested using the Cronbach Alfa test. The benchmark value of Cronbach Alfa is 0.6. If the scale is greater or equals 0.6, then it will be treated as valid, as elements within the scale are internally consistent and the inter-correlation level is acceptable.

For the analysis of variance estimation between two independent groups, the independent samples Mann-Whitney test will be applied. For the estimation of mean differences between more than 2 groups, the independent samples Kruskal-Wallis test will be used.

If data normality assumption will be present, then parametric counterparts will be used. For two independent groups, the independent samples Student t-test will be applied. For the estimation of mean differences between more than 2 groups, the independent samples ANOVA test will be applied.

In order to estimate the correlation between empowerment and organizational culture and its` impact on project performance outcomes, the non-parametric Spearman correlation will be applied to measure the association between variable pairs. Also, taking a closer look at how empowerment could affect decision-making, self-management, and level of involvement, the single variable linear regression model will be used.

One of the main research goals is to estimate the mediating effect of empowerment on the relationship between decision making, self-management, level of involvement, and the performance itself. The Sobel test will be employed to estimate the mediating effect of empowerment on the correlation between project performance proxies.

The mediation testing basically performed using 3 steps procedure via multiple regression testing:

1. X regressing on M,
2. X and M regressing on Y,
3. X regressing on Y. Sobel test is also used for statistical confirmation.

The mediation hypotheses are often tested by using a 3 steps regression analysis technique suggested by Baron and Kenny (1986). Mediation is considered to be established based on the statistical significance of 3 regression models:

1. A significant relationship exists between the independent variable and the presumed mediator;
2. Significant relationship exists between the independent variable and the dependent variable;
3. In the presence of a significant relationship, the previous significant relationship between the independent variable and the dependent variable is no longer significant or the strength of the relationship is significantly decreased.

4. RESEARCH RESULTS AND DISCUSSION

4.1. The level of organizational culture type attribution across the demographic groups

One of the main targets of this section is to evaluate how different organizational cultures are distributed across organizations and what is the most dominant culture style. Looking at the distribution by organization culture (Figure 5), the majority of respondents noted that they are working in an environment where assigned tasks and activities are designated to a person responsible for the implementation, but there is a possibility of exchanging activities between people i.e. in a task-driven organization (40 %). Also, 32% of respondents specified that they are working in a role-based organization where the tasks and activities are assigned in steps of which each is completed separately and followed up by other colleagues/teams to proceed further.

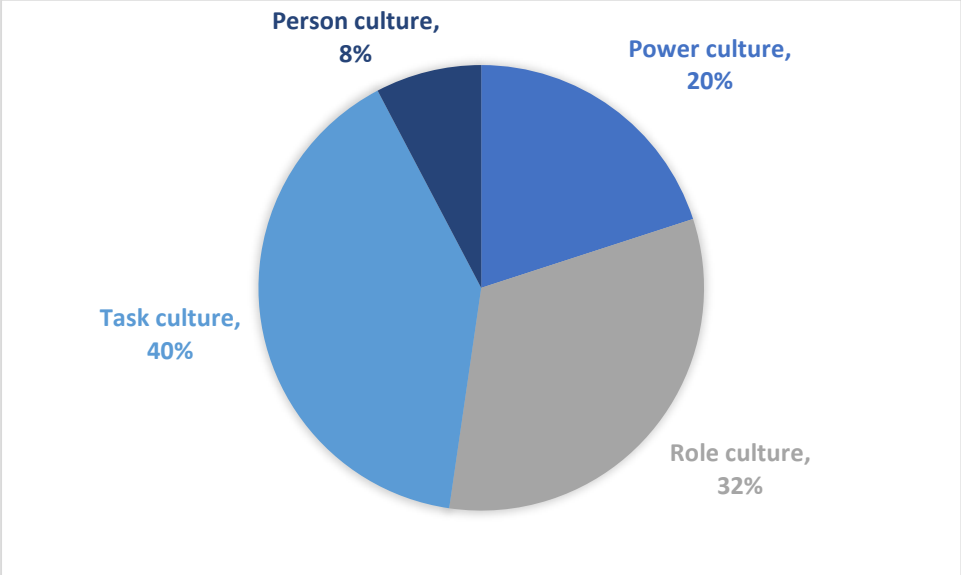


Figure 5. The distribution by organization culture

Source*:* Prepared by the author

Following further, the analysis of variance was conducted in order to estimate the effect of demographic factors on organizational culture types. There is the belief that smaller organizations can utilize different cultural environments easier compared with the bigger players as there are different business models and objectives.

The ANOVA results of this study indicate that there is a statistically significant difference between different size companies in terms of role culture attribution ($p = 0.048 < 0.05$). There is a significantly higher level of role culture present in bigger companies with more than 1000 employees (3.22) compared with smaller companies with less than 100 employees (2.72). This finding suggests that

the role culture is more feasible in bigger companies and teams where the smaller tasks could be divided across different professionals.

Although, the association between company size and person ($p = 0.725 > 0.05$), power ($p = 0.318 > 0.05$) and task cultures ($p = 0.31 > 0.05$) are not statistically significant (Table 6). This finding suggests, bigger and smaller companies incorporate personal, power, and task-oriented organizational cultures equally as there is no evidence to distinguish personal, power, and task culture most commonly visible in bigger companies.

Table 6.

Organization culture level across different size organizations

Organization culture	**Number of employees**	**Mean ± SD**	**Statistical test (sig.)**
Person culture	101 – 500	3.37 ± 0.7	F = 0.4; p = 0.725 > 0.05
	501 – 1000	3.43 ± 0.6	
	Above 1000	3.6 ± 0.5	
	Less than 100	3.65 ± 0.9	
Power culture	101 – 500	3.02 ± 0.7	KW Chi2 = 3.5; p = 0.318 > 0.05
	501 – 1000	2.5 ± 0.6	
	Above 1000	2.52 ± 0.6	
	Less than 100	2.78 ± 0.8	
Role culture	101 – 500	3.33 ± 0.5	F = 3.1; p = 0.048 < 0.05
	501 – 1000	2.71 ± 1	
	Above 1000	3.22 ± 0.6	
	Less than 100	2.72 ± 0.7	
Task culture	101 – 500	3.6 ± 0.8	F = 1.3; p = 0.31 > 0.05
	501 – 1000	3.64 ± 0.7	
	Above 1000	3.32 ± 0.7	
	Less than 100	3.14 ± 0.7	

Source*:* Prepared by the author

To the author`s knowledge, there are no similar researches performed that investigated C. Handy organizational model and its types that could be connected to the size of the organization in which respondents are working. According to the similar research of Cacciattolo (2014), it was concluded that a well-formed organization goes hand in hand with role culture where the employees are provided with stability, the knowledge of what they can anticipate and what to specifically expect of their assigned positions.

4.2. The level of empowerment across demographic groups

Following further, the level of empowerment in the organization was compared across different education groups of the respondents. The main purpose of this analysis is to evaluate the mean level of empowerment among higher and lower education of employees and to determine whether the level of education has a significant impact on information sharing, innovation, management and support, training, and empowerment level itself.

The ANOVA (the Kruskal-Wallis test) results shows significant difference between different education of employees in terms of level of information sharing ($p = 0.022 < 0.05$) and innovation ($p = 0.02 < 0.05$). Looking at the mean scores, information sharing tends to be higher among undergraduates (4.52). In contrast, the employees with the highest education level (higher than postgraduate) usually have to work in an environment that is considered to be scarce (3.72) in terms of information sharing. The results also suggest that undergraduates usually work in significantly more innovative organizations (4.4) than postgraduates (3.74).

The level of management support and trust, training and empowerment do not significantly differ across different education of employees as the Kruskal-Wallis test fails to reject the null hypothesis ($p > 0.05$). This different education of employees has pretty much the same working conditions in terms of management and support, training and empowerment level.

Table 7.

The level of empowerment among employees with different education type

Scale	**Education**	**Mean ± SD**	**Statistical test (sig.)**
Information sharing	Higher than Postgraduate	3.72 ± 0.9	KW Chi2 = 7.7; p = 0.022 < 0.05
	Postgraduate	4.1 ± 0.6	
	Undergraduate	4.52 ± 0.6	
Innovation	Higher than Postgraduate	3.79 ± 0.8	F = 4.5; p = 0.02 < 0.05
	Postgraduate	3.74 ± 0.7	
	Undergraduate	4.4 ± 0.6	
Management support and Trust	Higher than Postgraduate	3.84 ± 0.8	KW Chi2 = 2.8; p = 0.248 > 0.05
	Postgraduate	3.94 ± 0.5	
	Undergraduate	4.27 ± 0.8	
Training	Higher than Postgraduate	3.96 ± 1	KW Chi2 = 1.3; p = 0.529 > 0.05
	Postgraduate	3.8 ± 0.7	
	Undergraduate	4.05 ± 0.9	

Table 7 continuation**.**

Scale	Education	Mean ± SD	Statistical test (sig.)
Training	Higher than Postgraduate	3.96 ± 1	KW Chi2 = 1.3; p = 0.529 > 0.05
	Postgraduate	3.8 ± 0.7	
	Undergraduate	4.05 ± 0.9	
Empowerment	Higher than Postgraduate	4.01 ± 0.8	KW Chi2 = 4.8; p = 0.09 > 0.05
	Postgraduate	4 ± 0.7	
	Undergraduate	4.5 ± 0.3	

Source*:* Prepared by the author

To the author`s knowledge, there are no similar researches performed that investigated if information sharing tends to be higher among undergraduates, as well as if undergraduates usually work in significantly more innovative organizations than postgraduates.

It is believed that project performance could be associated with infrastructure aspects such as the presence of a dedicated project management office. So following further, the effect of the dedicated project offices in organizations on employees' performance was tested.

The main objective was to compare how employees make effective decisions, are involved in the work processes, take self-management, and compare project performance. It is stated that employees of the company who have a dedicated office perform better compared with those without such a dedicated office.

The ANOVA (Kruskal-Wallis test) results show significant difference between different employees' groups in terms of involvement ($p = 0.013 < 0.05$) and self-management ($p = 0.012 < 0.05$). The mean scores suggest that the employees` group with no dedicated office but who use a work model where projects can be conducted by any team have a significantly higher level of involvement (4.45) than those respondents who only indicated not having a dedicated project office (3.86). The same holds for self-management skills as the employees' group with no dedicated office but with a work model when projects could be conducted by any team, manage themselves significantly better (4.34) compared to the no office group (3.69) (Table 8). These findings suggest the presence of a dedicated office does not improve project management performance as the best project management results are achieved without a dedicated project office. Although, it is also observed that the working model when projects could be conducted by any team significantly improve project performance.

Table 8.

The level of project performance among organizations with/without dedicated project office

Scale	Dedicated project office	Mean ± SD	Statistical test (sig.)
Decision making	No, but projects are led by specific team (e.g. IT Team)	4.19 ± 0.8	KW Chi2 = 4.7; p = 0.195 > 0.05
	No, my company does not have project office	3.86 ± 0.5	
	No, projects could be conducted by any team	4.45 ± 0.6	
	Yes, my company has projects office	4.19 ± 0.8	
Involvement	No, but projects are led by specific team (e.g. IT Team)	4.29 ± 0.4	KW Chi2 = 10.8; p = 0.013 < 0.05
	No, my company does not have project office	3.57 ± 0.5	
	No, projects could be conducted by any team	4.35 ± 0.4	
	Yes, my company has projects office	3.86 ± 0.8	
Project performance	No, but projects are led by specific team (e.g. IT Team)	4.13 ± 0.4	KW Chi2 = 4.7; p = 0.196 > 0.05
	No, my company does not have project office	3.8 ± 0.5	
	No, projects could be conducted by any team	4.17 ± 0.4	
	Yes, my company has projects office	3.86 ± 0.6	
Self-management	No, but projects are led by specific team (e.g. IT Team)	4.2 ± 0.6	KW Chi2 = 11; p = 0.012 < 0.05
	No, my company does not have project office	3.69 ± 0.4	
	No, projects could be conducted by any team	4.34 ± 0.4	
	Yes, my company has projects office	3.83 ± 0.7	

Source*:* Prepared by the author

These findings suggest that the presence of a dedicated office does not improve project management performance as the best project management results are achieved off the dedicated project

office could be compared with similar Dai and Wells (2004) research. Although, this research states the opposite conclusion that there is strong evidence that Project Management Office (PMO) and its standards and methods are highly correlated with project performance. The difference in the research results could be explained as Dai and Wells (2004) research was performed in North America and the sample was selected strictly from The Project management Institute`s list of memberships in 2000. The majority of respondents of this particular research also indicated that PMO in their organizations was established within a 5 year period and was already demonstrating a high level of management confidence and benefits of this innovation, project management standards and methods, usage of projects historical archives, etc. It could be concluded that the establishment of the PMO was in the early stage and only started to evolve at the beginning of the second millennium, as in the author`s research in this paper the majority of PMO in the organizations are already established and fully up to current organizational, cultural, technical levels.

4.3. The effect of empowerment on project performance

One of this research objectives is to evaluate the relationship between empowerment and project performance and how empowerment can impact project performance and help organizations to reach their targets. To measure the association between the level of empowering and project performance Spearman correlation coefficients were computed. In order to evaluate the situation on different verticals, the correlation was computed across demographic groups.

H1 *There is a positive relationship between empowering organizational culture and project performance:*

The correlation analysis revealed there is a statistically significant relationship between empowerment and project performance in the full sample ($r = 0.574$, $p < 0.05$). So in general, a higher level of empowerment leads to better project performance.

Comparing correlations across different size companies, the correlations are statistically significant only in small companies of 101-500 employees ($r = 0.644$, $p < 0.05$) and less than 100 employees ($r = 0.434$, $p < 0.05$) and one could be observed, the higher level of empowering is associated with higher project performance.

In terms of employees' work experience, the correlation between organizational culture and project performance is statistically significant across employees having less work experience. For instance, higher empowerment usually results in better project performance among those employees working in the company less than 3 years ($r = 0.65$, $p < 0.05$) or having 3-5 years of experience ($r = 0.802$, $p < 0.05$).

The results also revealed there is a link between the level of empowerment and project performance in such a manner that higher empowerment leads to higher project performance across employees having the ability to work from a dedicated office facility ($r = 0.773$, $p < 0.05$) compared to those whose companies do not have such offices ($r = 0.764$, $p > 0.05$).

The analysis also confirmed that empowerment could positively affect project performance only to some extent as there is no linkage between variables among employees having low level (1-5 projects) of successfully completed projects ($r = 0.366$, $p > 0.05$). Regarding employees with 6-10 successfully completed projects, there is a strong and direct correlation between empowerment and project performance ($r = 0.812$, $p < 0.05$) which means more persistent empowerment could improve project performance only in success-driven teams. Naturally, there is a statistically significant correlation between empowerment and project performance in cases where the number of projects started and not completed successfully are the lowest ($r = 0.575$, $p < 0.05$).

The results also revealed that empowerment could positively affect project performance between managers ($r = 0.575$, $p < 0.05$) while for the team members ($r = 0.754$, $p > 0.05$) and other positions ($r = 0.459$, $p > 0.05$) there is no statistical evidence to support this aforementioned relationship. Despite the higher correlation in the team-member group, the correlation still could be considered to be statistically insignificant. The reason is that only a small sample size participated in the survey (12 team members' respondents took part in the survey).

Comparing correlations across different size teams, the correlations are statistically significant only in a small team of fewer than 5 employees ($r = 0.784$, $p < 0.05$) and one could be concluded the smaller teams could effectively apply empowerment strategies by increasing project performance.

The correlation analysis was also conducted to investigate how demographic properties could affect the relationship between the level of empowerment and project performance. The results suggest that there is statistically significant correlation between empowerment and project performance across younger employees, 21-30 years ($r = 0.49$, $p < 0.05$) and 31-40 years of age ($r = 0.62$, $p < 0.05$). While there is no statistical evidence to conclude the aforementioned correlation across older employees (41-50 years of age) despite the stronger correlation ($r = 0.632$).

In terms of the effect of education on empowerment and project performance, it could be concluded that education level does have a significant impact on the correlation between empowerment and project performance. Adding to that in a group of employees gained higher than postgraduate education, the statistically significant correlation is observed between empowerment and project performance ($r = 0.649$, $p < 0.05$) while there is no evidence to conclude aforementioned relationship for postgraduates ($r = 0.458$, $p > 0.05$) and undergraduates ($r = 0.235$, $p > 0.05$).

Evaluation of the male and female groups proposes that there is a statistically significant correlation between empowerment and project performance both in male ($r = 0.6$, $p < 0.05$) and female groups ($r = 0.534$, $p < 0.05$) which denotes, higher level of empowerment could result in better project performance despite the gender factor.

Project performance could also be affected not only by the level of empowerment but organizational culture as well so the correlation between empowerment and project performance were calculated in different organization culture groups. The results showed a functional statistically significant correlation between empowerment and project performance in organizations where power culture was used ($r = 0.935$, $p < 0.05$). The increase of empowerment also positively affects project performance and organization results in organizations with task-driven culture ($r = 0.644$, $p < 0.05$). Although, there is no statistically significant evidence to conclude that role-driven and person-driven organizations create a work environment where empowerment could positively impact project performance as one correlation is not statistically significant ($p > 0.05$) (see Table 9).

Table 9.

Spearman correlation between level of empowerment and project performance

		Spearman correlation (sig.)
Full sample	-	0.574**
Number of employees in a company	Less than 100	0.434*
	101 – 500	0.644**
	501 – 1000	0.509
	Above 1000	0.402
Work experience in a company	Less than 3	0.650**
	3 – 5	0.802**
	5 – 10	0.138
	More than 10	-
Dedicated project office	Yes, my company has projects office	0.773**
	No, my company does not have project office	0.764*
	No, but projects are led by specific team (e.g. IT Team)	0.019
	No, projects could be conducted by any team	0.256
Number of projects started and completed successfully	1 – 5	0.366
	6 – 10	0.812**
	11 – 20	0.844*
	More than 20	0.389*

Table 9 continuation.

		Spearman correlation (sig.)
Number of projects started and not completed successfully	1 – 5	**0.575****
	6 – 10	**0.812***
	11 – 20	**0.632**
	More than 20	**0.626***
Position in the last finished project	Project manager	**0.575****
	Team-member	**0.754**
	Other	**0.459**
Team size in the last finished project	Less than 5	0.784**
	6 – 10	0.484*
	11 – 20	0.506
	More than 20	-0.187
Age	Less than 20	-
	21 – 30	0.492**
	31 – 40	0.620**
	41 – 50	0.632
Education	Higher than Postgraduate	0.649**
	Postgraduate	0.458*
	Undergraduate	0.235
Gender	Female	0.534**
	Male	0.600**
Organizational culture	Power	0.935**
	Role	0.277
	Task	0.644**
	Person	0.316

Source*:* Prepared by the author

The correlation analysis clarified that empowerment has a positive effect on project performance. Also, it should be noted that the empowerment effects vary depending on the work environment of the organization. The empowerment could significantly improve project performance in power-driven and task-driven organizations. Although, there is no significant evidence to conclude the effect is present in role-driven organizations where tasks and activities are assigned in steps or person-driven organizations where team members work on similar projects without formal tasks. To sum up, it could be concluded that there is a positive relationship between empowering organizational cultures and project performance so the research hypothesis *H1 is accepted*.

The findings suggest that a higher level of empowerment is associated with higher project performance could be aligned with the research performed by Parolia, Goodman, Li and Jiang (2007). Results of this research state that horizontal coordination where communication is being made by a

single team member who interacts with the whole team or individual team members on a one-to-one basis generally results in higher commitment and empowerment, clearer mission, and efficient knowledge transfer that allows for improved project performance. It is important to note that horizontal coordination can also positively impact the empowerment of the team in gathering additional information and improving the final results.

To the author`s knowledge, there is no similar research performed that could be aligned with the research result of this thesis statement that empowerment could significantly improve project performance in power-driven and task-driven organizations. Although, several types of researches could be found that highlights the importance of empowerment in various organizational cultures in general and its impact on project performance. For example, research of Sigler and Pearson (2000) states that organizations that allow their employees to perform tasks collectively and be self-oriented result in being more empowered in comparison to organizations that attempt to highlight low self-orientation and individualism. As a result, a feeling of higher empowerment was found to be more common in cultures where employees are willing to take up responsibility and directly influence their environment. Similarly, collective cultures where the focus of the organization is on the team and not the individual resulted in higher empowerment as well.

Also, Sigler and Pearson (2000) indicated that organizational culture can be used as a helpful tool trying to describe the differences between employee performance and loyalty towards the company. Findings that employees had improved performance and higher levels of loyalty when being in a doing culture where employees believe that taking action to influence their environment was the appropriate approach. Employee responses also allowed to conclude that collective cultures result in higher levels of commitment.

4.4. The effect of organizational culture on level of empowerment and project performance

Following further, the analysis is mainly focused on empowerment and project performance within different organization types. The rationale could be specified that organizations propagating different cultures, could have different requirements and challenges so the level of empowerment may vary significantly. Project performance could also greatly depend on the tasks and methods the team is working with so organizational culture could play a key role in determining the expected project performance level.

H2 *Different types of organizational cultures are associated with different levels of employees` empowerment. Levels of empowerment will be the highest in organizations with a* ***role*** *culture, reasonably high in organizations with* ***task*** *and* ***person*** *cultures, and lowest in organizations with* ***power*** *culture:*

In order to test the level of empowerment, organizational culture aspects and project performance within different cultural organizations, the analysis of variance was employed. The Kruskal-Wallis test results indicated a significant difference in the mean score of empowerment across different organization types ($p = 0.013 < 0.05$). These findings suggest that role-driven organizations have a significantly higher level of empowerment (4.34) compared with power-driven (3.92) and task-driven organizations (3.93). However, the analysis of variance results does not reveal any significant differences in ability to achieve better project performance ($p = 0.251 > 0.05$). Also, the level of information sharing ($p = 0.405 > 0.05$), management support ($p = 0.494 > 0.05$), training ($p = 0.233 > 0.05$) and innovation ($p = 0.23 > 0.05$) do not reveal any significant differences across different culture environments (Table 10). In addition to that, the training process, information sharing between colleagues and help from the team seem to be each organization's fundamental block. To conclude, there is no significant evidence to believe that different working environments could have a significant impact on this organizational culture behavior.

Table 10.

The level of empowerment and project performance in different organizational culture

Scale	**Organization culture**	**Mean ± SD**	**Statistical test (sig.)**
Empowerment	Person	4.16 ± 0.3	KW Chi2 = 6; p = 0.013 < 0.05
	Power	3.92 ± 0.6	
	Role	4.34 ± 0.7	
	Task	3.93 ± 0.7	
Project performance	Person	3.89 ± 0.3	KW Chi2 = 4.1; p = 0.251 > 0.05
	Power	3.8 ± 0.4	
	Role	4.08 ± 0.4	
	Task	4.01 ± 0.6	
Information sharing	Person	4.55 ± 0.4	KW Chi2 = 2.9; p = 0.405 > 0.05
	Power	3.91 ± 0.8	
	Role	3.95 ± 0.7	
	Task	4.03 ± 0.8	
Management support and Trust	Person	3.75 ± 1	KW Chi2 = 2.4; p = 0.494 > 0.05
	Power	3.85 ± 0.8	
	Role	4.16 ± 0.6	
	Task	3.88 ± 0.8	

Table 10 continuation.

Scale	Organization culture	Mean ± SD	Statistical test (sig.)
Training	Person	3.79 ± 1.1	KW Chi2 = 4.3; p = 0.233 > 0.05
	Power	3.68 ± 0.8	
	Role	4.2 ± 0.8	
	Task	3.8 ± 0.9	
Innovation	Person	4.17 ± 0.8	F = 1.6; p = 0.23 > 0.05
	Power	3.51 ± 0.7	
	Role	4.05 ± 0.7	
	Task	3.93 ± 0.7	

Source*:* Prepared by the author

To sum up, the analysis of variance revealed there is a link between the level of empowerment and organizational culture as the mean score of empowerment is significantly different in a work environment where different cultures exist. Specifically, organizations with role culture tend to have a higher level of empowerment while organizations where dominant power culture have significantly lower empowerment. There is significant evidence *to accept the research hypothesis H2* as the different types of organizational cultures are associated with different levels of empowerment in the company and the levels of empowerment will be the highest in organizations with a role culture, reasonably high in organizations with task or person cultures, and lowest in organizations with power culture.

Although, there is no statistical evidence to believe that information sharing, management support and trust in the company, company training and level of innovation are significantly different across different organizational cultures. It could be concluded that the information sharing process between colleagues, daily routine managements methods used, training methodologies and its application and level of research and development in the organization do not vary significantly across different cultural type organizations.

To the author`s knowledge, there is no similar research performed that could be aligned with the research result of this thesis stating organizations with role culture tend to have a higher level of empowerment while organizations where dominant power culture have significantly lower empowerment. Although, several types of researches have been found which highlight the importance of organizational culture in general and its impact on empowerment. The results of Stare (2012) research indicate that a weak project organizational culture could have a negative influence and even cause projects to fail.

In addition to that, Hyland, Sloan and Barnett (1998) indicated that a culture that enables employees to be able to accept responsibility, which results in creating trust between team members. Therefore, leaders and management of organizations need to attempt to strengthen the culture of the organization and create a suitable work environment that enables employee empowerment. Employee morale improvement, management support development, encouragement of creativity, innovation and employee participation in the organization should be promoted to introduce the feeling of organizational embracement and strong organizational culture. Employee motivation and reward system implementation created according to employee performance was found to also increase the feeling of empowerment in organizations.

Due to organizational culture having a significant impact on employee empowerment, management within organizations should take priority in strengthening their culture to achieve the positive impact of culture in order to strengthen the company by creating an environment that allows developing creativity and encourages innovation and initiative within the team.

4.5. The effect of empowerment and it proxies on project performance

One of this research's main objectives is to estimate the effect of empowerment and its proxies on project performance. The main aim is to evaluate how higher levels of empowerment could lead to better project performance. Two types of designs were tested. Firstly, the direct effect of empowerment on project performance was tested in a full data sample. Secondly, the direct effect of empowerment on project performance was tested in different organizational culture groups. Such analysis allowed to estimate the cultural effect on the aforementioned relationship. In order to measure the empowerment effect on project performance, the simple linear regression model was employed.

The analysis suggests the empowerment level has statistically significant positive effect on project performance level in general ($B = 0.44$, $p = 0.001 < 0.05$) (Table 11). So, it could be concluded that the higher empowerment, work motivation and encouragements by colleagues usually results in higher project performance and better achievements regarding work efficiency.

Table 11.

The effect of empowerment on project performance

	Beta	**t-statistics**	**Sig.**
(Constant)	2.18	6.77	0.000
Empowerment	0.44	5.64	0.000

Y = Project performance

Source*:* Prepared by the author

In terms of different organizational culture effect on relationship between empowerment and project performance, the regressions analysis results also confirmed that the empowerment level has a statistically significant positive effect on project performance in power-driven (B = 0.44, p = 0.001 < 0.05) and task-driven organizations (B = 0.56, p = 0.001 < 0.05) (Table 12). Despite the positive effect of empowerment on project performance, there are no reliable evidence to conclude higher empowerment results in better projects performance in organizations where role (B = 0.24, p = 0.082 > 0.05) and person culture present (B = 0.53, p = 0.484 > 0.05).

Table 12.

The effect of empowerment on project performance in different organizational culture

Organization culture		**Beta**	**t-statistics**	**Sig.**
Power	(Constant)	1.12	3.41	0.006
	Empowerment	0.68	8.24	0.000
Role	(Constant)	3.01	5.33	0.000
	Empowerment	0.24	1.84	0.082
Task	(Constant)	1.80	3.14	0.005
	Empowerment	0.56	3.93	0.001
Person	(Constant)	1.67	0.64	0.589
	Empowerment	0.53	0.85	0.484

Y = Project performance

Source*:* Prepared by the author

In order to receive a broader picture of organizational culture dimensions affecting project performance, different factors were chosen to be tested. First of all, the effect of decision-making on the project performance was tested. The results showed the decision-making has statistically significant positive effect on project performance (B = 0.46, p = 0.001 < 0.05) (Table 13). This leads to the conclusion that employees with greater freedom in decision-making perform better regarding project performance level.

Table 13.

The effect of decision-making on project performance

	Beta	**t-statistics**	**Sig.**
(Constant)	2.04	6.73	0.000
Decision-making	0.46	6.46	0.000

Y = Project performance

Source*:* Prepared by the author

Regarding self-management effect on project performance, the regression model results confirmed that a higher level of self-management has a statistically significant positive effect on project performance (B = 0.55, p = 0.001 < 0.05) (Table 14). It could be concluded that organizations that provide better management methodologies and better strategic planning usually achieve better results as well as increase project performance levels.

Table 14.

The effect of self-management on project performance

	Beta	**t-statistics**	**Sig.**
(Constant)	1.77	5.38	0.000
Self-management	0.55	6.77	0.000

Y = Project performance

Source*:* Prepared by the author

Regarding employees' involvement in work processes and their effect on project performance, the regression model results confirmed that higher levels of involvement have a statistically significant positive effect on project performance (B = 0.55, p = 0.001 < 0.05) (Table 15). Organizations with a higher level of employees' involvement in day-to-day work processes are more likely to achieve better results and project performance.

Table 15.

The effect of involvement on project performance

	Beta	**t-statistics**	**Sig.**
(Constant)	1.75	6.51	0.000
Involvement	0.55	8.34	0.000

Y = Project performance

Source*:* Prepared by the author

As the results suggest, decision-making, self-management and involvement have a positive effect on project performance. Organizations propagating a work environment where employees could be encouraged to express ideas, make changes, have the ability to modify things and be part of the processes, usually have higher project performance levels. These findings are valid for all cultural types of organizations as the full data sample was used to test the above effects.

In order to test, whether the effect of decision-making, self-management and involvement level on project performance varies depending on the cultural environment of the organization the simple linear regression models were computed for each cultural type.

The results suggest, decision-making has a positive and statistically significant effect on project performance in all culture groups except person-driven culture (B = -0.28, p > 0.05). In fact, the effect is negative, yet, not significant, meaning there is no statistical evidence to confirm that ability to make decisions could improve project performance in person-oriented organizations where the team members work on similar projects without formal tasks and activities division individually. While the work environment where employee can feel freedom to make changes and contribute to organization, significantly increase the project performance in power-driven organizations (B = 0.39, p = 0.011 < 0.05), role-driven organizations (B = 0.49, p = 0.001 < 0.05) and task-driven organizations (B = 0.53, p = 0.001 < 0.05) as decision-making variable effect is positive and statistically significant. In addition to that, it should be noted that decision-making has the strongest impact on project performance in task-driven organizations where tasks and activities assigned are designated to a person responsible for the implementation. So the task ownership is very interrelated with the decision-making.

Table 16.

The effect of decision-making on project performance in different organizational culture

Organization culture		**Beta**	**t-statistics**	**Sig.**
Power	(Constant)	2.21	4.18	0.002
	Decision-making	0.39	3.04	0.011
Role	(Constant)	1.91	3.97	0.001
	Decision-making	0.49	4.50	0.000
Task	(Constant)	1.87	3.53	0.002
	Decision-making	0.53	4.11	0.000
Person	(Constant)	5.19	1.08	0.394
	Decision-making	-0.28	-0.27	0.813

Y = Project performance

Source*:* Prepared by the author

It is also evident that self-management has a positive and statistically significant effect on project performance in all work environments except person-driven organization culture (B = -0.66, p > 0.05). There is no statistical evidence to confirm that better self-management could results in higher project performance. While the work environment with good task planning and self-management, significantly increases (Table 17) the project performance in power-driven organizations (B = 0.5, p = 0.004< 0.05), role-driven organizations (B = 0.37, p = 0.026 < 0.05) and task-driven organizations (B = 0.72, p = 0.001 < 0.05).

Table 17.

The effect of self-management on project performance in different organizational culture

Organization culture		Beta	t-statistics	Sig.
Power	(Constant)	1.80	3.26	0.008
	Self-management	0.50	3.65	0.004
Role	(Constant)	2.49	3.85	0.001
	Self-management	0.37	2.41	0.026
Task	(Constant)	1.20	2.41	0.025
	Self-management	0.72	5.74	0.000
Person	(Constant)	6.42	2.89	0.102
	Self-management	-0.66	-1.14	0.371

Y = Project performance

Source*:* Prepared by the author

The results also confirmed that the level of employees' involvement in the work process has a positive and statistically significant effect on project performance in all work environments except for the person-driven environment ($B = -0.21$, $p > 0.05$). There is no statistical evidence to confirm that better conditions to involve in organization processes could positively impact project performance. While in the organizations with power-driven ($B = 0.71$, $p = 0.001 < 0.05$), role-driven ($B = 0.37$, $p = 0.005 < 0.05$) and task-driven culture ($B = 0.69$, $p = 0.001 < 0.05$) the level of involvement positively affects project performance i.e. the more employee could initiate work process changes the better project performance could be reached (Table 18).

Table 18.

The effect of involvement on project performance in different organizational culture

Organization culture		Beta	t-statistics	Sig.
Power	(Constant)	1.01	2.15	0.054
	Involvement	0.71	5.97	0.000
Role	(Constant)	2.52	5.21	0.000
	Involvement	0.37	3.17	0.005
Task	(Constant)	1.21	3.15	0.005
	Involvement	0.69	7.44	0.000
Person	(Constant)	4.71	4.19	0.053
	Involvement	-0.21	-0.74	0.538

Y = Project performance

Source*:* Prepared by the author

The analysis revealed that the level of employees' decision-making, self-management and involvement in the work process has a positive and statistically significant effect on project performance in all work environments except the person-driven environment. The ability to make their own decisions, involvement in the processes and having strong management fundamentals always leads to better overall project performance. Although, this is not true if an organization has a person-driven culture where all members work on similar projects without formal tasks and activity division individually does not have formal tasks.

To the author`s knowledge, there is no similar research performed that could be aligned with the research result of this thesis statement that decision-making, self-management and involvement have a positive effect on project performance. Although, based on similar research conducted by Ejimabo (2015), which aim was to understand decision-making factors of the leaders within the organizations some factors could be aligned. Bilateral communication with feedback was found to help in enhancing and improving effectiveness in positive management decision-making in all companies. Leaders and decision-makers from various companies have expressed considerable concern towards the aspects that concern leadership decision-making and project success. Change, inspiration, motivation, influence, management and effective leadership were found to be the key aspects in leadership and management operation. It was also suggested that leaders and management have to put up high focus on the activities of both setting and achieving the goals of their organizations through management functions, information sharing among teams and preservation of a productive and beneficial environment focused on achieving goals.

To the author`s knowledge, there is no similar research performed that could be aligned with the research result of this thesis statement that decision-making has the strongest impact on project performance in task-driven organizations or the work environment with good task planning and self-management, significantly increases the project performance in power-driven organizations.

4.6. The mediation effect of empowerment on correlation between organizational culture and project performance

One of the main research objectives is to measure how organizational culture elements such as decision-making, self-management and involvement can improve project performance via a higher level of empowerment. The assumption is that higher empowerment has a mediation effect on the correlation between high employees' decision-making, self-management and involvement by positively affecting project performance. In this section, the mediation analysis was conducted.

H3a *There is a positive relationship between high empowerment and correlation between both Self-management and project performance:*

First, the mediating effect of empowerment on the correlation between self-management and project performance were tested. The first regression model results suggested that self-management has a positive and statistically significant effect on empowerment (B = 0.688, p = 0.001 < 0.05). The second regression model revealed that both self-management (b = 0.397, p = 0.0001 < 0.05) and empowerment (b = 0.221, p = 0.015 < 0.05) have statistically significant effect on project performance. Looking at the third regression, which measures the direct effect of self-management and project performance, the effect remains positive and statistically significant as B = 0.549, p = 0.0001 < 0.05. Although, the indirect effect of self-management in the second regression was reduced so there is the possibility that empowerment may act as a mediator. To test this assumption, the formal Sobel test was applied and the results confirmed that empowerment has a statistically significant mediating effect on the relationship between self-management and project performance (p = 0.02 < 0.05) (Table 19). Higher empowerment mediates the correlation between high employees' self-management by positively affecting project performance. These findings indicate that project performance tends to be higher when there are higher levels of empowerment and better conditions regarding self-management.

Table 19.

The mediating effect of empowerment on relationship between self-management and project performance

		Beta	**t - statistics**	**p - value**
Empowerment	(Constant)	1.330	2.869	0.006
	Self-management	0.688	6.021	0.000
Project performance	(Constant)	1.475	4.391	0.000
	Self-management	0.397	4.035	0.000
	Empowerment	0.221	2.516	0.015
Project performance	(Constant)	1.768	5.381	0.000
	Self-management	0.549	6.772	0.000

Modifications: Dependent var.: *Project performance,* Independent var.: *Self-management,* Mediator: *Empowerment,* Sobel = 2.32, p = 0.02

Source*:* Prepared by the author

H3b *There is a positive relationship between high empowerment and correlation between both Involvement and project performance:*

Secondly, the mediating effect of empowerment on the correlation between involvement and project performance was tested. The regression results suggest that involvement has a positive and statistically significant effect on empowerment (B = 0.623, p = 0.001 < 0.05). Also, second regression model revealed that both involvement (b = 0.448, p = 0.0001 < 0.05) and empowerment (b = 0.165, p = 0.015 < 0.05) have statistically significant effect on project performance. Measuring the direct effect of involvement to project performance one could be noted, the direct effect seems to be stronger (B = 0.55, p = 0.001 < 0.05) compared with second regression results where project performance was regressed on involvement and empowerment. Although, Sobel test results suggested that there is no statistically significant mediating effect of empowerment on the correlation between project performance and involvement as p = 0.053 > 0.05 (Table 20). These findings reject the assumption that empowerment could positively impact the correlation between involvement and project performance. In addition to that these findings indicate that project performance tends to be higher when there is a higher level of empowerment and greater involvement in team tasks and processes.

Table 20.

The mediating effect of empowerment on relationship between involvement and project performance

		Beta	**t - statistics**	**p - value**
Empowerment	(Constant)	1.583	3.778	0.000
	Involvement	0.623	6.065	0.000
Project performance	(Constant)	1.494	5.114	0.000
	Involvement	0.448	5.480	0.000
	Empowerment	0.165	2.036	0.046
Project performance	(Constant)	1.754	6.514	0.000
	Involvement	0.550	8.338	0.000

Modifications: Dependent var.: Project performance, Independent var.: Involvement, Mediator: Empowerment, Sobel = 1.92, p = 0.053

Source*:* Prepared by the author

H3c *There is a positive relationship between high empowerment and correlation between both Decision-making and project performance:*

The mediating effect of empowerment on the relationship between decision-making and project performance was also estimated. As the first regression results suggest, the decision-making have

positive and statistically significant effect on empowerment (B = 0.727, p = 0.001 < 0.05). Also, the second regression model revealed that both decision-making (b = 0.295, p = 0.0001 < 0.05) and empowerment (b = 0.228, p = 0.048 < 0.05) have statistically significant effect on project performance. Measuring the direct effect of involvement to project performance the direct effect from the third regression model seems to be stronger (B = 0.46, p = 0.001 < 0.05) compared with the second regression model results where project performance was regressed on decision-making and empowerment. In fact, Sobel test results suggest that actually there is a statistically significant mediating effect of empowerment on the correlation between project performance and decision-making as p = 0.048 < 0.05 (Table 21). These results confirm the assumption that empowerment does have a positive effect on the association strength between project performance and decision-making. In other words, project performance tends to be higher when there is a higher level of empowerment and better conditions for the employees to make decisions autonomously and have higher ownership over tasks.

Table 21.

The mediating effect of empowerment on relationship between decision-making and project performance

		Beta	**t - statistics**	**p - value**
Empowerment	(Constant)	1.023	2.993	0.004
	Decision-making	0.727	9.060	0.000
Project performance	(Constant)	1.810	5.703	0.000
	Decision-making	0.295	2.745	0.008
	Empowerment	0.228	2.021	0.048
Project performance	(Constant)	2.043	6.734	0.000
	Decision-making	0.460	6.462	0.000

Modifications: Dependent var.: Project performance, Independent var.: Decision-making, Mediator: Empowerment, Sobel = 1.97, p = 0.048

Source*:* Prepared by the author

The mediation analysis revealed that empowerment has a statistically significant mediating effect on the correlation between both self-management and project performance; decision making and project performance. The research hypothesis *H3a and H3b are accepted*. Although there is no empirical evidence to believe the empowerment level could work as a mediator to the correlation between project performance and involvement so research hypothesis *H3c is rejected*.

These findings suggesting that higher empowerment mediates the correlation between high employees' decision-making and self-management by positively affecting project performance could be aligned with similar research of Badir, Buchel and Tucci (2012) which states that the relationship

between empowerment and project performance is tied to the communication of parties involved in the project and that the best results are achieved by finding balance in the expected and actually required levels and contents of the communication. Current results are in line with a number of studies that indicate that empowerment and performance are not directly connected, but influenced by some factors. For example, Kirkman, Rosen, Tesluk and Gibson (2004) put forward the factor of face-to-face interaction having influence over empowerment and performance, whereas Tung and Chang (2011) suggest that knowledge sharing and team unity are mediating factors in this connection.

Badir, Buchel and Tucci (2012) also found a connection between the team and leading management empowerment and the communication within organizations. The assumption is that team and management empowerment is enabled by the level and contents of the communication. According to their research, the project manager and team members require high levels of empowerment that would allow them to communicate with project partners without an intermediary as soon as the need for additional information or quick and decisive decision making is required to proceed with the project development.

A low level of empowerment would result in a situation where whenever a need for information or decision making is required with the involvement of management, the project teams' progress stops until the top management makes a decision. Such situations usually lead to bottleneck situations as top management has to additionally communicate with the project manager, clarify the arising issues or coordination adjustments, which usually arise from the top management being involved in multiple projects and other activities within the organization. This leads to low levels of communication having a negative impact on employee empowerment which in return negatively impacts the overall project performance and final results.

4.7. Summary of the main findings of the research and hypothesis approval

The research test and analysis results provide the main findings of the analysis which could be excluded as follow:

- There is a significantly higher level of role culture existence in bigger companies with more than 1000 employees compared with smaller companies with less than 100 employees.
- Role culture is more feasible in bigger companies and teams where the smaller tasks could be divided across different professionals.
- Companies of various sizes incorporate personal, power, and task-oriented organizational cultures equally.

- Employees` group with no dedicated project office but who use a work model where projects can be conducted by any team in the company have a significantly higher level of involvement.
- Having a dedicated project office in the company does not improve project management performance as the best project management results are achieved without a dedicated project office. Although, it is also observed that the working model when projects could be conducted by any team significantly improve project performance.
- There is a statistically significant relationship between empowerment and project performance. So in general, a higher level of empowerment leads to better project performance.
- Correlation between organizational culture and project performance is statistically significant across employees having less work experience. For instance, higher empowerment usually results better in project performance among those employees working in the company less than 3 years.
- The analysis also confirmed that empowerment could positively affect project performance only to some extent as there is no linkage between variables among employees having low level (1-5 projects) of successfully completed projects. Regarding employees with 6-10 successfully completed projects, there is a strong and direct correlation between empowerment and project performance which means that more persistent empowerment could improve project performance only in success-driven teams.
- There is a statistically significant correlation between empowerment and project performance across younger employees, that belong to 21-30 years and 31-40 years groups.
- The results showed a functional statistically significant correlation between empowerment and project performance in organizations where power culture was used. The increase of empowerment also positively affects project performance and organization results in organizations with task-driven cultures.
- The level of information sharing, management support, training and innovations do not reveal any significant differences across different cultural environments in the companies. In addition to that, the training process, information sharing between colleagues and help from the team seem to be each organization's fundamental block. To conclude, there is no significant evidence to believe that different working environments could have a significant impact on this organizational culture behavior.

- Empowerment level has a statistically significant positive effect on project performance level in general. So, it could be concluded that the higher empowerment, work motivation and encouragements by colleagues usually results in higher project performance and better achievements regarding work efficiency.
- Decision-making has a statistically significant positive effect on project performance. This leads to the conclusion that employees with greater freedom on decision-making perform better regarding project performance level.
- Higher level of self-management has a statistically significant positive effect on project performance. It could be concluded that organizations that provide better management methodologies and better strategic planning usually achieve better results as well as increase project performance levels.
- Higher levels of involvement have a statistically significant positive effect on project performance. Organizations with a higher level of employees' involvement in day-to-day work processes are more likely to achieve better results and project performance.
- Decision-making, self-management and involvement have a positive effect on project performance. Organizations propagating work environment where employees could be encouraged to express ideas, make changes, have the ability to modify things and be part of the processes, usually have higher project performance levels. These findings are valid for all cultural types of organizations as the full data sample was used to test the above effects.
- Self-management has a positive and statistically significant effect on project performance in all work environments except person-driven organizational culture.
- The analysis revealed that the level of employees' decision-making, self-management and involvement in the work process has a positive and statistically significant effect on project performance in all work environments except the person-driven environment. The ability to make their own decisions, involvement in the processes and having strong management fundamentals always leads to better overall project performance.
- Empowerment has a statistically significant mediating effect on the relationship between self-management and project performance. Higher empowerment mediates the correlation between high employees' self-management by positively affecting project performance. These findings indicate that project performance tends to be higher when there are higher levels of empowerment and better conditions regarding self-management.
- There is no statistically significant mediating effect of empowerment on the correlation between project performance and involvement. These findings reject the assumption that

empowerment could positively impact the correlation between involvement and project performance. In addition to that, these findings indicate that project performance tends to be higher when there is a higher level of empowerment and greater involvement in team tasks and processes.

- There is a statistically significant mediating effect of empowerment on the correlation between project performance and decision-making. These results confirm the assumption that empowerment does have a positive effect on the association strength between project performance and decision-making. Project performance tends to be higher when there is a higher level of empowerment and better conditions for the employees to make decisions autonomously and have higher ownership over tasks.

The summarized results of research analysis hypotheses are provided in Table 22 below. Four hypotheses that were formed after academic literature analysis and selected for research - were accepted.

Table 22.

The results of hypotheses after conducted research analysis

Hypothesis	**Result**
H1: There is a positive relationship between empowering organizational cultures and project performance.	Accepted
H2: Different types of organizational cultures are associated with different levels of employees` empowerment. Levels of empowerment will be the highest in organizations with a **role** culture, reasonably high in organizations with **task** and **person** cultures, and lowest in organizations with **power** culture.	Accepted
H3a: There is a positive relationship between high empowerment and correlation between both Self-management and project performance.	Accepted
H3b: There is a positive relationship between high empowerment and correlation between both Involvement and project performance.	Rejected
H3c: There is a positive relationship between high empowerment and correlation between both Decision-making and project performance.	Accepted

Source*:* Prepared by the author

5. CONCLUSIONS AND RECOMMENDATIONS

The primary aim of this thesis was to investigate the organizational culture from an empowerment perspective and its` effect on project performance. The exploration and analysis of previously performed research results, scientific articles and other relevant literature revealed that the relationship between organizational culture and project performance, as well as the relationship between project performance and empowerment, have been analyzed in various backgrounds. Although, the researches which include all three components and provide extensive analysis and results could be considered as lacking.

In addition to that, the objectives that were formed in order to conduct scientific literature and research analysis allowed to receive the following conclusions:

1. Organizational culture is the identity of the company which shares common values, beliefs and is described to be an important dimension of the working environment and climate. Culture influences decision-making, performances, behaviour, interactions. Based on Titot et al. (2020) organizational culture is the source of effectiveness and strategic advantages. An important share of the organizational culture is the ability to develop a separate culture within the project`s implementation. This leads to the fact that culture can influence not only project management but also project performance. The ways how project management could be supported by organizational culture: supportive system and processes, organizational focus on training, flexibility and innovation, sharing the knowledge, etc. In order to achieve successful innovation (initiation, implementation) - culture should be considered as the main factor. Organizational culture typology based on Charles Handy's method encouraged to use it to connect and relate structure to culture: Power, Role, Task and Person. This method directly connects the centralization of authority with the cooperation of cultures between departments or individuals. Organizational culture has to evolve and change due to regular changes in the company's climate and adjustment to the new status quo becomes essential to the organization`s existence. Implementing changes in an organization's culture is challenging due to the connection of goals, roles, processes, values, communications, practices, attitudes and assumptions. Involvement as a trait allows to establish the sense of direct connection to the goals of the organization and creates a sense of empowerment to the project performance and responsibility toward the whole organization to achieve it.
2. All projects in the organization have the purpose of contributing to organizational strategy realization and strategic goals. The organizational culture that develops

visibility and communication is highly significant to project performance. Encouragement of collaboration and strong communication is expected to help project teams in reaching better project performance. Empowerment can be considered as motivation, engagement and self-efficiency for tasks and initiation of process execution improvements which are self-managed by employees individually and fully supported by the company`s management in developing the organizational culture and creating conditions for consolidating innovative behavior, work and company satisfaction.

3. Based on the developed conceptual research model, quantitative empirical research results propose that:
    - Role culture is the most common in smaller companies with 100-500 employees. While power, task and person cultures are evenly distributed across different types of organizations grouping companies by size, employees and other demographic features.
    - There are differences in work conditions across employees with different education. The information sharing is significantly higher among undergraduates while employees with higher than postgraduate education usually have to work in the environment with the lowest levels of information sharing. The results also suggest that undergraduates usually work in significantly more innovative organizations than postgraduates. In addition to that, employees with no dedicated PMO but with a flexible approach to project execution, have a significantly higher level of involvement in comparison to those with no such office.
    - Level of empowerment directly correlates with project performance. Higher empowerment can lead to better organizational results and project performance. Specifically, empowerment has the strongest impact on project performance in power-driven and task-driven organizations. It should be also noted that organizations with a power culture tend to have a higher levels of empowerment while organizations where the dominant role culture has significantly lower empowerment.
    - Decision-making, self-management and involvement have a positive effect on project performance. Organizations developing a work environment where employees could be encouraged to express ideas, make changes, have the ability to modify things and be part of the process, usually have higher project

performance levels. Although this conclusion applies only to the role, task and power cultural organizations.

- Empowerment has a statistically significant mediating effect on the correlation between both: self-management and project performance, and decision-making and project performance. The level of empowerment mediates the correlation between high employees' decision-making, self-management by positively affecting project performance.

Recommendations. These results could be applied to project managers and organizations whose goals are to create a strong empowering organizational culture for the team members and managers. Based on the findings in this thesis research, recommendations for organizations could be concluded as:

1. Companies should evaluate the leading organizational culture type that dominates within the organization and apply the specific actions that could help to strengthen, evolve this particular culture.
2. Promote and support empowerment within project teams by providing Trust, Innovations, Training and open information sharing culture from the organizational side.
3. Strengthen and promote an organizational culture which leads to the employees` self-management, confident decision-making and involvement. This will eventually result in positive project performance.

Limitations and implications for future research direction. Several limitations should be taken into account with this research and a possibility to address them in future researches should be considered as an option. First of all, due to the low survey participation rates and relatively small sample size and primary data that were gathered from Lithuania companies, it could not represent the whole population. The sample size was limited due to deadlines and the reason that companies had to be actively practicing and involved in project-based working culture and be empowerment oriented, meaning that the respondents had to be empowered in daily project-based work tasks in the company. Further research could be performed by encompassing a wider range of companies that are empowerment focused and have a project-based working culture, which would help in adding the power of statistical information due to bigger sample size. Taking into account that empirical research results could be affected by sector and geographical location within the study, wider research covering data from various countries could be conducted.

Secondly, the data within this research was analyzed, which can result in subjectivity, particularly regarding the measurement of organizational culture and empowerment. Therefore,

comparison of secondary data would be valuable for comparison and additional research of the companies.

In addition to that, due to the current ongoing COVID-19 pandemic the research scope, data are continuously changing by creating a challenge for the organizations to adapt empowering organizational culture especially applicable to remote work conditions. The lack of similar researches created a challenge to perform comparative analysis. Further research could benefit from having a larger sample of statistical data and its integration into future researches that would bring a higher level of statistical reliability.

LIST OF REFERENCES

Ahmadi, S. A. A., Salamzadeh, Y., Daraei, M., & Akbari, J. (2012). Relationship between Organizational Culture and: Typologies and Dimensions. *Global Business Management Research: An International Journal*, *4*(3 & 4), 286–299.

Allaire, Y., & Firsirotu, M. E. (2016). Theories of Organizational Culture: *Organization Studies*, *5*(3), 193–226.

Amy, C. M. Y., & Pulatov, B. (2008). *International differences in project planning and organizational project planning support in Sweden, Japan, Israel, and Malaysia*.

Andersen, E. S., Dysvik, A., & Live Vaagaasar, A. (2009). Organizational rationality and project management. *International Journal of Managing Projects in Business*, *2*(4), 479–498.

Badir, Y. F., Büchel, B., & Tucci, C. L. (2012). A conceptual framework of the impact of NPD project team and leader empowerment on communication and performance: An alliance case context. *International Journal of Project Management*, *30*(8), 914–926.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182.

Brown, C. J. (2008). A comprehensive organisational model for the effective management of project management. *South African Journal of Business Management*, *39*(3), 1–10.

Burton, R. M., & Obel, B. (2004). *Strategic organizational diagnosis and design : the dynamics of fit (Information and Organization Design Series Vol. 4)* (3rd ed.). Springer.

Cacciattolo, K. (2014). Understanding organisational cultures. *European Scientific Journal*, *2*, 1–7.

Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and Changing Organizational Culture Based on the Competing Values Framework, Revised Edition*. San Francisco: Jossey-Bass.

Castro, M. S., & Filho, J. R. de F. (2013). *Procedimentos e práticas para melhorar resultados pós projetos*.

Cheung, S. O., Wong, P. S. P., & Wu, A. W. Y. (2011). Towards an organizational culture framework in construction. *International Journal of Project Management*, *29*(1), 33–44.

Chipulu, M., Ojiako, U., Gardiner, P., Williams, T., Mota, C., Maguire, S., Shou, Y., Stamati, T., & Marshall, A. (2012). Exploring the impact of cultural values on project performance: The effects of cultural values, age and gender on the perceived importance of project success/failure factors.

International Journal of Operations and Production Management, *34*(3), 364–389.

Cleland, D. I. (2007). Project Management: Strategic Design and Implementation. In *Project Management: Strategic Design and Implementation* (5th ed.). New York: McGraw-Hill Education.

Conrad, C., & Serlin, R. (2011). The SAGE Handbook for Research in Education: Pursuing Ideas as the Keystone of Exemplary Inquiry. In *The SAGE Handbook for Research in Education: Pursuing Ideas as the Keystone of Exemplary Inquiry* (2nd ed.). Thousand Oaks, California: SAGE Publications, Inc.

Cunningham, I., & Hyman, J. (1999). The poverty of empowerment? A critical case study. *Personnel Review*, *28*(3), 192–207.

Dai, C. X., & Wells, W. G. (2004). An exploration of project management office features and their relationship to project performance. *International Journal of Project Management*, *22*(7), 523–532.

Daum, D. L., & Maraist, C. C. (2021). The importance of culture in the era of COVID-19. *Industrial and Organizational Psychology*, *14*(1–2), 160–162.

De Castro, M., & Meneses, R. (2020). The Influence of Organizational Culture on Types of Innovation. In *In Brătianu, C., Zbuchea, A., Anghel, F., & Hrib, B. (2020). Strategica: Preparing for Tomorrow, Today.* (8th ed.). Bucharest: Tritonic Publishing House.

Deming, W. (1986). *Out of the crisis*. Massachusetts: Massachusetts Institute of Technology Center for Advanced Engineering Study.

Denison, D., Janovics, J., Young, J., & Cho, H. J. (2006). Diagnosing Organizational Cultures : Validating a Model and Method. *University of Michigan Business School, January*, 1–36.

Denney, S. (2019). Driving Change From the Bottom Up in a Top-Down Culture: Disruptive Innovation: One Organization`s "Lessons Learned" in Gaining Stakeholder Acceptance. *Nurse Leader*, *17*(4), 360–364.

Drenth, P. J. D., & Den Hartog, D. N. (1999). Culture and Organizational Differences. *Merging Past, Present, and Future in Cross-Cultural Psychology*, 489–502.

Driskill, G., & Brenton, A. (2014). *Organizational Culture in Action: A Cultural Analysis Workbook*. New York, NY: SAGE Publications, Inc.

Eberlein, M. (2008). Culture as a critical success factor for successful global project management in multi-national IT service projects. *Journal of Information Technology Management*, *XIX*(3), 27–42.

Ejimabo, N. O. (2015). The Influence of Decision Making in Organizational Leadership and

Management Activities. *Entrepreneurship & Organization Management*, *4*(2), 1–13.

Fernandez, S., & Moldogaziev, T. (2013). Employee Empowerment, Employee Attitudes, and Performance: Testing a Causal Model. *Public Administration Review*, *73*(3), 490–506.

Flamholtz, E. G., & Randle, Y. (2014). Implications of Organizational Life Cycles for Corporate Culture and Climate. *The Oxford Handbook of Organizational Climate and Culture*.

Flamholtz, E., & Randle, Y. (2011). *Corporate culture : the ultimate strategic asset*. Stanford: Stanford Business Books.

Frechtling, J. (2002). *The 2002 User-Friendly Handbook for Project Evaluation.* Arlington, VA.: National Science Foundation, Directorate for Education and Human Resources.

Freeman, R. B., & Kleiner, M. M. (2000). Who Benefits Most from Employee Involvement: Firms or Workers? *American Economic Review*, *90*(2), 219–223.

Gareis, R. (2006). *Happy projects!* Vienna: MANZ'sche Verlag Wien, 41-70.

Glisson, C. (2015). The Role of Organizational Culture and Climate in Innovation and Effectiveness. *Human Service Organizations Management, Leadership and Governance*, *39*(4), 245–250.

Glynn, M. A., Giorgi, S., & Lockwood, C. (2013). Organization Culture. *Management Oxford University Press*.

Hällgren, M., & Maaninen-Olsson, E. (2009). Deviations and the breakdown of project management principles. *International Journal of Managing Projects in Business*, *2*(1), 53–69.

Heidrich, B., & Chandler, N. (2011). The Effect of Market-Oriented Subcultures on Post-Merger Higher Education Institutions. *Online Submission*, *5*, 666–681.

Heller, F. (2003). Participation and power: A critical assessment. *Applied Psychology*, *52*(1), 144–163.

Hofstede, G. (2005). Culture's consequences : international differences in work-related values. In *Cross-cultural research and methodology series*. Newbury Park: Sage Publications.

Honold, L. (1997). A review of the literature on employee empowerment. *Empowerment in Organizations*, *5*(4), 202–212.

Hyland, P., Sloan, T., & Barnett, D. (1998). Changing culture through empowerment. *Journal of European Industrial Training*, *22*(9), 349–353.

Jo, S. J., & Park, S. (2016). Critical review on power in organization: empowerment in human resource development. *European Journal of Training and Development*, *40*(6), 390–406.

Kemelgor, B. H. (2000). The impact of empowerment in small manufacturing firms. *Journal of Small*

Business Strategy, *11*(1), 39–49.

Kerzner, H. (2006). *Project management : a systems approach to planning, scheduling, and controlling*. New Jersey: Wiley & Sons, 2.

Kirkman, B. L., Rosen, B., Tesluk, P. E., & Gibson, C. B. (2004). The impact of team empowerment on virtual team performance: The moderating role of face-to-face interaction. *Academy of Management Journal*, *47*(2), 175–192.

Klynn, B. (2021). Resetting Your Company Culture for a Post-COVID World. *Lead Read Today*.

Kono, T. (1990). Corporate culture and long-range planning. *Long Range Planning*, *23*(4), 9–19.

Kulvinskienė, V. R., & Šeimienė, E. S. (2009). Factors of Organizational Culture Change. *Ekonomika*, *87*, 27–43.

Lacerda, D. P. (2011). Cultura organizacional: sinergias e alergias entre Hofstede e Trompenaars. *Revista de Administracao Publica*, *45*(5).

Lawler, E. E., Mohrman, S. A., & Ledford, G. E. (1995). *Creating high performance organizations : practices and results of employee involvement and Total Quality Management in Fortune 1000 companies* (1st ed.). San Francisco: Jossey-Bass, 45-186.

Lipinskiene, D. (2015). *Leadership and change management*. Klaipėda: SMK University of Applied Social Sciences.

Lundin, R. A., & Söderholm, A. (1995). A theory of the temporary organization. *Scandinavian Journal of Management*, *11*(4), 437–455.

Luthans, F. (2011). *Organizational behavior : an evidence-based approach* (12th ed.). McGraw-Hill Irwin.

Madan, M., & Jain, E. (2015). Impact of Organizational Culture & Climate on Managerial Effectiveness: An Empirical Study. *Delhi Business Review*, *16*(2), 47–57.

Morrison, J. M., Brown, C. J., & Smit, E. V. D. M. (2006). A supportive organisational culture for project management in matrix organisations: A theoretical perspective. *South African Journal of Business Management*, *37*(4), 39–54.

Parolia, N., Goodman, S., Li, Y., & Jiang, J. (2007). Mediators between coordination and IS project performance. *Information & Managament*, 635–645.

Patah, L. A., & Carvalho, M. M. de. (2012). Métodos de Gestão de Projetos e Sucesso dos Projetos: Um Estudo Quantitativo do Relacionamento entre estes Conceitos. *Revista de Gestão e Projetos*, *3*(2), 178–206.

Pinto, J. K. (2016). *Project management : achieving competitive advantage* (4th ed.). Pennsylvania: Pearson Education Limited.

Pradhan, R. K., Panda, M., & Jena, L. K. (2017). Transformational leadership and psychological empowerment: The mediating effect of organizational culture in Indian retail industry. *Journal of Enterprise Information Management*, *30*(1), 82–95.

Ravasi, D., & Schultz, M. (2006). *Responding to Organizational Identity Threats: Exploring the Role of Organizational Culture*. *49*(3), 433–458.

Robbins, S. P. (1993). *Organizational behavior*. Englewood Cliffs N.J.: Prentice-Hall.

Russo, G. M., Tomei, P. A., José, A., Linhares, B., & Santos, A. M. (2012). Correlacionando tipos de cultura organizacional com estratégias de remuneração utilizando a tipologia de Charles Handy. *REAd. Revista Eletrônica de Administração (Porto Alegre)*, *18*(3), 651–680.

Sashkin, M., & Rosenbach, W. E. (2013). Organizational Culture Assessment Questionnaire. *Berrett-Koehler Publishers*, 1–12.

Schabracq, M. (2007). *Changing organizational culture : the change agent's guidebook*. John Wiley & Sons.

Schein, E. H. (1990). Organizational Culture. In *American Psychologist* (Vol. 45).

Schein, E. H. (2004). *Organizational culture and leadership* (3rd ed.). San Francisco: Jossey-Bass.

Schrodt, P. (2009). *The relationship between organizational identification and organizational culture: Employee perceptions of culture and identification in a retail sales organization*. *53*(2), 189–202.

Selart, M., & Schei, V. (2011). Organizational Culture. *Encyclopedia of Creativity*, 193–196.

Sigler, T. H., & Pearson, C. M. (2000). Creating an empowering culture: examining the relationship between organizational culture and perceptions of empowerment. *Journal of Quality Management*, *5*(1), 27–52.

Silva, M. do C., & Simoes Gomes, C. F. (2019). *Aligned project management practices to organizational culture typologies*. 41–52.

Silva, M. do C., & Simões Gomes, C. F. (2015). *Practices in project management according to Charles Handy ' s organizational culture typologies*. *55*, 678–687.

Sinha, S., Priyadarshi, P., & Kumar, P. (2016). Organizational culture, innovative behaviour and work related attitude: Role of psychological empowerment. *Journal of Workplace Learning*, *28*(8), 519–535.

Spicer, A. (2020). Organizational Culture and COVID-19. *Journal of Management Studies*, *57*(8), 1737–

1740.

Spreitzer, G. M. (2017). Social Structural Characteristics Of Psychological Empowerment. *Academy of Management Journal*, *39*(2), 483–504.

Stare, A. (2011). The impact of the organisational structure and project organisational culture on project performance in slovenian enterprises. *Management*, *16*(2), 1–22.

Stare, A. (2012). The impact of a project organisational culture and team rewarding on project performance. *Nomos Verlagsgesellschaft MbH Stable*, *17*(1), 40–67.

Stoller, J. K. (2020). Reflections on leadership in the time of COVID-19. *BMJ Leader*, *4*(2), 77–79.

Strand, M., & Lizardo, O. (2017). The Hysteresis Effect: Theorizing Mismatch in Action. *Journal for the Theory of Social Behaviour*, *47*(2), 164–194.

Sull, D., & Sull, C. (2020). How Companies Are Winning on Culture During COVID-19. *MITSloan Management Review*.

Szabo, L., & Csepregi, A. (2015). Project Organizations and Their Present and Preferred Culture. *Management Dynamics in the Knowledge Economy*, *3*(4), 589–608.

Szabó, L., & Csepregi, A. (2015). Project and Knowledge Strategies: Examination of Cultural Influences. *Kidmore End: Academic Conferences International*, 749–758.

Thomas, J. (2021). How the pandemic can change workplace culture for the better. *Strategy&PWC Network*.

Titov, S., Birukov, A., & Vichodtseva, E. (2020). Organizational culture and project management in India and Russia in the context of binational projects. *TEM Journal*, *9*(2), 601–605.

Tolfo, C., Wazlawick, R. S., Forcellini, F. A., & Ferreira, M. G. G. (2010). *The influence of organizational structure on the adoption of extreme programming in software and product development*. *8*(2).

Trus, M., Galdikiene, N., Balciunas, S., Green, P., Helminen, M., & Suominen, T. (2019). Connection between organizational culture and climate and empowerment: The perspective of nurse managers. *Nursing and Health Sciences*, *21*(1), 54–62.

Tung, H. L., & Chang, Y. H. (2011). Effects of empowering leadership on performance in management team: Mediating effects of knowledge sharing and team cohesion. *Journal of Chinese Human Resources Management*, *2*(1), 43–60.

Vasconcelos Neto, A. G., Oliveira, A. G., & Leite, L. A. S. (2013). *Portfolio Project Management em Pesquisa, Desenvolvimento, e Inovação Voltado para Ações de uma Instituição de Ciência e*

Tecnologia. GEINTEC, 3(5). 109–128.

Vertel, A. del C. C., Paternina, C. D. R., Riaño, H. E. H., & Pereira, J. M. L. (2013). Cultura organizacional: evolución en la medición. *Estudios Gerenciales*, *29*, 350–355.

Vezzoni, G., Júnior, A. C. P., Junior, A. L. B., & Da Silva, S. L. (2013). Identificação e Análise de Fatores Críticos de Sucesso em Projetos. *Revista de Gestão e Projetos*, *4*(1), 116–137.

Wang, J., Keil, M., Oh, L. bin, & Shen, Y. (2017). Impacts of organizational commitment, interpersonal closeness, and Confucian ethics on willingness to report bad news in software projects. *Journal of Systems and Software*, *125*, 220–233.

Wilkinson, A. (1998). Empowerment: Theory and practice. In *Personnel Review* (Vol. 27, Issue 1). Emerald Group Publishing Ltd.

Wolf, T. (2006). Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies [review] / House, R. J., Hanges, P.J., & Javidan, M., Eds. *Journal of Applied Christian Leadership*, *1*(1), 55–71.

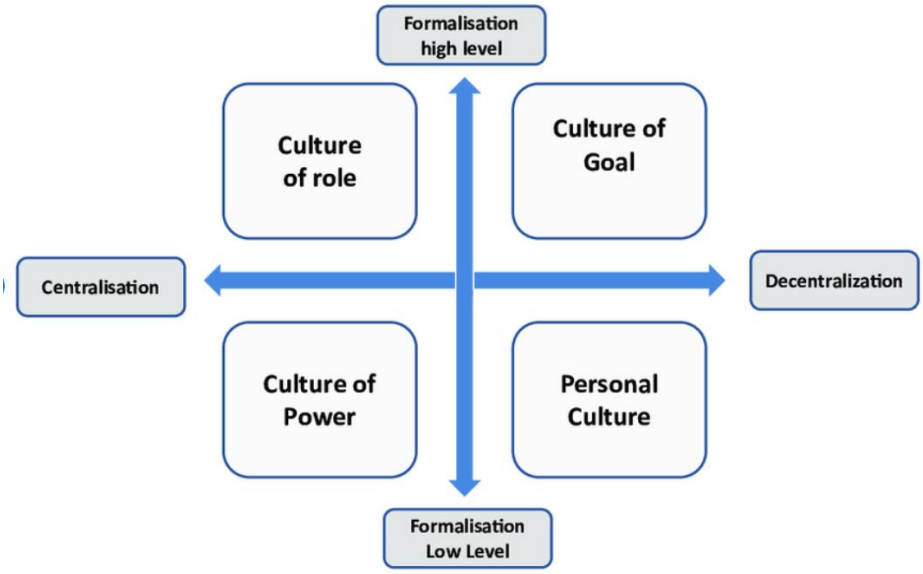
Yazici, H. J. (2009). The Role of Project Management Maturity and Organizational Culture in Perceived Performance: *Https://Doi.Org/10.1002/Pmj.20121*, *40*(3), 14–33.

Yazici, H. J. (2011). Significance of organizational culture in perceived project and business performance. *EMJ - Engineering Management Journal*, *23*(2), 20–29.

Zaichkowsky, J. L. (1986). Conceptualizing involvement. *Journal of Advertising*, *15*(2), 4–34.

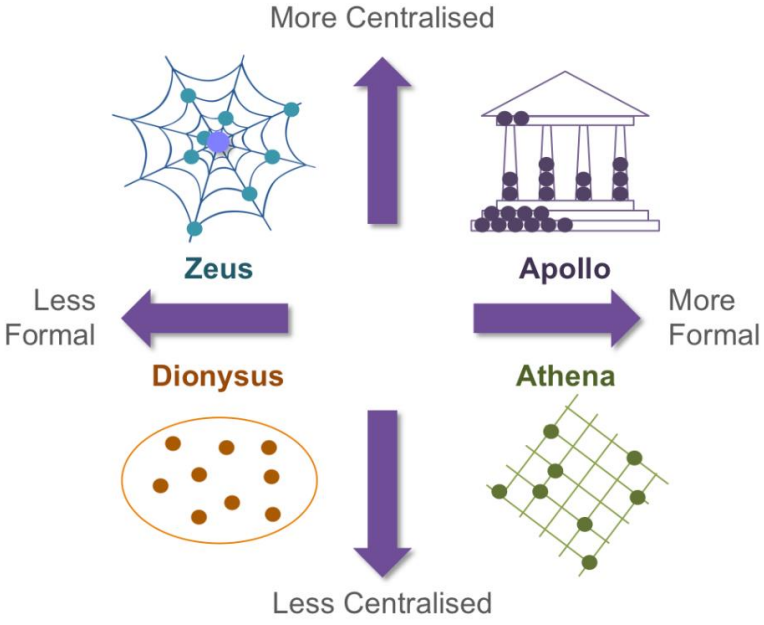
APPENDICES

Appendix 1. Organizational culture model according to Ch. Handy



Source: Krukowski, 2016, p. 218.

Appendix 2. The Gods of Management – Charles Handy



Source: Clayton, 2016, Internet access: https://www.pocketbook.co.uk/blog/2016/07/12/charles-handy-part-2-the-nature-of-organisations/

Appendix 3. Online questionnaire

Hello!

My name is Agneta Zubaitė. I am a student of the International Project Management master program at Vilnius University Business School and I am kindly inviting you to participate in my research. The goal is to evaluate Organizational culture relationship between empowerment and project performance.

The first part of the survey will ask you to evaluate your company`s culture in general. For the second part of the survey, please think about your participation in the currently ongoing/previous projects and keep in mind this experience when choosing the most suitable answer for you in the survey.

To complete this survey, you should take 10 – 15 minutes.

The survey is strictly anonymous. All response results will be summarized and analyzed in accordance with anonymity.

Thank you for investing your time to participate in this research.

Demographical questions

1. How many employees are working in your company?

a. Less than 100
b. 101 – 500
c. 501 – 1000
d. Above 1000

2. How many years have you been working in this company?

a. Less than 3
b. 3 – 5
c. 5 – 10
d. More than 10

3. Does your company has dedicated project office?

a. Yes, my company has projects office
b. No, my company does not have project office
c. No, but projects are led by specific team (e.g. IT Team)
d. No, projects could be conducted by any team

4. How many projects are started and completed successfully within 3 years period in the company you are working?

a. 1 – 5
b. 6 – 10
c. 11 – 20

d. More than 20

5. How many projects are started though not completed successfully within 3 years period in your company?

a. 1 – 5

b. 6 – 10

c. 11 – 20

d. More than 20

6. What was the position you covered in the last finished project?

a. Project manager

b. Team-member

c. Other

If Other, please write your answer: _____

7. How big was the project team in the last finished project?

a. Less than 5

b. 6 – 10

c. 11 – 20

d. More than 20

8. What is your age group you are currently in?

a. Less than 20

b. 21 – 30

c. 31 – 40

d. 41 – 50

e. 51 – 60

f. More than 60

9. What is your level of education?

a. Higher than Postgraduate

b. Postgraduate

c. Undergraduate

d. Secondary

10. What is your gender?

a. Female

b. Male

c. I prefer not to say

PART 1

General questions related to Culture

11. How do the tasks and activities are usually divided in the projects that take place in your company?

a. The tasks and activities are assigned by a single manager; everyone reports to the same manager.
b. The tasks and activities are assigned in steps of which each is completed separately and followed up by other colleagues/teams.
c. The tasks and activities assigned are designated to a person responsible for the implementation, but there is a possibility of exchanging activities between people
d. All the team members work on the similar projects without formal tasks and activities division individually

12. Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)

a. Employees could name main goals and values of the company
b. All employees receive information about their department's operating results
c. Everyone receive information about corporate, department operating results and information on corporate future business plans
d. Policies and procedures help employees in carrying out their tasks
e. Managers at all levels work together as a team to achieve results for the company
f. Everyone believes in a set of shared values about how people should work together to solve common problems and reach mutual objectives.
g. Company`s employees often communicate informally.

Culture (Handy)

13. **Power culture.** Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)
    a. Employees at higher levels in the company have a responsibility to make important decisions for people below them
    b. Employees at lower levels in the company should carry out requests of superiors without question
    c. Employees at lower levels in the company should not have power in the company
    d. There are strict rules and procedures in the company on how employees carry out particular tasks and/or activities
14. **Role culture.** Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)

a. Proceeding with implementation of changes within the company is difficult

b. Lower level employees are able to only initiate the need for change
c. Decision making regarding changes is considered to be slow in the company
d. Employees follow strict guidance and rules of their role and responsibilities at work

15. **Task culture.** Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)

a. Teams of specialized employees are formed to analyze specific issues in the company
b. Management supports internal competitiveness within the teams of the company
c. Every team member is expected to contribute and perform equally in the projects
d. In your company employee salary is based on their performance level

16. **Person culture.** Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)

a. Employee is considered to be the most important asset in the company
b. Organizational structure is considered to be minimum in your company
c. Organizational structure and management support usually adapts in order to help achieve employee goals
d. Majority of the employees is considered to be strong professionals in their field

Information sharing

17. Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)

a. Communication within the company's departments is very open
b. The company has a very casual atmosphere and employees seem to feel comfortable sharing personal things
c. Employees willingly provide information and consult each other on arising questions
d. Communication channels are very open among employees
e. Communication channels are very open between management and employees
f. Employees have access to timely and accurate information about what's happening in the organization and why

Management support and Trust

18. Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)

a. The management in the company is generally considered to represent mentoring, assistance or development
b. The management style in the company can be characterized by teamwork, unity and involvement
c. Loyalty and mutual trust hold the company together, commitment to this organization runs high

d. Addressing direct managers on arising questions and asking for advice is encouraged
e. Employees trust the management and believe in its message
f. Employee worries and anxieties during periods of change are heard and taken into account

Training

19. Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)

a. The company highlights employee development, trust, honesty and involvement
b. The company distinguishes success on progress of human resources, teamwork, employee engagement and care for people
c. Employees within the company can improve their skills and raise qualifications
d. The company provides its employees with the possibility to follow their career plan
e. The company offers sufficient job training for the employees
f. The company dedicates time for training during work hours

Innovation

20. Please indicate your opinion towards the following statement applicability in your company (1 – strongly disagree; 5 – strongly agree)

a. The company encourages new ideas and innovations
b. The company approves and promotes change
c. The company encourages the employees to propose new methods for improvement
d. Changes proposed by employees are usually implemented
e. The company is open to change
f. Employees are versatile and adjust easily when changes are required

PART 2

Empowerment

21. Please indicate your opinion towards the following statement applicability keeping in mind currently ongoing/previous projects you have worked (1 – strongly disagree; 5 – strongly agree)

    1. You are encouraged to find solutions how to perform work and tasks using less resources in the project
    2. You feel the trust from your manager to decide on the implementation method individually
    3. You are encouraged to find better solutions for ineffective tasks
    4. You are encouraged to challenge the status quo in the company
    5. You perform tasks with confidence and feeling support from the management
    6. You feel importance of the empowerment increased during this remote working period

Decision-making

22. Please indicate your opinion towards the following statement applicability keeping in mind currently ongoing/previous projects you have worked (1 – strongly disagree; 5 – strongly agree)

a. You make independent decisions regarding your tasks
b. You are encouraged to show individual initiative and to make decisions independently
c. You have the possibility to exclusively plan your working routine in order to achieve your goals
d. You feel confident to implemented individual method of task/project completion
e. You are trusted in your decision making as a professional of the field
f. Your manager trusts you to finish the work in a timely manner.

Self-management

23. Please indicate your opinion towards the following statement applicability keeping in mind currently ongoing/previous projects you have worked (1 – strongly disagree; 5 – strongly agree)

a. Your team has distinctly defined goals that relate to the vision and mission of the company
b. Teams can create unique plans on how to achieve strategic goals and outcomes independently
c. Your team constantly stretches your goals, to constantly improve
d. Team members have a clear understanding of why and how to progress during the process of change
e. Your immediate supervisor trusts your decisions as the professional of the field
f. Everyone is encouraged to take initiative in making decisions on their own
g. Your department is open to suggestions
h. Your department places high priority and provides support to meet the need to solve problems of clients and customers
i. Employees are constantly seeking new ways to better serve clients and customers
j. The company’s decision making is being made by facts, not just perceptions or assumptions

Involvement

24. Please indicate your opinion towards the following statement applicability keeping in mind currently ongoing/previous projects you have worked (1 – strongly disagree; 5 – strongly agree)

a. You are encouraged to show personal initiative
b. Your direct manager encourages the initiation of suggestions for improvement
c. You understand the goals and purpose of continuous improvement
d. Employees work as a team, applying the "what's in it for us" approach rather than "what's in it for me"
e. Employees do not see their colleagues or customer issues as someone else's responsibility

f. Individuals and teams take part in determining goals.

Project performance

25. Please indicate your opinion towards the following statement applicability keeping in mind currently ongoing/previous projects you have worked (1 – strongly disagree; 5 – strongly agree)

a. Projects are completed on time
b. Projects meet their budget requirements
c. Projects meet the expectations
d. Team members are satisfied in working with each other
e. Project results are positively rated by the project manager
f. Cooperation between the stakeholders is encouraged during the implementation of the project
g. Projects help to improve the grow of sales in the company
h. Projects help to improve the company's market share
i. Projects help to improve the company's competitive position in the market

Appendix 4. Extended research instrument

Construct	**Questions**
Demographic questions	1. How many employees are working in your company? a. Less than 100 b. 101 – 500 c. 501 – 1000 d. Above 1000
	26. How many years have you been working in this company? a. Less than 3 b. 3 – 5 c. 5 – 10 d. More than 10
	27. Does your company has dedicated project office? a. Yes, my company has projects office b. No, my company does not have project office c. No, but projects are led by specific team (e.g. IT Team) d. No, projects could be conducted by any team

28. How many projects are started and completed successfully within 3 years' period in the company you are working?
    a. 1 – 5
    b. 6 – 10
    c. 11 – 20
    d. More than 20

29. How many projects are started though not completed successfully within 3 years' period in your company?
    a. 1 – 5
    b. 6 – 10
    c. 11 – 20
    d. More than 20

30. What was the position you covered in the last finished project?
    a. Project manager
    b. Team-member
    c. Other

31. How big was the project team in the last finished project?
    a. Less than 5
    b. 6 – 10
    c. 11 – 20
    d. More than 20

32. What is your age group you are currently in?
    a. Less than 20
    b. 21 – 30
    c. 31 – 40
    d. 41 – 50
    e. 51 – 60
    f. More than 60

33. What is your level of education?
    a. Higher than Postgraduate
    b. Postgraduate
    c. Undergraduate
    d. Secondary

	34. What is your gender? a. Female b. Male c. I prefer not to say
Organizational culture types (adapted from Silva and Simoes Gomes (2019); Titot et al. (2020); Schein (1990))	35. How do the tasks and activities are usually divided in the projects that take place in your company? a. The tasks and activities are assigned by a single manager; everyone reports to the same manager. b. The tasks and activities are assigned in steps of which each is completed separately and followed up by other colleagues/teams. c. The tasks and activities assigned are designated to a person responsible for the implementation, but there is a possibility of exchanging activities between people d. All the team members work on the similar projects without formal tasks and activities division individually
	36. Organizational culture a. Employees could name main goals and values of the company b. All employees receive information about their department's operating results c. Everyone receive information about corporate, department operating results and information on corporate future business plans d. Policies and procedures help employees in carrying out their tasks e. Managers at all levels work together as a team to achieve results for the company f. Everyone believes in a set of shared values about how people should work together to solve common problems and reach mutual objectives. g. Company`s employees often communicate informally.
	37. **Power culture** e. Employees at higher levels in the company have a responsibility to make important decisions for people below them f. Employees at lower levels in the company should carry out requests of superiors without question

	g. Employees at lower levels in the company should not have power in the company h. There are strict rules and procedures in the company on how employees carry out particular tasks and/or activities
	38. **Role culture** a. Proceeding with implementation of changes within the company is difficult b. Lower level employees are able to only initiate the need for change c. Decision making regarding changes is considered to be slow in the company d. Employees follow strict guidance and rules of their role and responsibilities at work
	39. **Task culture** a. Teams of specialized employees are formed to analyze specific issues in the company b. Management supports internal competitiveness within the teams of the company c. Every team member is expected to contribute and perform equally in the projects d. In your company employee salary is based on their performance level
	40. **Person culture** a. Employee is considered to be the most important asset in the company b. Organizational structure is considered to be minimum in your company c. Organizational structure and management support usually adapts in order to help achieve employee goals d. Majority of the employees is considered to be strong professionals in their field
Organizational culture (adapted from	**41. Information sharing** a. Communication within the company's departments is very open b. The company has a very casual atmosphere and employees seem to feel comfortable sharing personal things

Sashkin and Rosenbach (2013))	c. Employees willingly provide information and consult each other on arising questions d. Communication channels are very open among employees e. Communication channels are very open between management and employees f. Employees have access to timely and accurate information about what's happening in the organization and why
	42. Management support and Trust a. The management in the company is generally considered to represent mentoring, assistance or development b. The management style in the company can be characterized by teamwork, unity and involvement c. Loyalty and mutual trust hold the company together, commitment to this organization runs high d. Addressing direct managers on arising questions and asking for advice is encouraged e. Employees trust the management and believe in its message f. Employee worries and anxieties during periods of change are heard and taken into account
	43. Training a. The company highlights employee development, trust, honesty and involvement b. The company distinguishes success on progress of human resources, teamwork, employee engagement and care for people c. Employees within the company can improve their skills and raise qualifications d. The company provides its employees with the possibility to follow their career plan e. The company offers sufficient job training for the employees f. The company dedicates time for training during work hours
	44. Innovation a. The company encourages new ideas and innovations b. The company approves and promotes change

	c. The company encourages the employees to propose new methods for improvement d. Changes proposed by employees are usually implemented e. The company is open to change f. Employees are versatile and adjust easily when changes are required
Empowerment (adapted from Sashkin and Rosenbach (2013); Sigler and Pearson (2000))	**45. Empowerment** a. You are encouraged to find solutions how to perform work and tasks using less resources in the project b. You feel the trust from your manager to decide on the implementation method individually c. You are encouraged to find better solutions for ineffective tasks d. You are encouraged to challenge the status quo in the company e. You perform tasks with confidence and feeling support from the management f. You feel importance of the empowerment increased during this remote working period
Project performance (adapted from Sashkin and Rosenbach (2013); Kerzner (2009))	**46. Decision-making** a. You make independent decisions regarding your tasks b. You are encouraged to show individual initiative and to make decisions independently c. You have the possibility to exclusively plan your working routine in order to achieve your goals d. You feel confident to implemented individual method of task/project completion e. You are trusted in your decision making as a professional of the field f. Your manager trusts you to finish the work in a timely manner.
	47. Self-management a. Your team has distinctly defined goals that relate to the vision and mission of the company b. Teams can create unique plans on how to achieve strategic goals and outcomes independently c. Your team constantly stretches your goals, to constantly improve

d. Team members have a clear understanding of why and how to progress during the process of change
e. Your immediate supervisor trusts your decisions as the professional of the field
f. Everyone is encouraged to take initiative in making decisions on their own
g. Your department is open to suggestions
h. Your department places high priority and provides support to meet the need to solve problems of clients and customers
i. Employees are constantly seeking new ways to better serve clients and customers
j. The company's decision making is being made by facts, not just perceptions or assumptions

48. Involvement

a. You are encouraged to show personal initiative
b. Your direct manager encourages the initiation of suggestions for improvement
c. You understand the goals and purpose of continuous improvement
d. Employees work as a team, applying the "what's in it for us" approach rather than "what's in it for me"
e. Employees do not see their colleagues or customer issues as someone else's responsibility
f. Individuals and teams take part in determining goals.

49. Project performance

a. Projects are completed on time
b. Projects meet their budget requirements
c. Projects meet the expectations
d. Team members are satisfied in working with each other
e. Project results are positively rated by the project manager
f. Cooperation between the stakeholders is encouraged during the implementation of the project
g. Projects help to improve the grow of sales in the company
h. Projects help to improve the company's market share

	i. Projects help to improve the company's competitive position in the market