



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

“The Power of Cultural Diversity in Project Teams: A
Path to Greater Innovation”

- A qualitative study of how cultural diversity impacts innovation output in project teams

**GM0161 - Master Degree Project In International
Business and Trade, spring 2023**

Supervisor: Ramsin Yakob

Author: Buba Sanyang & Liibaan Ali

Acknowledgment

We would like to thank Ramsin Yakob, our supervisor, for his great support, advice, and encouragement during our thesis study. We are grateful for his permanent attention to our success and for his insightful feedback, which helped shape and improve our work. He pushed us outside our comfort zones by offering his knowledge and expertise, which encouraged us to think critically. His support and confidence in our abilities motivated us. We recognize his important contribution to the success of our thesis project and are incredibly grateful to have had the chance to work under his supervision.

Abstract

This paper explores the impact of cultural diversity within project teams on innovation output. A greater variety of viewpoints and strategies can result from cultural diversity, which may boost innovation output. On the other hand, it may also lead to difficulties in communication and collaboration, both of which are barriers to innovation. Establishing clear communication standards, offering cross-cultural learning, promoting an inclusive culture, and utilizing technologies to enable collaboration are all advised in order to optimize the advantages of cultural diversity and minimize its obstacles. Team members' ability to comprehend and value one another's differences can foster more collaboration as well as creativity, leading to innovative outcomes. In addition, technology may be utilized to improve communication and cooperation, which is particularly useful in situations when members of a team are located in different locations. Certain team members may be resistant to change, and it could take some time to create and put into place efficient communication methods, to name just a few potential issues with these suggestions. To assure the team's continued effectiveness, regular attention and assistance are also required.

Keywords: Cultural diversity, Project teams, Innovation output, Projects, Communication, Collaboration, Project manager, Project members, Homogenous teams, Heterogeneous teams.

“The Power of Cultural Diversity in Project Teams: A Path to Greater Innovation”	1
Acknowledgment	2
Abstract	3
1. Introduction	6
1.1 Background	6
1.2 Problem discussion	8
1.3 Purpose & Research question	10
1.4 Delimitation	10
1.5 The structure of the study	10
2. Theoretical framework	11
2.1 Innovation	11
2.1.1 Innovation as an output	11
2.2 The different aspects of projects	12
2.2.1 What is a project team?	12
2.2.2 The role of project member and managers in project teams	14
2.2.3 Projects as temporary organizations	16
2.2.4 Project organizing	17
2.3 Diversity in projects	18
2.3.1 Cultural diversity in projects	18
2.3.2 Communication barriers and the role of project managers.	20
2.3.3 Team members and differences in cross cultural teams	21
2.3.4 Project managers and leadership in cross cultural teams	22
2.3.5 Cultural diversity's effect on innovation as an output	23
2.4 Summary of the theory	25
3. Methodology	28
3.1 Research strategy	28
3.2 Research approach	29
3.3 Research design	30
3.4 Data generation	32
3.4.1 Primary Data	32
3.4.2 The structure of the interviews and the respondents' roles.	33
3.4.3 Table overview of the respondents.	34
3.5 Analysis and interpretation of data.	36
3.6 The reliability of the qualitative aspect	38
3.6.1 Credibility	38
3.6.2 Transferability	38
3.6.3 Reliability	39
3.6.4 Ability to verify and confirm	40
3.7 Method criticism	40
3.8 Ethics	41
4. Empirical findings	43

4.1 Innovation as an output and the perspectives of team members	43
4.2 The role of the project managers, project members and the challenges.	44
4.3 Communication and collaboration in project teams	47
4.4 Homogenous teams v heterogenous teams	48
4.5 Cultural diversity's effect on innovation outcomes	50
4.6 Summary of the empirical findings	54
5. Analysis	58
5.1 Innovation as an output and the perspectives of team members	58
5.2 The role of the project managers, project members and the challenges	60
5.3 Communication and collaboration in project teams	63
5.4 Homogenous teams and Heterogeneous teams	65
5.5 Cultural diversity's effect on innovation outcomes	67
6. Conclusion	71
6.1 Ending discussion	73
6.2 Future research	74
7. References	76
Appendix 1 Interviewguide	82

1. Introduction

1.1 Background

International projects are becoming more prevalent, and cross-cultural project teams are becoming more frequent in today's enterprises. Popescu, Borca, Fistis and Draghici (2014) states that projects presently are far more complicated than they ever were, requiring the integration of team members from various backgrounds. That the team members' conduct in cross-cultural initiatives is influenced by cultural differences. When people from diverse cultural backgrounds collaborate on a project, they may add creativity, fresh perspectives, and innovative methods to problem-solving. Popescu et al (2014) says that effective cross-cultural project teams must take into account the following crucial factors, that the secret to success in a project team is good cooperation, which requires recognizing the cultural variations caused by age, variety, gender, and faiths.

Ludviga and Sluka (2018) state in their book "*Cultural diversity in project management*" that certain successful characteristics, such as communication, becomes more vital when handling multicultural initiatives. Because communication occurs throughout all project phases, the capacity of managers to successfully communicate beyond cultural borders will influence the success of international business deals. Coordination of operations, providing information, encouraging workers, and discussing future goals are all examples of management communication (Ludviga & Sluka 2018).

Projects are generally short-term endeavors to generate value via innovative goods, ideas, and procedures. Lundin and Söderblom (1995) demonstrates in their text "*A theory of the temporary organization*" that there is a resemblance in projects and temporary organizations. Bakker (2010) states that temporary organizations are distinguished by their relatively short time frame, concentration on certain activities or projects, and adaptability. Often, they are created to solve particular problems or opportunities, but once they have served their function, they are broken apart. Projects in construction, consultancy, and event planning are just a few examples of the sectors that frequently employ temporary groups.

There are three key important pillars in the aspect of project teams, those being resources, time and tasks that's been referred to by Lundin and Söderblom (1995). Time is the subject that usually associates the idea of time with temporary groups as a way to distinguish them

versus permanent organizations. Hence, comprehending the temporary arrangement requires a comprehension of time. Lundin and Söderblom (1995) continues that the "temporary" indicates anything that persists for a short period of time and, often, this temporal component is widely recognized from the start as one apparent explanation for projects being temporary. Secondly there is the resource perspective, and here Lundin and Söderblom (1995) constitute that in order to formulate a temporary organization, resources are also required. In a certain sense, resource allocations, such as those for financial and material resources, define both the work and the time in projects undertaking. Lastly, the third fundamental idea in our system is a task. Task gives a temporary group legitimacy and is comparable to the commitment to objectives of a permanent organization. In temporary organizations, task-related operations play a significant role in the development of projects. Essentially, a task that has to be completed is what drives the formation of a temporary organization in the majority of situations (Lundin and Söderblom 1995).

The benefits of temporary organizations are highlighted by Bakker (2010) in which he offers an example of it including their flexibility, capacity to combine different resources and knowledge, and cost-effectiveness. However, Bakker (2010) also highlights the difficulties that come with temporary organizations, including the requirement for efficient coordination and communication, the danger of project failure, and the possibility for stakeholders who lack long-term commitment.

1.2 Problem discussion

Research has often proved that a diverse team may have a favorable effect on the amount of innovation gained in projects. A study by Chua, Wong-on-Wing and Ang (2006) indicates that cultural variety can boost the chance of innovative breakthroughs. A team formed of individuals from diverse cultural backgrounds, may approach a problem differently, resulting in a more complete analysis of the issue and the creation of unique solutions. In addition, ethnic variety may bring fresh perspectives and ideas to the table, resulting in more creativity and innovation (Liu & Boer, 2012; Cox & Blake, 1991). According to Chua, Wong-On-Wing, and Ang (2006), cultural diversity in project teams may contribute diverse perspectives, methods, and experiences, which can result in more creative and innovative solutions, meaning that projects teams that effectively manage cultural diversity are more likely to complete projects on time and under budget, as well as achieve greater levels of creativity (Chua, Wong-On-Wing, & Ang, 2006). However, the handling of cultural diversity in project teams can offer difficulties. For instance, team members from diverse cultural backgrounds may have varying communication methods, which can lead to misunderstandings and disagreements (Liu & Boer, 2012; Cox & Blake, 1991).

Kirkman, Rosen, Tesluk, & Gibson (2006) explains that it is important to understand the potential impact of cultural diversity in relation to the level of innovation achieved, in order to effectively leverage its benefits. (Kirkman et al, 2006). Hunt, Yee, Prince & Fyle (2018) argues for the knowledgeable benefits of diversity and inclusion in the workplace. Project teams are increasingly beginning to view cross-cultural understanding as a strategic asset, and more particularly, a vital facilitator for innovation. Despite this, there has been a small progressive forward movement concerning diversification efforts. Project teams are thus still unsure about how they may make the most use of cultural diversity initiatives to promote their objectives and profitability in the most efficient manner (Hunt et al, 2018). Furthermore, the authors indicate that there is an uncertainty in why the progression towards cross-cultural teams in industries is making small progress.

Why is it then important to achieve innovation as an output for project teams? Chesbrough (2010) explains that innovation as an output is a critical component of project team success, enabling organizations to stay competitive and meet the evolving needs of their customers. Project teams are responsible for bringing new ideas to life, developing and implementing new products, services, or processes. Therefore in achieving this, innovation as an output is

often a key goal or objective for project teams (Chesbrough, 2010). Innovation as an output for project teams, according to West and Sacramento (2012), depends on the group's capacity for cooperation and idea sharing. Furthermore, they suggest that project teams should be structured in a way that enables for innovative outcomes.

Lant (2006) argues that despite the potential benefits cultural diversity brings as a driver for innovation, not all companies have adopted cultural diversity, leading one to question the reasons behind this. One possible explanation is that many projects might be hesitant to change and tackle new challenges that may arise from a diverse workplace. Furthermore, a homogenous group may feel threatened by the introduction of diversity, leading to resistance and pushback. This reaction can stem from a lack of understanding or familiarity with diverse perspectives and experiences, which can hinder the integration of diversity into the project team's culture. Another factor contributing to the lack of adoption of cultural diversity as a driver of innovation in some projects may be a lack of commitment from leadership (Lant, 2006). Landis (2008) explains that without strong support from those in leadership positions, efforts to integrate cultural diversity into project teams may be limited and lack sustained momentum. This can result in a lack of resources being allocated to initiatives aimed at promoting cultural diversity, as well as a lack of accountability for creating a culturally diverse work environment (Landis, 2008).

Extensive research has been conducted on the effects of diversity on project teams and the outcomes of projects. The fact that some businesses have not adopted this strategy raises the issue of why, given the potential benefits it may bring to their operations. The effects of multicultural teams on innovation have been studied in studies like those by Gassmann (2008) and Jones, Chace, and Wright (2020), which also looked at the advantages of cultural diversity in project teams and how it affected innovation. This study may contribute to a better understanding of the value of cultural diversity in project teams as well as why it should be a top priority, given the existing studies in the field. By illuminating the effects of cultural variety on project results, including innovation output, corporations may decide how to effectively encourage and use cultural diversity within their project teams. This, in turn, has the potential to aid enhance innovation, problem-solving abilities, and entire project efficiency, all of which are essential success elements in the world of projects.

1.3 Purpose & Research question

The purpose of conducting this study is to explore the impact of cultural diversity in project teams on the level of innovation achieved as an output. By doing so, we aim to contribute to the field of project management by providing a deeper understanding of how cultural diversity can affect project outcomes, particularly in terms of innovation. The knowledge generated from this study can potentially inform project managers and organizations in making informed decisions when it comes to team composition and project planning. Ultimately, the goal is to improve project performance and increase the likelihood of achieving successful project outcomes.

The purpose is achieved by addressing the research question:

- How does cultural diversity within project teams impact innovation output in projects?

1.4 Delimitation

This study's population is limited to individuals who have participated in a project, specifically project managers and project members. The research will be confined to organizations located in Gothenburg that have an international aspect, including organizations engaged in international operations or international recruitment.

1.5 The structure of the study

The study is organized as follows: an introduction that outlines the objective, research question, and problematization of the study will be presented, followed by a review of relevant theories. The research methodology will then be discussed. The theories presented in the theoretical framework serve as the foundation for the analysis of empirical data. The collected empirical data will be presented and analyzed in accordance with the theoretical framework. The conclusion of the study will summarize the findings, address the research questions, and provide discussions and recommendations for future research.

2. Theoretical framework

2.1 Innovation

2.1.1 Innovation as an output

Chesbrough (2003) mentions that innovation as an output refers to the tangible or measurable outcomes, such as new products, services, or processes that are introduced into the market. It is a key component and is essential for the success of any organization. Kerzner (2017) emphasizes the importance of innovation as an output, arguing that it is essential to stay competitive in today's rapidly changing environment. In order to stay ahead of the competition, there is a need for continuously innovating outcomes and adapting to changing market conditions, customer needs, and technological advancements. Based on the notion of the previous two authors above, innovation as an output can be measured using various indicators such as the number of new products or patents introduced, revenue generated from new products, or the percentage of sales generated from new products or services which falls under the criteria innovation as an output. Lichtenthaler (2009) elaborates on this point and proposes that innovation outputs can be measured using various indicators, where Lichtenthaler (2009) proposes it includes revenue growth which can be a good indicator of innovation output, as new products and services often lead to increased revenue. A given indicator on this is customer satisfaction, which refers to how satisfied customers are with a company's products or services, as customers are likely to be more satisfied with innovative products and services that meet their needs (Lichtenthaler, 2009).

The sources cited indicate a consensus regarding the importance of achieving innovation as an output, as it is considered a vital component for the success of any organization. This is due to its ability to enable companies to remain competitive in a constantly evolving environment by continually adjusting to market conditions, customer demands, and technological advancements. Shenhar & Dvir (2007) exemplifies this by explaining how Apple Computer took advantage of the new trend of downloading music from the internet. The company launched several strategic projects in order to achieve innovative outputs, which lead to the iPod music player and iTunes software. The result of these products lead to a successful new business for the company. In order to achieve innovative outcomes, companies tend to initiate projects.

Rozaki, Rigopoulos and Doukidis (2017) touched upon the factors that decide what innovation as an output in a project needs to consist of, namely innovation readiness and innovation impact as an output. The first term (innovation readiness) refers to how projects are able to create and foster an environment that considers innovation as the main goal, meaning that the output of innovation in a project lies in experimentation and creativity to support the innovation as the output of a project. By this context, innovation readiness is a critical component in innovation as an output in projects for success, as it entails the project team to adapt to changes as its an integral in innovation as an output for projects.

Innovation impact on the other hand, is rooted in innovation as an output in projects, but more specifically, it gives a direct response to innovation readiness. Rozaki, Rigopoulos and Doukidis (2017) states that innovation impact refers to the outcomes of an innovation in a project. This is connected to new processes or services that add value to the project when it's completed. The impact of an innovation is an integral part in understanding the value it has and to ensure that it is effectively handled as an output in projects.

The following section will provide a comprehensive overview of the various aspects of projects and their integral role in achieving innovation as an output. To further elaborate on this, it is important to note that projects can take many different forms and serve various purposes. In our research, projects serve as developing new products or services. Projects provide a framework for bringing together diverse skill sets and perspectives to achieve innovation as an output.

2.2 The different aspects of projects

2.2.1 What is a project team?

Project teams are described by the authors Meredith and Mantel (2012) as a team that is made up of people who have reflective and complementary abilities, as well as knowledge who comes together to work on accomplishing a shared goal in a given amount of time in a project. The project teams function can be described as a three step model according to Meredith and Mantel (2012) in which they control the organizing, carrying out and overseeing the project to ensure that it is finished on the given schedule and is in accordance with the necessary quality of standard that has been put up. The success of a project and a project heavily relied on their ability to collaborate extraordinarily, communicate well as well

as handling any disputes that may be an obstacle that develops during the course of the project's cycle.

Achieving the project goals lies in particular three components according to Meredith and Mantel (2012), namely how to solve conflict resolution, the effective collaboration between the team in the project as well as communication which enable project teams to achieve the objectives they have set up. The success of a project is then dependent on the members ability to unite in their work and use each other's strength during the project's course. Hence, the achievement of a project lies in the team members ability to collaborate and recognize the strength they hold respectively for the project's success.

The theoretical foundation for project teams is based on the knowledge that project teams remain crucial to the effective completion of projects. The role of project teams and how they perform within the project environment, however, are seen from many angles. Belbin (2010) explains that within the project environment, we find team composition where the role of the project is that it should focus on the qualities of the project team members, their competences. It is evident then that a thorough awareness of each team member's strengths and limitations, as well as an understanding of the distinct roles and personalities, are necessary for productive project teams, where a project team's capacity to collaborate, communicate clearly, and have a shared objective is crucial to the project's success. Meredith and Mantel (2010) widens this take and adds that in order to ensure a diverse range of viewpoints and thoughts, project teams should be made up of people with a variety of backgrounds, abilities, and experience, which is another way to underline the value of cross-cultural teams (cultural diversity).

Kerzner (2013) as well as Meredith and Mantel (2012) brings up another crucial environment in the project, which is the team outcome of the project team. This viewpoint focuses on the project's end outcomes and results, as well as how the project team adds value to those outcomes. According to Kerzner (2013), the project team's success is determined by its capacity to carry out the project within the given timeframe, financial constraints, and quality requirements. By that logic, we conclude that project teams should concentrate on the "project team triangle" of time, money, and quality and create plans to control risks and unknown factors that might have an impact on project results. Project teams should thus examine their work frequently and utilize the comments and lessons they gain to perform

better and be more productive in the future. Project teams must be willing to experiment with new ideas, embrace failure as a learning opportunity, and continually seek out new knowledge and best practices. Through these efforts, project teams can achieve innovative outcomes and ultimately deliver more value.

2.2.2 The role of project member and managers in project teams

Within project teams, project members are a constant feature in projects with the purpose of offering the supposed benefits of increased productivity and work satisfaction. The role of project members is defined according to Stewart, Fulmer and Barrick (2005) as a set of behaviors that are connected towards the repetitive activities of other members and the characteristics of a person in a particular setting. In simpler terms it can be stated that the role of project member represents the patterns of individuals behavior that results from interaction with other project members. The roles of theirs vary, but one thing that strikes it to be crucial is that the success of a project depends on the project members.

Belout and Gauvreau (2004) states that the project members are similar to what Stewart, Fulmer and Barrick (2005) mentioned, but that they comprise individuals who are a part of the project team as a key stakeholder. The project members can have different roles and responsibilities, hence why their contributions to the project are important. Project members can vary from the managers, clients, vendors, stakeholder to team members, but in this instance we are going to talk about the project managers and members of the project team and their roles. The project manager role here is ensuring that regulations are followed and that every person's opinions are upheld and valued in the project setting where the individuals opinions are involved in a manner that their responsibilities are aligned with it (Belout and Gauvreau 2004).

team members' roles as project members varies and it relies on collaborating and communicating effectively with one another, meaning that the communication and the collaboration between the project members are essential for the project's result/success according to Shenhar and Dvir (2007). Now the reason why its essential is because in order to have a project moving forward and not looking back on minor issues that might put sticks in the wheels, the members must be able to express and communicate their ideas in how to progress in the project effectively so everyone is on deck, meaning being able to work collaboratively to solve issues and make sustainable decisions. West and Sacramento (2012)

concludes this by adding an additional and important point, which is linked towards the progress of the project, where the team members must work together to share their knowledge and expertise to achieve the project's objectives since it is in their roles as team members.

On the other hand Meredith and Mantel (2012) mentions the role of project manager in a project, namely tasks and responsibilities of the project members in a project team. Now the tasks and responsibilities here means that the project manager is seen as the centerpiece for the project members, and they must be able to handle their given time, resources and deliverables to effectively ensure that they meet the deadlines set in accordance with the project manager vision, and manage competing the priorities set and produce the work expected from them.

Being able to adapt to changes happening and uncertainties during a project is a fundamental aspect as a project manager and one that needs heavier emphasis according to Turner and Muller (2005). Adaptability is a role that needs to be fulfilled by the project manager because projects are inherently uncertain to minor as well major changes that could be happening during the course of a project, and that's why the project manager in a project must be able to adapt to those changes, in either scheduling or having the resources allocated (Turner and Muller 2005). By this context, the role adaptability is linked towards the project manager and how they must be able to work under pressure and ensure making decisions quickly to keep the project on track.

The role of team members in a project is a crucial one because they need to be able to work well together, share their knowledge and skills, successfully handle their own tasks and responsibilities, and adjust to changes and uncertainty. The project manager as well has a role in this, to be seen as the spider in the web and make sure that the project keeps moving forward. Project members assist in the success of a project and guarantee that it reaches its aims and objectives by being aware of and performing the duties of the project managers.

2.2.3 Projects as temporary organizations

According to Shenhar and Dvir (2007), a project is an original attempt to produce a variety of outputs while adhering to predetermined goals, time constraints, and budgetary constraints. A project is a temporary one, indicating that it has a definite start and end date, and is often launched to achieve a certain objective or address a particular problem. Furthermore, Shenhar and Dvir (2007) state that there should be an emphasis on the long-term objectives of a project, the profitability of the project, the level of competition, and marketability are all crucial criteria.

Shtub, Bard and Globerson (2019) continues on this description and adds that the main purpose and goal of a project is to provide a singular result or deliverable that complies with particular specifications and caters to the demands of stakeholders. A project's goal is to accomplish its intended results by developing, producing, and delivering a unique good or service that fulfills the requirements and demands of its stakeholders. This is accomplished by the use of certain resources within the constraints of a predetermined amount of time, money, and quality.

Kerzner (2017) continues on the temporary nature of a project, additionally, projects are distinguished by their temporary nature, which separates them from continuous organizational operations. Due to their temporary character, projects are limited by time and money and have a distinct beginning and finish. According to Kerzner (2017), projects are temporary in their structure and have a start and a finish. They are particular in terms of the outputs they produce, and they involve a variety of assets that are deployed to meet a particular purpose.

Projects are temporary conventional procedures, which translates into a temporary form of project organizing. This can be transcribed as it defines the project as a production function, a temporary structure, and a method for resource allocation, and that the temporary organization in project teams is for allocating resources in order to achieve the targeted outcome (Tyssen, Wald and Spieth 2013).

Söderlund (2000) narrowed it down to in project teams, that the project outcome is not seen as a question of creating a long-term competitive edge, but rather taking a hold of the chances at hand and putting together a strong team to exploit a "window of opportunity". This would

uphold the idea that strategy has an impact on how a temporary organization is designed. Söderlund (2000) states that the strategy is often explored and followed throughout the employment of a targeted (temporary) project organization. Generally stated, adopting such a plan is a question of launching, conducting and finishing a particular project.

The particular project here raises the question on what is the desired output of this project. One of them being the exploiting of the window of opportunity, and according to Tyssen, Wald and Spieth (2013) every temporary activity has a different result, getting there is frequently fraught with uncertainty. Now because a project is a temporary one and does not have a certain way of doing certain activities, the use of standards and techniques might help in giving the project a boost at the start of it. The boost in question can be referred to as having a proper research plan or getting the project team together and establishing a common goal. However, because a project often is dependent on the need for creative solutions to get this head start, one person's expertise and knowledge isn't enough. Therefore, a project team with different backgrounds is needed to work together and come up with the best solutions on how to start with the project. Furthermore, the level of innovation achieved as an output can be measured through various factors, and can be influenced by both individual and methodological project factors.

2.2.4 Project organizing

Project organizing is a crucial aspect of projects that can have a significant impact on the innovation output of a project. One example in which project organizing can foster innovation as an output is through the use of agile project management methodologies that is mentioned by Schlaefke (2019). Agile project management approaches emphasize flexibility, collaboration, and continuous feedback between the project team members, which can promote creativity and innovation. By adopting an agile approach, project teams can continuously iterate on their work and incorporate new ideas and feedback as they go, leading to more innovative solutions (Schlaefke, 2019).

Kupers (2012) brings up another point, where by creating a culture of experimentation and risk-taking can also promote innovation as an output. By encouraging team members to take calculated risks and try new approaches, it can stimulate innovation and creativity. This can be facilitated by setting expectations for open communication, recognizing and rewarding creativity, and encouraging experimentation.

An additional key aspect of project organizing that can support innovation as an output is the establishment of a diverse team. By intentionally assembling a team that one is familiar with, that has a range of backgrounds, experiences, and expertise, projects increase the likelihood of generating innovative solutions (Karlsson and Åhlström, 1996). By this context, it is clear that effective project organizing can play a critical role in promoting innovation as an output in a project. By creating a supportive environment for innovation through the effectiveness of projects, it can lead to better project outcomes and increased success in achieving project objectives.

2.3 Diversity in projects

2.3.1 Cultural diversity in projects

Cultural diversity refers to the variances in people's cultural backgrounds, beliefs, and behaviors within a group (Cox, Taylor, and Tyler 2014). This encompasses distinctions in language, cultures, traditions, and lifestyles. Projects that effectively manage cultural diversity are likely to enjoy a variety of benefits, such as greater competitiveness, enhanced market insights, and a strengthened reputation. In recent years, there has been a rising acknowledgment of the commercial case for cultural diversity. Projects that recognize and capitalize on cultural differences are more likely to outperform their competitors (Cox, Taylor, & Tyler, 2014). O'Neill, McLachlan, and Gerard (2010) elaborates on this point and suggests that cultural diversity can lead to improved problem-solving and creativity in project teams.

As cultural diversity brings multiple perspectives and ways of thinking into a project team, which can lead to more innovative outputs. When team members with different cultural backgrounds come together, they may offer different insights and approaches to a problem, leading to a more comprehensive and effective solution (O'Neill, McLachlan, and Gerard, 2010). Harrison, Price, and Bell (1998) found that cultural diversity can have a positive effect on the project's performance. As it can lead to increased learning within the project team. Project team members can learn from each other's experiences, knowledge, and skills, which can lead to new insights and approaches to problem-solving (Harrison, Price, and Bell, 1998). Based on the authors' arguments and reasoning, there appears to be a consensus regarding the

benefits of multicultural teams. Consequently cultural diversity can lead to improved problem-solving, increased learning and creativity in project teams.

Cultural diversity has the potential to either be a source of innovation, fresh ideas in project cooperation, and new methods to issue resolution, or it may be a source of misunderstanding and difficulties (Ludviga and Sluka 2018). Numerous aspects of a workplace may be influenced by a wide range of unique cultural behaviors. Despite the fact that numerous cross-cultural research have been conducted over the years, the topic of discussion has steadily increased. Performing in multicultural organizations still involves overcoming obstacles. This is illustrated by Hinds and Mortensen (2005), who note that cultural diversity can generate identity-based disputes within project teams, resulting in decreased mutual respect and trust. People who work in non multicultural teams may form prejudices and preferences when they label other people and themselves according to their cultural backgrounds. Furthermore it affects their mindsets and actions. It might result in identity-based disputes, such as intercultural biases that involve our perception and mental image we have brought up. In-group favoring, or out-group exclusion, all of which are detrimental to the team's ability to work together effectively and trust one another (Hinds and Mortensen, 2005). According to the author's line of reasoning, this demonstrates that having members of different cultural backgrounds on a project team can bring both benefits and obstacles. Yet, if project teams acknowledge the influence that cultural diversity has on the dynamic of the team, they will be able to overcome these problems and establish a work atmosphere that is effective and cooperative.

An example can be drawn to an observation that was made and studied by a virtual team composed of American and Chinese members who were working on a software development project By Hinds and Mortensen (2005). They found that cultural differences between the project team members led to identity-based conflicts, such as language barriers, power distance, and communication styles, that affected the team's communication and decision-making processes. However, Gannon and Pillai (2010) argue that cultural awareness and sensitivity are critical factors in managing multicultural teams effectively and a tool to fight identity based conflicts. They emphasize the need for cross-cultural training and communication strategies to overcome cultural barriers and promote effective collaboration. To achieve this, there must be a recognition and respect for cultural differences, clear communication channels, and assurance that all team members have the necessary skills and

knowledge to work effectively in a multicultural context. Moreover, they point out that the success of cross-cultural collaboration relies on building trust, respect, and open-mindedness, which requires ongoing effort and dedication (Gannon and Pillai, 2010). Similarly, Maznevski and Chudoba (2000) stress the need for effective communication and knowledge-sharing mechanisms to overcome cultural barriers and promote knowledge creation and innovation in multicultural teams. Overall, the consensus is that successful cross-cultural collaboration requires a combination of cultural sensitivity, communication skills, and a willingness to learn from and adapt to cultural differences. In order to overcome potential conflicts. By promoting these factors, it can create an environment where diverse perspectives and experiences are valued, leading to greater innovation, problem-solving, and ultimately, success in achieving project goals.

2.3.2 Communication barriers and the role of project managers.

Ludviga & Sluka, (2018) highlights the importance of project managers and if the project managers are knowledgeable of how to handle cultural diversity, then the cross-cultural project teams that they oversee may have a higher rate of productivity. Managers must be conscious of cultural diversity and make sure to take them into consideration whenever they are functioning on a project team. Cultural variations have the potential to impact both the methods of project teams and the way success is perceived.

When it comes to the project team's multicultural initiatives, some success aspects, such as communication, take on a greater level of significance. Communication between cultures is richer and more nuanced than that which is conveyed verbally or in writing. Communication is the aspect of the project that is most susceptible/likely to the influence of cultural differences. This is due to the fact that misunderstandings in communication may have an impact on other aspects of project teams, including decision-making, strategy, and implementation. The capacity of project managers to interact successfully across cultural borders will be the determining factor in whether or not international dealings are successful. Considering communication occurs during all stages of a project. When it comes to communication, a manager's responsibilities encompass, but are not restricted to, managing operations, influencing people, and discussing long term plans. Projects are more likely to be successful for businesses that are better able to communicate (Ludviga & Sluka, 2018).

To overcome cultural barriers and optimize collaboration in multicultural teams, Gannon and Pillai (2010) suggest that project managers should strive for effective communication. Effective communication strategies may include using multiple communication channels, such as face-to-face meetings, video conferencing, and email, to accommodate different communication preferences and time zones. Additionally, using active listening techniques, such as asking open-ended questions and repeating back what was said, can help ensure that everyone on the team understands each other. By implementing these strategies, project managers can build more cohesive and productive multicultural teams (Gannon and Pillai, 2010).

There is a consensus about the impact of effective communication and knowledge-sharing mechanisms, as it's a necessity to overcome cultural barriers according to Maznevski and Chudoba (2000). It is important to establish clear communication channels and protocols that take into account cultural differences in communication styles, language, and nonverbal cues. Additionally, knowledge-sharing mechanisms, such as regular team meetings, online collaboration platforms, and cross-training opportunities, can help to bridge cultural differences and promote the exchange of ideas and perspectives. By encouraging open communication and collaboration, multicultural teams can leverage their diversity to generate innovative solutions to complex problems (Maznevski and Chudoba, 2000).

It shows that the significance of effective communication in managing cross-cultural teams cannot be overstated, particularly in light of cultural differences. Successful communication can bridge cultural divides and promote collaboration in multicultural project teams. Therefore, as stated by the authors it is essential for project managers to implement communication and knowledge-sharing mechanisms that address cultural barriers. Furthermore, as shown by the authors, project managers play a critical role in handling cultural diversity and ensuring the success of cross-cultural projects. By implementing effective communication strategies and knowledge-sharing mechanisms, multicultural teams can leverage their diversity to generate innovative solutions to complex problems.

2.3.3 Team members and differences in cross cultural teams

Zwikael (2012) offers another take on cultural diversity theory and expands this theory including managerial differences, when working across cultures in project teams. Improperly handling cultural differences can possibly frustrate team members and reduce the project's

effectiveness. However, when properly handled, cultural differences may result in promising strategies, efficiency and better learning, long-lasting elements of competitive advantage and innovative outcomes. Daniel, Agarwal & Stewart (2013) further explain how the managerial differences can be detrimental when discussing cultural disparity in the managerial aspect. Diversity with disparity depicts circumstances in which some individuals possess more authority and resources than others. Results about how differential diversity affects outcomes are inconsistent. On one hand, unequal resource distribution may have negative consequences on the project team's results by fostering dysfunctional circumstances such as greater competitiveness among people in the team, dominance and poor communication ability (Daniel, Agarwal & Stewart 2013). Based on the author's reasoning, the project managers have a crucial role among the team members, in order to optimize results. Project managers must be aware of the potential impact of cultural and managerial differences in cross-cultural project teams. Properly handling diversity can lead to positive outcomes, while improper handling can lead to negative outcomes.

2.3.4 Project managers and leadership in cross cultural teams

Certain project teams want a leader with greater authority, whereas others can only function with a democratic leader who makes choices after discussing with the project team (Ludviga and Sluka (2018). It's possible that the leadership style will change depending on the circumstances. An effective project team requires strong leadership as an essential component. Hanges, Lord, Dickson, & Goff (2005) build on this by explaining how cultural differences can significantly impact the leadership style required for project teams and successful outcomes of cross-cultural teams. Leadership theories developed in one cultural context may not be applicable to other cultures due to differences in values, beliefs, and norms. This implies that managers should be aware of and adapt their leadership styles to fit the cultural norms and expectations of their team members. In multicultural teams, managers should be especially sensitive to cultural differences in leadership preferences and be prepared to adjust their leadership styles accordingly to maximize team effectiveness. Furthermore, leadership style may also depend on the specific circumstances, the task, and the team, making it important for managers to be flexible and adaptable in their approach to leadership (Hanges, Lord, Dickson, & Goff, 2005).

In a similar manner, Gelfand, Erez, and Aycan (2007) point out that leadership aspects that work well in one cultural environment may not work as well in another and may even cause miscommunications or disputes. Although certain cultures emphasize a collaborative leadership style in which choices are reached by cooperation and dialogue, others could favor a more directive approach in which the leader makes all decisions. To be capable of successfully handling a multicultural team, a leader has to be able to recognize and adjust to the cultural variances that exist in regards to the demands for leadership styles. It is essential for leaders who operate in multicultural settings to possess cultural intelligence, which may be defined as the capacity to comprehend cultural differences and function effectively within those situations.

Leaders may contribute to creating a more peaceful and productive working environment for their teams by establishing cultural intelligence and changing their leadership styles to suit the setting of the many cultures in which they operate (Gelfand, Erez & Aycan, 2007). In addition to this, operating multicultural teams calls for a comprehensive knowledge of the cultural setting as well as a desire to be adaptable and flexible in a variety of settings. To successfully complete a project and provide innovation output, effective leadership, the choice of the ideal project manager, and good communication are all essential. According to the authors' claims, project managers may efficiently control multicultural teams and make use of the diversity of viewpoints and perspectives to generate better results if they follow these guidelines and adopt them as their basic principles.

2.3.5 Cultural diversity's effect on innovation as an output

Cultural diversity is becoming acknowledged as a critical factor in driving innovation because it allows project teams to share their varied experiences, views, and knowledge, which can result in the development of novel and innovative solutions (Hofstede 2011). Only when members of a team are willing to make an effort to learn about and appreciate one another's cultural backgrounds can the process of information sharing and innovation take place. In order to do this, there must be a significant amount of communication and teamwork. This is carried out to guarantee that cultural diversity is recognized and respected. In teams, cultural diversity may boost innovation output and performance when it is skillfully handled (Hofstede, 2011).

In support of this claim, Page (2008) makes the case that cultural diversity fosters innovative outcomes because it permits the integration of many viewpoints that can result in innovative solutions to issues. For instance, a multicultural workforce has a greater chance of approaching challenges from a variety of perspectives and thinking about a wider variety of potential initiatives, which can lead to the development of more innovations. Bhattacharya and Bloemer (2005) argue that, when well managed, cultural diversity may be a valuable component for fostering innovation inside enterprises. They also believe that businesses must carefully balance the possible advantages of diversity against any potential disadvantages.

Moreover, Bhattacharya and Bloemer (2005) assert that successfully managing cultural diversity is a sophisticated and continuous procedure that calls for active effort. Although, they also make the case that firms that can promote diversity well, may reap a number of benefits, including increased innovation and profitability in a quickly evolving international market (Bhattacharya and Bloemer, 2005).

It is pretty apparent from the sources that were provided that cultural diversity is an essential factor in generating innovation. Project teams must successfully manage cultural diversity, however, if they are to realize its full potential. In order to effectively manage cultural diversity, one must have a comprehensive knowledge of a variety of cultures as well as a continuous dedication to communication and cooperation. This is done to guarantee that cultural diversity is recognized and acknowledged. It is possible for enhanced innovative outputs and overall improvement to outcome from cultural diversity that has been skillfully handled. On the other side, if it is not successfully handled, it may result in disputes and misunderstandings that can hinder innovation and have a detrimental influence on the organization's financial situation.

2.4 Summary of the theory

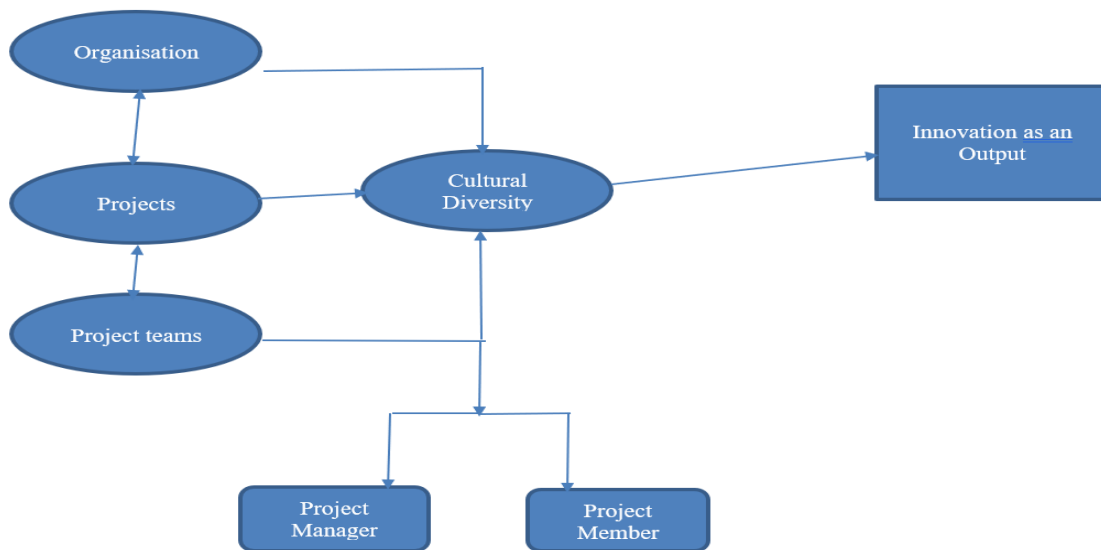


Table 1: The table shows how the various components are interconnected. Projects are frequently undertaken by organizations in order to achieve particular objectives or results. The completion of these projects necessitates the establishment of project teams, which often include a project manager as well as a collection of project members. Cultural diversity may provide a variety of viewpoints, insights, and understanding to the project that can foster innovation output. Nevertheless, it may also create obstacles in terms of communication and teamwork.

Innovation as an output can be defined as the tangible or measurable results of introducing new or improved products, services, or processes to the market. It is crucial for the success of any organization to continuously innovate and adapt to changing market conditions, customer needs, and technological advancements. Innovation as an output can be measured using various indicators such as the number of new products or patents introduced, revenue generated from new products, or the percentage of sales generated from new products or services. Projects provide a framework for bringing together diverse skill sets and perspectives to achieve innovation as an output. Innovation readiness and innovation impact are critical components for achieving successful innovation as an output in projects.

The chapter 2.2 delves into the pivotal role of project teams in accomplishing projects successfully. Assembling a team of individuals with reflective and complementary abilities, as well as knowledge, is essential in fulfilling a shared goal within a defined timeframe. Collaborative and effective communication is also key in overcoming any disputes that may

arise during the project cycle. To ensure productivity, project teams should be aware of each member's strengths and limitations, as well as understand the distinct roles and personalities within the team. A shared objective is paramount to the success of the project team. In addition, the team's ability to deliver the project within budgetary constraints, timeline requirements, and quality standards determine its success. It emphasizes that project members should collaborate and communicate effectively with one another, sharing their knowledge and expertise to achieve project objectives. The importance of a collaborative approach cannot be overstated, as each team member's contribution is essential to the project's success. Thus, project teams should prioritize teamwork, communication, and shared goals, all of which are key to achieving a successful outcome.

Furthermore, a project is a temporary endeavor with a specific objective, timeline, and resource constraints. It aims to deliver a unique output that satisfies stakeholders' needs and expectations. Project organizing plays a crucial role in promoting innovation as an output. Agile project management, a culture of experimentation and risk-taking, and a diverse team can foster creativity and generate innovative solutions. Effective project organizing creates a supportive environment for innovation, leading to better project outcomes and increased success in achieving project objectives.

What is cultural diversity in the context of project teams, and what are the benefits and challenges it can bring? How can project teams effectively manage cultural diversity to overcome these challenges and reap the benefits? The chapter 2.3 highlights how authors explain that cultural diversity in project teams refers to the differences in cultural backgrounds, attitudes, beliefs, and behaviors within a group. This encompasses distinctions in language, cultures, traditions, and lifestyles. Effective management of cultural diversity can bring benefits such as greater competitiveness, enhanced market insights, strengthened reputation, improved problem-solving and creativity, and increased learning within the project team. However, it can also bring challenges such as identity-based disputes, prejudices, biases, and preferences that affect the team's ability to work together effectively and trust one another.

Furthermore, properly handling cultural diversity is critical for effective project management, and requires cultural awareness, sensitivity, clear communication, cross-cultural training, and respect for differences. Failure to manage cultural differences can reduce project

effectiveness, while successful management can lead to innovative outcomes and competitive advantages. Leaders in multicultural settings should possess cultural intelligence and adapt their leadership style accordingly. Cultural diversity can boost innovation and performance when skillfully handled, and organizations must effectively manage it to realize its full potential.

3. Methodology

3.1 Research strategy

The objective of this research was to acquire a greater awareness of the impact of cultural diversity on innovation output in project teams. In order to get in-depth and accurate responses from the respondents concerning the topic of the study, a qualitative research approach was performed. According to Patel and Davidson (2019), the objective of the qualitative research approach is to evaluate and comprehend people's experiences and reflections, in addition to their social situations. In addition, Cresswell (2014) emphasized that qualitative research permits researchers to collect abundant data that represent the complexity of the research topic. According to Bluhm, Harmann, Lee, and Mitchell (2011), qualitative research is essential for understanding how core organizational, team, and individual processes evolve through time as well as to determine the processes that drive them. For us researchers, qualitative research was particularly vital for understanding not just what individuals experience but also how they interpret their experiences.

We decided to conduct our study using the qualitative approach because it possesses a number of characteristics that makes it possible to gain comprehension of the interviewees' points of view on cultural diversity and its impact. The in-depth inquiry enabled a thorough assessment of people's experiences, their perspectives on cultural diversity as it was a characteristic that was valuable for our study. The choice of methodology was inline with the nature of the research question that was formulated, meaning that different research designs and techniques have distinct strengths and weaknesses according to Creswell (2014). The data that has been collected should reflect the overall research study which then leads to us investigating whether a qualitative or quantitative approach would be better suited. Because our research question fell under the category of studying issues that are complicated, in this case social issues as we want to investigate the impact of cultural diversity in projects. and not particular hypotheses to test out which falls under the quantitative methodology aspect (Creswell, 2014). When factoring Creswell (2014) takes on these two methods, even more convincingly, we continued to stick with our decision to do a qualitative research approach and not a quantitative one because we were able to gather a large amount of textual data, including the participants' individualized perspectives.

This accurately captured the complexity of the issue, by using a qualitative research method approach. Participants' perceptions of their experiences provided the basis for qualitative data. The data acquired using qualitative methods was verbal and could be examined employing a variety of techniques, including grounded theory. Grounded theory is a component of qualitative research, and Jørgensen (2001) defines it as the method of developing a theory based on systematically collected data for social science. It is useful for exploring fundamental social ties and group behavior.

When asking the various project managers and members, we were able to move beyond assumption and gain a precise understanding of what is occurring. This allowed us to observe the interviewee with confidence and address their primary concerns. Consequently, the project manager and project members respond to things based on their respective interpretations. Because grounded theory falls under the inductive category, we took inspiration from it as we were using an abductive approach. This enables us to develop a theoretical understanding of how cultural diversity affects project teams by systematically analyzing the data and identifying emerging patterns and themes. By adopting a qualitative strategy, we can obtain a more in-depth understanding of the impact cultural diversity has on innovation as a product of project teams, which may be challenging to capture using only quantitative research methods.

3.2 Research approach

The research approach in this study was solely based on an approach that is an abductive one, where the combination of previous theories and empirical results were to be the outline and a reference point (Patel and Davidson 2019). Abduction is a method of discovering new concepts, ideas, and interpretations through uncovering unexpected facts, information, or occurrences that cannot be clarified by prior knowledge. Now our objective in this abductive technique was to employ a selective and creative process in which we assessed how the data we obtained supported the current theories on this subject as well as how the evidence may call for changes in existing ideas (Flick 2018). The advantage of employing the abductive approach here was that we as researchers had the ability to enhance and extend current ideas to make them more widely understood. During the course of this thesis, we have worked on and used pre existing theories, in which we have looked upon and examined the role of

cultural diversity in project teams and how the output of innovation is impacted by the phenomenon cultural diversity.

To understand why our methodological choice fell on an abductive one is because the subject project teams and cultural diversity are broad. And given that human beings have an opinion on cultural diversity, we thought that the respondents should have the right to form their own opinion on the matter of cultural diversity in project teams. Hence for that reasoning, we did not want to feel locked towards the theoretical framework that we built up that handled the subject of cultural diversity and project teams. Patokorpi and Ahvenainen (2009) added an additional point to this core premise of the abduction based approach, that it offered a fresh based perspective, meaning that it can incorporate the best of both worlds. Thus it entails going from a present situation to a new one with no differences. The abduction based design process is by that logic a tool that uses novel ways to get to its point, by the use of current, previous and newer tools. By choosing an abductive approach, we wanted to leverage the opportunity to audit and add future theories to the data that we gathered. There are beneficial advantages with this choice of approach, and the most prominent one was the adaptability it comes with. We had the opportunity to develop the answers we got from the interviewee subjects in contrast to new theories and not just the existing theories. We could therefore forge our own framework based on the answers from the respondents.

3.3 Research design

Since the purpose of our study was to examine the perspectives and experiences of respondents regarding the effects of cultural diversity on innovation output attained by project teams, we employed case studies as our research method. According to Patel and Davidson (2019), one of the defining characteristics of a case study as a method of doing research is that the researcher adopts a holistic point of view and attempts to gather as much general and specific data as they can. When examining processes, events, and changes, multiple case studies are typically conducted for this purpose.

As stated by Heale and Twycross (2018), a research approach known as multiple case studies is one in which the researchers analyzed an individual, a set of units, or even a group of people in order to generalize a specific group of people and reach a conclusion based on that

analysis. In our case studies, this variable was used to gain a comprehension of the impact of cultural diversity on project teams and is referred to as the phenomenon being studied.

Yin (2014) discusses a further aspect of multiple case studies, which was the single unit analysis. This approach analyzes each individual instance in a holistic manner, which meant that every relevant factor got taken into consideration. It helped us to collect information about culturally diverse project teams. Next, we utilized the approach of single unit analysis in which we assessed each project team holistically, taking into account all significant elements that may influence their innovation output, such as team structure, communication strategies, and leadership style. Therefore we conducted a holistic case study in order to identify the specific traits, dynamics, and links of various project team factors, as well as how they contribute to innovation output. The cases may then be compared and contrasted to uncover patterns and trends across various extents of cultural diversity. This aided in the identification of effective methods for managing cultural diversity in project teams, hence maximizing innovation output.

When compared to other research methods, the case study method is advantageous. It helps us to recognize trends, similarities, and potential causes that are harder to pin down. This conclusion is strengthened by Tsang (2014), who argued that case studies are a useful research approach because they enable the examination of phenomena thoroughly and in the situations in which they occur in the real world. In a comparable manner, Yin (2018) asserts that case studies are particularly useful for the investigation of complex phenomena. This is due to the fact that case studies enable researchers to investigate the particulars of a given setting. When researching subjects like cultural diversity and innovation output in project teams, it entails numerous factors and interactions, which could be challenging to capture using traditional experiment or survey-based techniques.

To make accurate and trustworthy generalizations from case studies, Tsang (2014) stated it is essential to select cases in line with theoretical sampling in order to draw theoretical generalizations, to utilize several cases to validate pattern outcomes, and to compare cases in order to identify similarities and differences. By making a theoretical generalization we were able to evaluate the findings and establish an in-depth understanding of the impact that cultural diversity had on innovation output in project teams by looking at numerous cases and sources of data. Additionally, we were able to spot trends, themes, or theoretical findings that

could potentially be applicable to a wider range of related phenomena. The objective was to arrive at a conclusion on concepts that can further strengthen existing theories on cultural diversity and innovation output.

Yin (2018) underlines how important it is to select cases that are typical of the population and applicable to the research topic being addressed. In our research, for instance, we studied innovation outputs of project teams spanning a range of sectors and characterized by varying degrees of cultural diversity. Flyvbjerg (2006) underlines the fact that case studies may still be utilized to draw reasonable generalizations if they are used with caution and several cases to identify patterns in the data. We were able to acquire a thorough understanding of how cultural diversity affects project teams by adopting a method that included multiple case studies. We were then able to draw parallels about the degree of innovation output based on the respondents' wide replies, which encompass the various themes we addressed during the interview process. In order to obtain a holistic perspective on the degree to which cultural diversity affects innovation as an output in the different companies, we continued to ask more specific questions.

3.4 Data generation

3.4.1 Primary Data

To start off with the subject of data generation, Hox and Boeijs (2005) contributes to the concept of data generation that social scientists and researchers employ a variety of data gathering procedures to obtain information. For starters, studies are significant since they often feature a study design that allows for unintended disruptions that can affect the ongoing study. The data collection method in a qualitative research design often entails gathering vast quantities of data on a small, purposeful sample utilizing techniques that include comprehensive interviews, especially observation, or focus groups (Hox and Boeijs, 2005). Now when it comes to gathering data material, our source was through the use of qualitative interviews as an empirical foundation. The empirical foundation here was linked towards the primary source of data, and as such were to be extracted from interviews that we conducted.

Kumar (2014) highlights that primary data refers to information collected directly from the source for the first time. Primary data is considered to be more reliable and accurate compared to secondary data. This can be done through methods such as interviews. Pharm

(2015) explains that when data is used as a primary source, a lot of data will be made, no matter what the study's theory is (e.g., focus groups, one-on-one interviews). The primary data in our case mainly refers to the 10 conducted semi-structured interviews.

Pharm (2015) adds an additional point where there are other methods for capturing what is discussed and accomplished during an interview or focus group. This includes taking handwritten notes or recording the interview session. For the majority of the interviews for our study, we recorded and took notes at the same time. However, for a minority of the interviews that took place face-to-face, we recorded those interactions and transcribed them at the same time to save time that could have been spent on other crucial aspects. Spiggle (1994) adds that recording of the interviews are strongly encouraged for it to be integrated easily, and this will be done by keeping the primary data as a document that has been summarized in a theoretical manner.

3.4.2 The structure of the interviews and the respondents' roles.

Semi-structured interviews were used to collect primary data since they have shown to be a versatile and adaptive strategy. According to Pietilä, Johnson, and Kangasniemi (2016), the specificity of semi-structured interviews may be characterized based on the aims of the study and the research question, and it can be used with both individual and group interview methodologies. The ability to establish a successful mutuality between us as the interviewers and the respondent is one of the semi-structured interview method's main benefits. Because of this we were able to get a thorough understanding regarding the role of cultural diversity in project teams. It enabled us to continually adapt our follow-up questions depending on respondents' answers.

According to Ikart (2019), the funnel method can be used in the semi-structured interview guide, which means that we were able to begin our interviews with simple questions that were broad. This makes things easier for both sides by preventing uncomfortable dialogues and enabling the respondent to feel more at ease and open with their answers. Braun and Clarke (2013), states that it is crucial to make use of open-ended questions in order to provide respondents the opportunity to share their personal experiences and perspectives in their own words. The respondents were provided interview questions with similar themes, however the questions were structured to allow for open-ended replies, leading to low amounts of structure. By reviewing and analyzing the answers with the theoretical framework, we were

able to collect data to our research topic. We modified the questions so that they were reflective of the precise responsibilities that each respondent had on the project team that they were a part of, such as being a project manager or a project member. We also refrained from asking some questions when we knew the respondent was unable to address them.

Hennink, Hutter, and Bailey (2020) emphasize the significance of carefully selecting respondents in qualitative research studies to make sure the sample is varied and reflective of the study subject. Due to the fact that project manager and project member are the only roles available on a project team, the pool of responders comprises active project managers and project members, with experience from different countries. The responders were employed by multinational organizations with project teams situated in Sweden and other countries. The organizations were to be found within the Gothenburg metropolitan region. Email was used to initiate communication with the respondents in order to ascertain whether or not they were interested in taking part in an interview and to arrange a time and place that was convenient for each individual responder. Additionally, Hennink, Hutter, and Bailey (2020) emphasized despite the fact that using technology to conduct interviews might be a simple method to do, it is essential to take into account potential restrictions, such as problems with the technology itself, which may have an impact on the quality of the data that is obtained. Due to the fact that they were located abroad, some of the respondents could only take part in the interview through Zoom.

3.4.3 Table overview of the respondents.

Details about the people we interacted with for this case study, as well as names of references we gave them based on the industry they work in. The names that have been provided by the participants are not their real names. Instead, they are screen names that have been constructed so that we can show that we have interviewed people who come from a variety of different backgrounds.

Sector	Role	Name	Age	Experience	Ref	Name empirical study
Construction	Project Member	Abel	28	3	C1-A	
Construction	Project Manager	Martin	34	11	C1-B	
Logistics	Project Manager	Henry	38	7	L-A	
Logistics	Project Member	Sara	27	2	L-B	
Automotive	Project Member	George	25	1	A-A	
Automotive	Project Member	Stefan	28	4	A-B	
Automotive	Project Manager	Maria	28	3	A-C	
Consulting	Project Manager	Ibrahim	26	2	C2-A	
Consulting	Project Manager	Amina	35	8	C2-B	
Consulting	Project Member	Arian	27	2	C2-C	

Table 2: Respondents in the logistics industry were given the designations L-A and L-B, while those in the construction sector were given C1-A and C1-B. C2-A, C2-B, and C2-C were assigned to the consulting sector, similarly to how A-A, A-B, and A-C were assigned to the automotive sector. Hence, it may be concluded that the reference name can be utilized to specify a certain person's industry while reading the empirical data.

3.5 Analysis and interpretation of data.

Spiggle (1994) discusses there are several ways one can interpret the data one has collected in a qualitative setting. It ranges from abstraction, categorization, comparison to refutation etc. Considering that our data collection is complete and the qualitative interviews have been transcribed, we analyzed it by going through the various processes outlined in the analytical section and analyzing how it fit into our case studies. The fundamental operation is comparison and according to Spiggle (1994) it dealt with exploring differences that can be found within the data set that's been collected, and for our case studies the answers that was provided were to be compared to what each of them had said concerning cultural diversity in project teams and its effect on innovation.

Yin (2013) states that the data set can furthermore be examined by the different stages that the data set occurs in. Namely compilation, dismantling, reassembling, interpretation and conclusion (Yin 2013). These are crucial components in assisting us as we analyze the information we have gathered from the interviews. Although analyzing qualitative data might be difficult, it is an essential stage in research in order to learn new knowledge and have a thorough comprehension of a certain topic (Bryman, bell and Hartley 2019). We gained an understanding of qualitative data and the process of interpreting it as the researchers behind this study.

We began the interviews by asking the respondents about cultural diversity and how it can affect project teams. The responses were subjected to an abductive procedure, which was followed by analysis and synthesis. This required examining through the data for recurring patterns and themes, on the ways in which cultural diversity might either positively or negatively impact innovation output. Communication and the role of team members, for instance, were cited as essential factors for maximizing cultural diversity in order to achieve innovation output. These two categories directed us to return to the theoretical framework to research and incorporate these phenomena.

The empirical data were used to identify and compile the communication element and the team members' roles in optimizing cultural diversity for achieving innovation output. These elements were identified once the data obtained from interviews was analyzed. When fostering effective communication and operating diverse teams, the roles of project managers and project members, for instance, emerged as important topics. To further refine the

theoretical framework, it was vital to transition between theory and empirical findings. An important observation that needed to be included into the theoretical framework was the recognition of communication and the function of team members in optimizing cultural diversity. Our knowledge of the phenomenons was developed as a result of the continual examination of the empirical data and comparison with the established theoretical framework. This led to the discovery of new themes including the roles of project manager and project members, as well as homogeneous teams vs heterogeneous teams. In addition, these themes are presented as chapter headings in the section containing the empirical findings and analysis.

When it came time to compile the data set from the interviews we did, we discovered that it was an intensive process. Despite this, we continued transcribing the interviews and organizing them in chronological order, beginning with the first person we interviewed and ending with the last. This phase of compilation was vital for us since it facilitated a smoother transition to data organization. Since it contained a distinct document, we could refer to it more readily when necessary.

In the next step of the analysis of the data, the data that had been collected was dismantled. This was because we had to sort through the data and evaluate its applicability in light of the theoretical framework. During this phase, we discovered that a number of respondents had offered broad responses, which made it challenging to determine their relevance to the research topic. In order to solve this issue, we separated the data into more digestible segments and labeled them based on how well they answered the research question.

It was essential to reassemble and arrange the data in order to identify various patterns. We were able to organize the data using the funnel approach in a way that narrowed down the broad information to our particular research subject.

Perhaps the most enjoyable aspect of the analytical process was the phase that entailed interpretation. Here, we explained or interpreted the information using our own words and perspectives. It was an opportunity for us to evaluate and comprehend the material acquired. We were able to come to conclusions and have a better knowledge of the study subject throughout this stage. Ultimately, the conclusions step entailed integrating the empirical data with the interpretation phase. Based on the information, we came to conclusions and compared them to earlier studies. We were able to view the wider picture and gain a deeper

knowledge of the research topic by relating the interpretation to our empirical data collection. In conclusion, although analyzing qualitative information is a difficult procedure, it is essential. We have been able to compile, deconstruct, reconstruct, organize, analyze, and form conclusions based on the data we have gathered via the five steps of analysis.

3.6 The reliability of the qualitative aspect

3.6.1 Credibility

According to Liao and Hitchcock (2018), credibility is characterized by the degree of how well the author's observations and results correctly represent the experiences and viewpoints of the respondents in the study. Several strategies, including persistent observation, triangulation, participant observation, can be used to build credibility in qualitative research. In order to get an all-encompassing understanding of the results of having a culturally diverse workforce, we utilized a methodology known as triangulation, in which we compiled our data from a variety of different sources. For instance, we collected information from all members of a project team. In addition, Morse, Barrett, Mayan, Olson, and Spiers (2002) emphasized the significance of achieving credibility in grounded theory research. This is because establishing credibility is crucial for guaranteeing the truthfulness and reliability of the results obtained from the study. In order to guarantee that the theory is founded in the data and accurately represents the respondents' perspectives on cultural diversity within project teams, and how it influenced innovation output, we examined our data by comparing it to the theory. This allowed us to establish that the theory is both grounded in the data and closely resembles the respondents' perspectives on how cultural diversity affected innovation output. In addition, by the utilization of a variety of sources and the examination of the data, it assisted in the reduction of biases and contributed to guarantee that the conclusions are valid and credible. An example of a bias could be collecting data from a specific group of people who are from the same background, which could lead to a biased representation of the data.

3.6.2 Transferability

According to Lincoln and Guba (1985), transferability refers to the degree to which the data of a qualitative research study may be translated to other contexts that go beyond the environment in which the study was conducted. Our findings on the relationship between

cultural diversity in project teams and the level of innovation achieved as an output may have been impacted by the particular western cultural environment in which the research was carried out. There was a diverse range of nations represented among the responders. Thus, the findings' transferability might be utilized in different western contexts. Nevertheless, the transferability could've been altered if a comparable research were undertaken in a different cultural setting, since the traditions, beliefs, and communication styles in each environment may vary, which could have affected how team members perform their duties and engage with one another. Moreover, it might have affected the innovation output of projects. We made an effort to identify individuals who came from a variety of cultural backgrounds and had experience in a variety of other cultural settings so that we could circumvent this challenge, which resulted in maximizing the transferability of the data, and potentially that they could be utilized in other settings.

3.6.3 Reliability

Golafshani (2003) emphasizes that to ensure the reliability of qualitative research, it is essential to examine the authenticity of the participants. We conducted interviews with ten respondents, each of whom had either the function of project manager or the role of project member on a project team. The purpose of this study was to investigate the ways in which cultural diversity impacts innovation output in project teams. The respondents are involved in projects and have previous experience working with a variety of project teams, each of which produced valued outcomes. This argument is made clear by Yin (2013), who emphasized the need of using many sources of evidence to evaluate findings and assuring the reliability of data. Yin's (2013) conclusion was that using numerous sources of evidence is necessary, in order to get a complete and in-depth comprehension of the cases that are being investigated. Therefore we utilized a variety of techniques for data collecting, including interviews and behavioral observation. According to Miles and Huberman (1994), creating reliability in qualitative research requires reaching an adequate amount of consistency among respondents. This level of consistency must be distinctive to the research topic and the context. Throughout the course of our research, a pattern was seen in the responses provided by the respondents, and there was a high degree of consensus on how cultural diversity affects project teams. This contributes to the reliability of the data that we have collected.

3.6.4 Ability to verify and confirm

According to Creswell and Miller (2000), triangulating data from many sources helps to raise the trustworthiness of the findings. This was accomplished by enabling evaluation and validation of the data across a variety of sources. In the course of our research, we helped respondents in responding to the interview questions by providing them with in-depth explanations, as well as examples. This was done in order to suit the various roles that the respondents performed in their respective project teams, as well as to tackle any possible concerns that the respondents may have had in comprehending the terms of cultural diversity and innovation output, as well as the applicability of these terms to their experiences. We acquired a more comprehensive knowledge of the influence of cultural diversity on project teams by utilizing numerous data sources and comparing the data to confirm the result. This strengthened the validity of the study findings and assisted in addressing any biases or limits of separate data sources, for instance a project member speaking from the perspective of a project manager, despite the fact that the individual was not a project manager.

3.7 Method criticism

In contrast to the method criticism and our research question, we do feel that the use of a qualitative approach to be the correct in this instance. This is because the purpose of our study was to examine how cultural diversity affects the level of innovation achieved, it can only be done by implementing it in real life, and by using a qualitative research design that involves semi structured questionnaires, it was the most suitable option because it put the respondents in the center of it. It provides the respondents time to reflect upon the questions at hand, as well as develop answers that are broad so it covers the topic of the question. The respondents in this study were identified by using our existing network because of the diverse set up that could be found there and the pre existing relationship among us.

Patel and Davidson (2019) states that when it comes to the structure of the qualitative interviews and how one should be asking the questions based on a semi structured interview there isn't a clear structure, but rather it gets more of a friendly chat, a conversation about a certain topic. Now because the use of the semistructured interview involved this kind of characteristic, it led to our interviews having differences in terms of how broad the answers were provided to us and how much they were willingly to share, that is one the criticism and risks with this method of choice because the length of the interviews was affected based on

the respondents when they're forming their answers. During some interviews that were conducted, some of the respondents provided lengthy answers and some provided way too much that weren't relevant to our questions, which led to us not being able to use it in the empirical findings.

Another criticism of our methodology of choice was the risk associated with having an interview in the shape of a conversation, that we are asking open questions. This left room for answers that weren't relevant, which is something that happened as mentioned in some interviews. Lastly, another criticism that can be associated with our methodology according to Bryman, Bell and Hartley (2019) is that the qualitative research here was too subjective, where there was a heavy emphasis placed on relationships and what the interviewers deemed to be significant and important information. Because the majority of the interviewers that participated in our study came from our network and close relationships, it does raise an important issue here in bias. How objective we were when looking for respondents in our study, and the information extracted to fit our study.

3.8 Ethics

Merriam (2014) highlights the necessity for researchers to protect the privacy and worth of respondents and underlines that moral questions need to be at the core of all ongoing research. This need was broken down into four primary demands that were placed on the study process. These demands were as follows: the requirement for information; the requirement for consent; the requirement for secrecy; and the necessity for use. The information criterion mandates that respondents were informed of the aim of the study prior to the interview. Due to the necessity of obtaining respondents' agreement, we ensured that they were free to choose whether or not to take part in the study, and we acquired their authorization in this regard. As part of the obligation for maintaining respondents' privacy, we had to guarantee that their personally identifiable information would be maintained in a manner that would prevent access to it by any third parties that were not permitted to view it. Because of the usage requirement, we made sure that the only permissible usage of the data acquired, which contains details on the experiences of respondents as well as other data, is for the sake of study (Merriam, 2014). This argument is reinforced by Morse (2007), who explained that respondents frequently submit private and confidential data, in which researchers then have a duty to maintain this information secure.

We took measures to protect the anonymity of the participants. We made sure to convey to the respondents in a clear and concise manner that all of the data gathered would be utilized only for the study's intended use, ensuring that no unauthorized third parties would have control over the details that they provided. Moreover, those who participated, were reminded that they'd have the right to end the interview during any point should they want to do so. As a consequence of the fact that we wanted to gather personal perspectives and experiences from the respondents regarding the project teams in which they had participated, we may have asked certain follow-up questions that were of a personal nature. Hence, all respondents decided to keep their identities anonymous. The anonymity allowed respondents to be more at ease disclosing presumably personal material about their experiences in particular circumstances.

4. Empirical findings

4.1 Innovation as an output and the perspectives of team members

Since it helps businesses to continue being profitable and relevant in the presence of a market that is always shifting, innovation is recognized as an essential output in each and every sector. In contrast, innovation does not always necessarily result in new products or services, but rather in consumer satisfaction in a market that is continually evolving. The project managers that were offering their take on innovation as an output provided answers that were different, but concluded that innovation is seen as a cornerstone from their perspective.

The respondents from the automotive and logistics sector explained that without innovative outputs, they would've been left in the dust. Because the competition is always developing new items, new developments, and new methods of conducting business, it is vital to keep one step ahead of the pack by introducing innovative offerings. These are then related to their specific industry in order to maintain a leading position in the market. Furthermore, the respondents elaborated that innovation as an output is vital for a company's success, and for remaining competitive in the market. It then leads to expansion into new markets and provides access to more prospects if we continue to innovate in our offerings.

On the other hand, other respondents from the consulting industry took a different stance. They noted how innovation as an output is not only about developing new concepts, rather includes being open to trying new options, even if they don't succeed the first time. The key is to maintain flexibility and adaptability in the outcomes in the face of uncertainty so that the client's demands may be met. Innovation output is crucial to satisfy our clients' ever-changing needs. Furthermore, the project manager L-B elaborates:

"Innovation output is essential to comprehending our clients' demands and discovering innovative ways to address those needs. It's not only about coming up with new products, but that we need to discover ways to enhance the ones we already have and come up with innovative answers to the challenges faced by our clients".

This demonstrates that innovation as an output is a broad phrase that incorporates a variety of activities. Some examples of these activities include the invention of new goods or services as well as the enhancement of already offerings. In spite of this, innovation as an output continues to be an essential component for businesses that are functioning in the quickly

shifting business environment of today. This is applicable no matter the process through which it is applied as an output. Businesses that don't have innovative outcomes find themselves slipping further and further back from the competition. In contrast, businesses who are effective at innovating are able to produce growth, develop new possibilities, and keep their edge over their competitors. As a result, it does not matter what sector a company operates in, innovative outcomes are an essential component for a company's success in the competitive and fast-paced business world.

4.2 The role of the project managers, project members and the challenges.

The role of the project manager and the project members varied from the responses provided by the respondents, while the majority of the respondents was of the opinion that the role of the project manager is essential for the success of a project. And they function as holding the project team together and reaching the desired goals. However the answers provided on the challenges for the project manager and its members were provided in a different manner. Respondents in the construction sector stated during the interview that the project manager is seen as the spider in the web, meaning that they need to have an overall hindsight of the project and its ongoing challenges. Points were brought up, such as different traditional work environments between folk groups. Furthermore, time is viewed differently as Swedish people are more punctual when working in teams, in contrast these are challenges identified. Therefore, respondents from the construction sector stated that the project managers need to have a large impact in handling and taking responsibility for these challenges, hence why they are seen as the spider in the web. The project manager's duties are also intertwined with the project member and their role in the project, because the project manager needs to understand the project members and how they function, especially when it comes to how they work.

C1-A stated how project members that are more quiet might be sitting on good ideas and knowledge that is harder for them to express verbally. In a situation like that, the project manager needs to notice this and encourage that person. To try and engage with the team and make it a safe and comfortable environment. More specifically C1-A emphasized how the project manager needs to ensure that there is a level of respect amongst the team, where no one is being left out. Treating one another with respect because a team won't progress if there isn't a level of respect to be found there. If there isn't any trust to be found there, the team members might refuse to take up space and express themselves. The project members' roles

are then diminished because of the lack of trust within the team and hinders their part in doing what they need to be doing. The role of the team members is to contribute to the overall objectives of the project and provide their expertise in this.

Respondents from the automotive sector also touched on this aspect, but emphasized the chemistry aspect of project members. If there isn't any trust and respect established there won't be any chemistry, which could lead to the project stalling. It does come back to the role of the project managers.

Some respondents placed an emphasis on the project managers role from a social perspective, where project managers need to understand the integration of globalization as we are stepping into a newer society. C1-B stated during the interview that:

“Project managers need to understand that project members from another country do not have a similar work structure as the inhabitants in Sweden for instance, How one operates in Sweden might not be the same as a country in India, Germany or England. And for that manner people might take things offensively compared to working in a setting that is not unfamiliar that could be of challenge”.

Respondents from the consulting sector took it a bit further and mentioned that to combat this, humbleness is a necessity. Project managers and members work towards understanding one another and knowing that it's a working progress.

A comparison could be drawn to insensitivity and being offensive, where C2-B who has international experience expressed some concern on this topic. The respondent mentioned how bigotry was a big deal compared to working in Sweden, where innovative thinking was not promoted. There was this mindset of having a prejudiced view on people from a different setting, which could be traced back to bigotry. Them not wanting to work towards a progressive change that reflects today's world. Another challenge as a project manager was the clarity being a bit unclear, she exemplified how rules and regulations in England were different compared to Sweden. For instance, when it concerns a stalemate working environment, as well as labor force immigration. This is because they turned a blind eye which raises questions for how the project managers should handle it.

C2-A was on the same track as C2-B, not having the same statutory regulations can lead to unnecessary discussions within the teams about following protocols. To combat this, C2-B mentioned that it is obligatory for the project manager to speak either Swedish or English to handle that challenge. C2-A suggested that to handle the issue with turning a blind eye and clarity, there needs to be a solid foundation in place that tackles these issues directly. A suggestion was following the industry guidelines that upholds these issues.

Respondents from the logistics sector brought up the aspect of adaptability for the project manager, how managers need to ensure that the work carried is not monotonous work, where they don't presume that one way of working is the optimal one. That they always have an expanding point of view instead, and that if there is a more effective way of doing a certain activity then one should do it.

Project managers will stand in front of challenges, such as collaboration in different traditional working environments, which is in accordance with C1-A statement. Project managers need to be aware of this close mindedness, be open for change and solutions that are forward looking. The cultural background of a person is one challenge which is in accordance with what C2-B stated on bigotry. C2-C mentioned how the project managers need to involve every member of a project team and how their role goes beyond just ensuring the project is finished. Other respondents agreed and mentioned that being a younger person in a team there are disadvantages. Project members tend to underestimate or not value younger peoples opinion as highly as the other more experienced project members, and that they can come out as hard headed. The solution lies in the fact that project members need to put their biases aside and work in a more constructive manner. Put the hostility aside, where they freeze one out based on their lack of experience. The project manager would need to face this issue more clearly. Project managers should encourage having open forums where they can talk about issues like this, and here the role of the project manager is to start these conversations for a healthier environment.

4.3 Communication and collaboration in project teams

No matter the circumstances, whether in the corporate world or in the social world, communication and collaboration is a fundamental key pillar in how teams can function. Collaboration and communication amongst the project members and the project manager was something that was heavily emphasized on, how its importance can not be ignored when linking cultural diversity and innovation. C1-A went into depth about how communication barriers are what's holding back the success of a collaboration amongst the project members:

“When working on a project with people from a different setting, the recurring problem is communication and its barriers it brings with. There is an unclear vocabulary expression and how to express certain terminologies that one might not be familiar with which leads to not getting the full point of a project meeting”.

Other respondents, for example from the automotive sector, stated that communication is a big part of a project and how it ensures a good collaboration between the project members. Without an open line of communication where one can't express oneself, the objectives won't be met. This circles back to how chemistry between the project members fosters a good collaboration and ensures a good communication line.

Respondents from different sectors explained how communication and collaboration are intertwined with openness, where everyone has a role in trying to mediate a good level of communication. However one should not force it because of the damaging effect it can have on team dynamics. To optimize the communication and collaboration aspect, respondents from the construction and logistics sector elaborated that understanding the other person's mentality is important. Biases need to be set aside and there should be encouragement to spend time together in a natural manner, for example at the lunch table. Having an open dialogue between the younger generation and the older generation to get the different perspectives of each group in a project setting. Encouraging afterwork activities to get to know each other and creating harmony that nurtures communication and collaboration.

An additional theme that the respondents brought up was how project managers can create group meetings, to foster a good collaboration and an open line of communication. Every project member can express their ideas and the work expectations they have. Avoid working

with the same group of people so that one could get a different perspective and at the same time gather a deeper understanding.

Respondents from the logistics sector offered a more contrasting view on one particular aspect of communication and collaboration compared to others. Working with the same people that one has worked previously will lead to a better collaboration and communication. This is because one thinks automatically that there won't be any issues because of the past one has with that person and recognizing their strengths. Respondents from the consulting sector differed a bit on their takes, regarding communication and collaboration within a team and how to foster a good collaboration in the project teams. Heavy emphasis was put on weekly checkups, participating in email conversations and writing down protocols to ensure effective communication. Having it written down ensures that everyone is on the same page. Internal forums can work as a mediator for what meetings do not bring up and having an open dialogue is key.

4.4 Homogenous teams v heterogenous teams

The way homogenous teams and heterogeneous teams operate in a project might be seen differently because of the people involved in those project settings, where the expectations and the setting might be different. The project members as well as the project managers had different takes on this matter where they provided the different experiences they have gathered when working with both teams.

Several respondents stated how the productivity between the different teams can be seen from the scope of the project in heterogeneous teams, i.e. the planning of the project where there is a more natural flow to the project and not continuous checkups. Another thing is working in homogeneous teams, there seems to be a lack of understanding how different project members operate in a project when they're from another country. Meaning how they approach a problem differs from a setting in a homogeneous team where there are certain measurements to be taken. The biggest difference between working in a homogeneous setting and a heterogenous setting lay in the communication aspect. Respondents from the automotive sector felt a light hostility when it came to communicating in the homogenous teams. The people working there did not communicate as much, rather they communicated with each other making the respondent feel left out on instances, as well as there were no emotions involved within that team. Working in a more multicultural team however, there is a

more relaxed approach in that setting, where the project members are more helpful and asking questions does not feel as intimidating as working in a homogeneous team.

Respondents from the construction sector were on the same track as those in the automobile. They added that working in heterogeneous teams, there was more openness involved as people were open minded. They further developed that different thinking is seen as a strength when working in heterogeneous teams. Project members in that setting placed more emphasis on communication when working in heterogeneous teams compared to in a homogeneous team. C2-B stated from her experiences as a project manager:

“In a setting as a homogenous team there were rules to follow, and being a newer person on that set with a different background the responsibility varied. This was rooted in the lack of trust being non existing. Rather it was a watch and observe mentality in the homogenous setting, Mistakes are seen as unnecessary and not necessary. They view one as if they are filling out a spot, that they are a diversity hiring”.

The same argument was provided by respondents from the logistics sector where some felt the role as a project member and manager in the early stages differs a bit. When working in a homogenous team for starters they had to prove a bit more, which stands in line with what C2-B stated on challenges she perceived in working in a homogenous team. An additional point was there was a sense of bias and to manage this they had to show that they were not there just to fill out a spot as a company hiring. Comparably, in contrast to a homogenous setting, the heterogenous setting instead provided a learning perspective instead of an observing perspective. There was a more affinity type of community when working in a heterogenous team. The respondents emphasized how different it could be to work in a setting of different types of people, who offer a more familiar mood when differentiating homogeneous teams and heterogeneous teams.

Other respondents for example from the consulting sector offered a more opposite take when working in a homogeneous team contra heterogeneous team. They argued that it's good with different cultural perspectives. However there are too many regulations and rules in Sweden when working with different people from different backgrounds in a project setting. When working with a group of homogenous people, as people from a nordic setting for instance, here there is a similar thinking spree between them and routines in how to move forward.

They are more inclined in working with the regulations that are presented and known compared to a group of heterogeneous team of people who simply want to get the project done. C2-C explained more in depth that:

“When working with a homogenous team, forming ideas is not based on thinking outside the box, but rather following a conventional way of thinking. For that reason I favor the homogenous team more slightly. In a homogenous setting there is a will to come to a mutual understanding quickly and avoid bumps in the road”.

4.5 Cultural diversity's effect on innovation outcomes

It appears that there is a common understanding among the respondents on the good prospective impact that cultural diversity has on the accomplishment of innovative output, based on the answers they provided. According to the personal experience of the majority of respondents in the different industries, they are frequently presented with difficult and challenging projects that call for innovative outcomes. When it comes to generating innovation output in the line of work, having a team that is composed of members from various cultures is very necessary. It enables drawing upon a multitude of information and experiences, which, in the end, leads to outputs that are both more profitable and innovative. In addition, respondents from the consulting industry elaborates on the significance of multicultural teams for attaining innovation. Their personal experiences have shown that multicultural teams have a distinct competitive edge in this area. Whenever you have people on a team that come from a variety of various backgrounds, you put together a variety of unique ways of thinking as well as approaches to figuring out solutions, which can lead to innovative results. The United States is an excellent illustration of the advantages of multiculturalism. It represents one of the nations with the greatest variety of cultures in the globe, and part of its economic prosperity can be credited with its capacity to leverage the force of that diversity.

An additional illustration of cultural diversity being an essential component for the generation of innovative output was brought to light by the project member L-B and the project manager A-C. Both of these individuals emphasized that multicultural teams are an essential component for driving innovation because they bring together individuals who have different points of view and generate a wide variety of perspectives.

When handled well, the advantages and good consequences of cultural diversity can't be understated. Yet, when it's not managed effectively, it may lead to more difficulties than it does to benefits. The examples of respondents that have previous working experiences with multicultural teams can relate to the reality that communication gaps can be a challenge. When individuals on a team have trouble talking with one another because of language issues, it might hinder the development of the project and lead to errors. Communication is vital to the accomplishment of any project. Flexibility is crucial in this circumstance. It is essential for a project manager to establish a setting in which members of the team can freely express themselves and interact with one another in an honest and straightforward manner.

Several respondents emphasize further that age barriers certainly offer a hurdle to innovation and success, in the sense that older individuals may be resistant to change and unable to acknowledge new ways of thinking. Awareness and a flexible perspective in resolving these issues are necessary traits. It is essential for members of a team to have a profound comprehension of one another's points of view, experiences, and methods of operation when working in an environment characterized by a variety of people from multiple cultural backgrounds. Another approach to solving these issues is provided by the project manager A-C, who says:

"I think openness and transparency are vital characteristics to establishing an efficient multicultural team. It is essential for people in a team working on a project that is culturally varied to tackle their assigned tasks with a sense of humility and an openness to explore various concepts and solutions".

It demonstrates that cultural diversity, when properly handled, is an essential ingredient in the production of innovative results. One area where rules and standards distinguish Sweden and the Scandinavian countries from other regions is the construction industry. It is possible that the amount of culturally diverse teams that can cooperate in projects will be restricted as a result of such. Respondents from this sector elaborates on this issue by explaining that there may be a shared knowledge of some laws and principles, working with people from a Scandinavian country may be easier in terms of communicating and taking actions. However, there is the possibility for an inclination to rely too much on already-existing procedures and rules without evaluating how effectively they function. This might lead to a drop in innovative outcomes.

Based on the responses that were obtained, there was a general agreement among the respondents that it is vital for a project team to have members from a variety of cultural backgrounds in order to create successful innovation outputs. Even while there is a possibility that there will be a number of hurdles involved with managing such a team, the potential rewards in terms of innovative outputs exceed any potential difficulties. Furthermore, several respondents from different sectors working on a multicultural team have introduced new viewpoints and methods to approach issues that they might not have encountered otherwise. This has allowed for drawing from a more diverse pool of experiences and thoughts, which has ultimately resulted in the development of innovative solutions. Obviously, working in a multicultural team may present a number of difficulties, the most obvious of which are variations in work styles and linguistic hurdles.

Nevertheless, by fostering transparent interaction and a culture of kindness and acceptance, these obstacles can be tackled and the advantages of a multicultural team may be utilized to their full potential. Another illustration of the support for choosing a multicultural team for the purpose to achieve innovation output regardless of possible obstacles if not managed properly is further shown in the respondents experiences. A diverse team with members from various cultural backgrounds may bring a wide range of ideas and viewpoints to the surface, resulting in innovative outputs. Each member of the team has their own set of unique qualities and areas of experience that could lead to the profitability of the project. A multicultural team has the ability to capitalize on these advantages and reach greater levels of success. In spite of the fact that managing a multicultural team may need additional time and attention, the prospective gains are more than worth it in relation to the project's overall success.

In order to accomplish innovation output, the project manager L-A believes that emphasis should be placed on competence and open-mindedness in addition to selecting a multicultural team. Respondents with similar beliefs explain that having a competent team is essential for success. Competence must constantly be the main consideration when recruiting team members, even while a multicultural team has the potential to bring creative new ideas and views to the table. This entails making sure that all members of the team are equipped with the experience and expertise necessary to successfully carry out the responsibilities to which they have been allocated. However, a multicultural team may offer additional benefits such as

open-mindedness and a variety of perspectives. More specifically the project member C2-C noted that if a team is to be assembled for the purpose of producing innovative results, experience and skill should be the primary considerations. Furthermore, cultural diversity is also essential. Nevertheless, it shouldn't be the only factor considered while choosing members for the team.

If the advantages of cultural diversity are so substantial, are multicultural teams becoming increasingly prevalent? The project manager A-C elaborates:

"In recent years, the number of multicultural teams has increased significantly. This pattern has been accelerated by the expanding globalization of the automobile sector, which has led to an increase in the demand for teamwork among members who come from a variety of cultural backgrounds. The advantages of multicultural teams, in my opinion, exceed the difficulties, and I predict that the number of such teams will rise as the business becomes more worldwide".

The project members A-A and A-B, reinforce the validity of this statement by elaborating on the fact that the vast majority of the teams they have worked in the past or present are people from a variety of cultural backgrounds. Furthermore, respondents from the consulting industry add that multicultural teams are actually being used more frequently at their place of employment. It is the outcome of a coordinated effort that has been made to include people from a variety of cultural backgrounds.

Nevertheless, this is not the case across all industries. Compared to other industries, there have not been many shifts in the construction industry. C1-B emphasized that multicultural teams are not extensively utilized for a variety of factors. The responder mentioned that in their field of business, there is an inclination toward homogeneity among the workforce. People may also be resistant to multicultural teams because they are uncomfortable with change and unwilling to adjust to new approaches to completing tasks. This might be a result of people's unwillingness to accept new methods of doing things and their fear of the unknown. The respondent suggested that there may be an unwillingness to change a particular formula or method, which could lead to conflicts or problems. In addition, the project member C1-A states, based on personal experiences:

"I have witnessed instances in which organizations embrace cultural diversity yet do not necessarily act accordingly. It appears as though the emphasis is being placed

more on outer looks, such as having a team that appears diverse, instead of actually appreciating the value of multiple points of view and approaches to problem solving. To really appreciate cultural diversity and enjoy its advantages, in regards to innovative output, a lot of effort needs to be done”.

4.6 Summary of the empirical findings

The following part will provide a more comprehensive summarization of the empirical findings chapter and will serve as an objective recap of the findings.

In a market that is continuously evolving, projects must innovate to remain profitable and competitive. It involves the creation of new product lines, the enhancement of current ones, and the capacity for transformation. The team members are in agreement that innovation is an essential component of success. Innovation enables businesses to remain ahead of their competitors and adjust to the ever-evolving requirements of their customers. Projects run the danger of slipping behind without new innovative outputs. However, those that innovate successfully may generate growth, open up new opportunities, and keep a competitive advantage.

In order to accomplish a project's intended aims, chapter 4.2 emphasizes the significance of project managers and project members. It also discusses the difficulties that team members encounter, such as operating in a regular workplace, adjusting to cultural differences, establishing trust and respect, and coping with diverse team characters. It's crucial to know your teammates' talents and limitations, to foster a secure and pleasant work atmosphere, to promote open communication, and to be flexible. In order to offer a full grasp of the subject matter, the perspectives and experiences of various team members are put forward.

Being a member of a multicultural team has its own set of obstacles, most notably in terms of communication and working together. In order to build an atmosphere that encourages open communication and cooperation, it is vital to get through linguistic and cultural obstacles. Project managers play a critical role in this regard. Building connections and improving team dynamics may be accomplished through a variety of ways, including participation in internal venues and interacting outside of the workplace. The advantages of heterogeneous teams include a variety of techniques and ideas for tackling problems, which promotes a more natural exchange of ideas. On the other side, homogenous teams have been shown to limit

creative thinking and restrict members from taking unique perspectives. As a result, it is of the utmost importance to have an understanding of the mindset held by every member of the team and to develop an openness to other ways of thinking. Despite the environment, effective communication and collaboration are essential for the achievement of any project team. Understanding the specific obstacles and advantages of working in a diverse team is extremely crucial in a multicultural setting. Multicultural teams have a high chance of succeeding if the correct measures are established.

In accordance with the replies received from the project team members, what effects does a multicultural team have on innovation output? According to the answers of the team members, the advantages of being part of a multicultural team include the capacity to capitalize upon a multitude of knowledge and experiences, to generate a broad range of perspectives, and to put together persons with diverse backgrounds. A multicultural team may also provide results that are more inventive and productive by integrating different ways of thinking and problem-solving techniques. However, working in a team composed of people from different cultural backgrounds can present a number of difficulties. Some examples are troubles in communication and language, differences in working styles, and the risk of depending an excessive amount on pre-established regulations and guidelines without first determining how efficiently they work. Age barriers can also serve as an obstacle to innovation and success, as elderly people can become opposed to transformation and unwilling to accept new methods of thinking.

In addition, in order to handle these problems, the respondents stressed the need of being flexible, mindful and transparent. Establishing an environment where team members can fully express themselves and communicate with one another in an open and direct way is crucial for a project manager. These challenges may be overcome and the benefits of having a multicultural workforce can be leveraged to their maximum capabilities if an environment of open communication and a mindset of friendliness and inclusion are fostered.

	Construction	Automotive	Logistics	Consulting
C1-A	<i>"We need to draw upon a multitude of ideas, for example promoting more multicultural teams as it enables outputs that is more profitable and innovative"</i>			
C1-B	<i>"Certain tasks needs different perspectives where working with people from different cultural backgrounds may not be the most optimal solution for innovation"</i>			
L-A			<i>"More harm than good on innovation output,when people don't acknowledge each other's cultural differences"</i>	
L-B			<i>"A cultural diverse team has the sky as it limit in regards to innovation output"</i>	
A-B	<i>"Selecting from a more diversified pool of experiences and backgrounds, resulted in unique solutions"</i>			
A-C	<i>"Essential component to drive innovation forward and is one of the keys to unlocking problems"</i>			
C2-A			<i>"With cultural diversity you have a distinct competitive edge, in the innovation output field"</i>	

C2-B	<i>“Each team member possesses a distinct set of unique talents and fields of experience that might lead to greater levels of achievement”</i>
C2-C	<i>“Openness and humility, key parts in unlocking cultural diversity, older people may be reluctant to change or unwilling to recognize new ways of thinking”</i>

Table 3: Details of the quotes from the respondents' viewpoints on how cultural diversity affects innovation output based on their experiences.

5. Analysis

5.1 Innovation as an output and the perspectives of team members

The importance of continuously innovating to be competitive in today's competitive business world is something that all of the respondents agreed upon. If we take a look at the answers from respondents in the automotive sector. It is important to always achieve innovative outputs to stay ahead of competitors and innovation output is vital for the survival of organizations. Especially in a sector like automotive, where you always have to find innovative and creative outputs to constantly improve your vehicle to meet the demands of customers and the market. Chesbrough (2003) further emphasizes on the point that innovation as an output refers to the tangible or measurable outcomes, such as new products, services, or processes that are introduced into the market. If we take a look at the statement from respondents in the automotive sector, innovation output for them are new developments, such as new products. Furthermore, according to the answers from the respondents from the logistics sector, innovation as an output refers to new services that meet the demands of the customers, for example sustainable logistics solutions.

Although Chesbrough (2003) claimed that innovation is a tangible output, this does not mean that it must always be referred to as such. Representatives from the consulting industry shared their explanation that innovation as an output is intangible for them. It is more about satisfying the needs of clients by delivering intangible results, such as providing expertise or guidance. Respondents from the construction sector explained that innovation output could be referred to as tangible or intangible outcomes, for example through safety, efficiency and sustainable outcomes. It demonstrates that innovation output can be referred to as a tangible or intangible outcome, depending on the industry under evaluation. In addition, the overwhelming view about innovation as an output is that it is about continuously addressing the ever-changing needs of customers. This holds true regardless of whether the outcome is tangible or immaterial.

Furthermore, Kerzner (2017) elaborated on how vital innovation as an output is, arguing that it is essential to stay competitive in today's changing environment. The responses of the vast majority of respondents provide additional support for the significance of innovation output as a method of generating additional opportunities and prospects. Improved efficiency, lower costs, and higher customer satisfaction all result from innovation output, which also provides

new markets, grows market share, and creates new revenue streams. Respondents stressed the necessity of constantly trying to find innovative outcomes, which shows that innovation is not something that happens once. It is an ongoing procedure that demands continual work and attention. In addition, it explains the importance of always striving for innovative outcomes, in order to stay competitive and continue to evolve.

Analyzing how different industries see innovation outcomes are significantly assisted by Lichtenthaler's (2009) observation that innovation output may be measured using a variety of indicators. It is clear from responses received from the consulting industry, which emphasizes client satisfaction as a key performance indicator. It is vital for businesses in this specific industry to provide for the requirements of their customers. It's in line with the dynamics of the consulting industry, where a project's performance depends in large part on how successfully the consultant satisfies the client's requirements and objectives.

The results from the automobile industry, in contrast, imply that innovation output is assessed in a different way. While maintaining a focus on customer satisfaction, there is greater effort into creating new items and advanced technologies that set them apart from rivals. The reason is due to the fierce competition within the automotive sector, where numerous firms are striving for higher market share. As a result of this, businesses need to be continually innovative and launch new goods and technology, if they want to remain ahead of rivals and attract customers.

Because the objectives and demands of various industries are distinct, innovation output is evaluated in a variety of unique ways. For instance, the development of new, green materials or building methods can be used as a way to evaluate innovation output in the construction industry. This is due to the fact that the construction sector is among the biggest contributors to carbon emissions, and as a result there is an increasing amount of pressure to embrace more sustainable business practices. As a result, there are strict building norms and safety requirements that have to be followed in the construction industry. Therefore, the development of new tools or processes for construction that increase worker productivity and safety can also be used as a metric for innovation output. It shows that innovation outputs can be measured using various indicators and that depending on the sector and how the market looks like in that specific sector the priorities of these indicators could change. However, by the respondents' answers, revenue and customer satisfaction are vital indicators.

5.2 The role of the project managers, project members and the challenges

The respondents provided a broad range of answers when it comes to identifying the roles of the project members and the manager itself. The respondents all had their own presumption of their roles which overlapped in certain cases. Taking C1-A as the prime example here, he touched upon the perspectives of both managers and members in a project setting. The project manager is seen as the spider in the web and should be the one who navigates the project and ensures that it stays on the right course.

Meredith and Mantel (2012) provided a similar take on the role of project managers, where they are seen as the centerpiece in the project setting, and that the navigation of the project outcome lies in their hand. On that note, it explains C1-A perspective on the role of the project managers as a spider in the web, which falls under what Meredith and Mantel (2012) described when specifying the project manager role. We note that the project manager's role is seen as a crucial one, because completing tasks that's been assigned falls under their responsibility. Noteworthy is that the coordination of the project and allocating the resources falls on the project manager to ensure that the project members work towards the common goals that's been set up. The project manager here must then be able to adapt to circumstances and quickly respond to altering circumstances that might prevent the project's progress.

Respondents from both the construction and consulting industry focused more on the social perspective of the project manager. Globalization plays a defining role in understanding project members from different countries and how they operate in different settings. The respondents followed it up by stating that adaptability is a form of acknowledging internationalization as a project manager.

Gelfand, Erez and Aycan (2007) talks about this defining role, how globalization can be proceeded. As a project manager, leadership aspects become more prevalent and involved in this matter. This is because in order to be capable in handling a project that is of different features in a setting, the project manager needs to recognize and adapt to the different cultural variances (Gelfand, Erez and Aycan 2007). In this case, it's important project managers possess cultural intelligence and comprehend seeing the project and its members from a broad perspective (Hanges, Lord, Dickson and Goff 2005). This is in accordance with what

some respondents stated on how to operate in a multicultural team. In order for cultural differences to work there needs to be an acknowledgment of understanding one another. Having patience with project members and realizing that humility encourages project members to put time into the project and the project setting, which makes people less likely to question cultural variety.

In addition, respondents from the logistics industry described the significance of adaptability for project managers and the difficulties related to the process of adapting. A challenge could be team members having problems collaborating, which makes it important for project managers to be aware of close mindedness and making a team function. Hinds and Mortensen (2005) exemplifies how these challenges can be linked to cultural diversity as well as how they fit the role of the project manager. They noted how identity based disputes come up, as well as how the mindset of the project manager shifts when dealing with sensitive matters that affect the project (Hinds and Mortensen 2005). This perspective clarifies how a diverse thinking spree needs to be encouraged, as well as how gathering knowledge from different project members can enhance benefits of having a diverse team. The project manager needs to acknowledge this and consider how they can improve as project managers. Respondents from the logistics and consulting sector explained how understanding, having empathy and humbleness are keys as a project manager to handle challenges.

Ludviga and Sluka (2018) stated that being in a workforce where the majority of the work structure has not been impacted upon or imposed by any means can cause one to doubt their own abilities. Looking at the responses, respondents from the automotive industry could relate to this. A lack of trust was established based on their prior experiences, as they felt they were only there to occupy a position. As a team member, one must be knowledgeable about how various settings operate and cannot afford to make a mistake. This is because it then leads to doubt. This circles back to Turner and Muller's (2005) statement on being able to adapt to the specific environment, and working under pressure where there needs to be trust for one to thrive.

To facilitate a smooth transition in the learning phase as a project manager, one must be ready to make errors and to learn from them. It's important to consider it a positive that the project managers and members have varying levels of expertise. It is something team members can learn from and incorporate into one's project.

Shenhar and Dvir (2007) explain how, in the context of a project, the project members have a specific responsibility in ensuring that the project continues to progress. Collaboration between project members is essential to a project's success in minimizing setbacks and achieving its goals. Similar viewpoints were expressed by respondents in the consulting and logistics industries, who elaborated that collaboration cannot be ensured when individuals feel underappreciated. For instance, more experienced project members tend to be hard headed and dwell towards one specific solution. Due to these obstacles between the project members, collaboration, which is essential in a project context, cannot flourish in this circumstance. West and Sacramento (2012) elaborated that sustainable collaboration in a diverse project context is required for project members to successfully overcome this dilemma. This demonstrates the necessity for project members to make it simpler for new members to join and to make them feel at home in order to promote a successful sustained diversified project environment. A hostile environment only makes it harder for new project members to get into the project. Additionally, sharing knowledge and expertise is also a step forward for successful teams.

Trust and chemistry was another focal point that was pointed out by individuals from the automotive and construction sector. They focused on the trustworthiness of project members and how it is an important factor in project contexts. Without any sort of trust among the project members, there won't be any chemistry which could hinder the project outcome or even stall it in certain cases. This is illustrated by Hinds and Mortensen (2005) who draws a parallel comparison to identity based disputes. Project members form certain opinions on the notion of their own prejudices which affects the project in the long run, in the form of group exclusion. The project members don't feel like they belong there, and as such there won't be any chemistry. Rather, you will get a project where one faces setbacks. Additionally, the project members may not know how to approach and solve the setbacks (Hinds and Mortensen 2005).

The arguments above indicate that to foster innovation output in a project setting, it is vital that trust is established. A good atmosphere amongst the project members cannot be fostered by having prejudices because each person of the project is unique. It starts from the project manager, as they have a certain responsibility in ensuring that there is chemistry between the project members. It's important for project managers to step in when it's necessary and see

what can be improved and establish a mutual trust. To build trust, both the project members must put their prejudices aside and the project manager must intervene to ensure that everything is proceeding as planned.

5.3 Communication and collaboration in project teams

Communication is a factor that can not be underestimated in a project setting, where there is a diverse group working towards a common goal. During the course of the interviews, communication became a central theme that they kept coming back to. It can foster positive collaboration amongst the project members, and project managers need to understand the value it holds. The majority of the respondents brought a common understanding on communication and collaboration in project teams. An open line of communication needs to be upheld within a culturally diverse project setting. Biases and being hostile to openness needs to be confronted immediately, and not neglected. Precautions need to take place immediately and it's something Gannon and Pillai (2010) argue is a vital component. Multicultural team training, in which project members and managers actively participate in, can help create a diverse and inclusive environment. Additionally, everyone can be heard and people can learn how to communicate effectively (Gannon and Pillai 2010).

Multicultural team training may also assist groups in better comprehending the diverse cultural backgrounds of their team members and how to effectively utilize their unique talents in everyday operations. It may assist in building an integrated and successful team that can function to the maximum of its abilities. Project members are far more inclined to be effective when they sense that they are considered part of the team and are recognized for their unique abilities. By doing this, the project members have the opportunity to overcome obstacles and to collaborate effectively.

The respondents from the construction sector further highlighted the personal aspect in communication and collaboration. It all begins with the individual, and optimizing communication and collaboration stems from one's mindset. Communication can only flourish when members of a project are willing to get to know one another and break down barriers that would otherwise be difficult. Coincidentally, Gannon and Pillai (2010) brings up the aspect of biases and how to keep hold of good levels of communication, where cultural awareness and sensitivity are the prominent focal point. People involved in a diverse project

setting need to understand and be aware that there are in fact differences between the roles of project members in different countries. Cultural sensitivity, on the other hand, warns that introducing certain information might create a toxic atmosphere and that if a particular response is offered but is unfavorable it will result in a negative reaction (Gannon and Pillai 2010). Here it is important to recognize cultural sensitivity and what message it gives out, and what it demonstrates in the long run for the project member as well as the managers. For this reason, in order to enable and have good levels of communication in a project setting there needs to be an established awareness and sensitivity that mirrors the cultural diversity in that project.

In terms of collaboration and communication, the respondents from the logistic sector placed a heavy emphasis on project organizing. To establish a foundation for communication and collaboration, assembling a team of diverse, familiar individuals is a good place to start. For instance, by incorporating a diverse group of people that one has worked with before, establishes a base for communication and collaboration. The expectations are set and they understand each other on a certain level that minimizes the risk of disappointment. Karlsson and Åhlström (1996) further elaborates on this aspect of project organizing and adds that it comes back to innovation, where a culturally diverse team that functions well increases the likelihood of generating innovative solutions.

While respondents from the logistic sector focused on project organizing as a means to handle communication and collaboration issues, respondents from the construction sector were more into how it all starts with oneself. The respondents from the consulting sector were of another opinion that falls slightly in the direction of the response from the construction sector, and their perspective on handling communication and collaboration dilemmas. Respondents from the consulting sector mentioned that project managers have a huge responsibility in avoiding communication issues. Project managers need to arrange certain structures to uphold good levels of communication and collaboration in a project. For example, it could be by showing effort in the day to day work and by weekly checkups. Additionally, being active through email and having internal forums that involve everyone are further examples of good communication and collaboration.

Due to the potential rise of dilemmas in this area, Ludvika and Sluka (2018) states how strategy and implementation needs to be a focal point when creating a familiar setting that is

set up in handling communication and collaboration issues. How project managers need to be attentive when implementing a certain activity and that they need to incorporate a wide range of activities, to ensure that there is effective collaboration amongst the project members.

Maznevski and Chudoba (2000) had a similar take as the respondents perspective and explained that it is important to establish a clear communication channel that takes into account different communication styles. It is evident from the responses of respondents from various sectors that communication is a crucial element in a culturally diverse setting. It needs to be viewed from a broader picture as everyone sees communication and collaboration in a different manner. Due to the fact that one person's perspective may differ from another's, there is no one-way solution for managing and maximizing communication and collaboration. The solution requires each project manager and project member to consider what is most effective in that particular circumstance.

5.4 Homogenous teams and Heterogeneous teams

Teams are a common theme in all aspects of work environments, as they are utilized in every field. However, after interpreting and discussing how various respondents perceived operating in homogeneous and heterogeneous teams, a distinction can be observed between these two groups. The respondents had different experiences regarding this. The respondents in the automotive sector emphasized how there was a welcoming that wasn't particularly warm when working in a homogenous setting. They felt that there wasn't a relaxed work setting. There was a sense that the people working in the homogenous setting were there for one purpose only, to do the job assignment. It was different in the heterogenous setting, as they felt it was more heartwarming and relaxing. There was a notion that making mistakes was not a negative characteristic, but rather a learning opportunity and not a fearful circumstance. Furthermore, the respondents stressed how it all comes back to the communication aspect in both settings.

Hinds and Mortensen (2005) argues that in a homogeneous setting it can create a predetermined bias which leads to difficulties in working in a setting like that. It can result in a negative state of mind, which can be a hindrance. This is because there is no acknowledgment of their presence and background. To overcome this obstacle, there needs to be an established atmosphere that is not hostile. Rather, an atmosphere that encourages cooperation and acknowledges this problem as manageable.

The respondents from the construction sector were no different, as they emphasized that there was a difference in operating in a heterogeneous setting contra homogenous setting. There was a clear distinction in how they were perceived in working in both settings. In the homogeneous team setting as an example, there was a distinction when it came to the communication aspect. There were different approaches because being focused on one particular solution is not the most sustainable approach. This particular phrase was exemplified by respondents in the construction sector, who delved into this matter a bit more. They added that when approaching a certain problem that has been recurring in previous projects. It was always the same solution to the recurring problem, and this can be traced back to the fact that exploring new ways to handle issues wasn't on the agenda. This is because of the risk associated with mistakes. When working in a homogenous environment, errors were perceived as unneeded and not an essential aspect. Harrison, Price and Bell (1998) explains how damaging it can be because of new insights not being reached, but instead how cultural diversity in this prime example could instead have a positive effect. By acknowledging that one can afford making mistakes, it can lead to increased learning within the team.

Certain project managers offered the same perspective when discussing challenges perceived when working in a heterogeneous and homogeneous setting. The project managers involved in the logistical sector were on the same track as the previous respondents above when explaining the differences. Furthermore, they mentioned unfamiliarity and having to prove themselves more as part of the challenging bits in homogenous settings contra heterogeneous settings. If we take a closer look at the challenges identified in working in heterogeneous teams contra homogenous teams. There is a difference in having to prove themselves more in a homogenous team, as you observe and step in when needed. Similarly respondents from the automotive sector emphasized that they are observed and not trusted enough. This makes it harder to consider the effectiveness of a homogenous team setting. Hanges et al (2005) emphasizes on how it is important to establish a foundation where everyone is included. Otherwise it can lead to implications for the person being excluded. In the case of certain consulting sector respondents, the implication is that their mindset and actions could have led to exclusion in the absence of guidelines for activities that prioritize inclusion. This is due to the lack of trust they have received, which hinders their ability to perform their duties and minimizes their contribution to that particular team.

Although there is this premise that there needs to be an acknowledgement and a warm inclusive culture when working in different team settings. There are those that still question how effective heterogeneous teams could be compared to homogeneous teams. The respondents in the consulting sector brought up a valid argument on why heterogeneous teams haven't been implemented on a larger scale. Is it less advantageous, you may wonder? Some of the project managers mentioned reasons for why homogeneous teams can be preferred. Homogeneous teams are more inclined to having the same routines on certain matters that could potentially be prolonged. Team members having a similar thinking spree is another reason.

There is a consensus among the respondents how their preference lies between selecting either a homogenous team or heterogenous team. There is a common ground established, where heterogeneous teams are the preferred setting for the respondents. This is based on the fact that there is a familiar, open and contributing environment in the heterogeneous team compared to the homogenous team setting. But this information does not prove that working in a heterogenous setting is always the best option. This is based on the consulting sector and their respondents' perspective on homogeneous teams contra heterogeneous teams. Given that the consulting industry provided a more comprehensive view of homogeneous teams and the advantages they provide, it would be crucial for them to examine the various industries more closely and determine the best solution.

Similar arguments can be made for the other sectors. Therefore it could be important to recognize the best of both worlds, and incorporate both elements for a successful outcome. Recognizing the strengths of homogeneous teams settings, in this case routines and following regulations might be something to take from homogenous teams and incorporate it into heterogeneous teams. The same could be said for heterogeneous teams and acknowledging the significance of, for instance, trust and the relaxed attitude, which may be something to adopt for homogenous teams.

5.5 Cultural diversity's effect on innovation outcomes

The potential of a culturally diversified team is far greater than any other team. However, it could be harder managing such teams as the differences is higher. As Hofstede (2011) explains, cultural diversity is increasingly recognized as a key driver of innovation because it enables project teams to share their diverse experiences, perspectives, and competence, which

can lead to the development of new and innovative solutions. Based on personal experience, the respondents agreed upon the high potential of a well functioned cultural diversified team. Taking a look at the responses, more specifically from the logistics and automotive sector, it shows that cultural diversity is a critical component in achieving innovation output as having a team with a diverse range of viewpoints and experiences helps foster greater innovation. By pairing individuals from diverse backgrounds and cultures, teams are able to tackle situations from novel perspectives and generate innovative solutions. In the long run, this can offer a competitive edge in the market. Employing people from different backgrounds may also aid in forging closer bonds with clients and potential clients who share its principles of equality and diversity, which is consistent with Page's (2008) argument that cultural diversity encourages innovation because it allows for the combination of multiple viewpoints. In general, a more diverse cultural mix may provide a multitude of advantages to a team as well as a project. Some of these advantages include greater levels of innovation and expanded capacity for finding solutions.

If culturally diverse teams are so advantageous, why is not every project team culturally diversified you may ask? As Ludviga and Sluka (2018) explained, cultural diversity may be a source of misunderstanding and difficulties. Looking at the respondents' answers with experience regarding this matter, it's clear that when a culturally diverse team is not managed properly it leads to more problems than benefits. That is why the project manager has a critical role in the project, to get the best out of each member as they possess different experiences and talents. The risk of misunderstanding and difficulties may be higher in a culturally diverse team, however the potential good of tackling problems from different insights as a result of cultural diversity, may lead to achieving innovation output. Furthermore, as respondents from the automobile sector explained there are some key components necessary in the characteristics of the members to minimize the risk of failing and not achieving innovation output. For example, taking a look at the answers from A-C, there needs to be openness and transparency in order for the team to bloom. In general these two components are critical as openness and transparency builds trust and foster collaboration within a culturally diverse team. When team members feel comfortable expressing their thoughts and ideas, it can lead to a more inclusive environment where everyone's opinions are valued. This can result in the development of more innovative solutions as different perspectives are considered.

In addition to these elements, respondents from the automotive industry also mentioned effective communication, respect for cultural differences, and the ability to adjust to varying circumstances as additional significant traits that can help reduce the risk of failing in a culturally diverse team. In order to avoid misunderstandings and to make sure that everyone is on the same page, effective communication is essential. Respecting cultural differences entails recognizing and appreciating multiple cultural norms, opinions, and habits. As cultural diversity can result in unanticipated difficulties that call for flexibility and adaptation, the capacity to adjust to changing circumstances is crucial.

Considering the reasoning of Gannon and Pillai (2010), cultural awareness and sensitivity are crucial factors for handling multicultural teams. Additionally, Maznevski and Chudoba (2000) argue that effective communication and knowledge-sharing mechanisms are essential. It demonstrates that cultural diversity alone is insufficient to achieve innovation output. Along with these skills and qualities, the team has to be able to collaborate well and use the variety of their cultural backgrounds to stimulate innovation. The cultural diversity of a team may bring a range of viewpoints and ideas to the surface, but it's crucial to make sure that they are successfully displayed and included into the team's work. This is where skills and characteristics come into play.

In recent times, there has been a growing recognition of the economic benefits of cultural diversity. Projects with a better chance of succeeding than their rivals are those that are aware of and take use of cultural differences (Cox, Taylor, & Tyler, 2014). Given that the automotive industry is a global one with numerous multinational corporations operating in various parts of the world, it is clear from looking at the various sectors and the respondents' responses that it is particularly diverse and growing increasingly so on a cultural level. Cultural variety is therefore a natural component of the industry, and it is crucial that businesses use this diversity to spur innovation and obtain a competitive edge. Additionally, it is probable that cultural diversity will become even more crucial for businesses working in this field as the automobile industry continues to grow on a worldwide scale. In order to succeed in a market that is both highly competitive and swiftly changing, businesses must be able to navigate and collaborate effectively across diverse cultures. The automotive industry exemplifies how cultural diversity can be an influential innovation and competitiveness driver in an international sector.

The responses from those working in the construction industry, however, suggest that the ability to employ teams of people from a variety of cultural backgrounds is not advantageous in this specific industry. Regulations and standards must be strictly adhered to in order to assure safety and quality, which is why the construction industry frequently functions in an extremely regulated and controlled environment. In fact, there can be strict laws that must be followed, which can make it difficult to implement new and innovative concepts. It's also possible that the culture of the construction industry is more established and hierarchical, which might make it challenging to accept and apply new concepts. This may be the reason why respondents in this industry expressed discomfort with altering the traditional methods in which things have been established for decades. It might also be more difficult to embrace cultural diversity since there are set rules and guidelines that must be obeyed. A more hierarchical organizational structure within the sector can make it harder for people to cooperate and communicate freely.

The construction sector should nevertheless be aware of the potential advantages of cultural diversity in fostering innovation and identifying solutions to difficult situations. For the industry to develop more creative and effective solutions within the currently in place norms and regulations, it might benefit from combining varied viewpoints and perspectives. The capacity of businesses in the construction industry to serve a larger variety of customers and fulfill the requirements of a more diversified range of regions can be helped along by the presence of a culturally diverse workforce. This is becoming more and more vital as the construction industry continues to develop internationally and interact with customers from a variety of cultural backgrounds. As a result, it is essential for the construction industry to acknowledge the significance of cultural diversity and devise methods for successfully managing teams composed of members from a wide range of cultural backgrounds. Doing so will enable businesses in the sector to foster innovation and keep a leading edge in the market.

6. Conclusion

The purpose of this study was to explore the impact of cultural diversity in project teams on innovation output achieved. We achieved the purpose by answering this research question: *How does cultural diversity within project teams impact innovation output in projects?*

What we concluded and to answer the research question is that cultural diversity in project teams has a positive effect on projects, as the potential for achieving innovation output is much higher in a multicultural team. It allows for a variety of perspectives, experiences, and knowledge to be shared, which can lead to the development of innovative outcomes. By leveraging the strengths of team members from different cultural backgrounds, project teams can potentially outperform their competitors who may not have such diversity. When team members with different cultural backgrounds come together, they bring with them unique approaches to problem-solving and ways of thinking. A culturally diverse team can help organizations better understand and navigate different markets and consumer preferences.

However, it's not as simple as putting together a culturally diverse team and then expect innovation output. It's about managing the team to either get positive outcomes or if it's managed badly, it could be a source of difficulties. That is why the different roles of team members play a crucial part, especially the project manager. In order for cultural diversity to be effectively harnessed, it is important for project managers to have effective strategies in place to manage potential challenges, such as miscommunication or cultural clashes. For example, team members from different cultural backgrounds may have different communication styles, expectations, and assumptions that can cause miscommunication and conflict. Additionally, cultural differences in work styles can also create challenges for project managers to navigate. To effectively manage culturally diverse project teams, it is important for project managers to have strategies in place to address these potential challenges. Examples of strategies are activities and cross-cultural training that leads to better understanding among project members. A topic we noted that needs to be accounted for is the phenomenon of cultural awareness and sensitivity as they both intertwine with each other and that project managers need to incorporate it more intensively. Actively encouraging cross cultural training as a part of its regime can be a successful factor in determining cultural diversity's effect on innovation outcomes.

Additionally, the findings in this research paper provided a theoretical contribution on innovation related to the field of cultural diversity. The literature here highlighted certain aspects that may be of crucial element when linking cultural diversity and innovation outcomes in projects. Establishing a trusting foundation, ensuring that everyone gets along in a project setting, creating a culture where people can thrive and achieve success.

Taking a look at previous research, Page (2008) explains that cultural diversity fosters innovative outcomes, which we also concluded. However, cultural diversity has to be seen as a vital component and not the only component in achieving innovation output. Just like Bhattacharya and Bloemer (2005) explained, cultural diversity may be a valuable component for fostering innovation inside enterprises. Cultural diversity together with other vital components, for example trust and fostering open communication, will get the best of a multicultural team and reap its benefits. In summary, while cultural diversity in project teams can lead to greater innovation output, it is important to have other vital components as well and for project managers to have effective strategies in place to manage potential challenges and maximize the benefits of cultural diversity.

Furthermore, our recommendations are to encourage team members to share their ideas and opinions openly, create an environment where all team members feel comfortable and safe to express themselves, and provide training and resources to help team members overcome communication barriers. Additionally, ensure that all team members understand and appreciate each other's cultures, beliefs, and values. Provide training and resources to help team members develop cross-cultural competencies and sensitivity. Trust is essential in any team, but it's even more critical in multicultural teams. Encourage team members to get to know one another on a personal level, create team-building activities that promote trust and respect, and ensure that team members are treated fairly and equally. By implementing these recommendations, project managers can help resolve potential problems in multicultural teams and maximize the benefits of cultural diversity, leading to greater innovation output and project success. By implementing these recommendations, it can help resolve potential problems in multicultural teams and maximize the benefits of cultural diversity, leading to greater innovation output and project success.

6.1 Ending discussion

While the recommendations provided can help resolve potential problems in multicultural teams, there are some possible problems and shortcomings associated with them. Due to cultural differences, there may still be miscommunications between team members despite the use of good communication tools. Different people may interpret words, gestures, and actions differently, which can lead to these misconceptions. The complex nature of various cultures may not always be understood or appreciated by team members, despite attempts to develop cultural understanding. Disputes and miscommunications may result from this absence of awareness and sensitivity. It may be time-consuming and expensive to provide training and materials for cross-cultural communication and awareness, and some companies might not have the means to do so. When members of a team have cultural connections with one another, they may sometimes develop in-groups and out-groups, which can result in biases and the exclusion of some people. In conclusion, despite the fact that the supplied recommendations can assist in resolving potential issues within multicultural teams, it is crucial to recognize their limitations and possible imperfections. Effective communication across cultural boundaries calls for a continuous investment of time and energy, and those in charge of projects have a responsibility to be watchful in order to recognize and handle possible problems as they develop.

Including diversity as a whole would be something to consider when we were investigating the relationship between cultural diversity and innovation outcomes. Because diversity as a whole includes a wide range of terms, such as gender, religion, age and cultural background, it could have raised the bar for this study and perhaps offer a more nuanced result that would be easier to interpret. Evaluating diversity in its totality permits us to investigate how various kinds of diversity determine innovation outcomes. For instance, focusing just on gender diversity may offer insights into the influence of gender disparities on innovation, but it may ignore other crucial diversity-enhancing elements like cultural backgrounds or age demographics. Additionally, taking diversity into account as a whole recognizes how many dimensions are related to one another and connected. Since each person possesses a unique blend of traits, analyzing them in isolation may not adequately convey the richness of their experiences and viewpoints. These numerous characteristics interact with one another and are integrated, which adds to the depth and individuality of diversified teams and can have an influence on the outcomes of innovation. Nevertheless, it is essential to keep in mind that

researching the connection between diversity and innovation output is a challenging task. In order to effectively capitalize on the potential that diversity offers innovative processes, it is necessary to have good management in place, as well as practices that are inclusive and organizational cultures that are encouraging of such.

Due to the fact that we only interviewed two or three people per sector, it would not be precise to claim that they represent the entire sector. Perhaps if we were to interview more individuals in each sector, we might have obtained more accurate answers. There are probably a wide variety of people in each sector, each with their own experiences and perspectives. You face the possibility of not getting a complete representation of viewpoints throughout that industry by conducting a limited amount of interviews. It's possible that the results from the limited number of respondents don't adequately represent the larger viewpoints and attitudes of the industry overall.

6.2 Future research

There are several areas for future research that could help enhance the effectiveness of managing multicultural teams. For example, the development of new tools and strategies for improving cross-cultural communication, where future research could focus on developing new tools and strategies for improving cross-cultural communication in project teams. This includes developing new technologies, training programs, or coaching services that help team members overcome communication barriers and improve their cross-cultural competencies. Furthermore, by examining the role of leadership in managing multicultural teams. We can see how effective leadership can help mitigate the challenges associated with cultural diversity and enhance team performance.

Following live projects from start to end, where the impact of cultural diversity on all dynamics of a project team and the result part can be observed, would be an interesting and valuable area for future research. One of the main advantages is that it enables researchers to track how, over time, cultural diversity affects team relationships and results. In addition to this, it might assist in determining the tactics that are the most successful in managing the cultural diversity that is present in project teams. Researchers are able to determine the procedures that are the most successful for promoting cross-cultural communication, strengthening team cohesiveness, and maximizing the advantages of cultural diversity by

studying how project teams react to various strategies and actions. It has the potential to assist in determining the long-term influence that cultural diversity has on project outcomes. Researchers might learn how cultural diversity influences the standard of project results and the overall effectiveness of the project by monitoring the development of a project team through time.

7. References

- A. Poss, & D. W. Mitchell (Eds.), *Data quality in longitudinal research* (pp. 67-82). Springer.
- Belbin, R. M. (2010). *Management teams: Why they succeed or fail*. Routledge.
- Belout, A., & Gauvreau, C. (2004). Factors influencing project success: the impact of human resource management. *International journal of project management*, 22(1), 1-11.
<https://www.sciencedirect.com/science/article/abs/pii/S0263786303000036>
[Retrieved 2023-03-09]
- Bhattacharya, C. B., & Bloemer, J. (2005). The relationship of cultural diversity with innovation: Some evidence from US firms. *Journal of International Business Studies*, 36(3), 373-386. <https://link.springer.com/article/10.1186/2193-9039-2-18> [Retrieved 2023-03-19]
- Bluhm, D., Harman, W., Lee, T., & Mitchell, T. (2011). Qualitative research in management: A decade of progress. *Journal of Management Studies*, 48(8), 1866-1891. doi: 10.1111/j.1467-6486.2010.00986.x
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.
- Bryman, A., Bell, E., & Hartley, J. (2019). *Business research methods*. Oxford University Press.
- Chesbrough, H. W. (2003). The era of open innovation. *MIT Sloan Management Review*, 44(3), 35-41.
- Chua, R. Y., Wong-On-Wing, B., & Ang, S. (2006). Cultural diversity and innovation, *Management Science*, 52(7), 1059-10.
<https://link.springer.com/article/10.1186/2193-9039-2-18> [Retrieved 2023-02-01]
- Cox, T., Taylor, D., & Tyler, T. (2014). *Cultural diversity in organizations: Theory, research, and practice*. San Francisco, CA: Berrett-Koehler.
- Cox, T. H. & Blake, S. (1991). Managing cultural diversity: Implications for organizational competitiveness. *Academy of Management Executive*, 5(3), 45-56.
<https://www.jstor.org/stable/4165021> [Retrieved 2023-04-01]
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130.

Daniel, S., Agarwal, R., & Stewart, K. J. (2013). The effects of managerial and cultural diversity on firm performance: A study of multinational corporations in Canada. *Journal of International Management*, 19(4), 406-418.
https://www.researchgate.net/publication/304000147_Framing_the_Effects_of_Multinational_Cultural_Diversity_on_Virtual_Team_Processes [Retrieved 2023-02-12]

Flick, U. (2018). *An Introduction to Qualitative Research* (6th ed.). SAGE Publications Ltd.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative inquiry*, 12(2), 219-245. <https://journals.sagepub.com/doi/10.1177/1077800405284363> [Retrieved 2023-03-05]

Gannon, M. J., & Pillai, R. (2010). *Cross-cultural management*. Sage Publications.

Harrison, D. A., Price, K. H., & Bell, M. P. (1998). Beyond relational demography: Time and the effects of surface-and deep-level diversity on work group cohesion. *Academy of Management Journal*, 41(1), 96-107.
[https://www.scirp.org/\(S\(czeh2tfqyw2orz553k1w0r45\)\)/reference/referencespapers.aspx?referenceid=2193442](https://www.scirp.org/(S(czeh2tfqyw2orz553k1w0r45))/reference/referencespapers.aspx?referenceid=2193442) [Retrieved 2023-04-05]

Gannon, M. J., & Pillai, R. (2010). *Cross-cultural management: A new perspective*. Routledge.

Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior. *Annual Review of Psychology*, 58, 479-514.
https://www.researchgate.net/publication/258111032_46_Gelfand_M_Erez_M_and_Aycan_Z_2007_Cross-Cultural_Organizational_Behavior_Annual_Review_of_Psychology58_479-514 [Retrieved 2023-03-06]

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-607. <https://nsuworks.nova.edu/tqr/vol8/iss4/6/> [Retrieved 2023-02-14]

Hanges, P. J., Lord, R. G., Dickson, M. W., & Goff, S. J. (2005). *Understanding and managing diversity: Readings, cases, and exercises*. Prentice Hall.

Heale, R., & Twycross, A. (2018). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, 21(3), 66-67. <https://pubmed.ncbi.nlm.nih.gov/25979629/> [Retrieved 2023-01-28]

- Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods*. Sage Publications.
- Hinds, P. J., & Mortensen, M. (2005). Understanding conflict in geographically distributed teams: The moderating effects of shared identity, shared context, and spontaneous communication. *Organization Science*, 16(3), 290-307.
<https://psycnet.apa.org/record/2005-08948-006> [Retrieved 2023-02-24]
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online readings in psychology and culture*, 2(1), 8. <https://scholarworks.gvsu.edu/orpc/vol2/iss1/8/> [Retrieved 2023-02-21]
- Hox, J. J., & Boeije, H. R. (2005). Data collection, primary vs. secondary. In J. A. Hirdes, S.
- Ikart, J. M. (2019). *The research interview: An introduction and guide*. Routledge.
- Jørgensen, M. (2001). The development of grounded theory: The role of theoretical paradigm shifts. *Social Science Information*, 40(2), 247-268. doi: 10.1177/053901840104000202
- Karlsson, C., & Åhlström, P. (1996). The diversity of project teams and their effect on performance. *International Journal of Project Management*, 14(3), 169-178.
- Kerzner, H. (2017). *Project management metrics, KPIs, and dashboards: A guide to measuring and monitoring project performance*. John Wiley & Sons.
- Kerzner, H. R. (2013). *Project management: a systems approach to planning, scheduling, and controlling*. John Wiley & Sons.
- Kerzner, H. (2017). *Project management: A systems approach to planning, scheduling, and controlling*. John Wiley & Sons.
- Kumar, R. (2014). *Research methodology: A step-by-step guide for beginners*. Sage publications.
- Kupers, R. (2012). How to foster innovation: A guide to encouraging risk-taking and creativity. *Harvard Business Review*. Retrieved from <https://hbr.org/2012/11/how-to-foster-innovation> [Retrieved 2023-02-28]
- Lichtenthaler, U. (2009). Product innovation metrics: Best practices. *R&D Management*, 39(4), 419-439.
- Liao, P. C., & Hitchcock, J. H. (2018). Understanding credibility of research: A review of the concepts, criteria, and approaches. *Worldviews on Evidence-Based Nursing*, 15(1), 5-12.

Liu, B. & Boer, H. (2012). Cultural diversity and project performance: Evidence from international joint ventures. *International Journal of Project Management*, 30(7), 729-738. https://www.researchgate.net/publication/340881561_Impact_of_culture_differences_on_performance_of_international_construction_joint_ventures_the_moderating_role_of_conflict_management [Retrieved 2023-04-10]

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage publications.

Ludviga, I., & Sluka, N. (2018). Cultural diversity in project teams: Advantages and challenges. *Procedia Engineering*, 208, 109-116.

Ludviga, E. V., & Sluka, M. T. (2018). Team diversity and leadership styles: Exploring the relationship between diversity and leadership in project teams. *Journal of Business and Psychology*, 33(4), 441-457.

Ludviga, E., & Sluka, N. (2018). The impact of cross-cultural communication on productivity in project management. *Journal of Business and Management*, 6(4), 16-24.

Maznevski, M. L., & Chudoba, K. M. (2000). Bridging space over time: Global virtual team dynamics and effectiveness. *Organization Science*, 11(5), 473-492. <https://psycnet.apa.org/record/2000-16761-001> [Retrieved 2023-02-11]

Meredith, J. R., & Mantel, S. J. (2012). *Project management: a managerial approach*. John Wiley & Sons.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International journal of qualitative methods*, 1(2), 13-22. <https://journals.sagepub.com/doi/10.1177/160940690200100202> [Retrieved 2023-04-28]

Morse, J. M. (2007). Enhancing the quality of qualitative research: Evidence-based papers and collaborative writing. *Qualitative Health Research*, 17(10), 1441-1443.

Page, S. E. (2008). *The difference: How the power of diversity creates better groups, firms, schools, and societies*. Princeton University Press.

Patel, Runa & Davidson, Bo. 2019. *Forskningsmetodikens grunder - Att planera, genomföra och rapportera en undersökning*. 5 uppl. Lund: Studentlitteratur

Patokorpi, E., & Ahvenainen, J. (2009). Abduction as a methodological approach in business research. *Electronic Journal of Business Research Methods*, 7(1), 15-24.

Pharm, J. (2015). Gathering data: Methods of data collection. *The Pharmaceutical Journal*, 294(7861), 111.

Pharm, C. (2015). Qualitative research: The importance of conducting research that doesn't "look" like research. *The Permanente Journal*, 19(1), 80-84.

Pietilä, A. M., Johnson, M. P., & Kangasniemi, M. (2016). Methodological challenges in interview studies. *Sage Open*, 6(3), 2158244016668224.

Rozaki, A., Rigopoulos, G., & Doukidis, G. (2017). Innovation readiness and impact: Two sides of the same coin for innovation as an output in projects. *International Journal of Innovation Management*, 21(05), 1750046.

Shenhar, A. J., & Dvir, D. (2007). *Reinventing project management: The diamond approach to successful growth and innovation*. Harvard Business Press.

Shtub, A., Bard, J. F., & Globerson, S. (2019). *Project management: Processes, methodologies, and economics*. Prentice Hall.

Schlaefke, M. (2019). Project organizing and innovation: A review and research agenda. *International Journal of Project Management*, 37(1), 128-139.

Spiggle, S. (1994). Analysis and interpretation of qualitative data in consumer research. *Journal of Consumer Research*, 21(3), 491-503. <https://www.jstor.org/stable/2489688> [Retrieved 2023-03-12]

Söderlund, J. (2000). Temporary organizing: Bridging and integrating research streams. *Scandinavian Journal of Management*, 16(3), 211-223. <https://www.sciencedirect.com/science/article/abs/pii/S0950562219500036U> [Retrieved 2023-03-28]

Tannenbaum, S. I., Mathieu, J. E., Salas, E., & Cannon-Bowers, J. A. (2005). Meeting trainees' expectations: The influence of training fulfillment on the development of commitment, self-efficacy, and motivation. *Journal of Applied Psychology*, 90(4), 576-581. doi: 10.1037/0021-9010.90.4.576 https://www.researchgate.net/publication/201382195_Meeting_Trainees'_Expectations_The_Influence_of_Training_Fulfillment_on_the_Development_of_Commitment_Self-Efficacy_and_Motivation [Retrieved 2023-04-01]

Tsang, E. W. (2014). Case study methodology: causal explanation, contextualization, and theorizing. *Journal of International Management*, 20(4), 387-397. https://www.researchgate.net/publication/257484118_Case_study_methodology_Causal_explanation_contextualization_and_theorizing [Retrieved 2023-03-14]

Turner, J. R., & Müller, R. (2005). The project manager's leadership style as a success factor on projects: A literature review. *Project Management Journal*, 36(2), 49-61.
https://www.researchgate.net/publication/258568476_The_Project_Manager's_Leadership_Style_as_a_Success_Factor_on_Projects_A_Literature_Review [Retrieved 2023-02-28]

Tyssen, A. K., Wald, A., & Spieth, P. (2013). Temporary organizing: In search of multiple configurations. *Organization Studies*, 34(12), 1743-1767.

West, B., & Sacramento, C. (2012). *Principles of project management*. Gower Publishing, Ltd.

Zwikael, O. (2012). Cultural differences and improving performance through project management. *Project Management Journal*, 43(6), 43-56.

Zwikael, O. (2012). Cultural diversity in projects: Understanding and managing differences. *Project Management Journal*, 43(2), 98-110.

Yin, R. K. (2013). *Case study research: Design and methods*. Sage publications.

Yin, R. K. (2014). *Case study research: Design and methods*. Sage publications.

Yin, R. K. (2018). *Case study research and applications: Design and methods*. Sage publications.

Appendix 1 Interviewguide

Describe your position within the organization and the business as a whole.

1. Describe a project you have worked on and give an example of how cultural diversity has influenced the outcomes favorably or unfavorably?
2. What difficulties may cultural diversity in project teams bring about?
3. In order to maximize a positive outcome (innovation), how may cultural differences in project teams be properly managed? Examples include fostering teamwork and improving cultural sensitivity. PL
4. What particular tactics or methods may be employed to take advantage of cultural diversity within project teams and produce better results (innovation)? (Taking into account a number of various cultural viewpoints or holding brainstorming sessions) PL
5. What function does excellent communication in multicultural project teams, in your opinion? How do you make sure that these teams are communicating effectively? (Such as via promoting open dialogue, adjusting communication, and establishing precise goals)
6. What unique problems do project managers face when collaborating with multicultural teams? What difficulties do project participants face?
7. How can you, as a team member or project manager, promote cooperation and the development of cultural sensitivity in a diverse group? Have you ever dealt with something similar to this before?
8. Which contrasts between homogenous teams and multicultural teams have you found to be the most significant?
9. Do you believe that a significant element in producing innovation is the formation of multicultural teams?
10. In light of the experiences you've had, do you believe that multicultural teams are beginning to become more often utilized in project teams? And if not, what gives you the impression that this is the case and why?